Land East of Newgate Lane East, Fareham

Transport Assessment

Client: Miller Homes & Bargate Homes

i-Transport Ref: TW/GT/PL/ITB10353-010b

Date: 27 January 2022

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i-Transport LLP
The Square
Basing View
Basingstoke
Hampshire
RG21 4EB

Tel: 01256 637940

www.i-transport.co.uk

Quality Management

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SECTION 1 Introduction

1.1.1 i-Transport LLP has been appointed by Miller Homes and Bargate Homes to provide highways and transport advice in relation to the proposed residential development on Land East of Newgate Lane East, Fareham. The planning application is for:

> ***'Outline application with all matters reserved except Access for residential development of up to 375 dwellings, access from Newgate Lane East, landscaping and other associated infrastructure works on land east of Newgate Lane East, Fareham, Hampshire".***

1.1.2 As an outline application, planning permission is sought for the principle of the development as proposed, as well as consent for the proposed access arrangements. Matters of detail including the mix, scale, design, and layout of the development are for later determination under Reserved Matters submissions, should planning permission be granted.

1.2 Site Location and Context

1.2.1 The site is located to the south of Fareham, west of Bridgemary / Woodcot and east of Newgate Lane East (B3385). An extract of the site location plan (**Figure 1**) is shown in **Image 1.1**.

Image 1.1: Site Location

Source: OS Mapping and Consultants Annotations

1.2.2 The B3385 Newgate Lane East forms the western boundary of the site, connecting south to the Peel Common roundabout for onward access to Gosport, Stubbington and the Stubbington Bypass (under construction), and to the A27 corridor in the north, leading to the M27 Motorway.

1.2.3 The existing residential area of Bridgemary forms the eastern boundary of the site, with the nearest development that which fronts Tukes Avenue. MoD sports pitches are present to the northwest of the site and the recently consented Brookers Lane development to the south.

1.2.4 The site forms the northern parcel of a wider site that was formerly identified for allocation as a residential development site (for 475 dwellings) under Policy HA2 of Fareham Borough Council's draft Regulation 18 Local Plan. The site was omitted from the submission Local Plan.

1.2.5 Part of the former HA2 site (the southern parcel between the application site and Brookers Lane) has since been consented through appeal for 99 dwellings (Appeal Ref. APP/J1725/W/20/3265860 and APP/A1720/W/21/3269030 – P/19/1260/OA). In allowing the appeal, the Inspector considered the site to be accessible and acceptable in transport terms.

1.3 Approach to Transport Appraisal

1.3.1 In line with the requirements of the National Planning Policy Framework (NPPF) and the National Planning Practice Guidance (NPPG), this Transport Assessment (TA) has been prepared to consider the transport impacts that may arise from the proposed development of the site, and to consider the proposals against relevant transport policies and guidance documents.

1.3.2 Specifically, this TA has been prepared to consider the critical transport tests outlined in paragraphs 110 and 111 of the NPPF, namely:

- Will the appropriate opportunities to promote sustainable travel be taken up by the proposals, given the type of development and its location?
- Will safe and suitable access to the site be provided for all users?
- Will the transport elements of the scheme be designed in accordance with national guidance?
- Will the significant transport impacts of the site be adequately mitigated, such that the residual cumulative impact will be acceptable (i.e. not severe), and not result in unacceptable safety impacts?

1.3.3 Fareham Borough Council (FBC) is the local planning authority for the site and Hampshire County Council (HCC) is the local highway authority for the highway network surrounding the site. Therefore, the development proposals have also been assessed against the planning policy requirements set out by FBC and by the guidance and policies of HCC.

Transport Assessment Scope

1.3.4 Pre-application engagement was carried out with HCC as the local highway authority to seek to agree the scope and methodology of this TA and to help shape the proposals. This follows extensive dialogue with HCC during the course of the preparation of the draft Local Plan.

1.3.5 A TA Scoping Note (Report Reference: ITB10353-008a) detailing the parameters for the TA was submitted to HCC (**Appendix A**) in October 2021. This provided information on the intended approach to the assessment of the scheme in relation to policy matters, as well as in relation to technical matters including access strategy, accessibility, and traffic impact appraisal.

1.3.6 HCC responded to the TA Scoping Note in November 2021 (**Appendix B**). Additional information and assessment was subsequently presented to HCC to ensure all matters raised by HCC were appropriately addressed prior to submitting the planning application.

1.3.7 A log of pre-application comments (**Appendix C**) provides a response to the HCC comments and signposting to the various sections of the TA where each matter is addressed.

1.3.8 A Framework Travel Plan (FTP) has been prepared to identify and provide commitment to a comprehensive package of measures designed to encourage sustainable travel to and from the site. Further information is provided in Section 5 and the TA should be read alongside the FTP.

Transport Assessment Structure

1.3.9 The remainder of this TA is set out in the following structure:

- **Section 2** sets out the relevant national and local transport policies and guidance;
- **Section 3** reviews the existing transport conditions in the vicinity of the site;
- **Section 4** summarises the proposals, including the proposed site access strategy;
- **Section 5** presents an assessment of accessibility of the site, and details a Sustainable Transport Strategy to be delivered for the scheme;
- **Section 6** appraises the likely traffic and road safety impacts of the proposals; and
- **Section 7** provides a summary of the report and its conclusions.

SECTION 2 Policy Context

2.1.1 This section of the TA sets out a review of national and local transport policy and guidance documents to provide the context for the TA.

2.2 National Policy

National Planning Policy Framework (NPPF) July 2021

2.2.1 The revised NPPF details the Government's planning policies and provides information on how these are expected to be applied relative to development applications. The NPPF is a material consideration in determining applications for development.

2.2.2 The NPPF confirms (paragraph 10) that at the forefront of planning is the ***"presumption in favour of sustainable development"***.

2.2.3 The NPPF (paragraph 104) confirms that transport issues should be considered from the earliest stages of plan-making and the formation of development proposals. This will ensure that opportunities from existing or proposed transport infrastructure and opportunities to promote walking, cycling and public transport can be identified and pursued, and transport issues addressed. Paragraph 105 acknowledges that "***significant development should be focussed on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of travel modes".***

2.2.4 NPPF Paragraph 110 presents the four primary transport tests for new development proposals, stating that plans and specific applications for development should ensure that:

> ***"a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;***
>
> ***b) safe and suitable access to the site can be achieved for all users;***
>
> ***c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the national Model Design Code; and***
>
> ***c) any significant impacts from the development on the transport network (in term of capacity and congestion), or on highway safety can be cost effectively mitigated to an acceptable degree."***

2.2.5 Paragraph 111 of the revised NPPF presents a demanding test for determining planning applications in relation to transport impacts. Only if there would be an ***'unacceptable impact on highway safety'*** or when residential cumulative impacts are ***'severe'*** should proposals be refused on transport grounds.

2.2.6 Paragraph 112 confirms that in this context, development proposals should:

- Give priority first to pedestrian and cycle movements, within the scheme and wider area; and secondly facilitate access to high-quality public transport
- Address the needs of people with disabilities and reduced mobility
- Create places that are safe, secure and attractive
- Allow for the efficient delivery of goods and access by emergency / service vehicles
- Be designed to enable charging of ultra-low emission vehicles

2.2.7 Paragraph 113 of the NPPF requires ***"all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed".***

2.2.8 In accordance with the NPPF, this Transport Assessment considers the transport impacts of the proposal and is accompanied by a travel plan to promote sustainable travel opportunities. This approach ensures that transport is considered at the earliest stages of development and that the proposals are brought forward giving priority to ensuring that the appropriate opportunities for sustainable travel relative to the site's location have been taken up.

National Planning Practice Guidance (March 2014)

2.2.9 The NPPG provides a 'live' source of Government planning guidance.

2.2.10 In relation to the key roles of Transport Assessments / Statements, the NPPG notes:

> ***"Transport Assessments and Statements are ways of assessing the potential transport impacts of developments (and they may propose mitigation measures to promote sustainable development. Where that mitigation relates to matters that can be addressed by management measures, the mitigation may inform the preparation of Travel Plans).***
>
> ***Transport Assessments are thorough assessments of the transport implications of development, and Transport Statements are a 'lighter-touch' evaluation to be used where this would be more proportionate to the potential impact of the development (i.e. in the case of developments with anticipated limited transport impacts)."***

2.2.11 In terms of Travel Plans, the NPPG notes:

> ***"Travel Plans are long-term management strategies for integrating proposals for sustainable travel into the planning process. They are based on evidence of the anticipated transport impacts of development and set measures to promote and encourage sustainable travel (such as promoting walking and cycling). They should not, however, be used as an excuse for unfairly penalising drivers and cutting provision for cars in a way that is unsustainable and could have negative impacts on the surrounding streets."***

2.3 Local Transport and Planning Policy

Hampshire County Council's Local Transport Plan 3 (LTP3) (2011-2031) April 2013

2.3.1 HCC's current transport strategy is set out in its LTP3, which runs until 2031. The document outlines how the LTP will contribute to the Council's corporate priorities. The three main priorities are set out in the LTP are to:

> ***"Support economic growth by ensuring the safety, soundness, and efficiency of the transport network in Hampshire;***
>
> ***Provide a safe, well-maintained, and more resilient road network in Hampshire, as the basic transport infrastructure of the County, on which all forms of transport directly or indirectly depend, and the key to continued casualty reduction; and***
>
> ***Manage traffic to maximise the efficiency of the existing network capacity, improving journey time reliability and reducing emissions, and thereby supporting the efficient and sustainable movement of people and goods."***

Hampshire County Council's Local Transport Plan 4 (LTP4)

2.3.2 HCC is in the early stages of preparing its next Local Transport Plan which will provide its primary transport policy to 2050, and has begun consultation on the vision, outcomes and key guiding principles that will underpin its strategy. The emerging proposals for LT4 have identified the following vision, which is supported by a set of key transport outcomes:

> ***"A carbon neutral and resilient transport system designed around people, which: supports health, wellbeing and quality of life for all; connects thriving places; and respects Hampshire's unique environment."***

2.3.3 This vision and outcomes are to be met by two 'Guiding Principles':

- Guiding Principle One – Significantly reduce the dependency on the private car
- Guiding Principle Two – Create a high quality transport system

2.3.4 Following this initial consultation, HCC will be preparing a high level transport plan, followed by a series of theme based plans.

2.3.5 At this stage, there are no policies or strategies presented to confirm the detail of the LTP4.

Fareham Local Plan Part One (2011): Core Strategy

2.3.6 The Fareham Borough Local Plan Part 1 sets out the planning policies for the Borough and sets out measures to achieve a sustainable integrated transport system. It describes the vision, objectives and overall development strategy for the Borough up to 2026.

2.3.7 FBC identify three underlying principles to its transport strategy:

- ***Reduce: "Wherever practicable and relevant reduce the need to travel and reduce journey lengths; such as locating development sites where they are accessible by means other than the car so that people have choices about how they travel and improving public transport";***
- ***Manage: "To make the best use of existing infrastructure across all modes and introduce measures to influence travel choices; such as co-ordination of traffic control systems and the reallocation of road space in favour of buses and high occupancy vehicles (HOVs)";***
- ***Invest: "To provide additional infrastructure in the most cost-effective and environmentally sustainable way; such measures include identifying schemes which have a realistic prospect of being funded through government or other funding mechanisms."***

2.3.8 At Policy CS5 (Transport Strategy and Infrastructure) FBC confirm the conditions under which it will permit development. It requires that development proposals:

- ***Contributes towards and/or provides necessary and appropriate transport infrastructure including reduce and manage measures and traffic management measures in a timely way***
- ***does not adversely affect the safety and operation of the strategic and local road network, public transport operations or pedestrian and cycle routes***
- ***Is designed and implemented to prioritise and encourage safe and reliable journeys by walking, cycling and public transport***

Fareham Local Plan Part Two (2015): Development Sites and Policies

2.3.9 Part 2 of the Local Plan sets out the Council's approach to managing and delivering the development identified in the Core Strategy for the Borough up to 2026.

2.3.10 Policy DSP40: Housing Allocations notes that:

> ***"Where it can be demonstrated that the Council does not have a five-year supply of land for housing against the requirements of the Core Strategy (excluding Welborne) additional housing sites, outside the urban area boundary, may be permitted where they meet all of the following criteria:***
>
> ***i. The proposal is relative in scale to the demonstrated 5-year housing land supply shortfall;***
>
> ***ii. The proposal is sustainably located adjacent to, and well related to, the existing urban settlement boundaries, and can be well integrated with the neighbouring settlement;***

iii. The proposal is sensitively designed to reflect the character of the neighbouring settlement and to minimise any adverse impact on the Countryside and, if relevant, the Strategic Gaps

iv. It can be demonstrated that the proposal is deliverable in the short term; and

v. The proposal would not have any unacceptable environmental, amenity or traffic implications."

2.3.11 Policy DSP40, criterion (v) is most germane to the proposed development.

Fareham Draft Local Plan (2037)

2.3.12 The Draft Fareham Local Plan 2037 is intended to cover period between 2022 and 2037 and has been submitted to the Secretary of State for examination. When it is adopted, it will supersede the existing Local Plan Part 1: Core Strategy (2011) and Local Plan Part 2: Development Sites and Policies (2015). At this time, the Draft Local Plan carries little weight.

2.3.13 The vision of the Draft Local Plan is set out as below:

"Fareham Borough will offer a high quality of life to all residents and be an attractive, safe and pleasant place to live work and visit. It will be a sustainable and increasingly prosperous place, with low levels of crime and unemployment and good access to community facilities, jobs, leisure, shops, open spaces and services.

Fareham Borough will have a strong and diverse economy with improved levels of self-containment with people working from home or close to home with opportunities for public transport use and other sustainable travel choice maximised.

Significant road improvements will take place, such as changes at Junction 10 on the M27, and the Stubbington bypass, which will relieve traffic congestion issues. Wherever possible other highway works will be undertaken to support development and minimise the impacts to our highway network and those that use it."

2.3.14 The Draft Local Plan policies that are relevant to highways and transport are discussed below.

2.3.15 Strategic Policy TIN1: Sustainable Transport requires new development to ***"reduce the need to travel by motorised vehicle through the promotion of sustainable and active travel modes, offering a genuine choice of mode of travel".***

2.3.16 Corresponding with the NPPF, draft Policy TIN2: Highway Safety and Road Network states that development will be permitted where:

a) "There is no unacceptable impact on highway safety, and the residual cumulative impact on the road networks is not severe; and

b) The impacts on the local and strategic highway network arising from the development itself or the cumulative effects of development on the network are mitigated through a sequential approach consisting of measures that would avoid/reduce the need to travel, active travel, public transport, and provision of improvements and enhancements to the local network or contributions towards necessary or relevant off-site transport improvement schemes."

2.3.17 Draft Policy TIN3: Safeguarded Routes emphasises that development will not be permitted where the ability of the Highway Authority to deliver public transport highway interventions may be compromised by the development proposals.

2.3.18 Draft Strategic Policy TIN4: Infrastructure Delivery requires developments (excluding householder applications) to provide and contribute towards the delivery of new or improved infrastructure, or other mitigation, to mitigate the impacts of the development.

Former Policy HA2

2.3.19 The site forms northern parcel of a wider site which was formerly identified for allocation as a residential development (for 475 dwellings) under '***Policy HA2***' of Fareham Borough Council's draft Regulation 18 Local Plan. The site was omitted from the Local Plan in November 2020.

2.3.20 At a time when FBC was promoting the site for residential development, a series of site-specific transport related requirements were identified, to express the conditions that would allow the site to come forward. Whilst these no longer form part of the submission local plan, they remain relevant to consider how the site may be delivered acceptably:

- ***Primary highway access shall be focused on Newgate Lane South in the first instance with Brookers Lane having the potential to provide secondary access for a limited number of dwellings;***
- ***The provision of pedestrian and cycle connectivity between adjoining parcels as identified by the Development Framework, as well as safe pedestrian / cycle crossing points of Newgate Lane South, safe and accessible walking / cycling routes to local schools, open spaces and nearby facilities in Woodcot / Bridgemary;***
- ***The provision of vehicular highway access between individual development parcels, as identified by the Development Framework, without prejudice to adjacent land in accordance with Policy D4; and***
- ***Proposal shall either provide directly or provide the mechanism for the delivery of off-site highway improvement and mitigations works."***

Fareham Borough Transport Statement (2012)

2.3.21 This joint HCC and FBC document identifies the local transport strategy incorporating a package of transport measures to be implemented in the local area. There are four identified priorities and principles which look to:

- ***"Promote economic growth by maintaining a safe and efficient highway network, reducing casualties and tackling congestion on the transport network";***
- ***"Improve access to jobs, facilities and services by all types of transport";***
- ***"Facilitate and enable new development to come forward";***
- ***"Reduce carbon emissions and minimise the impacts of transport on the environment."***

Fareham Borough Council Residential Car and Cycle Parking Standards SPD (2009)

2.3.22 FBC's adopted car parking standards are set out in the Residential Car & Cycle Parking Standards Supplementary Planning Document (SPD) which was adopted in 2009.

2.3.23 As the planning application is seeking only outline consent (with means of access to be determined), whilst there is commitment to deliver the scheme in accordance with the Parking Standards (or any subsequent version) at this stage the mix and layout of the development is unknown. ON this basis, the parking provision for the scheme is not considered in detail.

Gosport Borough Local Plan 2011-2029

2.3.24 The site adjoins Gosport Borough, which fronts the eastern boundary of the site. On this basis, whilst the scheme will not be determined against these policies, consideration has been given to relevant policies and strategies affecting Gosport, to inform the TA.

2.3.25 The Gosport Borough Local Plan sets out Gosport Borough Council's (GBC) planning strategy for the Borough over the period from 2011 to 2029.

2.3.26 Policy LP22 for Accessibility to New Development states ***"development proposals that are likely to generate significant levels of travel demand will be permitted, provided that:***

- ***The site is located where convenient public transport services exist or there is a commitment by the developer and public transport providers to deliver such service;***
- ***The site is, or will be made, accessible to pedestrians and cyclists;***

- ***Any new or improved road access and the traffic generated would not have any unacceptable environmental implications nor significantly prejudice the safety, function and capacity of the road network;***

- ***Local and strategic transport improvements will be provided, where necessary, to support the development and mitigate adverse impacts on the safety, function and capacity of the transport network;***

- ***Transport Statements or Transport Assessments are submitted in support of the planning application to evaluate transport impacts, and demonstrate that transport improvements to be provided will meet the needs of the development and mitigate adverse impacts; and***

- ***A Travel Plan is provided in support of a planning application where appropriate in relation to the scale and type of development."***

2.4 Summary

2.4.1 Taken together, national and local transport planning policy requires new residential development to be located where there are genuine opportunities for a range of facilities and services to be accessed by a choice of modes of transport including walking, cycling and public transport, so as to minimise the number and length of car journeys. Safe and suitable access to new developments should be achieved for all people and proposals should not have any 'unacceptable' or in the case of the NPPF 'severe' traffic impacts.

2.4.2 Planning decisions should take account of whether improvements can be undertaken within the transport network that cost effectively limit the significant impacts of development. National policy is clear that development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

2.4.3 The following sections of the TA describe how the proposed development complies with these transport planning policy considerations.

SECTION 3 Existing Conditions

3.1.1 This section of the TA provides a review of the existing transport conditions in the area including the opportunities for travel by walking, cycling and public transport, as well as providing information on the characteristics of the local highway network.

3.2 Site Location and Context

3.2.1 A site location plan is provided as **Image 1.1** and is described in more detail in **Section 1**.

3.2.2 The site is located to the south of Fareham and west of Bridgemary. The B3385 Newgate Lane East forms the western boundary of the site whilst the existing residential area of Bridgemary forms the eastern boundary. HMS Collingwood playing field is present to the northwest of the site and approved Brookers Lane development site is located to the south. There are trees along the northern boundary and along the eastern boundary with Woodcot and Bridgemary.

3.2.3 The site is currently used for arable agricultural use and benefits from existing access to the B3385 Newgate Lane East as well as to Tukes Avenue through gated accesses.

3.2.4 **Figure 2** provides further site context, identifying the key land uses surrounding the site.

3.3 Walking and Cycling

3.3.1 The following sections review the existing walking and cycling infrastructure in the area. This summarises the findings of a detailed Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) that has been undertaken and which provides detailed assessment of the routes available in the surrounding area between the site and key destinations such as retail, schools and employment. The full WCHAR is provided at **Appendix D**.

Overall Connectivity

3.3.2 Overall, the local area provides a comprehensive network of pedestrian routes, connecting the site in all directions towards the key services and facilities that residents will need to access on a daily basis. These comprise established footway networks adjacent to local roads as well as a variety of dedicated public rights of way and footpaths.

3.3.3 The site is also well located to a well-established cycle network, providing a combination of designated signed on and off road routes between the site and key destinations including Fareham, Gosport and Stubbington. An extract of the Fareham Cycle Map is provided at **Image 3.1**, with the full map provided at **Appendix F**.

Image 3.1 – Extract of Fareham Cycle Map

Routes to the north of the site

3.3.4 Immediately north of the site is the Speedfields Retail Park, the Collingwood Retail Park, the Davis Way Commercial Park and onwards towards central Fareham.

3.3.5 On the northern frontage to the site is a dedicated footway / cycleway connecting Tukes Avenue and Newgate Lane, beyond which are interconnecting footways and cycle routes.

3.3.6 This provides a safe and direct route west to Newgate Lane, connecting with a controlled Toucan Crossing of Newgate Lane south of HMS Collingwood and to onward off-road cycle provision towards Fareham, and east to Tukes Avenue and Bridgemary, connecting to a network of slow speed lightly trafficked routes.

3.3.7 The WCHAR identifies various potential improvements to this route (**Section 5)** to enhance safety and accessibility.

Routes to the south of the site

3.3.8 South of the site (through the consented development area) is Brookers Lane which connects to Woodcote Lane and forms a newly constructed dedicated shared footway / cycleway connecting between Bridgemary in the east and Newgate Lane to the west.

3.3.9 Brookers Lane has recently been improved as part of the realigned Newgate Lane South scheme and now provides a 3m wide footway / cycleway to the south of site, across Newgate Lane where it connects to Woodcote Lane as shown on **Image 3.2**.

3.3.10 A pedestrian refuge island crossing is provided across Newgate Lane East which offers access to Newgate Lane, for onward connection to the dedicated and signed footways and cycleways north (towards Fareham) and south to Stubbington and the Solent EZ.

Image 3.2: Brookers Lane / Woodcote Lane footway cycleway

Source: i-Transport site photograph

3.3.11 As part of the consented development at Brookers Lane to the south of the site, a financial contribution (£78,160) was requested by HCC and secured towards the improvement of the Newgate Lane East / Brookers Lane crossing. This was based on the upgrading of the crossing to provide a Toucan provision and formed half of the required costs to achieve the scheme.

3.3.12 Woodcote Lane connects to the 'old Newgate Lane' and provides a cycle route to the north to Fareham and to the south to the Daedalus Enterprise Zone and Stubbington.

3.3.13 **Section 5** of the report considers further enhancements to this route.

Newgate Lane to the west

3.3.14 Newgate Lane to the west of the site provides a continuous footway on its western side, and forms part of a signed cycle connection between Peel Common and Palmerston Drive (connecting to the NCN 224) and onward to Fareham Centre.

3.3.15 To the north of the site there are continuous off-road cycle routes on both sides of Newgate Lane leading between HMS Collingwood and Palmerston Road to the north. This provides a safe, off road connection to the town centre.

3.3.16 The retained Newgate Lane to the west forms a signed cycle route. Cyclists travel on carriageway between HMS Collingwood and Peel Common.

3.3.17 To the south at Peel Common, there are a designated cycle routes on all approaches to the junction and onwards towards Gosport, Stubbington and the Solent EZ. To the west of The Drive, a shared pedestrian cycle way routes west towards Peel Common Roundabout with Toucan crossings provided on all arms. To the west of the Peel Common Roundabout, a shared pedestrian / cycleway is provided on the southern side of the B3334 Gosport Road which extends into Stubbington. On the southern arm (Broom Way) a designated cycleway is provided on the western side of the road leading to the Solent EZ.

Routes within Bridgemary to the east

3.3.18 Connections to Bridgemary offer access to local services and facilities (including the Woodcot Primary School, Bridgemary School, Tukes Avenue Local Shops, bus stops on Tukes Avenue, the Eclipse BRT and Cycle route (part of NCN 224).

3.3.19 Bridgemary is a well-established residential area which benefits from an extensive footway network on local streets. Beyond the site on roads comprising and leading from Tukes Avenue there is a well-established network of footways providing street lit footways (1.5m - 2m) generally on both sides of the carriageway particularly on Tukes Avenue, Brookers Lane, The Drive and Wych Lane. These existing footways provide safe routes towards the local bus stops located along Tukes Avenue and Henry Cort Way along with other services and facilities within Bridgemary.

3.3.20 A number of the minor arm junctions along Tukes Avenue, Wych Lane and Brookers Lane offer dropped kerb crossings which assist pedestrians with mobility impairments to safely cross the junctions. However, not all the crossing locations offer tactile paving to assist pedestrians with visual impairments and this was identified as part of the Non-Motorised User (NMU) Audit undertaken for the consented Brookers Lane scheme (ref: 19/00516/OUT). The approved scheme secures a financial contribution of £130,000 towards implementing the pedestrian improvements (drawings in **Appendix E)** and will improve accessibility on these routes.

3.3.21 **Section 5** identifies various further improvements that are proposed as part of the application to enhance local walking provision.

3.3.22 The Drive is located to the south of Brookers Lane and provides a route towards the Peel Common Schools and the B3334 Rowner Road. Whilst there are no dedicated cycling facilities along this section of the carriageway, the slow speed traffic environment will encourage on-carriageway cycling. Bargate Homes (as part of 19/00516/OUT) have agreed with HCC to deliver a 2.5m wide shared pedestrian cycleway on the western side of the carriageway between Brookers Lane and the Peel Common Schools along with providing enhancements to the existing footway provision on the eastern side of the carriageway. These improvements are shown on **Drawing ITB13747-GA-101A** in **Appendix E**.

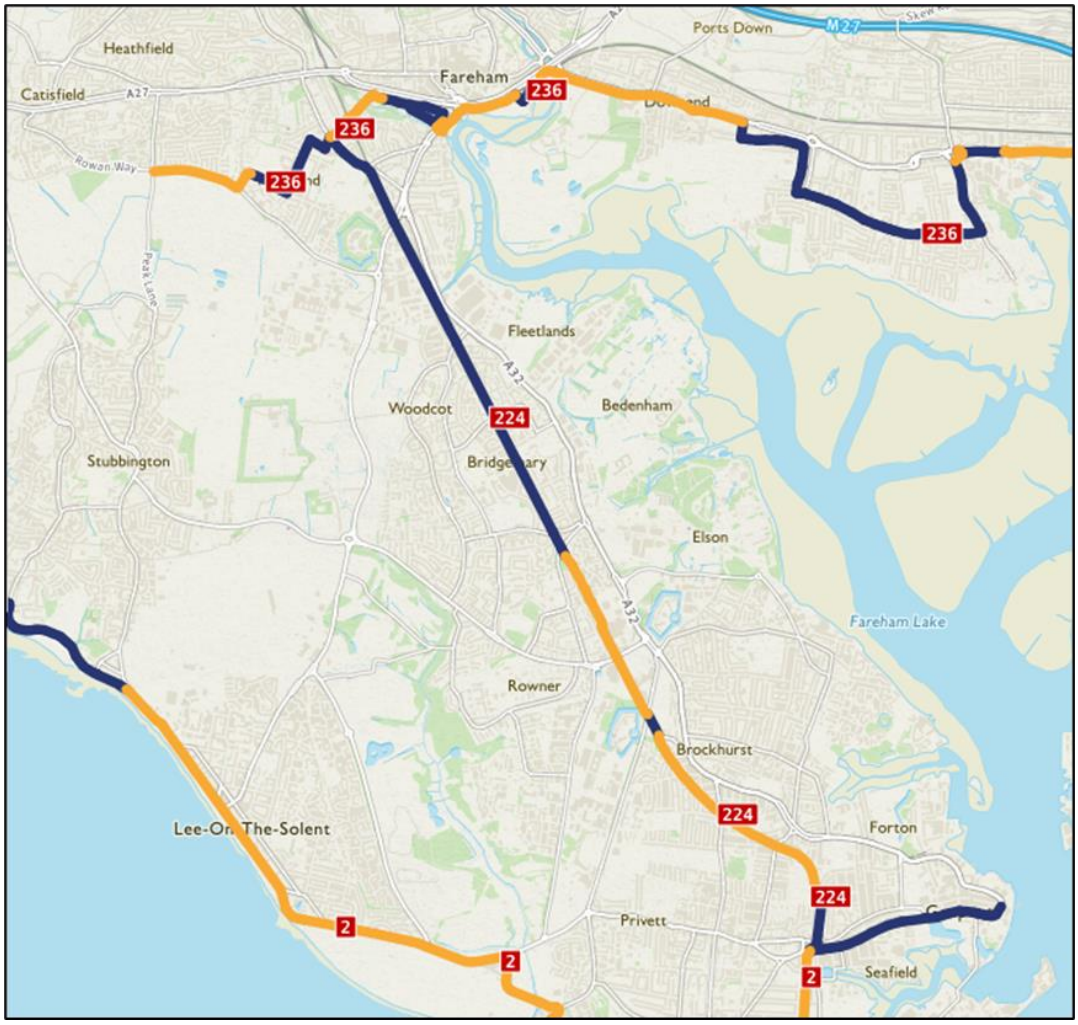
3.3.23 There are signed on-street cycling routes along Brookers Lane, Tukes Avenue and Wych Lane. These roads are all residential in nature and are subject to a 30mph speed limit. These roads are part of a signed cycle route and provide a slow speed and low traffic flow environment which is attractive for on-carriageway cycling.

3.3.24 From Wych Lane, the signed cycle route continues along both the Eclipse (BRT) busway and along the A32, beyond which Fareham Town Centre and Fareham Railway Station can be reached by routing along Salterns Lane and Redlands Lane respectively, the former is a published 'cycle link' as shown on the Fareham Cycle Map (**Appendix F**) and forms part of the National Cycle Route NCN224.

3.3.25 Designated cycle lanes are provided along the A32 Fareham Road on both sides of the carriageway which extend circa 670m north of Wych Lane. To the south of Wych Lane, designated cycle lanes are provided on both sides of the A32 Fareham Road which extend circa 3.0 km south to the A32 Fareham Road / Brockhurst Road roundabout.

3.3.26 National Cycle Network (NCN) Route 224 is located to the east of the site and routes north to south through Bridgemary. NCN 224 provides a mix of trafficked and traffic free routes through Bridgemary towards Gosport to the south-east via NCN Route 2 and Fareham to the north via NCN route 236. An extract of the National Cycle Network Map is shown in **Image 3.3**.

Image 3.3: National Cycle Network Map Extract



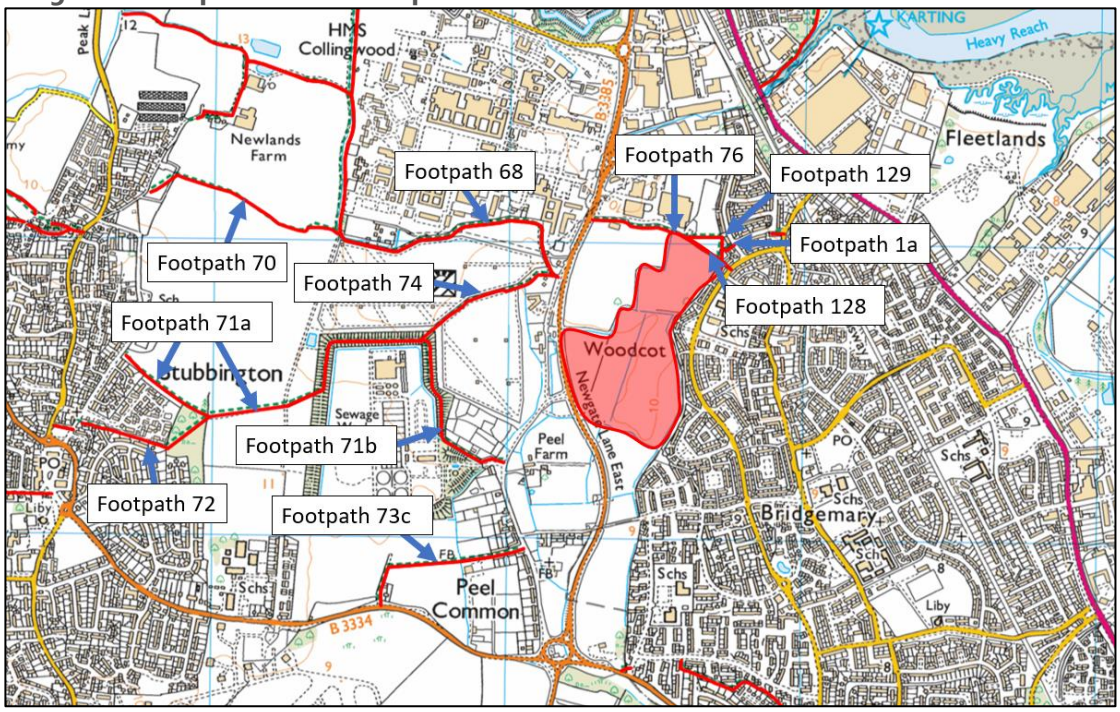
Public Rights of Way

3.3.27 There is a comprehensive network of Public Rights of Way (PROW) located within the vicinity of the site and an extract of the PROW Map for the site is provided in **Image 3.4**.

3.3.28 Along the northern boundary of the site, a short network of footpaths (1a, 76, 128 and 129) provides a route between Tukes Avenue to the east and Newgate Lane to the west.

3.3.29 To the west of Newgate Lane, footpaths 68 and 74 can be accessed which route west towards Stubbington via footpaths 70 and 71a. Also, to the west of the site, Footpath 73c can be accessed via Woodcote Lane which provides an alternative access to Gosport Road which routes east to west towards Stubbington. Footpath 71b can be accessed via Newgate Lane which offers another route towards Stubbington via Footpaths 74, 71a and 72.

Image 3.4: Hampshire PROW Map



Source: RowMaps

3.4 Public Transport Opportunities

3.4.1 The closest bus stops to the site are situated on Tukes Avenue circa 350m east of the site. Further bus stops are located on Newgate Lane East (365m west of the site) and Henry Cort Way (900m north-east of the site) which forms part of the Eclipse BRT. All of these offer sheltered bus stops and provide timetable information.

3.4.2 The bus routes accessed from Henry Cort Way are the E1/E2 Eclipse BRT service which is a high-frequency high-quality public transport route offering attractive opportunities for travel between Fareham and Gosport. The BRT provides around 10 buses an hour from these stops.

3.4.3 The bus routes 9/9A can be accessed from bus stops on Tukes Avenue, east of the site, both to the north and south, and provides a half hourly commotion between Fareham and Gosport.

3.4.4 Bus stops on Newgate Lane East provides access to bus route 21 which is a less regular service between Fareham and Hill Head.

3.4.5 **Table 3.1** summaries the route and service frequency of all these services.

Table 3.1: Bus Route and Frequencies

Stop	Service	Route	Service Frequency (Each direction)		
			Mon-Fri	Saturdays	Sundays
Tukes Avenue	9 / 9A	Gosport – Privett – Rowner – Bridgemary - Fareham	2 services per hour First / Last Service: 06:08 / 19:28	2 services per hour First / Last Service: 06:59 / 19:00	2 services per hour First / Last Service: 07:48 / 19:00
Newgate Lane East	21	Fareham – Hill Head	One service every 2 hours First / Last Service: 08:24 / 17:42	One service every 2 hours First / Last Service: 08:55 / 15:38	-
Henry Cort Way	BRT E1 / E2	Fareham – Gosport	5 services per hour First / Last Service: 05:41 / 23:06	5 services per hour First / Last Service: 05:57 / 23:06	5 services per hour First / Last Service: 06:14 / 23:06

Source: Bustimes.org

3.4.6 Fareham rail station is located around 3.2km north from the site and provides access to the national rail network. The station is accessible via bus routes 9, 21 and the BRT and by cycle. The station has 266 cycle storage spaces and 154 car parking spaces with 5 accessible spaces. A taxi rank is available outside station entrance/exit.

3.4.7 **Table 3.2** summarises some key rail journeys available from Fareham Station.

Table 3.2: Key Rail Destinations – Fareham Rail Station

Destination	Typical Weekday Frequency		Average Journey Duration
	Peak	Off Peak	
Portsmouth and Southsea	3-4 services per hour	3 services per hour	24 minutes
Portsmouth Harbour	3 services per hour	2 services per hour	28 minutes
Southampton Central	4 services per hour	4 services per hour	29 minutes
London Waterloo	4 services per hour*	3 services per hour*	1 hour 46 minutes

Source: National Rail

*Some services require 1 change

3.5 Local Highway Network

Overview

3.5.1 The B3385 Newgate Lane East is a single carriageway road which routes north to south along the western boundary of the site between HMS Collingwood and Peel Common Roundabout. The road has recently been constructed by HCC as part of a scheme to improve local access and enable economic growth in the peninsula, and to address capacity and amenity issues that existed on the Old Newgate Lane alignment. Newgate Lane East has a carriageway width of approximately 7.0m, is street lit and is subject to 40mph speed limit.

3.5.2 Currently, there is no footway provision along this section of Newgate Lane East. However, two crossing points are available to facilitate the movement of pedestrians and cyclists across the carriageway between Brookers Lane and Woodcote Lane and those using the pair of bus stops north of the site, fronting the HMS Collingwood Sports facilities. These crossing points are provided with dropped kerbs, tactile paving and refuge islands.

3.5.3 To the north, Newgate Lane East continues as Newgate Lane and heads towards the centre of Fareham and the A27 corridor. To the south, it leads to the Peel Common Roundabout.

3.5.4 The B3385 Newgate Lane East highway scheme resulted in Newgate Lane (the original) being closed at either end and is now accessed from Newgate Lane East via a priority junction, serving the existing residential dwellings and water works. This southern section of Newgate Lane runs parallel to Newgate Lane East. It is a signed cycle route and has footway provision along western edge of the carriageway.

3.5.5 The Peel Common Roundabout is a four-arm roundabout which provides a route south to Lee-on-the-Solent via Broom Way, Stubbington to the west via the B3334 Gosport Road and Gosport to the east via the B3334 Rowner Road. The roundabout is part signalised, but as part of the ongoing construction of the Stubbington Bypass is being upgraded to full signalisation.

3.5.6 Brookers Lane to the southeast of the site and Tukes Avenue to the east of the site are single carriageway residential roads which have carriageway widths of approximately 6.6m and are subject to 30mph speed limit. Some on-street parking can be observed along the length of these road, which acts as informal traffic calming.

3.5.7 The A32 Fareham Road is subject to a 40mph speed limit, which reduces to 30mph circa 330m northwest of Wych Lane, and routes north-west towards Fareham.

Existing Network Operation

3.5.8 To consider the operation of the local highway network, a suite of traffic surveys were carried out at key junctions on the local highway network on local roads.

3.5.9 Traffic surveys at the key junctions were undertaken on 30/01/2019 and formed part of the agreed baseline for the recent developments proposes west of Newgate Lane East. HCC confirmed (**Appendix B**) that these surveys remain acceptable to consider the scheme.

3.5.10 The 2019 baseline data is presented in **Appendix G** and comprises the following junctions.

- Newgate Lane East / Newgate Lane;
- Peel Common Roundabout;
- Newgate Lane / HMS Collingwood access;
- Newgate Lane / Speedfields Park access; and
- Newgate Lane / Longfield Avenue Roundabout

3.5.11 The existing traffic flows have been used to determine the network peak hours across the local highway network. The appraisal was presented as Appendix C of the Scoping Note (**Appendix A**) and confirmed the peak hours as:

- Morning Peak Hour: 07:45 – 08:45; and
- Evening Peak Hour: 16:00 – 17:00

3.5.12 A summary of the observed traffic flows on the local highway network during the peak periods is provided in **Table 3.3** and the observed traffic flows are presented in **Figures TF1** and **TF2**.

Table 3.3: 2019 Observed Peak Period Traffic Flows

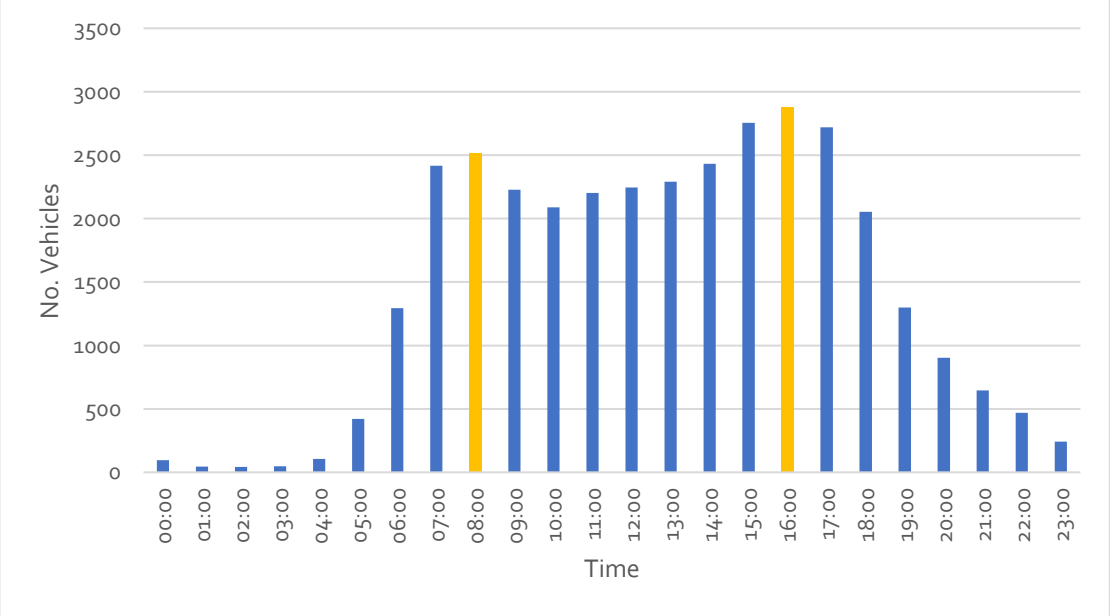
Road	Direction	Morning Peak Period (07:45-08:45)	Evening Peak Period (16:00-17:00)
Newgate Lane (North of Longfield Avenue)	Northbound	1,099	1,136
	Southbound	935	1,016
Longfield Avenue	Eastbound	538	746
	Westbound	497	501
Davis Way	Eastbound	112	29
	Westbound	47	123
Newgate Lane (South of Longfield Avenue)	Northbound	1,367	1,293
	Southbound	1,179	1,512
Speedfields Business Park Access	Eastbound	402	459
	Westbound	207	432

Road	Direction	Morning Peak Period (07:45-08:45)	Evening Peak Period (16:00-17:00)
Newgate Lane (South of Speedfields Park)	Northbound	1,353	1,014
	Southbound	1,013	1,318
HMS Collingwood Access	Eastbound	34	265
	Westbound	384	108
Newgate Lane East (North of Newgate Lane)	Northbound	1,526	980
	Southbound	835	1,447
Newgate Lane (West of Newgate Lane East)	Eastbound	42	36
	Westbound	44	41
Newgate Lane East (North of Peel Common)	Northbound	1,529	980
	Southbound	855	1,420
B3384 Rowner Road	Eastbound	713	1,093
	Westbound	1,251	744
B3334 Gosport Road	Eastbound	385	707
	Westbound	715	499
B3385 Broom Way	Northbound	1,073	647
	Southbound	613	955

Source: Traffic Surveys, January 2019

3.5.13 Automatic Traffic Count (ATC) surveys have also been undertaken along Newgate Lane to the north and south of the of the Newgate Lane / Newgate Lane East junction. These surveys obtained existing vehicle flows and speeds in either direction. A summary of the daily vehicle profile along Newgate Lane East is presented in **Image 3.5**.

Image 3.5: Newgate Lane East - 5 Day Average Two-Way Vehicle Flow Profile



3.5.14 A summary of the observed vehicle speeds along Newgate Lane East is provided in **Table 3.4** and the ATC data is presented in **Appendix H**. Observed average speeds on Newgate Lane are ~ 39mph, with 85%ile speeds 44-45mph, broadly in line with the posted speed limit.

Table 3.4: Observed Vehicle Speeds – Newgate Lane East

Road	Direction	Average Speed (mph)	85th Percentile Speeds – 24 hour (mph)
Newgate Lane East	Northbound	38.9	43.8
	Southbound	39.2	44.5

Source: Traffic Surveys, 2021

3.5.15 To understand the existing cyclist demand along Newgate Lane, cyclist count data for 2020 and 2021 (latest available) was obtained from HCC based on the permanent counter located to the north of access to Collingwood Retail Park. A summary of the observed cyclist counts along Newgate Lane is provided in **Table 3.5** and demonstrates regular but relatively light cycle usage.

Table 3.5: 2020 and 2021 Newgate Lane Cyclist Count

Link / Direction		AM Peak		PM Peak		Daily	
		Weekday Average	7-Day Average	Weekday Average	7-Day Average	Weekday Average	7-Day Average
2020							
Northbound Cycleway	NB	8	8	15	12	124	113
	SB	11	9	8	7	103	94
Southbound Cycleway	NB	4	3	4	3	39	34
	SB	4	3	7	5	52	47
2021							
Northbound Cycleway	NB	8	7	12	10	112	101
	SB	9	7	9	8	100	90
Southbound Cycleway	NB	6	4	3	3	39	34
	SB	3	3	8	6	49	44

Source: HCC Permanent Counter, 2021

3.6 Highway Safety

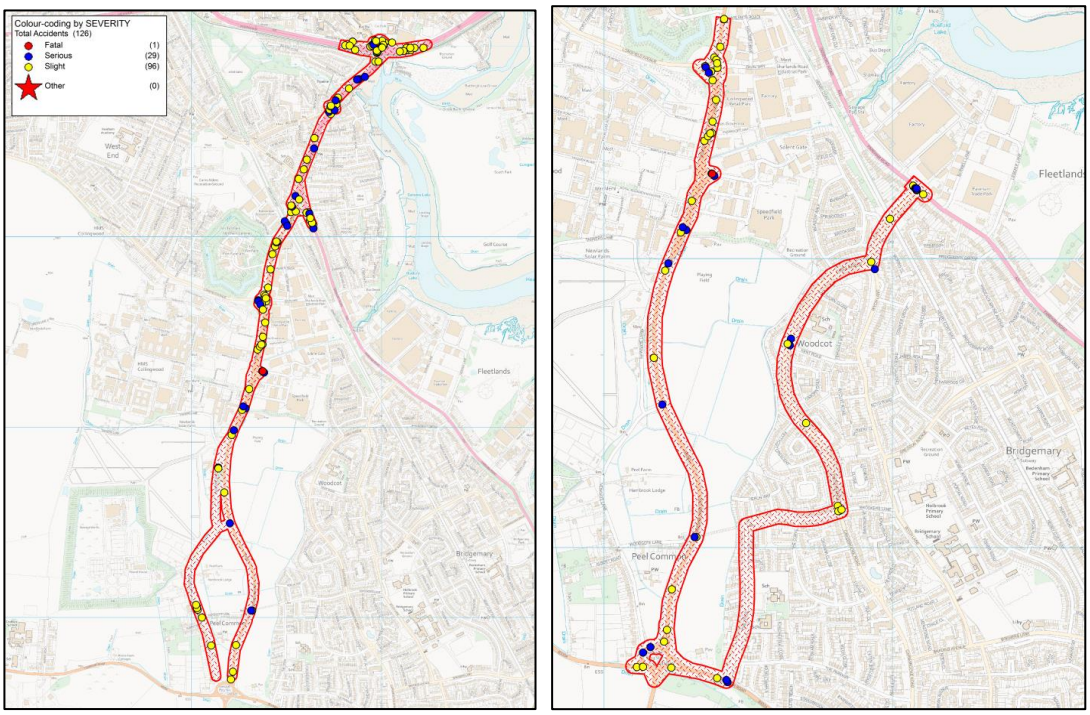
3.6.1 As agreed with HCC, Personal Injury Accident (PIA) data has been obtained from Hampshire Constabulary for the most recently available five-year period between 01/05/2016 and 30/04/2021.

3.6.2 The study area includes the following roads (**Image 3.6**) and a copy of the PIA data is provided at **Appendix I**.

- Quay Street Roundabout;
- Gosport Road;
- Newgate Lane;
- Newgate Lane East;
- Peel Common Roundabout;
- The Drive;
- Brookers Lane;
- Tukes Avenue; and
- Wych Lane.

3.6.3 In total, there were 155 collisions resulting injury recorded within the extensive study area over the last five years. Of the collisions, 116 were recorded as 'slight' in terms of severity and 38 as 'severe'. One fatal accident was recorded. The location of the recorded PIA is shown in **Image 3.6** and a copy of the PIA data is provided at **Appendix I**.

Image 3.6: Location of Recorded Collisions



Source: Hampshire Constabulary

3.6.4 **Table 3.6** provides a summary of the severity of the accidents (vehicles / pedestrians) categorised by roads and junctions within the study area.

Table 3.6: PIA Summary

Location	Vehicles			Pedestrians / Cyclists			Total
	Fatal	Serious	Slight	Fatal	Serious	Slight	
A32 / Wych Lane	0	2	9	0	0	2	11
Wych Lane / Henry Cort Way	0	0	1	0	0	1	1
Wych Lane / Tukes Avenue	0	1	1	0	1	1	2
Tukes Avenue / Kent Road	0	2	1	0	2	1	3
Tukes Avenue (Tukes Avenue Local Centre)	0	0	1	0	0	0	1
Brookers Lane / Carisbrooke Road Crossroad	0	0	3	0	0	3	4
The B3334 Rowner Road / The Drive	0	2	1	0	0	0	3
Peel Common Roundabout	0	2	4	0	0	0	6
Newgate Lane East (Peel Common to Newgate Ln)	0	1	3	0	1	0	4
Newgate Lane (Old)	0	2	8	0	0	4	11
Newgate Lane East / Newgate Lane	0	1	0	0	0	0	1
Newgate Lane East (Collingwood to Newgate Ln)	0	0	1	0	0	0	1
Newgate Lane / HMS Collingwood Access	0	2	2	0	2	0	4
Newgate Lane / Speedfields Park Access	1	2	1	1	1	0	4
Newgate Lane / Frankport Way	0	1	4	0	0	4	5
Newgate Lane (Frankfort Avenue to Longfield Av)	0	0	1	0	0	1	1
Newgate Lane / Longfield Avenue	0	2	7	0	2	1	9
Newgate Lane (Longfield Avenue to Palmerston)	0	0	4	0	0	0	4
Newgate Lane / Palmerston Dr	0	0	5	0	0	1	5
Henry Cort Way / Palmerston Dr	0	1	0	0	2	0	2
Newgate Lane (Palmerston Dr to Gosport Road)	0	2	1	0	1	0	3
Gosport Road / Palmerston Dr	0	1	2	0	0	0	3
Gosport Road	0	0	1	0	1	0	2
Gosport Road / Salterns Lane / Geoffrey Cres	0	3	4	0	0	1	8
Gosport Road (Newgate Lane to Old Gosport Rd)	0	1	4	0	0	2	5
Gosport Road / Old Gosport Road	0	2	7	0	1	0	9
Gosport Road (Old Gosport & Quay Street Rbt)	0	2	3	0	0	3	5
Quay Street Roundabout	0	3	21	0	1	1	24
Quay Street	0	0	1	0	0	1	1
A27 Eastern Way (East of Quay Street Roundabout)	0	0	8	0	0	1	9
A27 Western Way (To the west of Quay Street Rbt)	0	1	3	0	1	1	4

Source: Hampshire Constabulary

3.6.5 The recorded accidents are spread throughout the study area with several of these being cases of single incidents. Clusters of accidents can be identified at some junctions as shown in **Table 3.6**, however, this is perhaps not uncommon for the volume of traffic passing through the local highway network and over a long five-year period. The clusters of accidents at junctions with six or more accidents are reviewed in further detail in the following sections.

3.6.6 The only fatal accident identified occurred at the junction between the B3385 Newgate Lane and Speedfields Park access. It involved a cyclist traveling west along Speedfields Park access colliding with a car travelling east having entered from the roundabout.

A32 / Wych Lane Junction

3.6.7 A total of 11 accidents occurred at this junction, two resulted in 'serious' injury and nine resulted in 'slight' injury. The nature and cause of these accidents are summarised below:

- Seven accidents involved southeast bound vehicles on the A32 turning right for Wych Lane and colliding with vehicles travelling in opposite northwest direction, two accidents resulted in 'serious' injuries and five accidents resulted in 'slight' injuries;
- Two accidents involved northwest bound vehicles colliding with cyclists in the same direction resulting in 'slight' injuries; and
- Two accidents involved rear end shunts between northwest bound vehicles along the A32 resulting in 'slight' injuries;

3.6.8 A pattern of accidents has been identified at this junction which involves a number of vehicles attempting to turn right onto Wych Lane across the path of an oncoming vehicle traveling north-west along the A32. Despite this, no defects in the junction layout nor any issue with the visibility could be identified that could have resulted in these accidents.

3.6.9 It is understood that HCC has identified an improvement scheme for this junction to address the identified safety issue. As identified in Section 6, the proposed development will not be expected to generate any traffic through the junction (with access instead to Newgate Lane East) and therefore will not intensify any potential highway safety issues.

Peel Common Roundabout

3.6.10 A total of six accidents occurred at this junction, two resulted in 'serious' injury and four resulted in 'slight' injury. The nature and cause of these accidents are summarised below:

- One accident involved a northbound vehicle going around the roundabout colliding with a motorcycle filtering past traffic resulting in a 'serious' injury;

- One accident involved an eastbound motorcycle which collied with the rear of a vehicle travelling in the same direction resulting in a serious injury;
- Three accidents involved single vehicle incidents in which the vehicles lost control resulting in 'slight' injury, two of the accidents involved motorcycles and car was involved in the third accident, two accidents involved westbound movements and one involved northbound; and
- The final accident involved a collision between a northbound motorcycle in the inside lane and a vehicle traveling in same direction in the outside lane when two lanes merge into one resulting in a 'slight' injury.

3.6.11 It is evident from the above records that motorcycles were involved in majority of these accidents. However, there are no apparent patterns in these accidents indicating safety issue in the current highway layout.

3.6.12 The junction is currently being further improved by HCC as part of the Stubbington Bypass improvement scheme.

Newgate Lane (Old)

3.6.13 There were a total of 11 accidents along the Newgate Lane (old) between Peel Common Roundabout and Newgate Lane East, two resulted in 'serious' injury and nine resulted in 'slight' injury.

3.6.14 It should be noted that both of the 'serious' injury accidents and seven 'slight' injury accidents occurred (total of 9 accidents) before the opening of the Newgate Lane East, and so do not reflect the current conditions on Newgate Lane, which comprises access only traffic.

3.6.15 The nature and cause of these accidents are summarised below:

- Three accidents occurred involving two vehicles resulting in one 'serious' and two 'slight' injuries. Two of these were due to loss of control and one was due to distraction in vehicle;
- Two shunt accidents occurred involving multiple vehicles resulting in one 'serious' and one 'slight' injures;
- One accident involved collision between a vehicle and a motorcycle filtering traffic resulting in a 'slight' injury;

- Cyclists were involved two 'slight' injury accidents one of which occurred when the cyclist lost control due to a pothole and another occurred when the cyclist collied with a wheelie bin and came across another vehicle; and
- The final accident involved collision between a vehicle and pedestrian due to aggressive driving resulting in a 'slight' injury.

3.6.16 The nature and cause of the remaining two recent accidents are summarised:

- One accident occurred when a vehicle travelling west along Woodgate Lane turned right without giving way and collided with a cyclist resulting in a 'slight' injury; and
- Another accident occurred when a cyclist travelling north along Newgate Lane lost control and fell following a medical episode resulting in a 'slight' injury.

3.6.17 It is evident from the above records that the accident risks have significantly improved following opening of the Newgate Lane East. The two accidents that have taken place since do not indicate any safety issues with the road layout.

Newgate Lane / Longfield Avenue Roundabout

3.6.18 A total of nine accidents occurred at this junction, two resulted in 'serious' injury and seven resulted in 'slight' injury. The nature and cause of these accidents are summarised below:

- Two accidents involved collision between eastbound vehicles along Longfield Avenue and cyclists crossing Longfield Avenue, one of which resulted in a 'serious' injury and another resulted in a 'slight' injury accident;
- Four accidents involved vehicles entering the roundabout and colliding with another vehicles already on the roundabout in which one accident involved a cyclist resulting in a 'serious' injury whilst three other accidents resulted in 'slight' injury, the accidents occurred at different location of the roundabout;
- Two accidents involved rear-end shunts between northbound vehicles resulting in 'slight' injuries; and
- The final accident involved a southbound vehicle on Newgate Lane losing control and collided with a lamp post resulting in a 'slight' injury;

3.6.19 There are no discernible patterns in accidents indicating any safety issue in the current highway layout.

Gosport Road / Salterns Lane / Geoffrey Cres

3.6.20 A total of eight accidents occurred at this junction, three resulted in 'serious' injury and five in 'slight' injury accidents. The nature and cause of these accidents are summarised below:

- An accident resulting in a 'serious' injury occurred when a vehicle turning right onto Salterns Lane collided with a motorcycle overtaking traffic;
- Another 'serious' injury accident involved collision between an ambulance on call and a lorry which turned right onto the A32 Gosport Road through green light;
- The final 'serious' injury accident occurred when a vehicle pulled out from a driveway after having been let out by traffic in lane 1 and was collided with a vehicle in lane 2;
- A 'slight' injury accident occurred when a vehicle travelling south collided with the rear of vehicle at front at red traffic light;
- A 'slight' injury accident occurred when a vehicle failed to negotiate a left-hand bend and collided with a lamp post;
- A pedal cyclist travelling north along the A32 Gosport Road collided with nearside kerb and fell resulting in 'slight' injury accident;
- A 'slight' injury accident occurred when a vehicle travelling south failed to slow down and collided with the rear of vehicle at front;
- Final 'slight' injury accident occurred when a motorcyclist swerved to the nearside to avoid a reversing vehicle and fell.

3.6.21 The above accidents occurred over two junctions in close proximity and moreover the varied nature of these accidents does not identify any correlating factors between the accidents that would indicate a deficiency in the highway layout.

3.6.22 It should also be noted that, as with the A32 / Wych Lane junction, the proposed development traffic will not distribute along this route and therefore, will not have impact on accident risks.

Gosport Road / Old Gosport Road

3.6.23 A total of nine accidents occurred at this junction, two resulted in 'serious' injury and seven resulted in 'slight' injury. The nature and cause of these accidents are summarised below:

- The two 'serious' injury accidents involved a motorcyclist and a cyclist. The accident involving a motorcyclist was a single vehicle which occurred when the motorcycle slipped. Another accident occurred when a cyclist collided with the rear of a car waiting to enter the roundabout;
- There were five rear end shunts which occurred as a result of failure to stop/slow down resulting in 'slight' injury; and
- Final two 'slight' injury accidents involved collision between a motorcycle and a car after having entered the roundabout.

3.6.24 Although there has been a number of rear end shunts, these are mainly attributable to poor driver behaviour rather than deficiency in the safety of the currently present junction layout.

Quay Street Roundabout

3.6.25 This is a busy signalised roundabout with five arms providing access to Fareham town centre and the A27 and as such, experiences high volume of traffic and relatively complex traffic movements. This is reflected in the number of accidents that have occurred at this roundabout over the last five years. There has been a total of 24 accidents of which 3 were 'serious' injury accidents and 21 were 'slight' injury accidents.

3.6.26 The nature and cause of the accidents at this roundabout are summarised below:

- The majority of the accidents (18) that have occurred at this roundabout involved rear end shunts as a result of failure to stop / slow down or collision due to disobeying red traffic lights. One of the accidents resulted in 'serious' injury whilst the remaining were 'slight' injury accidents. A cyclist was involved in one of the 'slight' injury accidents;
- Two accidents involved single motorcycle accidents which resulted due to loss of control, one of which resulted in 'serious' injury and another resulted in 'slight' injury;
- Two of the 'slight' injury accidents occurred as a result of poor lane change behaviour;
- The final two accidents involved collision between a car and a cyclist, each resulting in a 'serious' and 'slight' injury. The 'serious' injury accident occurred when a car disobeyed the crossing facility and the 'slight' injury accident occurred when a car door was opened across the path of the cyclist.

3.6.27 Despite the significant number of accidents at this roundabout over the last five years, as summarised above, these accidents have been mainly caused by poor driver behaviours and human errors rather than deficiency in terms of safety of the layout. The high number of accidents is perhaps an indication of high volume of traffic passing through the roundabout, on what is a key route to access the Fareham Town Centre and the A27.

3.6.28 It is anticipated that the completion of the Stubbington Bypass and the improvement of M27 Junction 10 will help to ease the congestion along this route, and this will bring beneficial impacts in terms of accident risks at this roundabout.

Eastern Approach (Quay Street Roundabout)

3.6.29 A total of nine accidents occurred at this location, all of which resulted in 'slight' injury. The nature and cause of these accidents are summarised:

- Three accidents were identified to have occurred as a result of poor lane change behaviour and three were rear end shunts; and
- Three of the remaining accidents involved single vehicles. In two accidents, a car and a motorcycle lost control and mounted the kerb. The final accident occurred when a cyclist got caught up in a tree branch.

3.6.30 It is evident from the above records that no patterns in accidents indicating safety issue are currently present. As with the Quay Street Roundabout, the Stubbington Bypass is anticipated to bring beneficial impacts in terms of accident risks along this section of the local highway. Local highway vegetation should be maintained to prevent any obstruction.

Highway Safety Summary

3.6.31 The PIA statistics obtained from Hampshire Constabulary indicates there have been a total of 155 collisions resulting injury recorded within what is an extensive study area over the last five years. Of the total collisions, 116 were recorded as 'slight' in terms of severity and 38 as 'severe'. One fatal accident was recorded.

3.6.32 The review of the obtained PIA data revealed a number of junctions with accident clusters. Further review of these clusters uncovered reoccurring patterns such as vehicles failing to stop in time, rear end shunts, poor lane change and disobeying traffic signals as the main factors which led to the majority of these accidents.

3.6.33 Accident clusters at Whych Lane are due to be addressed by HCC. The delivery of Newgate Lane East has essentially resolved safety issues that were arising on Newgate Lane. The Peel Common roundabout is in the process of being further improved.

3.6.34 Overall, it is concluded that the level of accidents identified in the study area is not unexpected given the large study area comprising significant and busy roads. The detailed assessment does not identify any accident trends or patterns associated with the highway layout resulting in significant safety issues that is either not being addressed or which is likely to be materially impacted by the development proposals.

3.7 Summary

3.7.1 The site is very well located to the existing pedestrian network within Bridgemary to the east, Newgate Lane to the west, and Fareham to the north. There is a good provision of footways along local roads connecting to the site, generally on both sides of the relatively low speed / flow roads. The site is closely related to the National Cycle Network and conditions on local roads support on carriageway cycling. Newgate Lane to the north has high quality cycleways heading towards Fareham and there are designated cycle provisions both north and south of the site connecting to Bridgeway and Newgate Lane for onward travel.

3.7.2 A detailed WCHAR and NMU audit has been undertaken and demonstrates that there are high quality routes from the site to the main destinations such as retail, schools and employment. The WCHAR has identified various improvements which can be delivered in the local area to enhance accessibility, and these are addressed in Section 5.

3.7.3 The site is well located to regular bus services including particularly the BRT which is accessible from the bus stops located within easy walking distance from the site, servicing areas such as Fareham, Stubbington and Gosport. Fareham rail station is also accessible by bus and cycle from the site and provides connections to destinations further afield such as Portsmouth, Southampton, Winchester, and London.

Existing highway conditions have been considered through collection of recent and relevant traffic flow data. This identifies existing traffic flows and profiles on the local network. A detailed review of the most recently available accident data has been undertaken and does not identify any specific road safety problems within the local area with the exception of some accident clusters which were identified not to be attributable to highway layout. The analysis in Section 6 of the TA carefully assesses the traffic impact of the proposal to identify whether the proposal will result in a material change in the way the local highway network operates.

SECTION 4 Development Proposal

4.1.1 The development proposal comprises up to 375 dwellings, of which 40% will be provided as affordable dwellings. The mix of the development is not detailed at this stage.

4.1.2 The application will be for Outline consent only at this stage, with access to be determined. Matters such as layout, scale and appearance are reserved matters not for determination.

4.2 Former HA2 Allocation

4.2.1 As identified in **Section 1**, the site was previously allocated for housing within the earlier version of Fareham's Draft Local Plan under Policy HA2 and was only more recently omitted from the current submission Local Plan in November 2020.

4.2.2 The former Policy HA2 is presented at **Appendix J**. The earlier draft Policy HA2 identified various transport and highways matters, as outlined below.

- Primary highway access shall be focused on Newgate Lane South in the first instance with Brookers Lane having the potential to provide secondary access for a limited number of dwellings;
- The provision of pedestrian and cycle connectivity between adjoining parcels as identified by the Development Framework, as well as safe pedestrian / cycle crossing points of Newgate Lane South, safe and accessible walking / cycling routes to local schools, open spaces, and nearby facilities in Woodcot / Bridgemary;
- The provision of vehicular highway access between individual development parcels, as identified by the Development Framework, without prejudice to adjacent land in accordance with Policy D4.

4.3 Concept Masterplan

4.3.1 A concept masterplan has been prepared which demonstrates how the site can be successfully achieved, in line with the former HA2 policy aspirations.

4.3.2 Vehicular Access is only provided to Newgate Lane East. No connection to Brookers Lane is proposed, noting that the consented development south of the application site (for 99 dwellings) already takes access at Brookers Lane.

4.3.3 Pedestrian and cycle connectivity is demonstrated both within he scheme and to the wider area, at Newgate Lane East and to Bridgemary, both south to Brookers Lane and north and east to Tukes Avenue.

4.3.4 The concept masterplan demonstrates how the development is expected to come forward and is provided at **Appendix K** with an extract provided in **Image 4.1**.

Image 4.1: Extract of Concept Masterplan

4.4 Site Access Strategy

4.4.1 The site access strategy comprises:

- Delivery of a comprehensive pedestrian and cycle access strategy, providing for active travel on key desire lines in all directions from the site, providing filtered permeability
- Vehicular access to Newgate Lane East, in a manner that delivers safe and suitable access, but does not significantly impact on the utility / function of Newgate Lane East.

Pedestrian / Cycle Access Arrangements

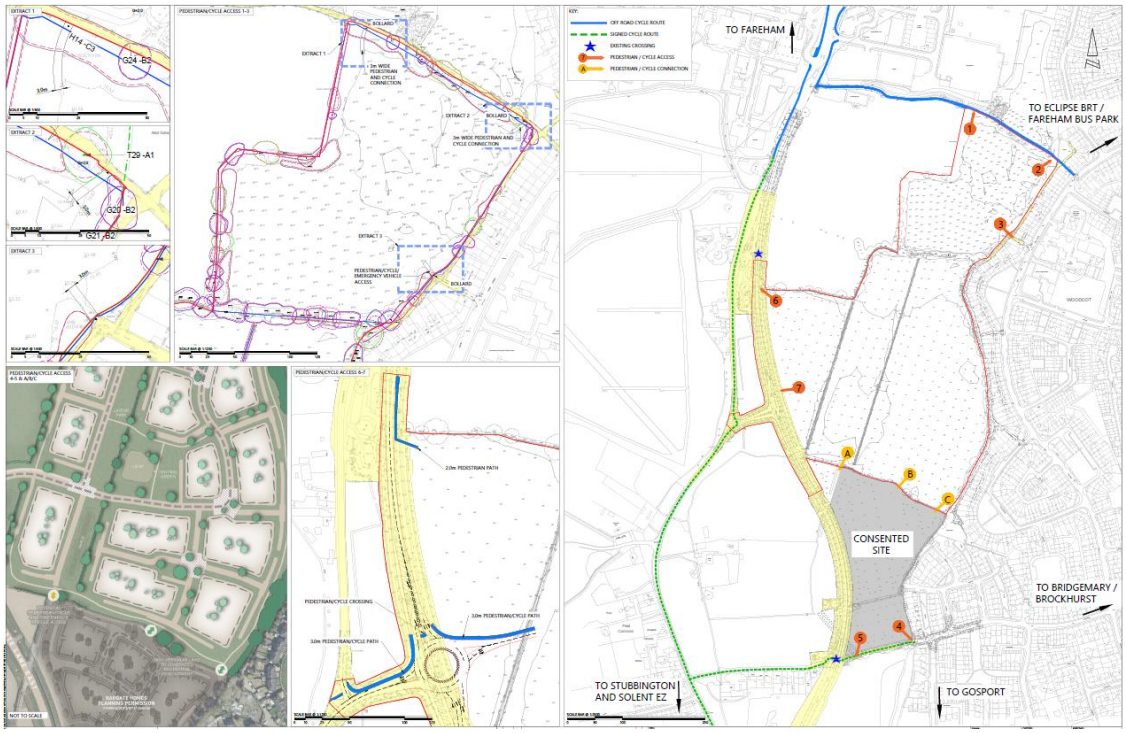
4.4.2 To ensure opportunities for sustainable travel to key local destinations are taken up, relative to the opportunities provided by the site, the scheme proposes a highly permeable and connected development area. Various connections to the local network are provided:

- Access to **Newgate Lane East** – Access to Newgate Lane is proposed:
  - At the site access roundabout junction, with pedestrian and cycle crossing provision provided on the northern arm of the proposed roundabout junction with a connecting pedestrian / cycle route into the site and to Newgate Lane.
  - To the north-west of the development area, to provide connection to the existing pair of bus stops at Newgate Lane East
  - To the south-west of the site to Brookers Lane through the consented development south of the site (which is in the same ownership / control)
- Access to **Bridgemary** – Access to Bridgemary is provided:
  - To the north to connect to Public Right of Way 76, which forms an east-west pedestrian and cycle route between Newgate Lane and Tukes Avenue. Two connections are proposed in the north-east and north-west corners of the site.
  - To the east to Tukes Avenue (in vicinity of 143 Tukes Avenue) utilising the existing gated access to the site, and the adjoining service road (which forms public highway). An improvement scheme to this route is proposed which comprises resurfacing and provision of sensitive lighting to provide a safe and attractive environment for all users, shown in **Drawing ITB10353-GA-032**.
  - To Brookers Lane to the south-east of the site through the consented development south of the site (which is in the same ownership / control)
- Access to **Rights of Way** – Connections to Public Footpath 76 routing to the north of the site and to Brookers Lane / Woodcote Lane to the south of the site are to be provided. This connects with the existing crossing facilities of Newgate Lane South.

4.4.3 A pedestrian and cycle access strategy is provided on **Drawing ITB10353-GA-031** which demonstrates these connections (**Image 4.2**).

4.4.4 This approach ensures that priority is given to providing for active travel movement from the site, providing for walking and cycling connections on the key desire lines of the scheme.

Image 4.2 – Pedestrian and Cycle Access Strategy



Vehicular Access Arrangements

4.4.5 Vehicular access to the site will be achieved from Newgate Lane East, as identified within the former development HA2 allocation, in the form of a four-arm, 50m ICD roundabout with Newgate Lane East and Newgate Lane.

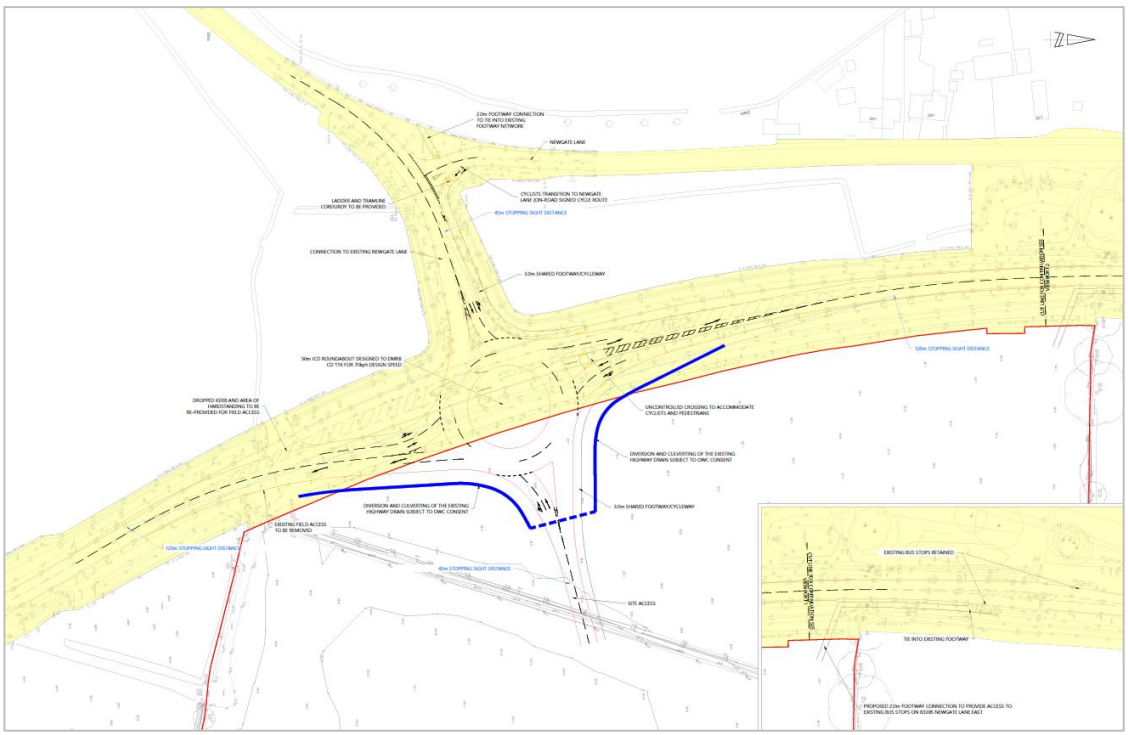
4.4.6 The junction has been carefully designed to meet the following objectives:

- Deliver safe and suitable access, in line with design standards
- Minimise interruptions to main line traffic flow on Newgate Lane South;
- Ensure that the function of the new road (i.e. to increase traffic capacity and ease congestion), is not prejudiced by the delivery of a new access; and
- Be deliverable within design standards and highway constraints.

4.4.7 The proposed access roundabout has been designed in full accordance with the Design Manual for Roads and Bridges (DMRB) standards for a 40mph road (which is the posted speed limit on Newgate Lane South).

4.4.8 The proposed site access design in shown in **Drawing ITB10353-GA-102** (extract at **Image 4.3**) which presents the proposed roundabout design.

Image 4.3: Site Access Arrangement



4.4.9 No general vehicular access through the consented site to Brookers Lane is proposed.

4.4.10 Two locations for emergency access are identified, one south to Newgate Lane East through the consented development and one to Tukes Avenue utilising the established vehicular access to the site, both of which are proposed as pedestrian / cycle connections (Image 4.2). In both locations, lockable bollards would be provided (in line with LTN1/20) to prevent generally vehicular use, allow free movement by pedestrians and cyclists, and in the case of emergency and the unlikely event that access cannot be achieved at the Newgate Lane East roundabout, allowing access by emergency vehicles.

Pre-Application Design Review and Response

4.4.11 A Pre-Application Design Review (PADR) was submitted to HCC for their review of the proposed site access arrangement in December 2021. The PADR included all the necessary plans and drawings in accordance with HCC's checklist (June 2021), including:

- General Arrangement Drawings
- Swept Path Analysis
- Visibility Assessment, including vertical alignment assessment
- Deflection Drawings and Geometric Review

4.4.12 A copy of the PADR Submission report is provided in **Appendix L**.

4.4.13 HCC has provided its response to the PADR submission (**Appendix S**) which whilst confirming the scheme complies with DMRB design standards, and raising no substantive issues with the scheme, sought a revision to the design to remove the central island overrun area, primarily to reduce the future maintenance liability of the scheme.

4.4.14 The scheme has been amended to remove the central island overrun area achieved by:

- Increasing the size of the circulatory carriageway to 10m
- Increasing the size of the central island

4.4.15 The revisions to the scheme do not affect the size, position, or approach geometry of the roundabout. The scheme continues to comply design standards (DMRB CD116) in relation to entry path deflection and circulatory carriageway width, and swept path analysis of the scheme demonstrates that the junction can be safely navigated.

4.4.16 The scheme is presented on the following drawings:

- ITB10353-GA-102C – General Arrangement
- ITB10353-GA-104B – Entry Path Deflection
- ITB10353-GA-105A – Proposed Geometry
- ITB10353-GA-114C- Swept Path Analysis – 16.5m Articulated Vehicle
- ITB10353-GA-117B - Swept Path Analysis – Refuse Vehicle

4.4.17 The PADR Response also raised a number of other comments which are addressed below:

- **Visibility** – HCC consider that Forward Visibility (SSD) of 118m northbound and 122m southbound should be provided to reflect observed speeds, rather than the 120m presented.

  SSD has been based on the design speed of the road, 40mph. The roundabout would reduce existing speeds on Newgate Lane East. Nevertheless, SSD in line with the HCC recommendations can be achieved within the scheme.

- **Drainage** – HCC identifies that Ordinary Watercourse Consent will be needed in relation to the highway ditches and that the scheme will need to consider attenuation.

  The Drainage Design will be developed as part of the Section 278 process and OWC consent sough. There is adequate land available to achieve satisfactory drainage.

- **Abnormal Loads** – Newgate Lane is an abnormal load route. HCC note that the proposals would be unlikely to prohibit the passage of abnormal loads but seek clarification on vehicle types.

Hampshire Constabulary confirm that Newgate Lane is an abnormal load route but are unable to specify which vehicles may use the route. Irrespective, the scheme provides generous carriageway width along the scheme, with the narrowings created by the splitter islands being a minimum of 6m. This will allow the passage of abnormal load vehicles and is in excess of the width available at other points on Newgate Lane.

Road Safety Audit

4.4.18 The site access arrangement has been subject to an independent Stage 1 Road Safety Audit by Fenley Road Safety Limited. The full RSA report and Designer's Response is provided as part of the PADR Submission (**Appendix L)**. A summary of the RSA recommendations and the Designer's Response is provided in **Table 4.1**.

Table 4.1: RSA and Designer's Response Summary

Auditor Recommendation	Designer's Response	
It is recommended that an adequate amount of deflection is provided on each approach.	Agreed	The overrun area has been revised to provide a kerbed overrun area. This will provide a 25mm upstand and 150mm wide kerb. 1 in 12 return gradients to the central island with white lines and blacktop. The revised scheme is shown on Drawing ITB10353-GA-102 Rev A.
It is recommended that an adequate surface water drainage network is provided.	Agreed	Diversion and culverting of the existing highway drain subject to OWC consent and to be discussed and agreed with HCC at detailed design stage to ensure adequate water drainage network is provided. Drawing ITB10353-GA-102 Rev A illustrates the likely ditch diversion and culverting that is expected to be required.
It is recommended that the width and length of the two-lane approach is reduced.	Agreed	The design has been amended to reduce the width and the length of the two lane approach on the southern side of the roundabout, which is reflected on Drawing ITB10353-GA-102 Rev A, with revised geometries shown on Drawing ITB10353-GA-105 Rev A. Drawing ITB10353-GA-119 has been produced to demonstrate how two 16.5m articulated vehicles can travel side-by-side on the approach to the junction.
It is recommended that the keep left bollards are provided facing approaching traffic.	Agreed	Keep left bollards to be provided facing approaching traffic. Exact details to be discussed and agreed with HCC at detailed design stage.

Auditor Recommendation	Designer's Response	
It is recommended that dropped kerbs are provided to allow access to the field and the adjacent area of hard standing is adequate to accommodate the expected vehicles.	Agreed	The existing field access point on the western side of Newgate Lane East dropped kerb have been shown on revised Drawing ITB10353-GA-102 Rev A. On the eastern side, the existing field access is to be removed as part of the proposed development and therefore no provision has been made (the field benefits from a separate access some 50m south). This is reflected in the latest design drawing ITB10353-GA-102 Rev A.
It is recommended that chevron and one-way signs are provided on the central island.	Agreed	Chevron and one-way signs to be provided at detailed design stage.
It is recommended that the tactile paving extends for a minimum depth of 1200mm at crossing points that are inline.	Agreed	Tactile paving has been revised to provide 1200mm depth at crossing points identified. Drawing ITB10353-GA-102 Rev A has been updated to reflect these design changes.
It is recommended that the existing street lighting column is relocated outside the proposed footway	Agreed	Existing street lighting column to be relocated outside of the proposed footway. Final details to be discussed and agreed with HCC at detailed design stage.
It is recommended that the bus shelter is adjusted accordingly	Agreed	The existing bus stop (southbound) has been relocated to provide a minimum of 1.5m unobstructed footway between the bus stop and kerb edge. For the remainder of footway, there is a minimum of 2.0m. Drawing ITB10353-GA-103 Rev A has been updated to reflect these design changes.
It is recommended that the road markings are marginally relocated outside the uncontrolled pedestrian crossing.	Agreed	The road markings have been removed outside of the uncontrolled crossing and updated design presented in Drawing ITB10353-GA-102 Rev A.
It is recommended that the proposed roundabout junction is illuminated sufficiently.	Agreed	A lighting strategy will be discussed and agreed with HCC at detailed design stage.
It is recommended that the proposed roundabout and destinations are signed appropriately.	Agreed	The proposed roundabout and destinations will be signed appropriately. Exact details to be discussed and agreed with HCC at detailed design stage.

4.4.19 Within the RSA (**Appendix L**) the Road Safety Auditors confirm that in each case the Designers Response is accepted, such that there are no residual safety issues with the scheme.

4.4.20 In view of the minor amendments to the scheme to address the HCC PADR comments, essentially to remove the central island overrun area, the scheme has been reconsidered by the independent Road Safety Auditor (Fenley Road Safety). A letter from the Auditor is provided at **Appendix T** which confirms that the amendments to the scheme do not give rise to any further road safety issues.

Alternative Scheme with Toucan Crossing

4.4.21 As part of its pre-application comments (**Appendix B**) HCC identified that it is likely that a controlled (Toucan) crossing of Newgate Lane East would be required as part of the scheme.

4.4.22 An alternative scheme is therefore presented, shown on **Drawing ITB10353-GA-200** to demonstrate how this can be achieved in line with DMRB CD116 if necessary.

Operation of the Proposed Newgate Lane Roundabout

4.4.23 Detailed assessment of the expected operation of the Newgate Lane East roundabout has been carried out in line with the methodology explained in Section 6 and using TRL's Junctions 10 software. **Table 4.2** presents the assessment results considering the future year of 2028 and 2037, each assuming the full development is occupied.

Table 4.2 – Operation of Proposed Newgate Lane East Roundabout

Approach	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2028 with Committed Development plus Development						
Newgate Lane East (North)	0.42	<1	3	0.60	2	5
Site Access (East)	0.12	<1	3	0.06	<1	4
Newgate Lane East (South)	0.80	4	8	0.51	1	3
Newgate Lane (West)	0.13	<1	8	0.08	<1	4
2037 with Committed Development plus Development						
Newgate Lane East (North)	0.44	1	3	0.63	2	5
Site Access (East)	0.12	<1	4	0.06	<1	4
Newgate Lane East (South)	0.84	5	10	0.54	1	3
Newgate Lane (West)	0.15	<1	10	0.08	<1	4

4.4.24 The assessment demonstrates that the junction, in both 2028 and 2037, operates wholly within capacity in all time periods, with a Ratio of Flow to Capacity (RFC) on all arms of the junction below the design capacity (0.85 RFC). All arms of the proposed junction operate with a Level of Service rating of '**A – Free Flow**'.

4.4.25 Queuing on each arm is limited and average delays at the junction are restricted to under 10 seconds which is inconsequential and will have no material impact on the operation of Newgate Lane East.

4.4.26 In its pre-application comments HCC has raised concern about the potential impact of the delivery of the roundabout on the delay and journey times of users of Newgate Lane East, recognising the role that the road improvement is intended to fulfil.

4.4.27 This assessment demonstrates that the delivery of the roundabout would not have a significant impact on journey times, and the impacts would be far below a level that could be considered to represent a 'severe' impact, relative to the NPFP tests (para 111).

4.4.28 **Table 4.3** provides the assessment including a Toucan Crossing, included within the Junctions 10 model, and assuming one call each minute. This has no discernible impacts on the operation of the junction.

Table 4.3 –Operation of Proposed Newgate Lane East Roundabout with Toucan

Approach	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2037 with Committed Development plus Development						
Newgate Lane East (North)	0.51	1	4	0.72	3	8
Site Access (East)	0.12	<1	4	0.06	<1	4
Newgate Lane East (South)	0.84	5	10	0.54	1	3
Newgate Lane (West)	0.15	<1	10	0.08	<1	4

4.4.29 In practical terms the scheme will represents a significant improvement to the existing junction of Newgate Lane / Newgate Lane East. The existing junction is formed of a ghost island priority arrangement. The heavy traffic flows on Newgate Lane East make egress from Newgate Lane very difficult, with often significant delays and drivers having to sometimes accept tight and compromised gaps in traffic to emerge.

4.4.30 To consider this in context, an assessment has been undertaken of the existing Newgate Lane / Newgate Lane East priority junction to understand how the junction will operate during a 2028 future year scenario (considering the introduction of the Stubbington Bypass), but without the proposed development coming forward. The assessment is summarised in **Table 4.4.**

Table 4.4: Existing Newgate Lane / Newgate Lane East Priority Junction

Approach	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2028 with Committed Development (DS2)						
Newgate Lane (Turn Left)	99999*	12	1466	0.07	<1	10
Newgate Lane (Turn Right)	99999*	15	1551	0.25	<1	50
Newgate Lane East	0.09	<1	15	0.04	<1	8

Source: Junctions 10

* = RFC of 9999999999.0

4.4.31 The assessment demonstrates that the existing priority junction will operate far over capacity during the morning peak period with extensive delays on the minor arm.

4.4.32 Based on this assessment it would be very difficult for vehicles to navigate from Newgate Lane in the AM peak period, which would be likely to lead to safety concerns. These would be resolved by the delivery of the proposed roundabout.

4.4.33 It is also relevant that as part of the recently dismissed appeals for development to the west of Newgate Lane East (application refs: P/18/1118/OA and P/19/0460/OA) a signalised junction was proposed to replace the existing Newgate Lane / Newgate Lane East priority junction due to capacity constraints. Whilst ultimately this was dismissed including in relation to safety issues with the proposed signal junction, HCC did agree that the traffic impacts at the junction would be acceptable. The agreed assessment is summarised in **Table 4.5**.

Table 4.5: Newgate Lane / Newgate Lane East Modelling Summary

Approach	Morning Peak Period		
	DoS (%)	MMQ (Vehicles)	Av. Delay (Sec)
2024 with Committed Development and Development (DS2)			
Newgate Lane East (South)	90.0%	21	12
Newgate Lane	71.6%	4	86
Newgate Lane East (North)	80.0%	5	7

Source: report ref: FL&BH 3.4

4.4.34 This scheme, which in traffic terms was acceptable to HCC would have operated with delays on Newgate Lane East of 7-12 seconds. This is highly comparable to the proposed operation of the roundabout proposed as part of this application. However, the roundabout improvement would ensure far improved operation for the minor arm (Newgate Lane) than would have been achieved by the traffic signal improvement.

4.5 Site Layout and Parking Provision

4.5.1 The application is for outline consent only and matters of layout and parking will be determined at the Reserved Matters stage, in the event consent is granted. The following sections outline the principles that will be applied.

Site Layout

4.5.2 The site's internal road layout will be designed in accordance with contemporary design guidance, namely the Department for Transport's (DfT) 'Manual for Street' (MfS) and 'Manual for Street 2' (MfS2), and is generally anticipated to adopt the following principles:

- ***Main Streets*** – minimum 5.5m carriageway with 2.0m footway or 3.0m cycleway on the primary routes through the development;
- ***Secondary Streets*** – 5.0m streets with generally 2.0m footways adjacent;
- ***Shared Surface Streets*** – Circa 5.0m wide streets on secondary routes through the development, where provision is for pedestrians is on-carriageway; and
- ***Private Driveways / Mews / Courtyard Squares*** – narrower shared surface areas (4.1m – 4.8m) where refuse vehicles do not need to enter.

4.5.3 MfS recommends that residential developments should be designed to achieve a design speed of 20mph or less. Therefore, in line with MfS, the layout will be designed to encourage low traffic speeds and to achieve speeds of no more than 20mph. This will be achieved through sinuous road alignment, which incorporates regularly spaced speed control bends, horizontal alignment changes, and reduced forward visibility.

4.5.4 The suitability of the internal road layout, including junction and forward visibility assessments and swept path analysis to demonstrate service vehicles, refuse vehicles and fire tenders can manoeuvre safely within the site and in accordance with the relevant standards will be assessed during a Reserved Matters planning application at later stages.

Parking Provision

4.5.5 This TA supports an Outline planning application, and it is only at the future Reserved Matters stage that the detail and mix of the development will be confirmed. As such, the quantum and nature of parking provision cannot be identified in detail at this stage.

4.5.6 FBC's 'Residential Car & Cycle Parking Standards SPD' (2009) sets out the currently adopted car and cycle parking standards applicable to the site. These standards are provided in **Table 4.6**.

Table 4.6: FBC Car and Cycle Parking Standards

Dwelling Type	Car Parking		Cycle Parking	
	Allocated	Unallocated	Individual Storage	Communal Storage
1 bedroom dwelling	1	0.75	1	1
2 bedroom dwelling	2	1.25	2	1
3 bedroom dwelling	2	1.75	2	1
4 bedroom dwelling	3	2.25	2	1

Source: FBC Residential Car and Cycle Parking Standards

4.5.7 Whilst the detail of parking provision cannot be determined, the following are identified:

- Car and cycle parking to be provided in accordance with the local parking standards at the time for Reserved Matters applications;
- Cycle parking for the proposed houses will be provided in garages, or in sheds in back gardens, and cycle parking will be provided in covered and secured communal areas for apartments;
- Dimensions of parking spaces and garages to be provided in accordance with the local parking standards at the time of reserved matters applications;
- Parking to be generally provided within curtilage of individual dwellings and within communal parking areas for apartments;
- A proportion of parking will be unallocated to provide for efficient use;
- Proportion of parking to have active and passive electric charging provision will be agreed and provided accordingly; and
- Well-designed on-street visitor parking will be provided in dedicated lay-bays.

SECTION 5 Accessibility

5.1.1 This section of the TA provides a review of the accessibility of the proposed development by walking, cycling and public transport to local services and facilities, including employment, leisure and retail.

5.2 Journey Purpose

5.2.1 In considering accessibility and promoting sustainable travel it is important to consider the reasons why future residents of the Proposed Development will make journeys.

5.2.2 The Department for Transport's (DfT) National Travel Survey identifies the proportion of all trips by purpose as set out in **Table 5.1**.

Table 5.1: Proportion of Trips per Year by Journey Purpose

Journey Purpose	Proportion of Trips
Leisure	26%
Shopping	19%
Commuting/Business	18%
Education/Escort Education	13%
Personal Business	9%
Other Escort	9%
Other (Including Just Walk)	6%

Source: Table NTS0409 Average number of trips by purpose and main mode: England NTS – 2019 Edition

5.2.3 **Table 5.1** demonstrates that trips are made up of a number of different journey purposes, and each type of journey will have different requirements in terms of destination, time constraints and route choice.

5.2.4 This TA therefore considers the opportunities to access local facilities and services by a choice of transport modes.

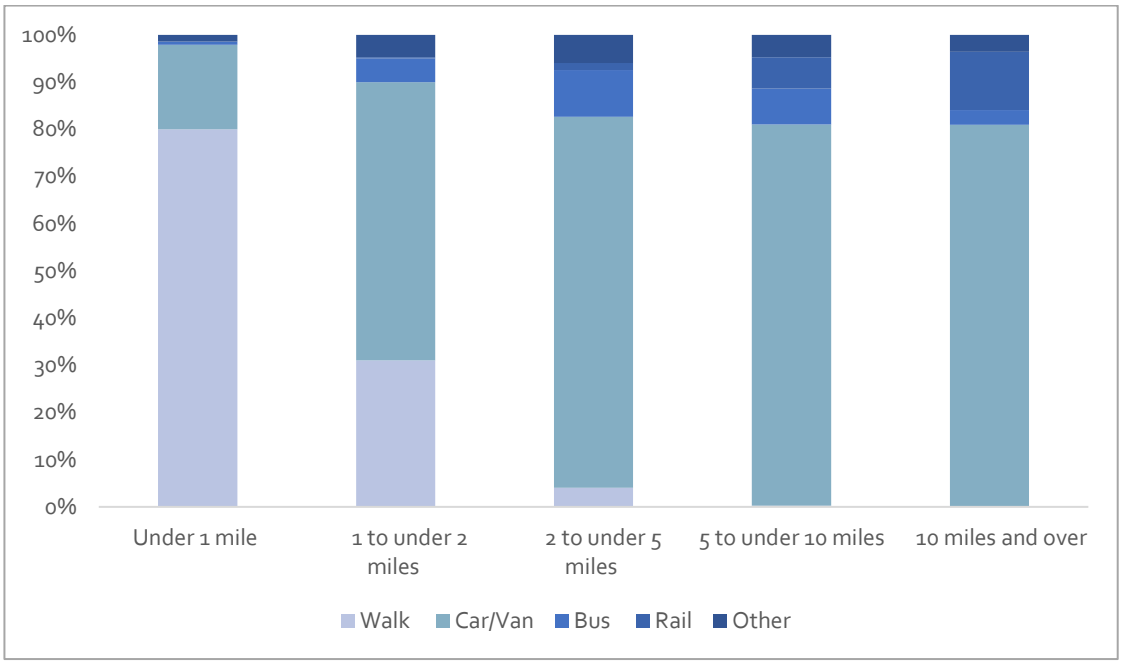
5.3 Walking Distances

5.3.1 The DfT's Manual for Streets identifies a distance of 800m as comprising a 'walkable neighbourhood', which will be comfortably walked by many people, but notes that this is not an upper limit, and a distance of 2km offers the greatest potential to replace car trips:

"4.4.1 Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800 m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPS134 states that walking offers the greatest potential to replace short car trips, particularly those under 2 km."

5.3.2 The National Travel Survey (NTS) 2019 identifies the mode share of journeys of different lengths (**Image 5.1**). The vast majority (80%) of trips are undertaken on foot for journeys up to one mile, whilst walking accounts for some 31% of all trips between 1 and under 2 miles (circa 1.6km – 3.2km). Walking trips fall away beyond 2 miles, with journeys of between 2 and 4 miles equating to approximately 4% of all trips.

Image 5.1: Mode Share of Trips by Main Mode for Different Trip Lengths: England



Source: National Travel Survey: England 2019

5.3.3 The one-mile (1.6km) distance is reflected in the Chartered Institution of Highways and Transportation (CIHT) guidance 'Planning for Walking' (2015) which states:

"Across Britain, approximately 80% of journeys shorter than 1 mile are made wholly on foot – something that has changed little in 30 years. The main reason for the decline in walking is the fall in the total number of journeys shorter than 1 mile, which has halved in thirty years. It is not that people are less likely to make short journeys on foot but rather that fewer of the journeys they make can be accomplished on foot. If destinations are within walking distance, people are more likely to walk if walking is safe and comfortable and the environment is attractive."

5.3.4 Therefore, facilities and services within one mile (1.6km) will provide the greatest opportunity for trips to be made by walking.

5.3.5 That is not to say that one mile (1.6km) is the maximum that people are prepared to walk, or that development must be located within a mile of everything as it is clear from the NTS data that around one-third of journeys between one and two miles are undertaken on foot. In addition, the Manual for Streets notes that walking offers the greatest potential to replace car trips, particularly those under 2km.

5.3.6 Against this background, the following walking distances are identified:

- 800m – A comfortable walking distance
- 1,600m - a distance where most people (circa 80%) will walk;
- 2,000m – a distance which offers "*the greatest potential to replace short car trips*"
- 3,200m – i.e. the distance within which a significant proportion (circa one-third) of journeys will be on foot.

5.3.7 **Figure 2** and **Table 5.2** demonstrate that there is a very good variety of local services and facilities within a walking distance of the Site including significant employment, primary and secondary schools, retail, leisure facilities and health care.

5.4 Cycling Distances

5.4.1 The Department for Transport's Cycling and Walking Investment Strategy (2017) states at paragraph 1.16 that:

> ***"… there is significant potential for change in travel behaviour. Two out of every three personal trips are within five miles - an achievable distance to cycle for most people, with many shorter journeys also suitable for walking. For school children, the opportunities are even greater. Three quarters of children live within a 15 minute cycle ride of a secondary school, while more than 90% live within a 15 minute walk or bus journey from a primary school."***

5.4.2 The DfT's Gear Change A bold vision for cycling and walking states (page 11) that:

> ***In particular, there are many shorter journeys that could be shifted from cars, to walking, or cycling. We want to see a future where half of all journeys in towns and cities are cycled or walked. 58% of car journeys in 2018 were under 5 miles. And in urban areas, more than 40% of journeys were under 2 miles in 2017–1817. For many people, these journeys are perfectly suited to cycling and walking.***

5.4.3 Paragraph 2.2.2 of the DfT Document LTN 01/20 'Cycle Infrastructure Design' discusses typical cycle trip distances and states that ***"Two out of every three personal trips are less than five miles (8km) in length –an achievable distance to cycle for most people, with many shorter journeys also suitable for walking"***.

5.4.4 Based on the guidance, 8km (5 miles) considered to be a reasonable cycle distance.

5.5 Key Destinations

5.5.1 An assessment of the proximity of the site to local facilities has been carried out, account for potential pedestrian / cycle access points, which is presented **Table 5.2** and on **Figure 2**.

Table 5.2: Local Facilities and Services

Purpose	Destination	Distance (m)	Walking Journey Time	Cycling Journey Time
Employment	HMS Collingwood	760	9	3
	Speedfields Park Retail Area	810	10	3
	Collingwood Retail Park	1210	14	5
	Fareham Business Park	1265	15	5
	Newgate Lane Industrial Estate	1460	17	5
	Solent Enterprises Zone	2215	26	8
	Vector Aerospace	2265	27	8
	Frater Gate Business Park	2465	29	9
	Gosport Business Centre	2565	31	10
Education	Woodcot Primary School	285	3	1
	Peel Common Junior School	920	11	3
	Peel Common Nursery	950	11	4
	Holbrook Primary School	1115	13	4
	Badger Pre-School	1365	16	5
	Bridgemary School	1565	19	6
	Baycroft School	2415	29	9
	Crofton Secondary School	2515	30	9
	Fareham Academy	2660	32	10
	Wallisdean County Junior School	3160	38	12
	Wallisdean Infant School	3460	41	13
	Crofton Anne Dale Infant School	3750	45	14
	Crofton Anne Dale Junior School	4015	48	15
Retail	Speedfields Park	810	10	3
	Tukes Avenue Shops	865	10	3
	Nobes Avenue Local Centre	1115	13	4
	Collingwood Retail Park	1210	14	5
	Carisbrooke Precinct	1450	17	5
	Brewers Lane Stores	1950	23	7

Purpose	Destination	Distance (m)	Walking Journey Time	Cycling Journey Time
	Stubbington Village Centre	3115	37	12
Leisure	Brookers Field Recreation Ground	750	9	3
	Fleetlands Football Club	1265	15	5
	Carisbrooke Arms Public House	1350	16	5
	Fleetlands Golf Club	1465	17	5
	Bridgemary Park	1765	21	7
	Bridgemary Library	1865	22	7
	Lee-On-The-Solent Golf Club	1950	23	7
	Gosport Leisure Centre	3065	36	11
Healthcare	Bridgemary Medical Centre	1065	13	4
	Fareham Road Surgery	1070	13	4
	Rowner Health Care	2350	28	9

Source: Consultant measurements (centre of site) and calculations

5.5.2 The analysis demonstrates that the site benefits from its location close to a wide range of local services and facilities that are located within a reasonable walking distance and a comfortable cycling distance. On this basis, the proposed development complies with the NPPF in this regard and that in transport and highway terms the site can be considered a sustainable development.

5.5.3 This is consistent with the findings of the Appeal Inspector who considered the development at Brookers Lane to the south (APP/J1725/W/20/3265860), concluding that:

> ***51. The appeals development would bring a range of benefits, most notably the delivery of a reasonably substantial amount of housing in an accessible location with good access to a range of services and facilities. In the context of the area's current issues with housing delivery, the benefits together carry, at the least, considerable weight in favour of the appeals development.***

5.5.4 The application site adjoins the consented site and benefits from the same accessibility to local services and facilities as the Brookes Lane development. Indeed, the access strategy for the application, with improved access north and east means that the application site offers enhanced connectivity and accessibility.

5.6 Pedestrian and Cycle Demands and Route Choice

5.6.1 An assessment has been undertaken to estimate future pedestrian and cycle demand and distribution / routing from the centre of the site to the local destinations identified in **Table 5.1** and towards public transport links.

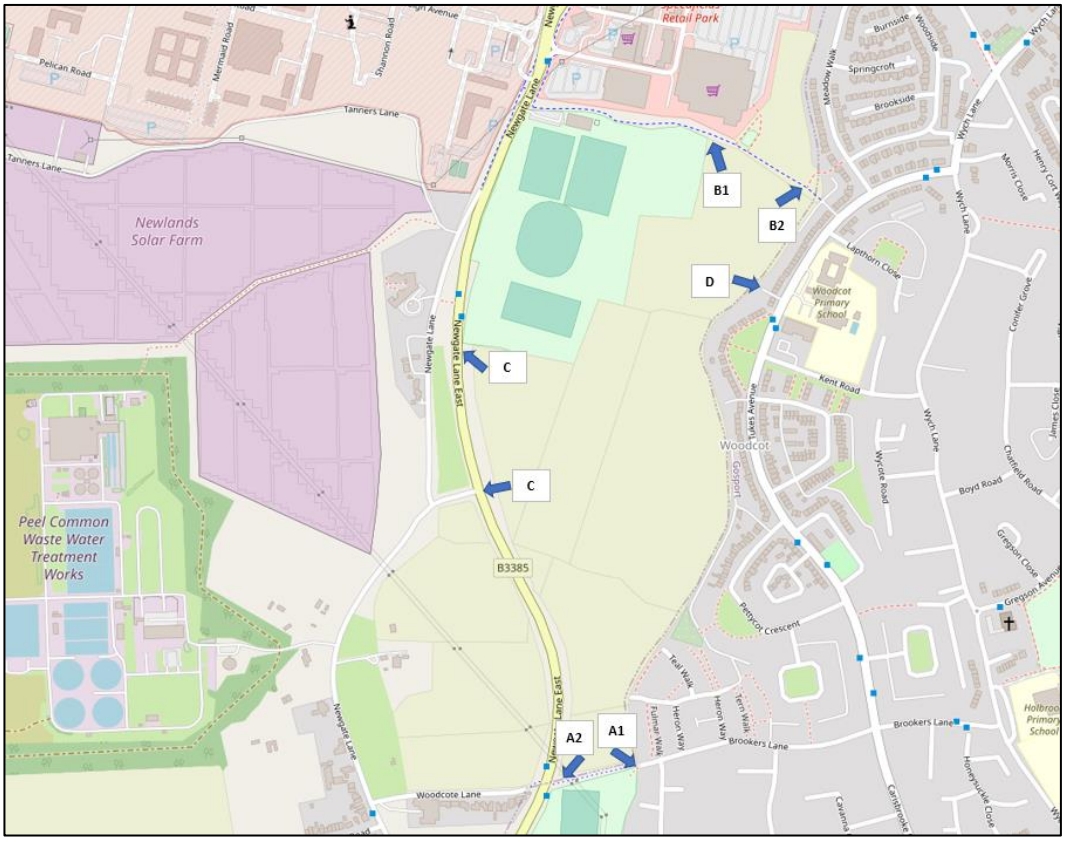
5.6.2 The assessment is presented in **Appendix M** and has applied the following methodology:

- Determine the population of the development and estimate pedestrian / cycle demand using NTS and Census 2011; (validated by considering TRICS MM Data)
- Identify the journey purpose of development trips;
- Identify the potential walking and cycling routes to the site to key facilities;
- Measure the distance from the site using each access point; and
- Estimate likely route choice taking account of trip purpose) and route distance.

5.6.3 The potential routes used within the assessment are consistent with the potential pedestrian and cycle accesses identified in Section 4 of this TA, and comprise the following (**Image 5.2)**:

- Route A1: Brookers Lane / Route A2: Woodcot Lane via Brookers Lane;
- Route B1: PROW (Western End) / Route B2: PROW (Eastern End);
- Route C: Newgate Lane East; and
- Route D: Tukes Avenue.

Image 5.2: Potential Walking and Cycling Routes:



Source: Open Street Map

5.6.4 The results of the assessment are presented in **Table 5.3** and **Appendix M.**

Table 5.3: Pedestrian and Cycle Assignment (12 Hour)

	Route A1 Brookers Lane	Route A2 Woodcot Lane	Route B1 PROW (West End)	Route B2 PROW (East End)	Route C Newgate Lane East	Route D Tukes Avenue	Total Trips
Walking Trips	204	52	44	109	35	291	735
Cycle Trips	7	3	4	8	4	17	42
Total Trips	211	54	48	117	39	307	777
% Trips	27%	7%	6%	15%	5%	40%	100%

5.6.5 The assessment demonstrates the majority of the pedestrian and cycle movements generated by the site will route east towards Bridgemary via Tukes Avenue (40%), Brookers Lane (27%) and the to the footway / cycleway forming the northern boundary of the site. (21%). Some 7% of demand is expected to cross Newgate Lane East at Brookers Lane and 5% to cross Newgate Lane East at the proposed site access.

5.6.6 Considering the profile of these movements across the day (using the pedestrian and cycle demand profiles provided by TRICS), **Table 5.4** demonstrates expected demands.

Table 5.4: Pedestrian and Cycle Assignment – Daily Profile

	Route A1 Brookers Lane	Route A2 Woodcot Lane	Route B1 PROW (West End)	Route B2 PROW (East End)	Route C Newgate Lane East	Route D Tukes Avenue	Total Trips
07:00	9	2	2	5	2	14	34
08:00	27	7	6	15	5	39	99
09:00	16	4	4	9	3	23	59
10:00	15	4	3	8	3	22	55
11:00	13	3	3	7	2	19	47
12:00	13	3	3	7	2	19	47
13:00	10	3	2	6	2	15	38
14:00	17	4	4	9	3	25	62
15:00	28	7	6	16	5	41	103
16:00	19	5	4	11	4	28	71
17:00	22	6	5	12	4	32	81
18:00	20	5	5	11	4	29	74
Total	211	54	48	117	39	307	776

Routing Across Newgate Lane East

5.6.7 **Table 5.2** shows circa 5% (39 trips) of total pedestrian and cycle trips will utilise the Newgate Lane East access points to route towards their destination. Of these 39 daily trips, 9 route north towards the Newgate Lane East bus stop (Table 10 in **Appendix M**) leaving 30 daily movements across Newgate Lane East routing towards the Old Newgate Lane link. This equates to around two to three pedestrian / cycle movements per hour on average (one pedestrian movement every 20 to 30 minutes). In view of the limited demand, it is considered that the proposed access design which provides refuge island crossing facilities to the north of the junction (**Drawing ITB10353-GA-102**) is appropriate, and that there is insufficient demand for the provision of a Toucan Crossing. Notwithstanding this, **Drawing ITB10353-GA-200** demonstrates that this can be achieved if required.

5.6.8 An alternative route to the west of Newgate Lane East is via the pedestrian crossing at Woodcot Lane. **Table 5.2** demonstrates that 7% (54 trips) route via this link which equates to around four to five pedestrian / cycle movements per hour on average (one pedestrian movement every 15 to 20 minutes).

5.6.9 A financial contribution of £78,160 was secured by HCC as part of the recently consented Brookers Lane development (Appeal Ref. APP/J1725/W/20/3265860 and APP/A1720/W/21/3269030 – P/19/1260/OA) to upgrade the existing crossing across Newgate Lane towards Woodcot Lane. As part of the pre-application process, HCC advised the potential improvement to the crossing could involve the introduction of a Toucan Crossing to assist pedestrians and cyclists across the carriageway. The remainder of the funding (50%) was to be secured from the dismissed appeals west of Newgate Lane East, so is not secured.

5.6.10 The applicants are prepared to provide the remaining funding to deliver the crossing. This would be secured through the Section 106 Agreement.

5.7 Suitability of Walking and Cycling Routes

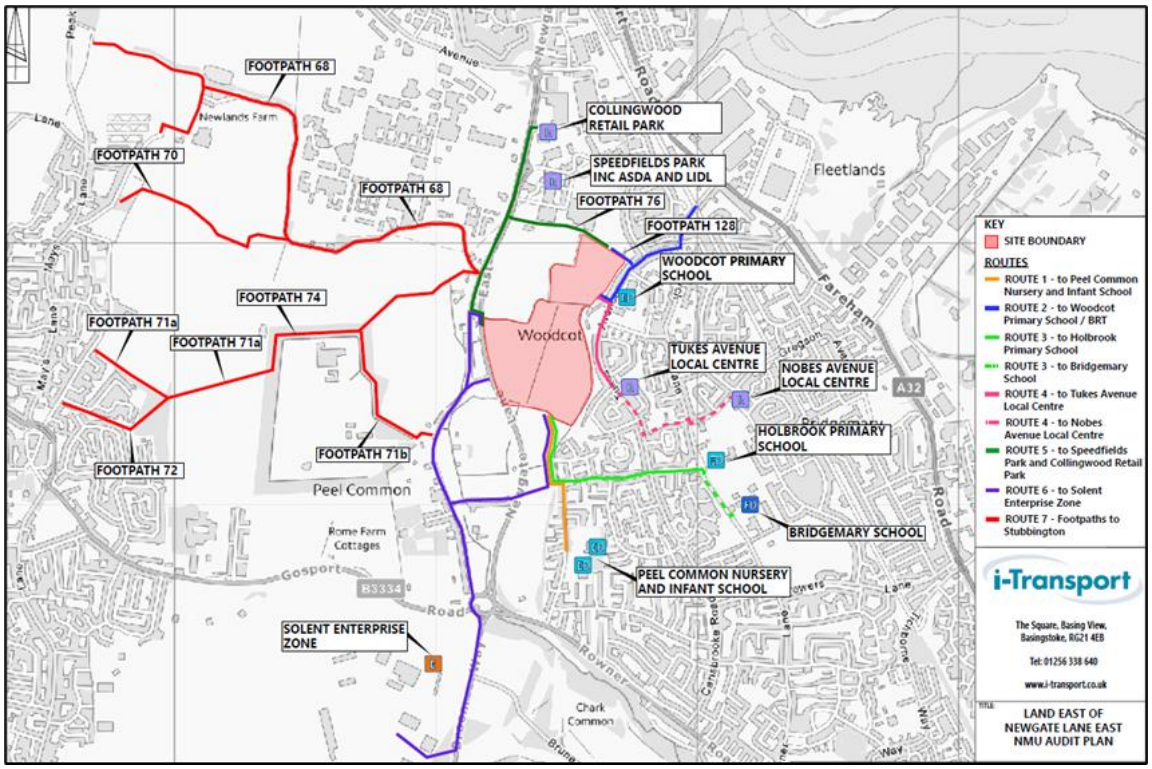
5.7.1 It has been identified in Section 3 that the site is well located to a good quality pedestrian and cycle network.

5.7.2 As part of the Bargate Homes consented development at Brookers Lane (application ref: 19/00516/OUT) a number of pedestrian / cycle infrastructure improvements have been identified to key local destinations, with either financial contributions agreed with HCC or improvements to be directly implemented by the scheme.

5.7.3 In addition to this, an assessment (WCHAR) has been undertaken to identify if any measures can be provided to enhance by the proposed development to further enhance the local pedestrian and cycle network. The routes that were considered in the WCHAR and associated Pedestrian and Cycle Audit are described below and are illustrated in **Image 5.3**.

- Route 1 – To Peel Common Nursery and Infant School;
- Route 2 – To Woodcot Primary School / BRT;
- Route 3 – To Holbrook Primary School and Bridgemary School;
- Route 4 – To Tukes Avenue and Nobes Avenue Local Centres;
- Route 5 – To Speedfields Park and Collingwood Retail Park;
- Route 6 – To Solent Enterprise Zone; and
- Route 7 – Footpaths to Stubbington.

Image 5.3: Assessed Routes



Source: i-Transport

5.7.4 The assessment is based on various site visits undertaken in October 2021 and January 2022 and has been undertaken with reference to the five core principles (convenience, accessibility, safety, comfort and attractiveness), common to both pedestrians and cyclists, as identified within the Department for Transport's (DfT) Local Transport Note (LTN) 1/04 'Policy, Planning and Design for Walking and Cycling' (2004), The WCHAR was also completed in accordance with HCC's TG19 Guidance note.

5.7.5 The assessment identified that, due to the existing urban location, the local infrastructure generally meets these key principles common to both pedestrians and cyclists. However, the WCHAR / NMU Audit also identified various further improvements that could be delivered to enhance the local accessibility and availability of these routes.

5.7.6 i-Transport **Drawing ITB10353-GA-300-315** illustrates these potential improvements along each of the audited routes. For ease of reference and to present a comprehensive picture of accessibility, these drawings show the committed improvements proposed as part of Brookers Lane as well as the improvements identified this application.

5.8 Public Transport Opportunities

5.8.1 As set out in Section 3, the site is well located to existing bus stops on Tukes Avenue (circa 350m east of the site), Newgate Lane East (north of site boundary) and Henry Court Way (930m north-east of the site). These stops are serviced by regular bus services to destinations such as Gosport and Fareham.

5.8.2 Each of these bus stops is already provided with bus shelters, various real time information systems and other waiting facilities.

5.8.3 Fareham rail station is located around 3.5km north from the site and is accessible via bus routes 9, 21 and the BRT. This station offers services to destinations such as Portsmouth, Southampton, and London.

5.8.4 The development proposal will connect the site to the existing footway network within Bridgemary towards Tukes Avenue to the east and to Newgate Lane East to the west. This offers a realistic opportunity for pedestrians to walk (or cycle) to the existing bus stops to travel to destinations further afield.

5.9 Framework Travel Plan

5.9.1 A Framework Travel Plan (FTP) has been prepared to support the planning application. As previously set out, the FTP demonstrates that the site is located in an accessible location, with genuine opportunities to make journeys on foot, by cycle and by public transport.

5.9.2 The FTP has been prepared alongside the TA and in accordance with HCC's travel plan guidance document '*Guidance on Development Related Travel Plans*' (January 2009) and the NPPG.

5.9.3 The FTP focuses on promoting sustainable lifestyles amongst new residents and visitors at the site, through the need for travel by private car, providing non-car mode travel options for local journeys and influencing modal choice.

5.9.4 Specific targets are set out in the FTP for the reduction in the peak hour and daily traffic generation of the site, this will be a 10% reduction on the estimated traffic generation of the proposal. It also sets out a range of measures in order to achieve this reduction.

5.10 Sustainable Transport Strategy

5.10.1 The site is located within a reasonable walking and cycling distance of a good range of everyday facilities. High-frequency bus services are also accessible to the site to provide connections to destinations further afield. Overall, there are a number of realistic and viable transport choices available to future residents of the site. The site is in a sustainable location.

5.10.2 To ensure these opportunities are taken up in line with the NPPF and local policy requirements, a 'Sustainable Transport Strategy' has been developed. The strategy will be delivered through the Framework Travel Plan.

5.10.3 The overarching aims of the Strategy are:

- To reduce the number of car journeys to the site; and
- To improve accessibility to the site by non-car modes of transport and thereby encourage the use of other travel modes.

5.10.4 The key target of the Framework Travel Plan is:

"To reduce the number of vehicle trips to and from the site over a 12-hour weekday by 10% from the baseline position by year five."

5.10.5 To deliver these aims and targets, the Strategy seeks to:

- Reduce the need to travel;
- Promote walking and cycling for short-medium distance journeys;
- Promote public transport use for medium to long distance journeys; and
- Encourage car sharing.

5.10.6 A combination of 'hard' (infrastructure led) and 'soft' (promotion and incentive based) measures are identified to promote and incentivise sustainable travel choices where it is realistic to do so. The FTP identifies a delivery and management strategy for these measures and commits to future monitoring of the success of the travel plan.

5.10.7 An Action Plan is provided in **Table 5.5** which summarises the comprehensive package of measures proposed to be delivered to encourage sustainable access to and from the site. Further detail is provided within the FTP that accompanies this TA.

Table 5.5: Sustainable Transport Strategy

Objective	Measure	Timescale
Cross-Objective	Develop and maintain community website	Prior to Occupation
	Prepare and distribute Travel Welcome Packs	Prior to Occupation
	Provision of EV Car Charging facilities	Phased with Development
Reduce the Need to Travel	Deliver connections to broadband network	Phased with Development
Promotion of Walking and cycling	Provision of walking and cycling maps	Prior to Occupation
	Pedestrian / cycleway connection to Tukes Avenue alongside improvement of the Service Road connection	Phased with Development
	Pedestrian / Cycle connections to the PROW network north of the site and to Brookers Ln	Phased with Development
	Provision of footway and cycleway connections to Newgate Lane	Phased with Development
	Contribution towards the provision of a Toucan Crossing on Newgate Lane	Phased with Development
	Improvement of Public Footpath network	Phased with Development
	Provision of tactile paving along key walking routes	Phased with Development
	Improved internal connections between Newgate Lane, Brookers Lane and Tukes Avenue	Phased with Development
	Delivery of MfS layout – interconnecting streets, shared streets and home zones	Phased with Development
	Offer of a £50 travel voucher to each dwelling for cycle equipment purchase	On Occupation
	Provision of cycle storage within each unit	Phased with Development
Promotion of Public Transport	Negotiation of Bus Taster Ticket with local operators	On Occupation
Encourage Car Sharing	Promotion of car sharing schemes through https://hants.liftshare.com/	Prior to Occupation
Management		
Appoint a Travel Plan Coordinator		Three months prior to Occupation – retained for five years from occupation
Training of sales team about the Travel Plan		Training as part of induction process.
Production of Sales Stage Travel Packs		To be developed before 1st occupation.
Develop Full Travel Plan		One year after Occupation
Monitoring		
Traffic Surveys at site access / connections		Year one, three and five
Travel Questionnaires		Annually (for five years)
Monitoring Report		Year one, three and five

5.11 Summary

5.11.1 The site benefits from its location close to and well connected to a wide range of local services and facilities, which future residents of the proposed development will visit on a regular basis.

5.11.2 Future residents of the proposed development will have the opportunity to access a range of everyday destinations by a choice of different travel modes.

5.11.3 Walking is a realistic mode of travel to and from the site. The access strategy provides a permeable and connected development with connections to the north, south, east, and west to reduce travel distance. A significant proportion of travel from the site can be expected to be made on foot to reach local facilities and services.

5.11.4 Additionally, many facilities and services are located are within a reasonable cycle distance from the site. The site provides direct connections to the cycle network to the north, west and south of the site, and to the east onto signed and appropriate roads. The development will facilitate safe and easy cycling in the site and to surrounding routes.

5.11.5 Frequent and regular bus services operate within the local area, with the Services 9/9A and the BRT particularly attractive to future residents and providing direct and frequent access to Fareham, Gosport, and the wider area.

5.11.6 A Sustainable Transport Strategy has been developed which will be delivered through the Framework Travel Plan. This identifies opportunities for the effective promotion and delivery of sustainable transport initiatives e.g. walking, cycling, public transport to reduce the demand for travel by less sustainable modes.

5.11.7 Future residents therefore have the opportunity to access a range of destinations by a genuine choice of sustainable transport modes. The proposed development is located where the need to travel will be minimised and, through the Framework Travel Plan, the use of sustainable transport modes can be maximised.

5.11.8 In line with the NPPF requirements and local plan requirements (CS5 / DSP40), it is therefore demonstrated that the opportunities for sustainable travel can be and have been taken up.

SECTION 6 Traffic Impact

6.1.1 This section of the TA establishes the likely traffic generation of the proposed development and then assesses the expected vehicular traffic impact on the local highway network.

6.2 Baseline Conditions

6.2.1 Baseline traffic data was obtained in 2019 for the local highway network within the vicinity of the site. Through pre-application discussions with HCC (**Appendix B**) it was agreed that this data remains acceptable for use.

6.2.2 As the Stubbington Bypass is currently under construction, the 2019 data does not represent the likely traffic redistribution on the local highway network that will occur when the bypass opens, improving connectivity form the peninsula towards the A27 and M27 networks. On this basis, these 2019 baseline traffic flows were adjusted using the same agreed methodology that was applied for the Land at Newgate Lane South application (application ref: P/19/0460/OA).

6.2.3 The agreed approach used the traffic data from the Newgate Lane Southern Section (NGLS) TA which presents existing traffic conditions on the highway network (DS1 = Without Stubbington Bypass) along with expected traffic conditions when Stubbington Bypass opens (DS2 = With Stubbington Bypass), based on SRTM assessment. The DS2 2019 baseline traffic flows are calculated based on the percentage difference between the NGLS DS1 and the NGLS DS2 scenarios. The calculation is presented in **Image 6.1** and the converted 2019 baseline traffic flows are presented in **Appendix G**. The DS2 traffic flows are illustrated on **Figures TF3-4**.

Image 6.1: Stubbington Bypass Conversation Calculation

Step 1:	NGLS DS2 Traffic Flows	÷	NGLS DS1 Traffic Flows	=	Proportion Factor (%)	
Step 2:	2019 Observed Traffic Flows (DS1)	x	Proportion Factor (%)	=	2019 Observed Traffic Flows (DS2)	

6.3 Proposed Development Trip Generation

6.3.1 The proposed development will comprise a mix of private (60%) and affordable dwellings (40%). Some dwellings will be provided as apartments across the development, albeit the precise mix of development is not to be determined at this stage.

6.3.2 Flatted development generates less traffic than houses, with a lower household occupancy. Similarly, affordable dwellings generally also result in lower peak hour travel demands than private tenure housing.

6.3.3 However, to provide a robust assessment it has been assumed that all dwellings will be houses which inherently generate higher peak period vehicular trips. Following discussions with HCC during the pre-application stage, it has also been assumed all dwellings will be privately owned. This will result in a higher peak period vehicular trip generation than is likely to ultimately exist, and therefore provides a further level of robustness.

6.3.4 The vehicular trip rates for the proposed development have been derived from the TRICS database and are presented in **Appendix N**. The following parameters have been used to derive representative vehicular trip rates:

- Private Housing Only:
  - Regions – all of England (except Greater London);
  - Range – 100 to 700 dwellings;
  - Time Period – surveys for the last nine years;
  - Location – Suburban / Edge of Town locations only, excluding town centre and edge of town centre sites; and
  - Date relevance – surveys undertaken during a week-day only.

6.3.5 The proposed trip rates and associated vehicular trip generation is summarised in **Table 6.1**.

Table 6.1: Proposed Development Vehicular Trip Generation

Time	Morning Peak			Evening Peak		
	In	Out	Total	In	Out	Total
Vehicular Trip Rate (per dwelling)	0.131	0.382	0.513	0.361	0.156	0.517
Vehicular Trips (375 dwellings)	49	143	192	135	59	194

6.3.6 The proposed development is anticipated to generate 192 to 194 two-way vehicle movements during the peak periods. This equates to an average of three additional vehicle movements each minute during the morning and evening peak hours.

6.4 Traffic Distribution and Assignment

6.4.1 The distribution of development traffic has been undertaken using the following methodology, and in line with the distribution and assignment model in **Appendix O**:

- The distribution of employment trips based on the likely employment destinations for local residents identified through the 2011 Census Journey to Work dataset; and
- The distribution of all other purpose peak hour vehicle trips estimated in accordance with a gravity model produced specifically for this location.

6.4.2 The likely journey purpose for the generated car driver peak hour trips has been determined using the TEMPRO database journey purpose split for Gosport 001 and Fareham 013 MSOA's. This dataset is included at **Appendix P** and provides total "home based" and "non home based" trips for all potential journey purposes. To summarise, the TEMPRO assessment provided the following journey purpose splits which are used in the development distribution model:

- Employment: 50.4% (HB and NHB Work and Employers Business)
- Non-Employment: 49.6% (HB and NHB Education, Shopping, Personal Business, Recreation / Social, Visiting Friends and Relatives, Holiday / Day Trip)

Employment Journeys

6.4.3 Travel to Work data contained within the 2011 Census has been reviewed to identify the likely destinations for employment journeys. The data for the residents of Gosport 001 and Fareham 013 mid-layer super output areas (MSOA) has been used, which comprises the proposed development site and the surrounding residential area. The analysis is summarised in **Table 6.2**.

Table 6.2: Summary of Work Trips Distribution (Travel by Car)

Destination	Percentage of Trips to Work	Percentage of All Trips
Portsmouth	7.79%	15.45%
Fareham	6.04%	11.97%
Winchester	4.32%	8.56%
Swanwick	3.92%	7.79%
Stubbington	3.46%	6.87%
Eastleigh	2.83%	5.61%
Gosport	2.59%	5.13%
Southampton	2.51%	4.98%
Bridgemary	2.39%	4.75%
Havant	1.89%	3.75%
Brockhurst	1.37%	2.71%
Clayhall	1.10%	2.19%
Lee-on-the-Solent	0.90%	1.79%
Holbrook	0.79%	1.56%
Titchfield	0.67%	1.32%
Rowner	0.64%	1.28%
Privett	0.64%	1.28%
Catisfield	0.48%	0.96%
Other	6.07%	12.05%
Total	50.40%	100.00%

Non Employment Journeys

6.4.4 The distribution of non-employment trips has been estimated using a P/T^2 gravity model which combines travel time and population to determine the relative attraction of local destinations.

6.4.5 The TEMPRO database (**Appendix P)** demonstrates that most peak hour non-employment journeys are to school and shopping (circa 70%), with the remainder relating to personal business trips, leisure trips and visiting friends. Typically, these types of trips are local trips and do not require long distance travel, and in this case will primarily be to access the major urban centres of Fareham, as well as more local services in Bridgemary and Stubbington, which collectively provide for the wide variety of non-employment based destinations that residents will need to access on a daily basis, such as banks, education, hairdressers, retail, cafes etc.

6.4.6 On this basis, the journey time catchment for the gravity model has been assumed to be a 20-minute drive time, and essentially comprises Fareham, Gosport, Stubbington and the local wards. The population of these key locations (likely destination for non-employment trips) has been estimated from the 2011 Census. Journey times were then estimated using journey planning software from the Google Maps Directions facility, based on peak hour journey times.

Table 6.3: Distribution of Other Journey Purposes (Car Drivers Only)

Destination	Percentage of Trips – Non Work	Percentage of All Trips
Bridgemary	10.95%	22.08%
Fareham	10.49%	21.15%
Stubbington	6.12%	12.33%
Rowner	5.37%	10.83%
Lee-on-the-Solent	4.69%	9.46%
Warsash	1.87%	3.78%
Swanwick	1.83%	3.69%
Portchester	1.49%	3.00%
Holbrook	1.38%	2.78%
Brockhurst	0.93%	1.88%
Catisfield	0.93%	1.87%
Titchfield	0.81%	1.64%
Camdentown	0.79%	1.60%
Clayhall	0.68%	1.38%
Gosport	0.68%	1.36%
Privett	0.59%	1.17%
Total	49.60%	100.00%

Combined Distribution

6.4.7 The traffic distribution associated with the employment and non-employment trips has been combined and the overall traffic distribution for the development is summarised in **Table 6.4**.

Table 6.4: Combined Distribution (Travel by Car)

Destination	Percentage of all Trips – Work	Percentage of All Trips – Non-Work	Percentage of All Trips
Fareham	6.04%	10.49%	16.52%
Bridgemary	2.39%	10.95%	13.34%
Stubbington	3.46%	6.12%	9.58%
Portsmouth	7.79%	-	7.79%
Rowner	0.64%	5.37%	6.02%
Swanwick	3.92%	1.83%	5.76%
Lee-on-the-Solent	0.90%	4.69%	5.60%
Winchester	4.32%	-	4.32%
Gosport	2.59%	0.68%	3.26%
Eastleigh	2.83%	-	2.83%
Southampton	2.51%	-	2.51%
Warsash	0.47%	1.87%	2.34%
Brockhurst	1.37%	0.93%	2.30%
Holbrook	0.79%	1.38%	2.17%
Havant	1.89%	-	1.89%
Portchester	0.34%	1.49%	1.83%
Other North	1.80%	-	1.80%
Clayhall	1.10%	0.68%	1.79%
Titchfield	0.67%	0.81%	1.48%
Other	4.58%	2.31%	6.87%
Total	**50.40%**	**49.60%**	**100.00%**

Source: Census 2011 and Gravity Model

6.4.8 The traffic expected to be generated by the site (**Table 6.1**) has been distributed across the local network to the destinations identified in **Table 6.4**.

6.4.9 To determine the routing of trips to these destinations, reference has been made to the Google Maps 'Directions' facility. A morning peak hour start time for journeys was utilised to ensure that peak period traffic conditions are reflected, with the journey time by route presented in **Appendix O**. A reduction in travel time for routes using the Stubbington Bypass has been assumed, in line with the HCC TA for the Bypass scheme. Where there is more than one comparable route to a destination, trips are distributed based on the relative journey times.

6.4.10 **Table 6.5** provides a summary of the assignment of development generated vehicle trips**.**

Table 6.5: Summary of Development Traffic Assignment

Direction	Routing (%)	Route	Routing (%)	Morning Peak Period			Evening Peak Period		
				In	Out	Total	In	Out	Total
North of Access	39%	Newgate Lane	25%	12	36	48	33	15	48
		Longfield Avenue	14%	7	20	27	19	8	27
South of Access	61%	B3334 Rowner Road	30%	15	42	57	41	17	58
		Broom Way	6%	3	9	12	8	4	12
		B3334 Gosport Road	25%	12	36	48	34	15	49
Total	100%	Total	100%	49	143	192	135	59	194

Source: Consultant's Calculations

6.4.11 Overall, it is estimated that 75 two-way vehicle movements will route north of the site along Newgate Lane East in the peak periods which equates to a little over one vehicle movement each minute. To the south of the site, it is estimated that some 120 two-way vehicle movements will be generated during the peak periods, equivalent to around two vehicle movements each minute. The development distribution and assignment is illustrated on **Figures TF5 – TF7**.

6.5 Assessment Years

6.5.1 It was confirmed with HCC that the following assessment years would be required:

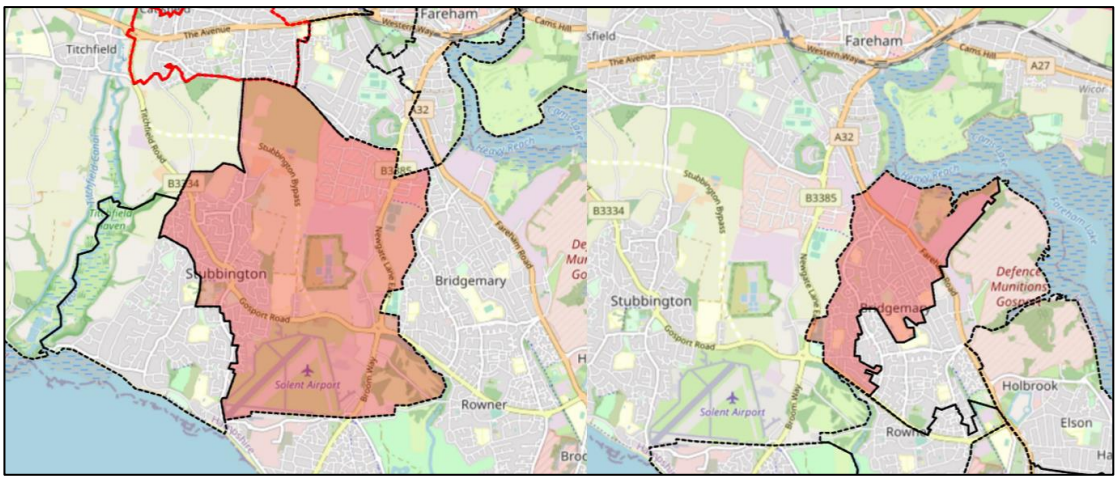
- 2021 Baseline
- 2028 Future Year
- 2037 End of Local Plan

6.6 Traffic Growth and Committed Development

6.6.1 Factors to allow for background traffic growth from 2019 (the year the traffic surveys were undertaken) to 2021 (current baseline), 2028 (expected year of full occupation) and 2037 (end of the local plan period) have been derived using the TEMPRO software.

6.6.2 A study area forming Gosport 001 mid-layer super output area (MSOA) and Fareham 013 MSOA has been used as this is considered to best represent the proposed development in terms of proximity to the existing residential area of Bridgemary along with Stubbington to the west and the Daedalus Enterprise Zone to the south. **Image 6.2** presents the MSOA's applied.

Image 6.2: TEMPRO Study Area MSOA Locations



Source: Nomis Web

Committed Development

6.6.3 In terms of committed development to be included within the Transport Assessment, the following consented developments are included, as confirmed by HCC:

- Daedalus Enterprise Zone;
- Brookers Lane Development (application ref: 19/00516/OUT);
- Welborne Garden Village; and
- Land East of Crofton Cemetery (P/20/0522/FP).

6.6.4 Whilst at the time of preparing the TA Scoping Report the Crofton Cemetery Site was not consented, this was allowed at appeal in January 2022 and as such has been included in the committed development assumptions.

6.6.5 The traffic flows for these committed developments are included manually within the cumulative traffic impact assessment (**Figures TF8 – TF17**).

Sensitivity Testing

6.6.6 In addition to the committed developments included within the cumulative assessment, during pre-application discussions HCC requested 'Land South of Longfield Avenue, Fareham' (P/20/0646/OA) is included in a 'Sensitivity Test' as this development is yet to receive planning consent.

6.6.7 The traffic flows for this potential development has been included manually within the Sensitivity Test (**Figures TF18 – TF19**).

TEMPRO Growth Rates

6.6.8 TEMPRO includes allowances for growth from housing and employment development, as forecast by local planning authority assumptions. Including committed development directly to the assessment as well as TEMPRO growth factors presents a double counting of development.

6.6.9 To remove the double counting of peak period vehicle flows on the local highway network, the future development assumptions included within the TEMPRO database have been adjusted to account for these committed developments (not including the sensitivity test sites). The TEMPRO calculations are included within **Appendix P** and the growth factors are summarised in **Table 6.6**. The future year traffic flows are presented on **Figures TF20 to TF35**.

Table 6.6: Growth Factors – Gosport 001 and Fareham 013 MSOA Study Area

Date Range	Morning Peak Period	Evening Peak Period
2019-2021*	1.0209	1.0190
2019-2028	1.0505	1.0486
2019-2037	1.1041	1.1031

Source: TEMPRO

*Note: 2019-2021 growth factor assumptions remain unadjusted.

6.7 Scope of Junction Capacity Testing

6.7.1 Based on the assessed assignment of development traffic, detailed junction capacity modelling has been carried out for the following junctions:

- Newgate Lane East / Newgate Lane / Site Access roundabout;
- Peel Common roundabout;
- Newgate Lane / HMS Collingwood access;
- Newgate Lane / Speedfields Park roundabout; and
- Newgate Lane / Longfield Avenue roundabout.

Assessment Scenarios

6.7.2 At each of the junctions outlined above, detailed modelling assessments have been undertaken using industry standard modelling software (TRL Junctions 10 and JCT LinSig), for the scenarios:

- 2021 Baseline;
- 2028 'without development', i.e. allowing for background growth and committed development;
- 2028 'without development' ST, i.e. allowing for background traffic growth, committed developments and the Sensitivity Test sites;

- 2028 'with development', i.e. allowing for background traffic growth, committed developments and the development proposal (375 Dwellings);
- 2028 with development' ST, i.e. allowing for background traffic growth, committed developments, the Sensitivity Test sites, and the development proposal (375 Dwellings);
- 2037 'without development', i.e. allowing for background traffic growth and and committed developments;
- 2037 'without development' ST, i.e. allowing for background traffic growth, committed developments and the Sensitivity Test sites;
- 2037 'with development', i.e. allowing for background traffic growth, committed developments and the development proposal (375 Dwellings); and
- 2037 with development' ST, i.e. allowing for background traffic growth, committed developments, Sensitivity Test sites and the development proposal (375 Dwellings);

6.8 The 2021 baseline year is assessed using the DS1 traffic flows (assuming no Stubbington Bypass), whilst the remaining scenarios are assessed using DS2 adjusted traffic flows as the Stubbington Bypass is expected to be completed in 2022 and ahead of occupation of the development. This has been agreed with HCC as part of the pre-application discussions.

6.8.1 **Appendix Q** presents the junction modelling outputs, whilst Section 6.9 presents and considers the assessment results for the 2028 Future Year scenario. The summary of the 2037 assessment is provided in **Appendix R.**

6.9 Junction Capacity Testing Results

6.9.1 The following section presents the junction modelling assessments.

6.9.2 The principal outputs derived from the modelling using Junctions 10 are the Ratio of Flow to Capacity (RFC), which expresses the level of capacity that the junction is forecast to operate at, average queue lengths expected, expressed in vehicles, and average delay, expressed in seconds per vehicle.

6.9.3 For the signalised junctions the principal outputs from LinSig are the Degree of Saturation (DoS) which is the expression of how a junction is operating relative to its capacity, Mean Maximum Queue length (MMQ) which represents average maximum queues at the junction, expressed in Passenger Car Units (PCUs) and average Delay, expressed in seconds per vehicle.

Newgate Lane East / Newgate Lane / Site Access roundabout

6.9.4 The assessment considers the operation of the proposed junction, as described in Section 4, and considers this against the projected operation of the existing junction.

Existing Junction Operation

6.9.5 As the junction does not currently exist, it is not possible to model the baseline operation of the roundabout. For context, the existing three-arm priority junction is assessed using Junction 10 (assuming future conditions without the development coming forward), presented in **Table 6.7**.

Table 6.7: Existing Newgate Lane / Newgate Lane East Priority Junction

Approach	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2028 with Committed Development (DS2)						
Newgate Lane (Turn Left)	99999*	12	1466	0.07	<1	10
Newgate Lane (Turn Right)	99999*	15	1551	0.25	<1	50
Newgate Lane East	0.09	<1	15	0.04	<1	8

Source: Junctions 10 / * = RFC of 9999999999.0

6.9.6 The assessment demonstrates that the existing junction is forecast to operate with significant capacity issues on the minor arm (Newgate Lane) of the junction, particularly in the morning peak hour and that the junction would operate in a state of traffic flow breakdown.

6.9.7 It is projected that there would be very significant delays arising on the arm of the junction, with long queues relative to the limited traffic demands on Newgate Lane. It would be extremely difficult for vehicles to egress from Newgate Lane safely.

Proposed Junction Operation

6.9.8 The proposed development would deliver a new four arm 50m ICD roundabout which would incorporate the Newgate Lane arm of the junction. The junction capacity assessment results for the proposed site access roundabout are summarised in **Table 6.8**.

Table 6.8: Newgate Lane East / Site Access roundabout

Approach	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2028 with Committed Development plus Development (DS2)						
Newgate Lane East (North)	0.42	1	3	0.60	2	5
Site Access (East)	0.12	<1	3	0.06	<1	4
Newgate Lane East (South)	0.80	4	8	0.51	1	3
Newgate Lane (West)	0.13	<1	8	0.08	<1	4

Approach	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2028 with Committed Development plus Development (DS2) ST						
Newgate Lane East (North)	0.42	1	3	0.61	2	5
Site Access (East)	0.12	<1	3	0.06	<1	4
Newgate Lane East (South)	0.80	4	8	0.51	1	3
Newgate Lane (West)	0.13	<1	8	0.08	<1	4

Source: Junctions 10

6.9.9 The proposed site access roundabout is projected to operate well within capacity in the Future Year Scenario with minimal queueing and delay (maximum eight seconds) on all arms during the peak periods. An average delay of some 8 seconds for vehicles using Newgate Lane East is minimal and will have no material impact on the operation or function of Newgate Lane East.

6.9.10 When this is compared to the performance of the existing Newgate Lane priority junction (**Table 6.7**), the proposed site access arrangement brings significant operational and safety benefits to the to the Newgate Lane (western connection) with an average queue being less than one vehicle, whilst keeping queueing and delay to a minimum on the Newgate Lane East mainline.

Toucan Crossing Alternative

6.9.11 As part of the pre-application discussions with HCC, it was suggested by HCC that it may be necessary for a Toucan Crossing to be provided across the southern arm of the access roundabout, in addition to the potential Toucan Crossing identified as part of the Brookers Lane development, to facilitate safe pedestrian crossing movements across Newgate Lane East towards Stubbington.

6.9.12 An additional assessment of the operation of the roundabout incorporating a controlled crossing has been carried out, presented on **Table 6.9**. The model has assumed a pedestrian crossing demand of 60 people in the peak hours / 1 crossing each minute. **Table 5.4** confirmed that expected demand for this crossing would be much lower, some 3 or 4 hourly movements, and as such this provides a robust assumption.

Table 6.9 Newgate Lane East / Site Access roundabout with Controlled Crossing

Approach	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2028 with Committed Development plus Development (DS2)						
Newgate Lane East (North)	0.49	1	4	0.68	2	7
Site Access (East)	0.12	<1	3	0.06	<1	4
Newgate Lane East (South)	0.80	4	8	0.51	1	3
Newgate Lane (West)	0.13	<1	8	0.08	<1	4
2028 with Committed Development plus Development (DS2) ST						
Newgate Lane East (North)	0.49	1	4	0.68	2	7
Site Access (East)	0.12	<1	3	0.06	<1	4
Newgate Lane East (South)	0.80	4	8	0.51	1	3
Newgate Lane (West)	0.13	<1	8	0.08	<1	4

Source: Junctions 10

6.9.13 **Table 6.9** demonstrates that the addition of the controlled crossing has a negligible impact on the operation of the junction. All arms will operate within capacity and delay is minimal with a maximum of nine seconds in the morning peak period on Newgate Lane (wester link).

Peel Common Roundabout

6.9.14 The Peel Common Roundabout is located around 900m south of the proposed site access junction and is in the form of a four-arm roundabout with Newgate Lane East, Rowner Road, Broom Way and Gosport Road. The junction was initially improved as part of the delivery of the Newgate Lane East scheme, providing a realigned northern arm and partial signalisation.

6.9.15 More recently, the junction is currently being further upgraded to a fully signalised junction scheme as part of the delivery of the Stubbington Bypass. These works are in progress and due to be completed in 2022, in advance of any development at the application site.

6.9.16 On this basis, the future junction arrangement has been modelled, using the traffic model and junction arrangement drawings provided by HCC. The junction modelling assessment results are summarised in **Table 6.10**.

6.9.17 The assessment demonstrates that the fully signalised junction will operate comfortably within capacity on all arms of the junction during the 'without' and 'with' development peak periods. The greatest increase in delay arising from the addition of the development is 2 seconds on Gosport Road and Rowner Road during the morning peak period.

6.9.18 The Sensitivity Test assessment scenarios demonstrates the junction will operate well within capacity on all arms during the peak periods and the results are similar to baseline assessments.

Table 6.10: Peel Common Roundabout (Fully Signalised)

Approach	Morning Peak Period			Evening Peak Period		
	DoS (%)	MMQ (Vehicles)	Av. Delay (Sec)	DoS (%)	MMQ (Vehicles)	Av. Delay (Sec)
2021 Baseline						
Gosport Road	61.3%	5	29	68.3%	7	12
Newgate Lane East	28.5%	3	11	69.2%	5	18
Rowner Road	47.5%	5	16	47.3%	3	20
Broom Way	76.2%	11	20	36.0%	3	11
2028 with Committed Development (DS2)						
Gosport Road	62.7%	6	28	73.7%	9	16
Newgate Lane East	36.5%	4	13	70.9%	6	18
Rowner Road	56.9%	6	17	56.2%	4	25
Broom Way	79.9%	12	21	46.6%	4	17
2028 with Committed Development (DS2) ST						
Gosport Road	62.7%	6	26	73.7%	9	16
Newgate Lane East	37.1%	4	12	71.4%	6	18
Rowner Road	56.9%	6	17	56.2%	4	25
Broom Way	79.9%	12	21	46.6%	4	17
2028 with Committed Development plus Development (DS2)						
Gosport Road	69.6%	6	30	73.8%	9	16
Newgate Lane East	36.2%	4	11	75.3%	7	18
Rowner Road	59.7%	7	19	56.6%	4	25
Broom Way	79.9%	12	21	39.4%	3	12
2028 with Committed Development plus Development (DS2) ST						
Gosport Road	69.2%	6	30	73.8%	9	16
Newgate Lane East	36.7%	4	11	76.0%	7	19
Rowner Road	59.9%	7	19	56.6%	4	25
Broom Way	79.9%	12	21	41.5%	3	12

Source: LinSig

Newgate Lane / HMS Collingwood Access / Speedfields Park

6.9.19 Located some 650m and 800m north from the site, the Newgate Lane / HMS Collingwood access is in the form of a three arm signalised priority junction whilst the Speedfields Roundabout is a non-signalised three arm roundabout with a northbound bypass lane.

6.9.20 Despite the Speedfields Roundabout being priority controlled (i.e. not signalised) these two junctions have been assessed in the same model using the LinSig modelling software, which is the most appropriate methodology to assess the operation of these junctions, and considers the interaction between the two junctions.

6.9.21 The junction assessment results for the Newgate Lane / HMS Collingwood access is summarised in **Table 6.11** whilst the Speedfields Park Roundabout results are shown in **Table 6.12**.

Table 6.11: Newgate Lane / HMS Collingwood Access

Approach	Morning Peak Period			Evening Peak Period		
	DoS (%)	MMQ (Vehicles)	Av. Delay (Sec)	DoS (%)	MMQ (Vehicles)	Av. Delay (Sec)
2021 Baseline						
Newgate Lane (North)	76.3%	6	61	76.3%	6	18
HMS Collingwood	19.7%	1	47	76.6%	7	49
Newgate Lane (South)	81.5%	8	18	75.3%	7	13
2028 with Committed Development (DS2)						
Newgate Lane (North)	86.1%	7	80	57.9%	9	22
HMS Collingwood	22.6%	1	47	76.4%	7	48
Newgate Lane (South)	84.5%	20	23	80.8%	15	28
2028 with Committed Development (DS2) ST						
Newgate Lane (North)	86.1%	7	80	58.4%	9	21
HMS Collingwood	22.6%	1	47	76.4%	7	48
Newgate Lane (South)	84.5%	20	23	80.8%	15	28
2028 with Committed Development plus Development (DS2)						
Newgate Lane (North)	86.1%	7	80	60.3%	10	22
HMS Collingwood	22.6%	1	47	76.4%	7	48
Newgate Lane (South)	84.5%	20	23	80.8%	15	28
2028 with Committed Development plus Development (DS2) ST						
Newgate Lane (North)	86.1%	7	80	61.4%	9	21
HMS Collingwood	22.6%	1	47	76.4%	7	48
Newgate Lane (South)	84.5%	20	23	80.8%	15	28

Source: LinSig

6.9.22 **Table 6.11** shows that the HMS Collingwood junction currently operates within capacity and will continue to operate within capacity on all arms during the peak periods both 'with' development and also considering the Sensitivity Test. Delay remains consistent between the 'without' and 'with' development scenarios and there is an increase of just one vehicle on average on the Newgate Lane (north) queue in the evening peak period.

6.9.23 This is consistent with the expected traffic demands that will arise from the application, which will generate around one additional vehicle on this corridor each minute, on average.

6.9.24 It is notable that the Morning Peak assessment results for the junction do not change between the various Future Year (2028) scenarios. Traffic demands on the HMS Collingwood arm remain consistent between each scenario, and on the Newgate Lane approaches, the assessment table is presenting only the worst performing arm of the junction. The additional traffic movements are assigned to the less used offside lane where spare capacity exists.

Table 6.12: Speedfields Park Roundabout

Approach	Morning Peak Period			Evening Peak Period		
	DoS (%)	MMQ (Vehicles)	Av. Delay (Sec)	DoS (%)	MMQ (Vehicles)	Av. Delay (Sec)
2021 Baseline						
Newgate Lane (North)	51.3%	1	2	36.3%	<1	2
Speedfields Park	16.4%	<1	2	34.0%	<1	2
HMS Collingwood	9.5%	<1	4	39.2%	<1	5
Newgate Lane (South)	57.7%	15	8	36.0%	4	3
2028 with Committed Development (DS2)						
Newgate Lane (North)	66.1%	1	4	43.8%	<1	2
Speedfields Park	19.6%	<1	2	40.1%	<1	3
HMS Collingwood	10.1%	<1	4	41.3%	<1	6
Newgate Lane (South)	61.2%	16	9	38.9%	5	4
2028 with Committed Development (DS2) ST						
Newgate Lane (North)	67.2%	1	4	44.4%	<1	3
Speedfields Park	19.7%	<1	2	40.4%	<1	3
HMS Collingwood	10.1%	<1	4	41.3%	<1	6
Newgate Lane (South)	61.2%	16	9	41.7%	6	4
2028 with Committed Development plus Development (DS2)						
Newgate Lane (North)	68.0%	1	4	46.8%	<1	2
Speedfields Park	19.8%	<1	2	41.4%	<1	3
HMS Collingwood	10.1%	<1	4	41.3%	<1	6
Newgate Lane (South)	66.0%	18	11	40.9%	6	4
2028 with Committed Development plus Development (DS2) ST						
Newgate Lane (North)	68.9%	1	4	47.1%	<1	2
Speedfields Park	19.9%	<1	2	41.7%	<1	3
HMS Collingwood	10.1%	<1	4	41.3%	<1	6
Newgate Lane (South)	66.0%	18	11	43.7%	7	4

Source: LinSig

6.9.25 The Speedfields Park roundabout will operate well within capacity on all arms during all scenarios including with the Sensitivity Test sites. The greatest increase in delay is some two seconds on the Newgate Lane south northbound approach during the morning peak period.

Newgate Lane / Longfield Avenue Roundabout

6.9.26 The Newgate Lane / Longfield Avenue Roundabout is located around 1.2km north of the proposed development site and forms a four-arm uncontrolled roundabout with Newgate Lane, Longfield Avenue and Davis Way. The assessment results are summarised in **Table 6.13**.

Table 6.13: Newgate Lane / Longfield Avenue Roundabout

Approach	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2021 Baseline						
Davis Way	0.10	<1	8	0.26	<1	9
Newgate Lane (South)	0.70	2	6	0.68	2	5
Longfield Avenue	0.20	<1	3	0.27	<1	4
Newgate Lane (North)	0.62	2	6	0.59	1	5
2028 with Committed Development (DS2)						
Davis Way	0.14	<1	10	0.31	1	11
Newgate Lane (South)	0.74	3	7	0.72	3	6
Longfield Avenue	0.24	<1	4	0.30	<1	4
Newgate Lane (North)	0.72	3	8	0.67	2	7
2028 with Committed Development (DS2) ST						
Davis Way	0.14	<1	10	0.33	1	12
Newgate Lane (South)	0.74	3	7	0.74	3	7
Longfield Avenue	0.26	<1	4	0.33	1	4
Newgate Lane (North)	0.73	3	8	0.69	2	7
2028 with Committed Development plus Development (DS2)						
Davis Way	0.14	<1	10	0.33	1	12
Newgate Lane (South)	0.77	3	7	0.73	3	6
Longfield Avenue	0.25	<1	4	0.32	1	4
Newgate Lane (North)	0.73	3	8	0.71	2	7
2028 with Committed Development plus Development (DS2) ST						
Davis Way	0.14	<1	10	0.35	1	13
Newgate Lane (South)	0.77	3	7	0.75	3	7
Longfield Avenue	0.27	<1	4	0.34	1	4
Newgate Lane (North)	0.74	3	9	0.72	3	8

Source: Junctions 10

6.9.27 The junction is forecast to operate within capacity on all arms during the 'with' development peak periods. The greatest increase in delay of just one second occurs on Davis Way and Newgate Lane (South) during the evening peak period. The Sensitivity Test shows the junction will continue to operate within capacity on all arms during the peak periods.

Brookers Lane Toucan Crossing

6.9.28 HCC has identified an aspiration to improve the existing pedestrian crossing across Newgate Lane East at Brookers Lane, which is expected to involve the introduction of a Toucan Crossing. A financial contribution of £78,160 was secured as part of the consented Brookers Lane development, representing 50% the cost of the scheme. The applicants are prepared to provide the remaining funding needed to deliver the crossing improvement.

6.9.29 LinSig modelling software has been used to simulate the future performance of the potential Toucan Crossing (**Table 6.14)**. This assumes a crossing demand of 60 movements each hour. A 2019 survey of existing pedestrian demand (presented for the scheme west of Newgate Lane) identified 18-20 crossings during peak hours. **Table 5.4** identifies that the application could generate demand for a further ~7 peak hour crossing movements. The assumption is robust.

Table 6.14: Brookers Lane Toucan Crossing

Approach	Morning Peak Period			Evening Peak Period		
	DoS (%)	MMQ (Vehicles)	Av. Delay (Sec)	DoS (%)	MMQ (Vehicles)	Av. Delay (Sec)
2021 Baseline						
Newgate Lane East (South)	82.1%	21	12	37.7%	4	5
Newgate Lane East (North)	38.8%	5	5	62.8%	9	8
2028 with Committed Development (DS2)						
Newgate Lane East (South)	87.2%	26	15	41.5%	5	5
Newgate Lane East (North)	50.3%	7	5	75.9%	14	10
2028 with Committed Development (DS2) ST						
Newgate Lane East (South)	87.2%	26	15	43.6%	5	6
Newgate Lane East (North)	51.0%	7	5	76.8%	15	11
2028 with Committed Development plus Development (DS2)						
Newgate Lane East (South)	89.1%	28	16	47.2%	6	6
Newgate Lane East (North)	55.9%	9	6	78.3%	16	11
2028 with Committed Development plus Development (DS2) ST						
Newgate Lane East (South)	89.1%	28	16	49.3%	6	6
Newgate Lane East (North)	56.6%	9	6	79.2%	16	11

Source: LinSig

6.9.30 The potential Toucan Crossing will operate within capacity during the future year with development scenarios. In the 2021 Baseline, delay to traffic would be around 12 seconds on Newgate Lane East (southern approach) during the morning peak period and this increases to 16 seconds during the future year with development. Southbound impacts are much lesser (5-6 seconds). During the peak hour delays to traffic would be some 6-11 seconds. These levels of delay are limited and would be offset by the benefits of providing safer crossing facilities.

6.10 2037 Future Year Assessment

6.10.1 A 2037 future year assessment has been undertaken to assess the operation of the network at the end of Local Plan period. The junction modelling output reports and summary tables are provided in **Appendix R** and a summary overview is provided in **Table 6.15**.

Table 6.15: 2037 Junction Assessment Overview (worst performing arm)

Junction	Junction Performance (RFC / DoS)	
	AM Peak	PM Peak
Newgate Lane East / Site Access Roundabout	0.84	0.63
Peel Common Roundabout (Fully Signalised)	85.4%	77.7%
Newgate Lane / HMS Collingwood Signal Junction	88.4%	86.7%
Newgate Lane / Speedfields Park Roundabout	71.8%	49.0%
Newgate Lane / Longfield Avenue Roundabout	0.80	0.79

Source: Junctions 9 / LinSig

Note: Provides a summary of the link with the highest RFC / DoS at each junction for 2037 'with' development

6.10.2 All junctions are forecast to operate within capacity in the future year with development scenario.

6.11 Wider Highway Network Impact

6.11.1 During pre-application discussions with HCC, it was suggested that wider assessment of the highway network was expected, beyond the assessments presented in Section 6.9-6.10.

6.11.2 To consider these wider impacts in context, **Table 6.16** presents an assessment of the expected development traffic impacts compared to the 2019 observed traffic flows on each road.

6.11.3 It is demonstrated that the impacts on the wider network resulting from the development are limited, with traffic flows generally increasing only marginally above existing observed flows:

- On Newgate Lane north of Longfield Avenue, the development adds some 50 vehicles, less than one per minute, and represents a traffic flow increase of 2%
- On Longfield Avenue, the development adds some 30 vehicles, around one vehicle every two minutes, and represents a traffic flow increase of 2-3%

- On B3384 Rowner Road, the development adds some 60 vehicles, around one per minute, and represents a traffic flow increase of 3%
- On B3384 Gosport Road, the development adds some 50 vehicles, less than one per minute, and represents a traffic flow increase of 4%
- On B3385 Broom Way, the development adds some 12 vehicles, around one every 5-6 minutes, and represents a traffic flow increase of 1%

Table 6.16 – Wider Network Impacts

Road	Direction	Morning Peak Period (07:45-08:45)			Evening Peak Period (16:00-17:00)		
		2019 Traffic Flow	Dev Trips	% Impact	2019 Traffic Flow	Dev Trips	% Impact
Newgate Lane (North of Longfield Avenue)	Northbound	1,099	36	3%	1136	15	1%
	Southbound	935	12	1%	1016	34	3%
	Two-Way	**2,034**	**48**	**2%**	**2,152**	**49**	**2%**
Longfield Avenue	Eastbound	538	7	1%	746	19	3%
	Westbound	497	20	4%	501	8	2%
	Two-Way	**1,035**	**27**	**3%**	**1,247**	**27**	**2%**
B3384 Rowner Road	Eastbound	713	43	6%	1093	18	2%
	Westbound	1,251	15	1%	744	41	6%
	Two-Way	**1,964**	**58**	**3%**	**1,837**	**59**	**3%**
B3334 Gosport Road	Eastbound	385	12	3%	707	34	5%
	Westbound	715	36	5%	499	15	3%
	Two-Way	**1,100**	**48**	**4%**	**1,206**	**49**	**4%**
B3385 Broom Way	Northbound	1,073	3	0%	647	8	1%
	Southbound	613	9	1%	955	4	0%
	Two-Way	**1,686**	**12**	**1%**	**1,602**	**12**	**1%**

Previous Local Plan Assessment

6.11.4 In addition, owing to the former draft allocation of the site, FBC carried out significant transport assessment of the potential development as part of its current Local Plan Evidence Base.

6.11.5 The assessment utilised the Solent Transport 'Sub-Regional Transport Model' (SRTM) which is owned by the Solent Local Authorities and has been calibrated and validated for use in accordance with WebTag Guidance, with the agreement of Highways England and Hampshire County Council. The assessment considered a future year of 2036.

6.11.6 It published a Transport Assessment and associated Traffic Modelling Report which considers the traffic impacts that are projected to arise as a result of the (then) proposed Development Strategy identified as part of the previous draft version of the FBC Local Plan, which at the time of traffic assessment, included allocation HA2 (the proposed development site) for 475 dwellings, along with two SGAs at Portchester and Stubbington. As the current spatial strategy is reduced from this earlier version, these development assumptions were robust.

6.12 The primary output from the assessment is a consideration of highway network performance through considering changes in traffic flow, changes in highway delay and through identifying capacity hotspots by deriving a 'Ratio of Flow to Capacity' (RFC) for key junctions.

Impacts of the Development Strategy

6.12.1 In broad network terms, the assessments demonstrate that the traffic impact of the development strategy (including the application site) on top of the 2036 'Do Nothing' scenario will be small:

- Increase in vehicle hours by around 4-5%
- Increase in vehicle distance by 2%
- Reduction average network speeds by 2%

6.12.2 Overall, in the 2036 'Do Something' scenario, which includes the local plan sites and proposed Strategic Growth Areas, there are a total of 17 junctions which meet the 'Significant' impact criteria, and two which meets the 'Severe' threshold (some distance from the site in Whitely and at A27 Redlands Lane). Table 11-2 of the Strategic Transport Assessment identifies that five were considered to require mitigation, the remainder would, on further review, not necessitate mitigation to address local plan impacts. **Image 6.3** presents the location of these junctions.

Image 6.3 – Junctions Considered for Mitigation by Local Plan Transport Assessment

6.12.3 The reports present the results of the mitigation development which comprise:

- **Delme Roundabout** – signalisation of junction, adjustment to signal phasing/green times, additional physical capacity, public transport measures. Same as TCF bid scheme;
- **Parkway/Leafy Lane** – signalisation of junction, additional physical capacity;
- **Warsash Road/Abshot Road/Little Abshot Ro**ad - additional physical capacity;
- **A27/Redlands Avenue** - adjustment to signal phasing/green times; and
- **A27/Bishopsfield Road** - adjustment to signal phasing/green times.

6.12.4 Whilst the SRTM assessment has not considered the individual impacts of particular development sites, it presents an assessment of the cumulative impact of the proposed Development Strategy.

6.12.5 The Strategic Transport Assessment concludes that:

> ***14.16. In conclusions, based on the work of this Strategic Transport Assessment, it is considered that the quantum and distribution of the development proposed in the Fareham Local Plan, and the resulting transport impacts, are capable of mitigation at the strategic level, and that the plan is therefore deliverable and sound from a transport perspective***

6.12.6 On this basis, there are no significant or severe network capacity constraints that would preclude the site being delivered, and it is demonstrated that consideration of the wider impacts of the site (including also development on other now withdrawn allocation sites and the SGA) will not lead to any significant issues on the Newgate Lane corridor or other local highway connections.

6.12.7 In relation to driver delay, the SRTM assessment demonstrates that, taking account of the full Development Strategy (including the HA2 site the subject of this application), there will be limited additional delay arising on the local network:

i Longfield Avenue – an additional 15 second delay in the AM Peak

ii A32 between Newgate Lane and Quay Street – 9 seconds delay in the AM peak, 26 seconds in the PM peak

iii A27 corridor approach to Titchfield Gyratory – 7 seconds delay in the AM Peak

iv M27 Junction 11 approaches – 11 seconds delay in each peak period

6.12.8 Consideration of delay arising at key junctions was also assessed, again taking account of the full development strategy which included some 6,000 dwellings alongside non-residential development. **Table 6.17** presents the delay impacts on the worst performing arms of the key junctions considered in the assessment.

6.12.9 This considers the likely impacts against a significant threshold agreed with HCC for the purpose of the Local Plan testing which identified that 'severe' impacts would comprise a situation where delay is greater than 120 seconds and has increased by more than 60 seconds.

Table 6.17 – Junction Impact relative to HA2 Site – Impact on Delay (secs) (worst performing arm)

Junction		2036 Baseline		2036 'Do Something'		Difference	
		AM	PM	AM	PM	AM	PM
2	Segensworth Roundabout	180	57	206	57	26	0
3	M27 J11	171	185	154	190	-17	5
4	A27 Titchfield Gyratory	144	29	161	27	17	-2
7	Newgate Lane / Longfield Ave	72	22	81	30	9	8
26	A27 Delme Roundabout	32	25	27	45	-5	20
35	A27 Eastern Way / A32 Gosport Rd	63	21	103	26	40	5
94	Quay Street Roundabout	17	29	17	35	0	6
65	M27 J9	73	167	86	177	13	10

6.12.10 None of the impacts relative to the application site meet the threshold for a 'severe' impact identified in the by HCC and FBC as part of this work.

6.12.11 Overall, the wider highway network assessments presented in FBC's Traffic Modelling Report demonstrates that the highway network would experience low levels of increase in queueing and delay as a result of the (then) draft Local Plan allocation sites, which included development of the application site.

6.13 Summary

6.13.1 The Transport Assessment has presented a detailed appraisal of likely traffic impacts. The assessment utilised baseline traffic data confirmed with HCC and takes account of the expected impacts of the opening of the Stubbington Bypass using an agreed approach.

6.13.2 The development would add some 190 vehicle movements to the local highway network in peak hours, equivalent to around 3 vehicles each minute on average. Some 40% (75 vehicles) are expected to route north from the site, the remaining 60% (120 vehicles) to the south.

6.13.3 Assessment has been carried out to consider the operation of key junctions on the Newgate Lane corridor, considering future year conditions in 2028 and 2037, and taking account of committed development and background traffic growth. Sensitivity testing of known but unconsented development has also been carried out.

6.13.4 The assessment demonstrates that the application will not result in a severe residual cumulative transport impact, which is the high-bar test set by the NPPF para 111. The following junctions are shown to operate within capacity and without being materially impacted by the scheme:

- Peel Common Roundabout
- Newgate Lane East / Newgate Lane / Site Access Roundabout (proposed)
- HMS Collingwood traffic signal junction
- Speedfields Park roundabout junction
- Longfield Avenue roundabout junction

6.13.5 The wider impacts of development traffic have been considered, firstly by considering the changes in traffic flows that would be likely to occur and secondly by considering the comprehensive, cumulative assessment that forms the Local Plan evidence base, and which included development on the application site.

6.13.6 In relation to practical impacts, the application will increase traffic flows by between 1-4%, and in real terms increase traffic flows by generally less than one vehicle each minute.

6.13.7 A review of the Local Plan Evidence Base demonstrates that there are no localised severe traffic congestion issues, and moreover confirms that the impact of development in the Borough, including the application site, does not result in any severe issues arising.

6.13.8 HCC has consistently raised concerns regarding the potential impacts of the delivery of a new junction to Newgate Lane East to serve the scheme. In this regard it is concluded that:

- The proposed roundabout can be delivered in line with design standards, and has been subject to Road Safety Audit
- The proposed roundabout accords with the former HA2 policy requirements of the earlier draft Local Plan
- The roundabout is demonstrated to operate within capacity and maintaining 'Free Flow' conditions for traffic. Impacts on driver delays on Newgate Lane East are negligible ~10 seconds)
- The scheme would comprise an improvement to the existing junction, resolving forecast capacity and safety issues at the existing Newgate Lane / Newgate Lane East junction.

6.13.9 The NPPF test for rejecting proposals on transport grounds are when the residual cumulative impacts would be severe (a demanding test) or when safety issues would be unacceptable. In this case, the roundabout does not result in severe traffic conditions, and can be delivered to provide a safe arrangement.

6.13.10 The development is to be delivered alongside a comprehensive Sustainable Transport Strategy (Section 5) which commits to the delivery of a wide reaching range of measures to promote sustainable and active travel in preference to the private car. This strategy will seek to mitigate and reduce the impacts of the scheme and the impacts of this strategy have not been reflected in the projections of traffic generation from the scheme.

SECTION 7 Summary and Conclusions

7.1.1 This TA has considered the potential transport impacts of a development of up to 375 residential dwellings on Land East of Newgate Lane East, Fareham

Policy Context

7.1.2 Taken together, local and national policy requires new residential development to be located where a range of facilities and services can be accessed by a genuine choice of modes of transport including walking, cycling and public transport, so as to minimise the number and length of car journeys. Safe and suitable access to the site should be achieved for all people. The residual transport impacts resulting from development should be cost-effectively mitigated.

7.1.3 The NPPF is clear that development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe or impacts on highway safety are unacceptable.

Existing Conditions

7.1.4 The site is very well located to the existing pedestrian network within Bridgemary to the east, Newgate Lane to the west, and Fareham to the north. There is a good provision of footways along local roads connecting to the site, generally on both sides of the relatively low speed / flow roads. The site is closely related to the National Cycle Network and conditions on local roads support on carriageway cycling. Newgate Lane to the north has high quality cycleways heading towards Fareham and there are designated cycle provisions both north and south of the site connecting to Bridgeway and Newgate Lane for onward travel.

7.1.5 A detailed WCHAR and NMU audit has been undertaken and demonstrates that there are high quality routes from the site to the main destinations such as retail, schools and employment. The WCHAR has identified various improvements which can be delivered in the local area to enhance accessibility and these form part of the Sustainable Transport Strategy.

7.1.6 The site is well located to regular bus services including particularly the BRT which is accessible from the bus stops located within easy walking distance from the site and on Tukes Avenue, servicing areas such as Fareham, Stubbington and Gosport. Fareham rail station is also accessible by bus and cycle from the site and provides connections to destinations further afield such as Portsmouth, Southampton, Winchester, and London.

7.1.7 Existing highway conditions have been considered through collection of recent and relevant traffic flow data. This identifies existing traffic flows and profiles on the local network. A detailed review of the most recently available accident data has been undertaken and does not identify any specific road safety problems within the local area with the exception of some accident clusters which were identified not to be attributable to highway layout or related to the likely impacts of the development.

Site Access Arrangements

7.1.8 The development proposals are supported by a site access strategy which seeks to prioritise movement by active travel modes, deliver a truly connected development and provide safe and suitable access for all users. The Strategy comprises:

- Delivery of a comprehensive pedestrian and cycle access strategy, providing for active travel on key desire lines in all directions from the site, providing filtered permeability. Connections are provided to:
  - Newgate Lane, via connections at the proposed site access, to local bus stops and via Woodcote Lane
  - Tukes Avenue and Bridgemary via Brookers Lane, the PROW network and through the existing service road access serving the site
  - Brookers Lane to the South through the consented site
  - The PROW network to the north of the site, providing access to a dedicated footway and cycleway between Newgate Lane and Bridgemary
- Vehicular access to Newgate Lane East through the delivery of a new four-arm roundabout junction, designed in accordance with relevant standards and in a manner that does not significantly impact on the utility / function of Newgate Lane East.

7.1.9 A full Pre-Application Design Submission has been made for the proposed roundabout junction and is supported by an Independent Road Safety Audit, which confirms there are no residual safety concerns. Capacity assessment of the proposed junction has been presented which demonstrates that the junction will operate wholly within capacity, will maintain the free flow of traffic on Newgate Lane and which resolves existing capacity and access issues at Newgate Lane.

Accessibility

7.1.10 The site benefits from its location close to and well connected to a wide range of local services and facilities, which future residents of the proposed development will visit on a regular basis.

7.1.11 Future residents of the proposed development will have the opportunity to access a range of everyday destinations by a choice of different travel modes.

7.1.12 Walking is a realistic mode of travel to and from the site. The access strategy provides a permeable and connected development with connections to the north, south, east, and west to reduce travel distance. A significant proportion of travel from the site can be expected to be made on foot to reach local facilities and services.

7.1.13 Additionally, many facilities and services are located within a reasonable cycle distance from the site. The site provides direct connections to the cycle network to the north, west and south of the site, and to the east onto signed and appropriate roads. The development will facilitate safe and easy cycling in the site and to surrounding routes.

7.1.14 Frequent and regular bus services operate within the local area, with the Services 9/9A and the BRT particularly attractive to future residents and providing direct and frequent access to Fareham, Gosport, and the wider area.

7.1.15 A Sustainable Transport Strategy has been developed which will be delivered through the Framework Travel Plan. This identifies opportunities for the effective promotion and delivery of sustainable transport initiatives e.g. walking, cycling, public transport to reduce the demand for travel by less sustainable modes.

7.1.16 Future residents therefore have the opportunity to access a range of destinations by a genuine choice of sustainable transport modes. The proposed development is located where the need to travel will be minimised and, through the Framework Travel Plan, the use of sustainable transport modes can be maximised. In line with the NPPF requirements and local plan requirements (CS5 / DSP40), it is therefore demonstrated that the opportunities for sustainable travel can be and have been taken up.

Traffic Impact

7.1.17 A detailed appraisal of likely traffic impacts has been presented which utilises baseline traffic data confirmed with HCC and takes account of the expected impacts of the opening of the Stubbington Bypass using an agreed approach.

7.1.18 The development would add some 190 vehicle movements to the local highway network in peak hours, equivalent to around 3 vehicles each minute on average. Some 40% (75 vehicles) are expected to route north from the site, the remaining 60% (120 vehicles) to the south.

7.1.19 Assessment has been carried out to consider the operation of key junctions on the Newgate Lane corridor, considering future year conditions in 2028 and 2037, and taking account of committed development and background traffic growth. Sensitivity testing of known but unconsented development has also been carried out.

7.1.20 The assessment demonstrates that the application will not result in a severe residual cumulative transport impact. Key junctions are demonstrated to have sufficient capacity in the future to accommodate the traffic generated by the application site.

7.1.21 The wider impacts of development traffic have been considered, firstly by considering the changes in traffic flows that would be likely to occur and secondly by considering the comprehensive, cumulative assessment that forms the Local Plan evidence base, and which included development on the application site. The application will increase traffic flows by between 1-4%, and in real terms increase traffic flows by generally less than one vehicle each minute. Further, the Local Plan Evidence Base demonstrates that there are no localised severe traffic congestion issues, and moreover confirms that the impact of development in the Borough, including the application site, does not result in any severe issues arising.

7.1.22 The NPPF test (Para 111) for rejecting proposals on transport grounds are when the residual cumulative impacts would be severe (a demanding test) or when safety issues would be unacceptable. In this case, the impacts of the application scheme, including the proposed roundabout to Newgate Lane East, does not result in severe traffic conditions.

7.1.23 The development is to be delivered alongside a comprehensive Sustainable Transport Strategy which commits to the delivery of a wide reaching range of measures to promote sustainable and active travel in preference to the private car. This strategy will seek to mitigate and reduce the impacts of the scheme.

7.2 Compliance with Policy

NPPF

7.2.1 The NPPF identifies that development proposals should only be refused where there are unacceptable safety impacts or where the cumulative residual transport impacts are severe. It also requires that safe and suitable access is provided.

7.2.2 The TA demonstrates that the proposed access arrangements are safe and suitable and accommodate all people. The scheme provides for movement by active travel in all directions of the site, to key destinations and demonstrates a well-connected and permeable development. The vehicular access is designed in line with standards and considered through Safety Audit.

7.2.3 Detailed assessment of the traffic impacts of the scheme, taking account of growth and consented development, confirm that there will not be a severe residual cumulative transport impact arising from the development proposal.

7.2.4 The NPPF also requires that development proposals ensure "*appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location*". A Sustainable Transport Strategy demonstrates how available opportunities for sustainable and active travel are taken up

CS5

7.2.5 Policy CS5 relates to 'Transport Strategy and Infrastructure'. Parts two and three of the policy are relevant insofar as they:

- Require development that generates significant travel demand to be located in accessible areas, well served by public transport, walking and cycling
- Allow for development proposals to be permitted where they provide necessary and appropriate transport infrastructure including management measures, do not adversely affect safety and operation of the network and are designed to encourage safe and reliable journeys by walking, cycling and public transport.

7.2.6 In accordance with part two of the Policy, the site is well located to regular and high-quality public transport opportunities and the development will improve connections to public transport. A wide range of walking and cycling improvements are also proposed to connect the development to the local area and improve walking and cycling opportunities. The development prioritises sustainable travel choices and is located in an accessible area. A substantial package of improvements is proposed to ensure opportunities for sustainable travel are taken up.

7.2.7 In relation to the third part of the policy, the development will not adversely affect the safety or operation of the network. Sustainable travel options are prioritised through the delivery of the site and its access and mitigation strategy.

DSP40

7.2.8 DSP40 (ii) requires development to be well integrated to and related to the existing urban settlements and (v) requires that proposals will not have any unacceptable traffic implications.

7.2.9 The site is well connected to the existing settlements, providing direct access by active travel to Bridgemary to the east, Fareham town and its key employment areas to the north, to

Stubbington and the Solent EZ to the south and west and to Woodcot to the south-east. The scheme also integrates with the consented development abutting the southern boundary.

7.2.10 Traffic impacts on the wider network are fully assessed and shown to be acceptable.

7.3 Conclusions

7.3.1 Against this background, it is demonstrated that:

- There are genuine opportunities for future residents to travel from the site using sustainable modes of transport, and that the proposals will ensure opportunities for sustainable travel are taken up;
- The proposed site access arrangement will be safe and suitable to serve the development. The internal layout of the site will be designed in accordance with contemporary design guidance, and ensures safe movement for all people; and
- The local highway network can accommodate the traffic generated by the development during the peak periods without resulting in a 'severe' residual cumulative impact to the network operation and is therefore in full accordance with the policies set out in the NPPF.

7.3.2 Therefore, based on the above, it is concluded that the development proposal fully satisfies local and national transport policies and should be considered acceptable in transport terms.

FIGURES

KEY

ILLUSTRATIVE SITE BOUNDARY

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TITLE:

NEWGATE LANE, FAREHAM
SITE LOCATION PLAN

FIGURE No:

FIGURE 1

FILE REF: **ITB10353**

REV: **A**

KEY

- ILLUSTRATIVE SITE BOUNDARY
- E1 HMS COLLINGWOOD
- E2 FAREHAM BUSINESS PARK
- E3 NEWGATE LANE INDUSTRIAL ESTATE
- E4 SOLENT ENTERPRISE ZONE
- E5 VECTOR AEROSPACE
- E6 FRATER GATE BUSINESS PARK
- E7 GOSPORT BUSINESS CENTRE
- ED1 WOODCOT PRIMARY SCHOOL
- ED2 PEEL COMMON JUNIOR SCHOOL
- ED3 PEEL COMMON NURSERY
- ED4 HOLBROOK PRIMARY SCHOOL
- ED5 BADGER PRE SCHOOL
- ED6 BRIDGEMARY SCHOOL
- ED7 BAYCROFT SCHOOL
- ED8 CROFTON SECONDARY SCHOOL
- ED9 FAREHAM ACADEMY
- ED10 WALLISDEAN COUNTY JUNIOR SCHOOL
- ED11 WALLISDEAN INFANT SCHOOL
- ED12 CROFTON ANNE DALE INFANT SCHOOL
- ED13 CROFTON ANNE DALE JUNIOR SCHOOL
- R1 TUKES AVENUE SHOPS
- R2 SPEEDFIELDS PARK INC ASDA AND LIDL
- R3 NOBES AVENUE LOCAL CENTRE
- R4 COLLINGWOOD RETAIL PARK
- R5 CARISBROOKE PRESINCT
- R6 BREWERS LANE STORES
- R7 STUBBINGTON VILLAGE CENTRE
- L1 BROOKERS FIELD RECREATION GROUND
- L2 CARISBROOKE ARMS PUBLIC HOUSE
- L3 FLEETLANDS FOOTBALL CLUB
- L4 BRIDGEMARY LIBRARY
- L5 LEE-ON-THE-SOLENT GOLF CLUB
- L6 BRIDGEMARY PARK
- L7 FLEETLANDS GOLF CLUB
- L8 GOSPORT LEISURE CENTRE
- H1 BRIDGEMARY MEDICAL CENTRE
- H2 FAREHAM ROAD SURGERY
- H3 ROWNER HEALTH CENTRE
- BUS STOP
- ECLIPSE BRT BUS ROUTE
- 9/9A BUS ROUTE
- 21 BUS ROUTE

FILE REF: ITB10353 | REV: D

0m 250m 500m

Indicative Scale Bar

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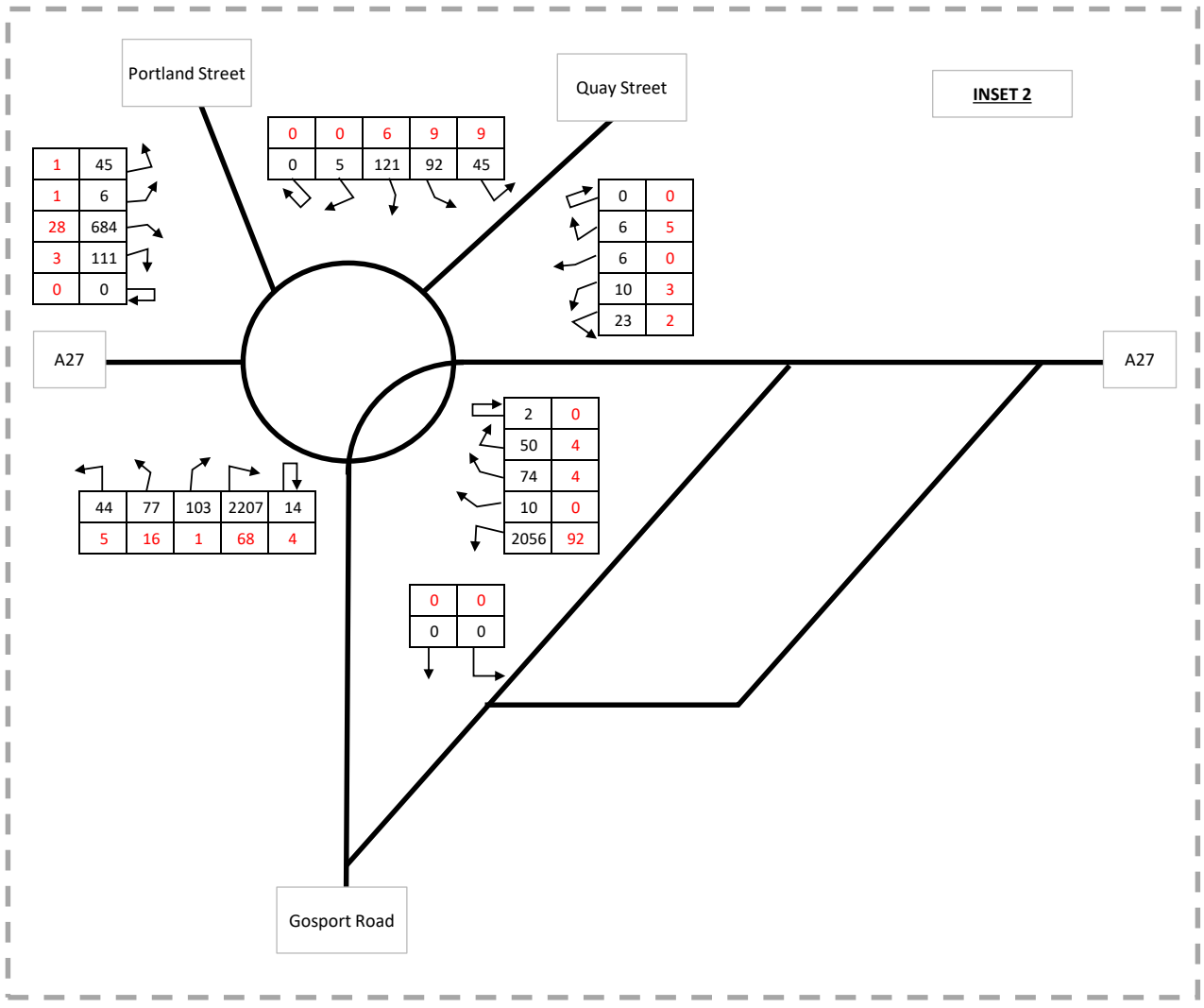
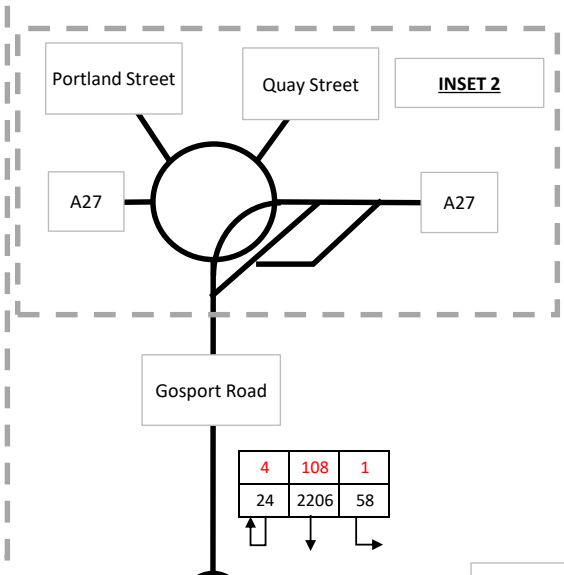
TITLE:

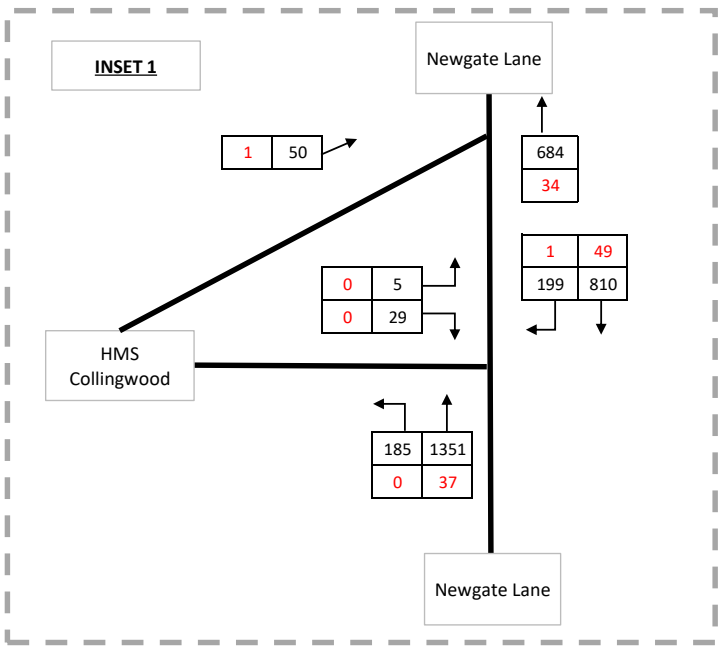
NEWGATE LANE, FAREHAM ACCESSIBILITY PLAN

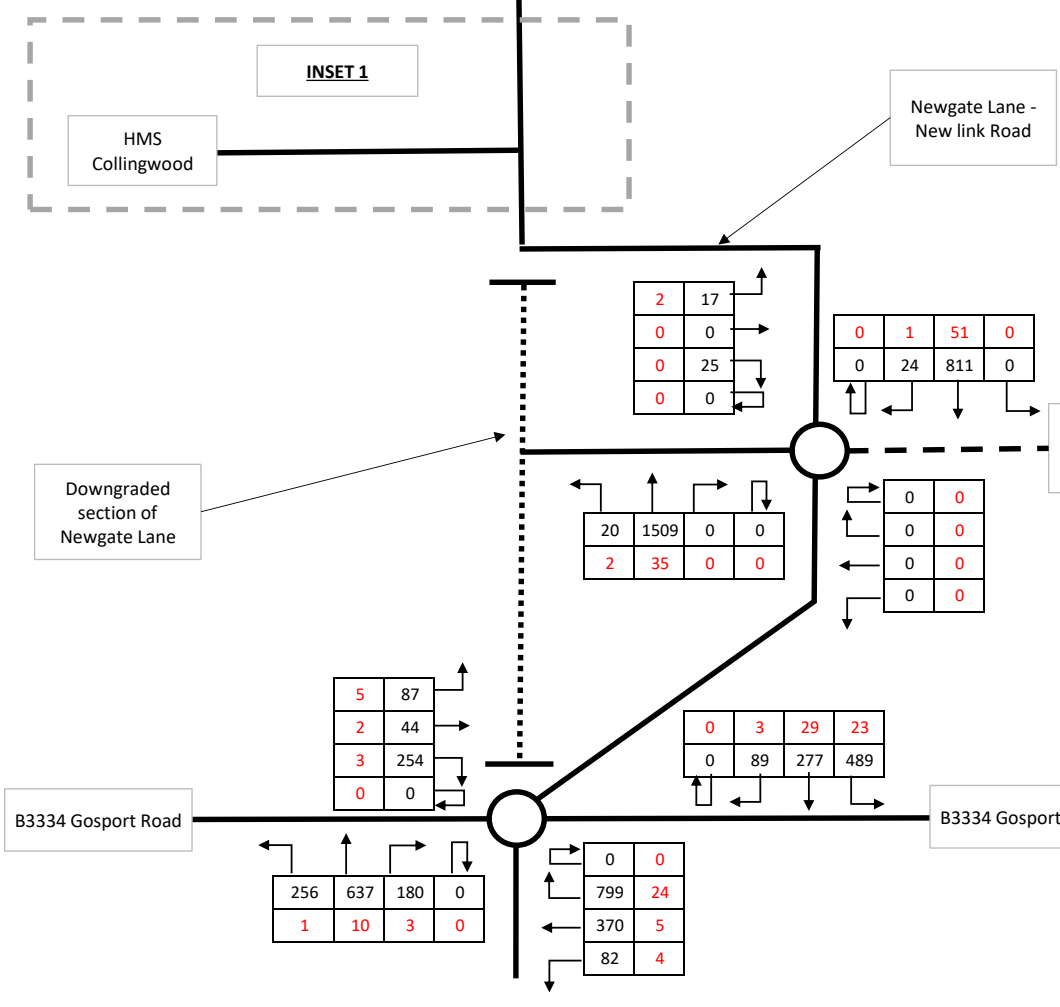
FIGURE No:

FIGURE 2









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NEWGATE LANE, FAREHAM

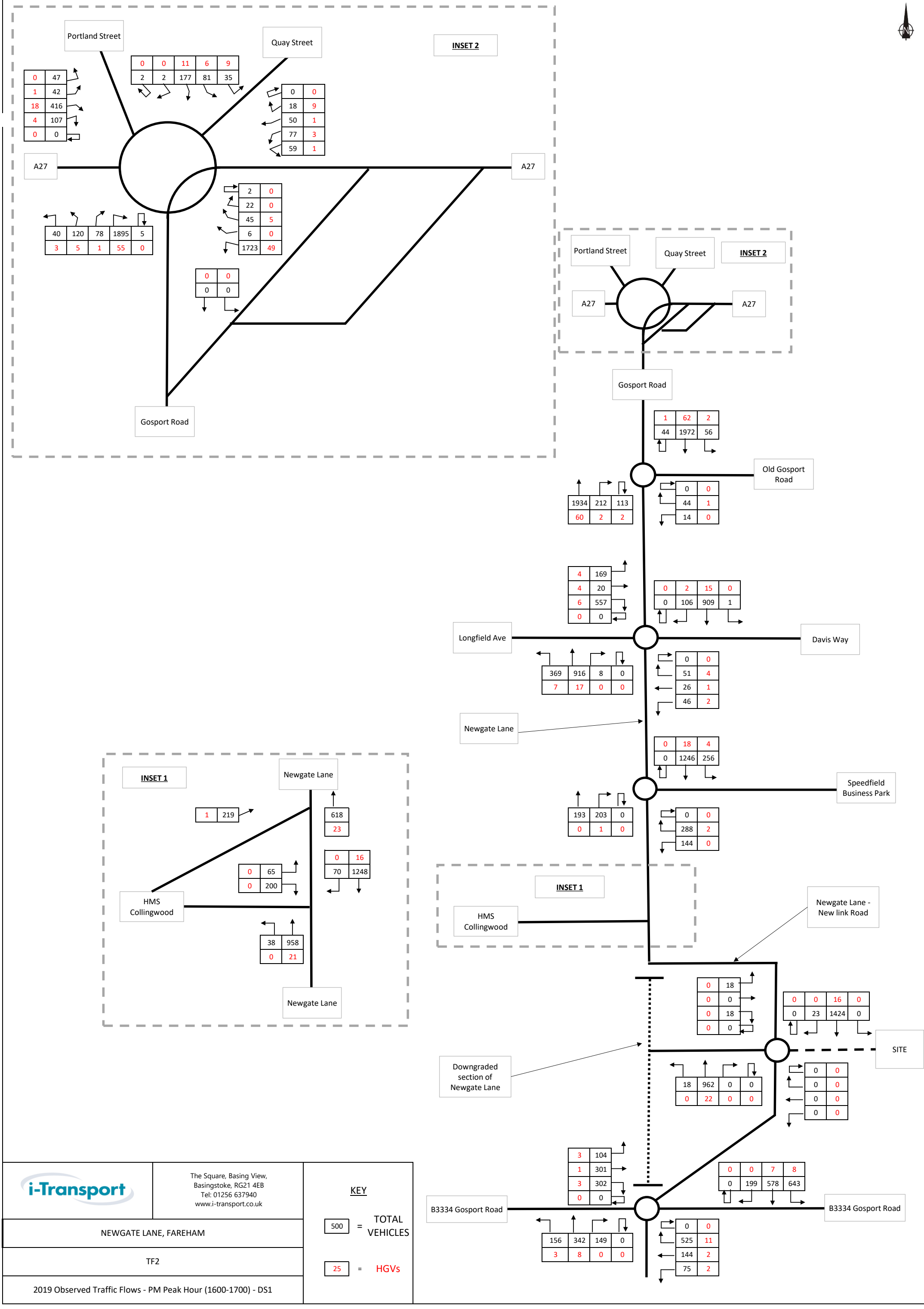
TF1

2019 Observed Traffic Flows - AM Peak Hour (0745-0845) - DS1

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

TF2

2019 Observed Traffic Flows - PM Peak Hour (1600-1700) - DS1

KEY

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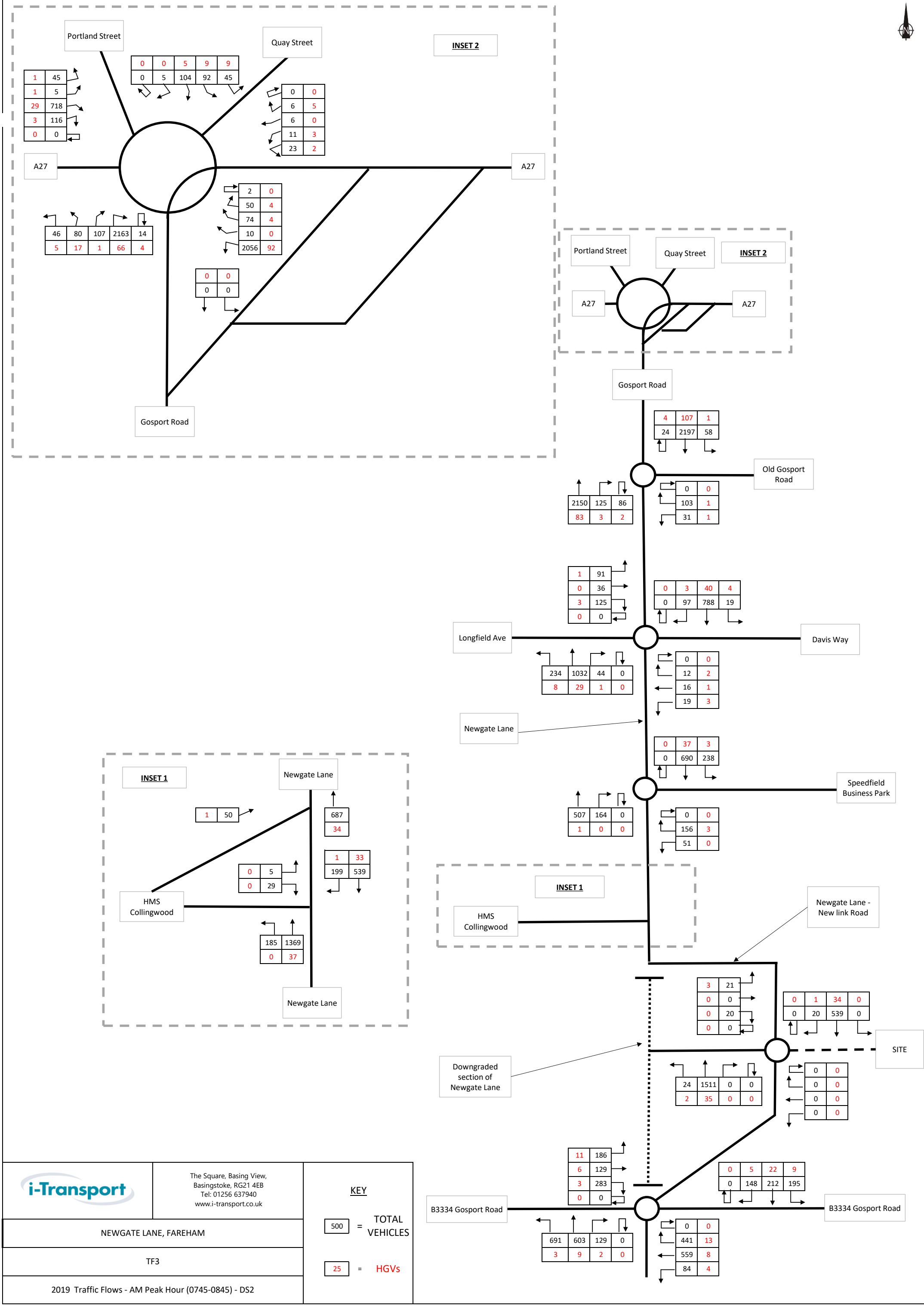
25 = HGVs



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TF3

2019 Traffic Flows - AM Peak Hour (0745-0845) - DS2

KEY

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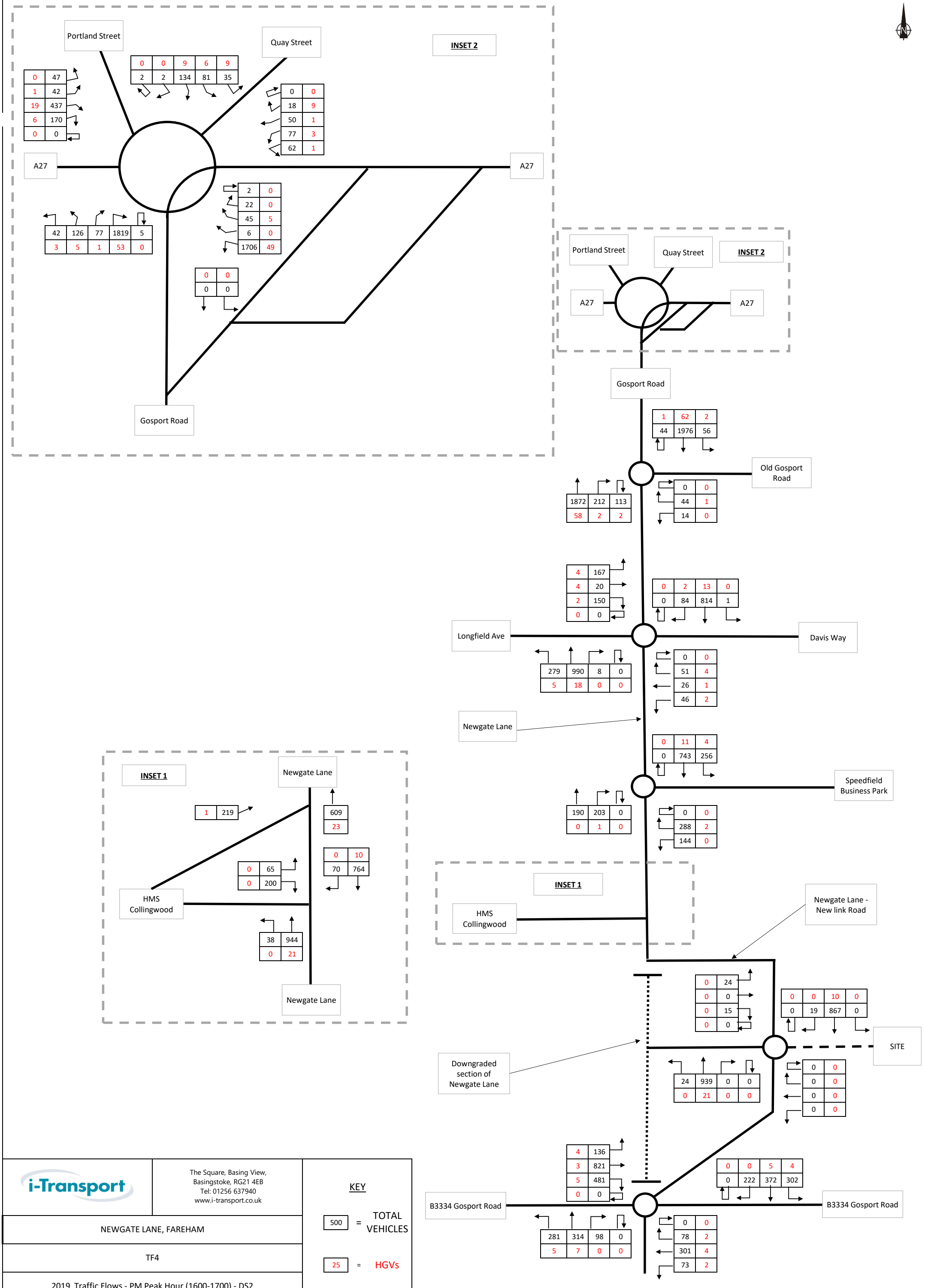
25 = HGVs



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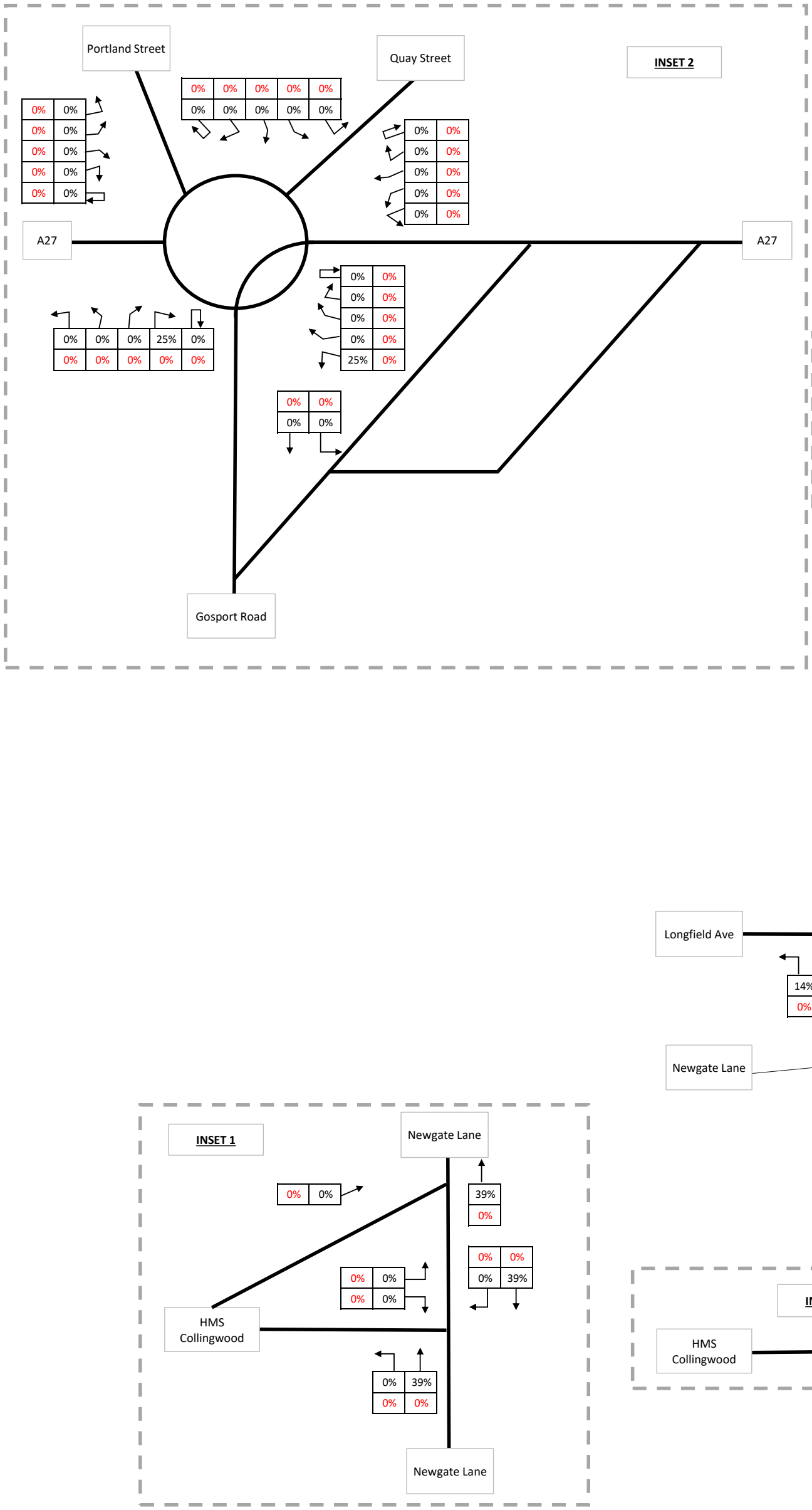
TF4

2019 Traffic Flows - PM Peak Hour (1600-1700) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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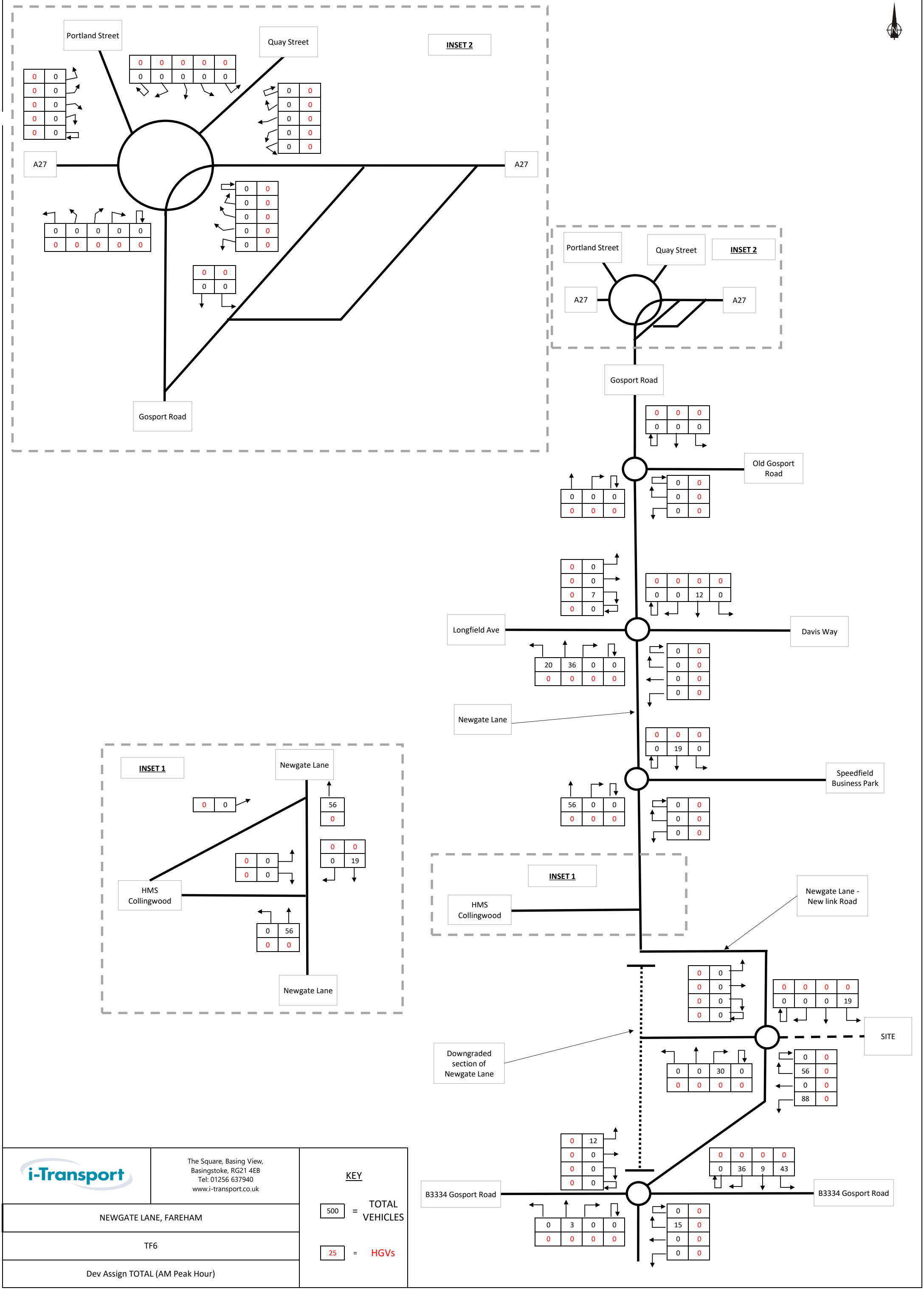
NEWGATE LANE, FAREHAM	KEY
TF5	500 = TOTAL VEHICLES
Dev Dist % Total	25 = HGVs



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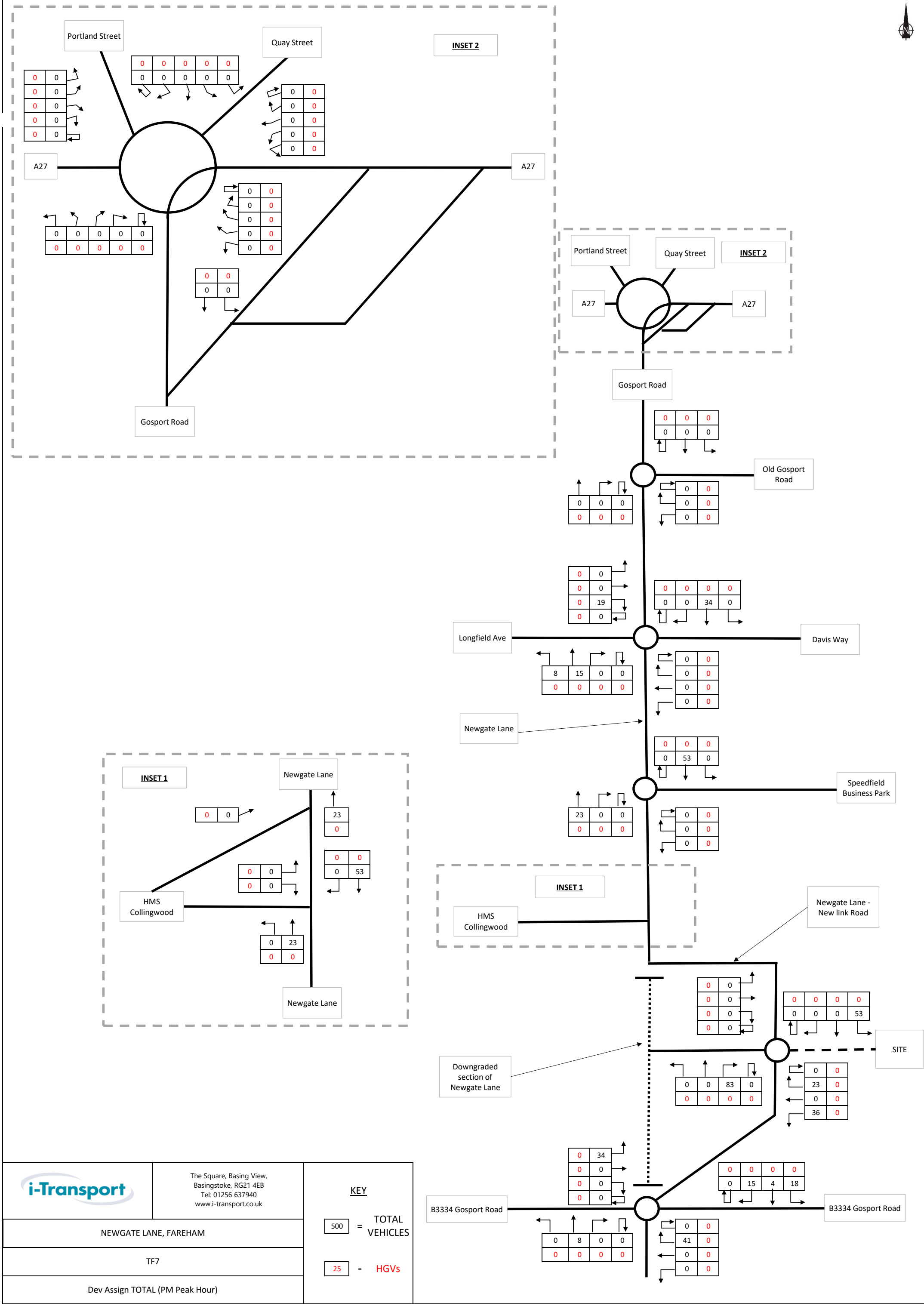
TF6

Dev Assign TOTAL (AM Peak Hour)

KEY

500 = TOTAL VEHICLES

25 = HGVs



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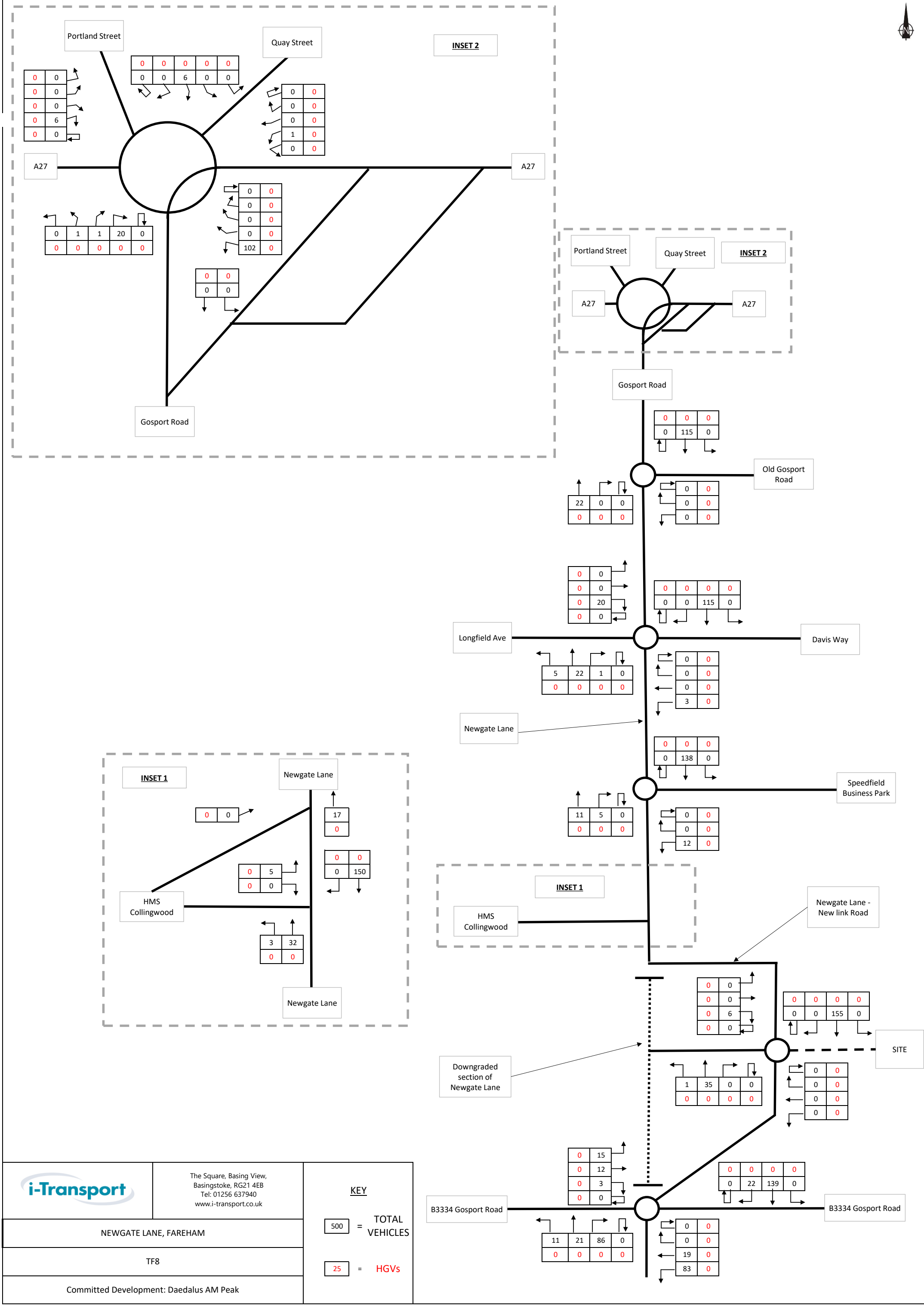
TF7

Dev Assign TOTAL (PM Peak Hour)

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

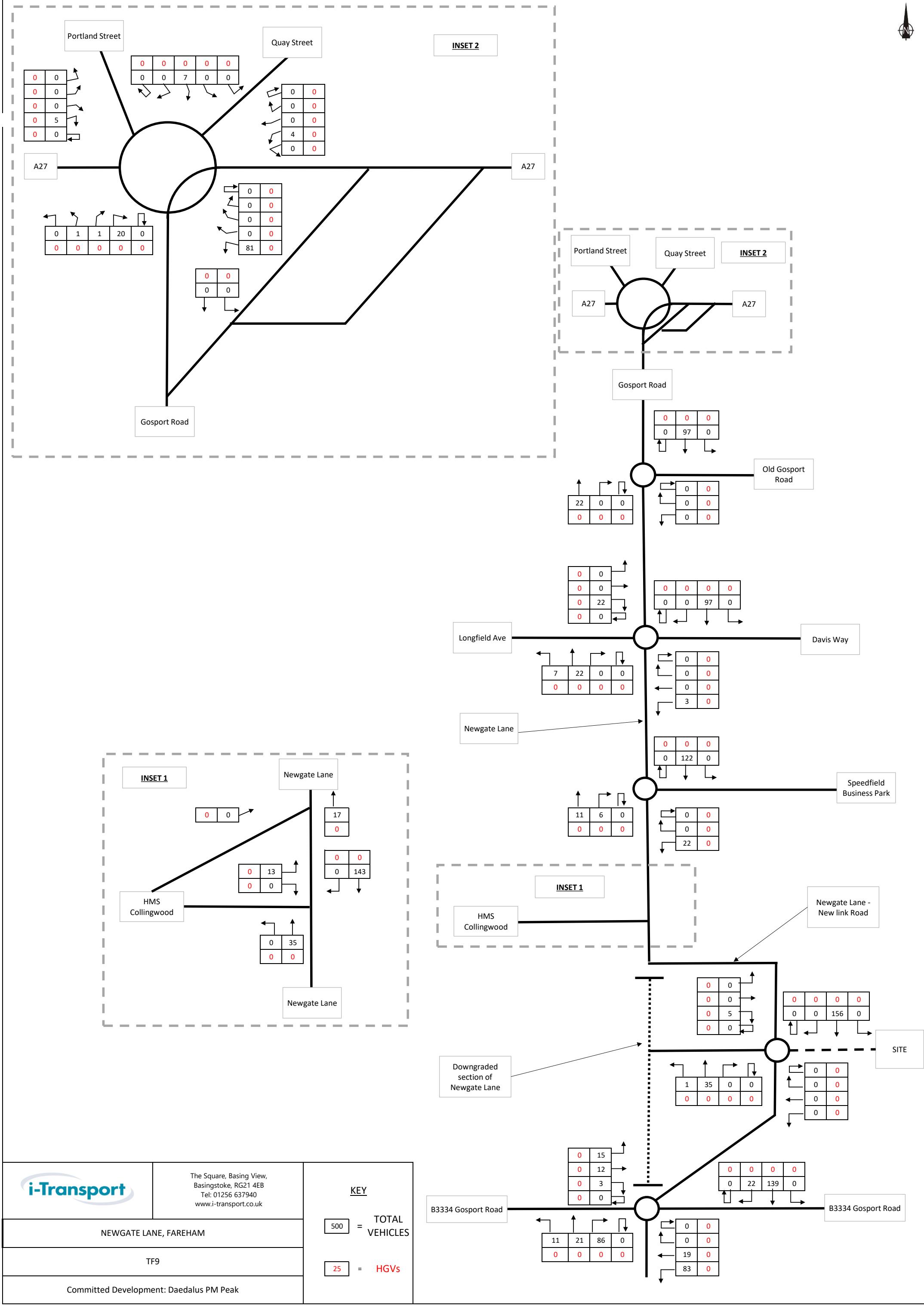
TF8

Committed Development: Daedalus AM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

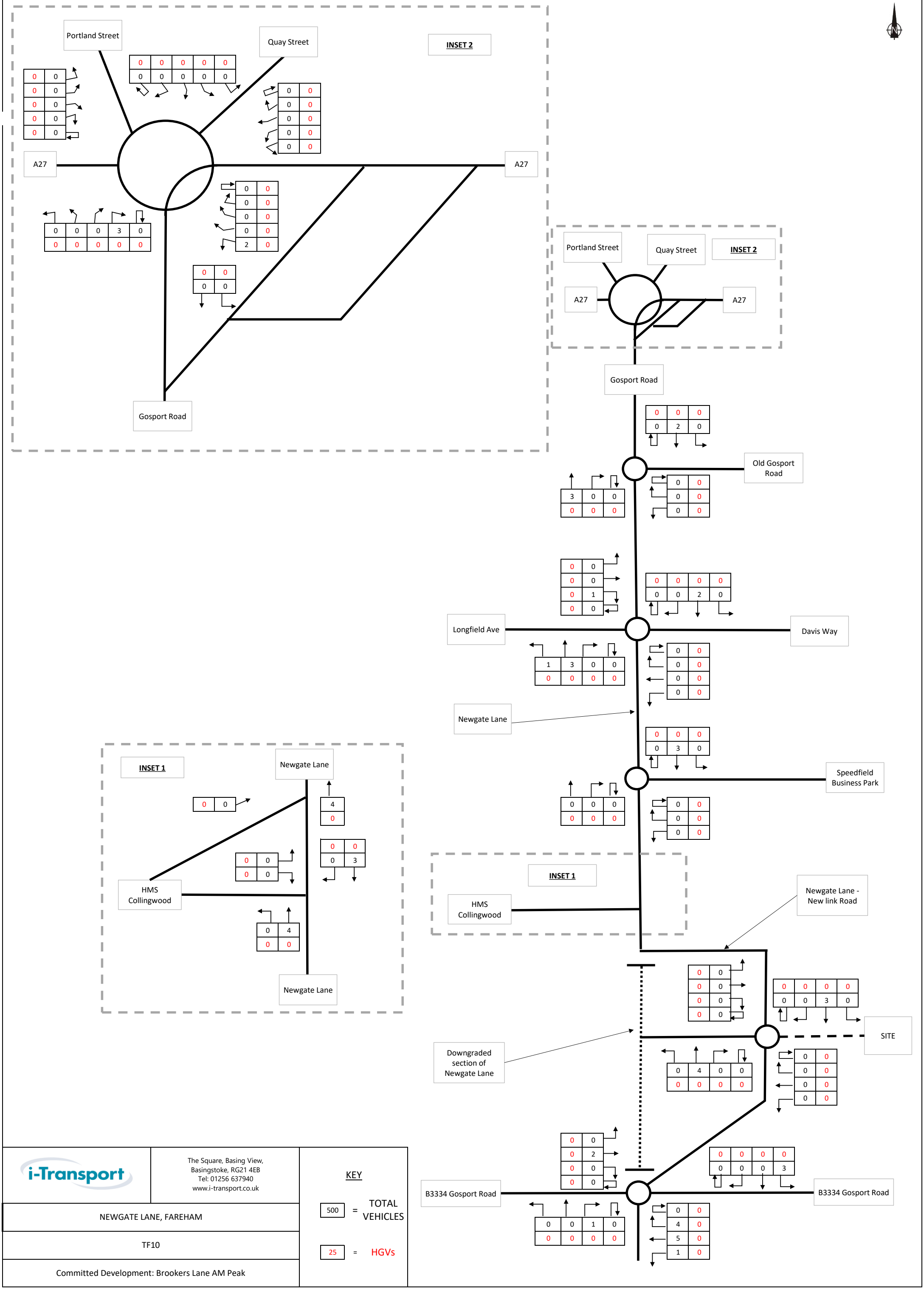
TF9

Committed Development: Daedalus PM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

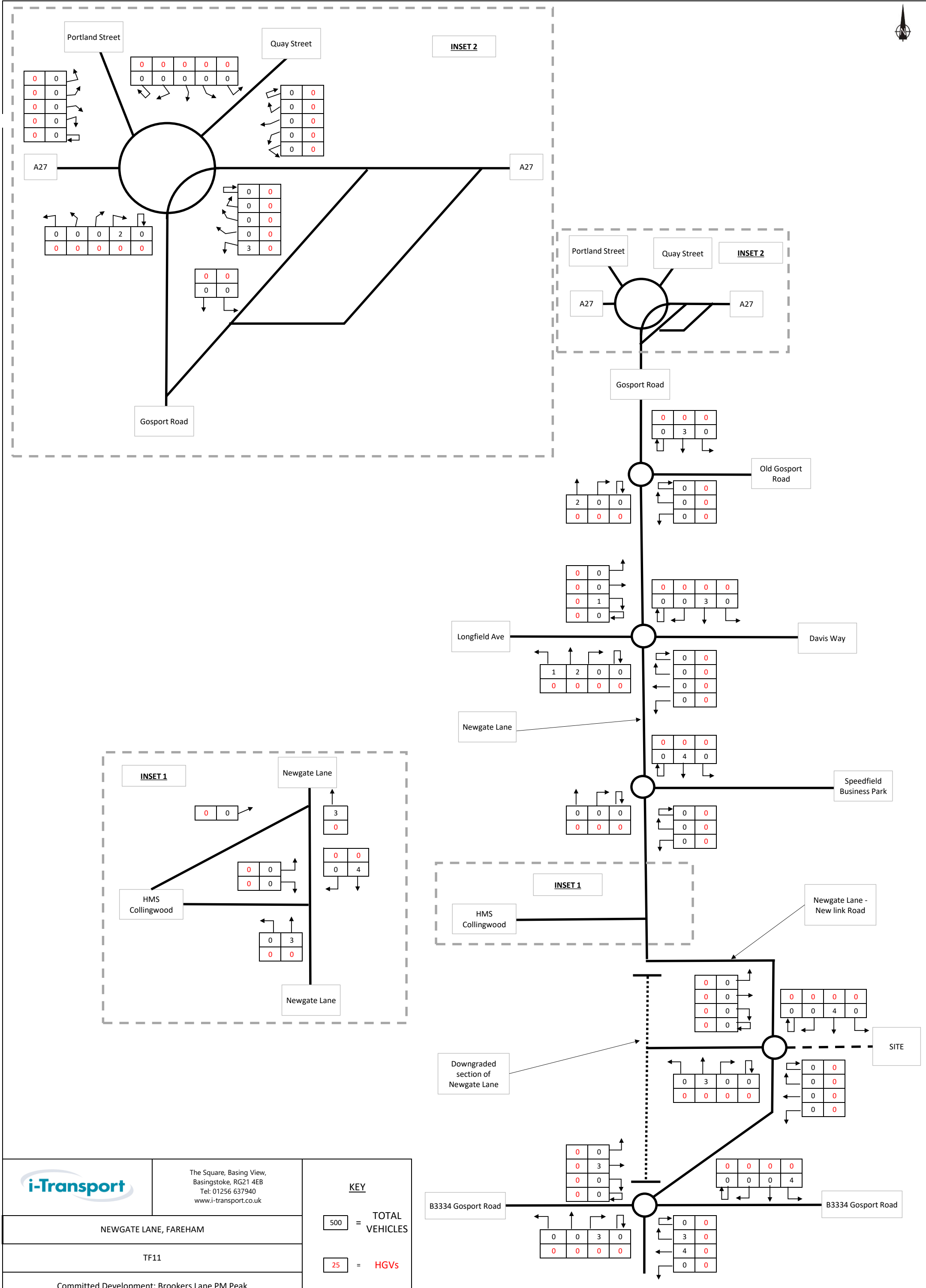
TF10

Committed Development: Brookers Lane AM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

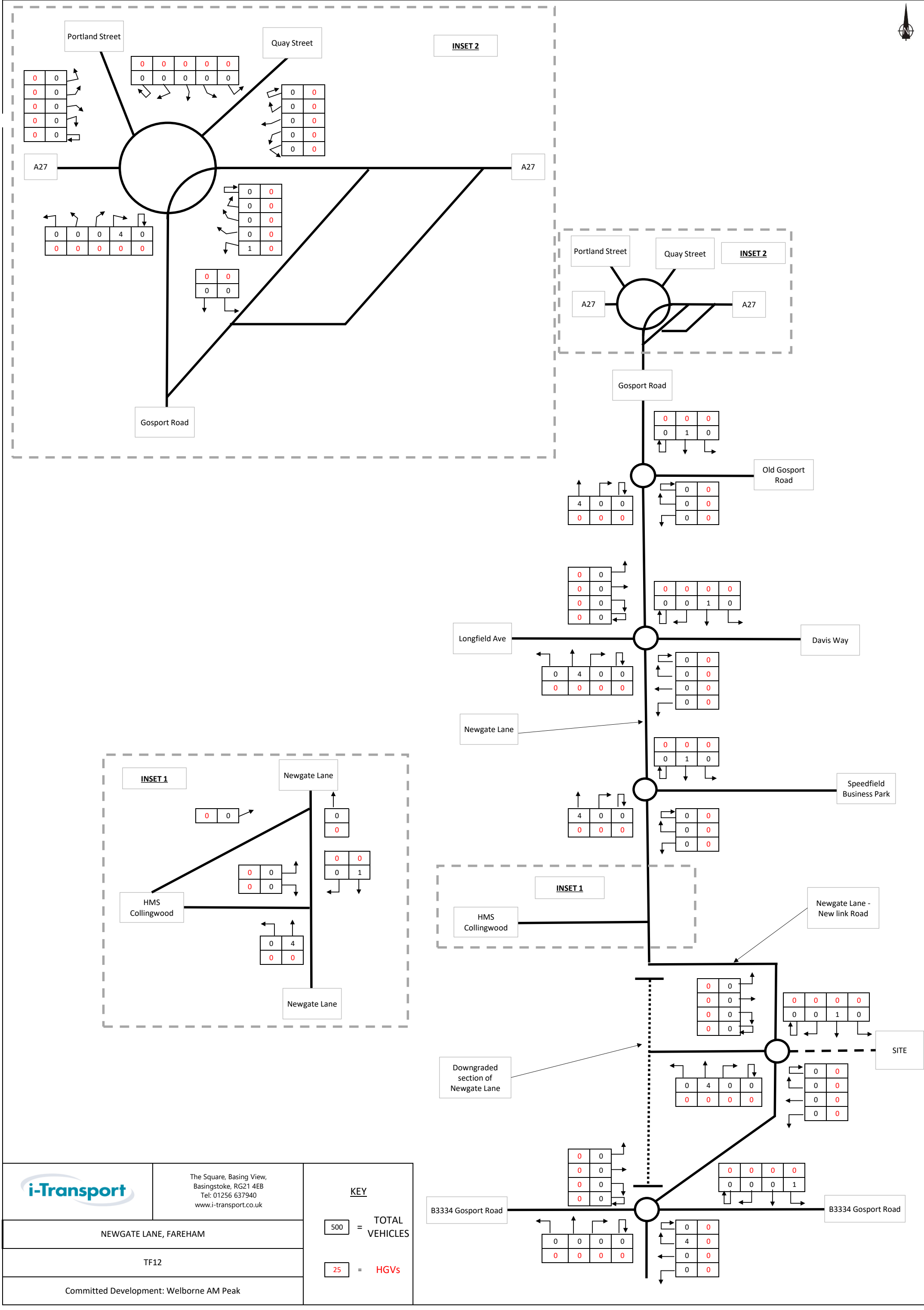
TF11

Committed Development: Brookers Lane PM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

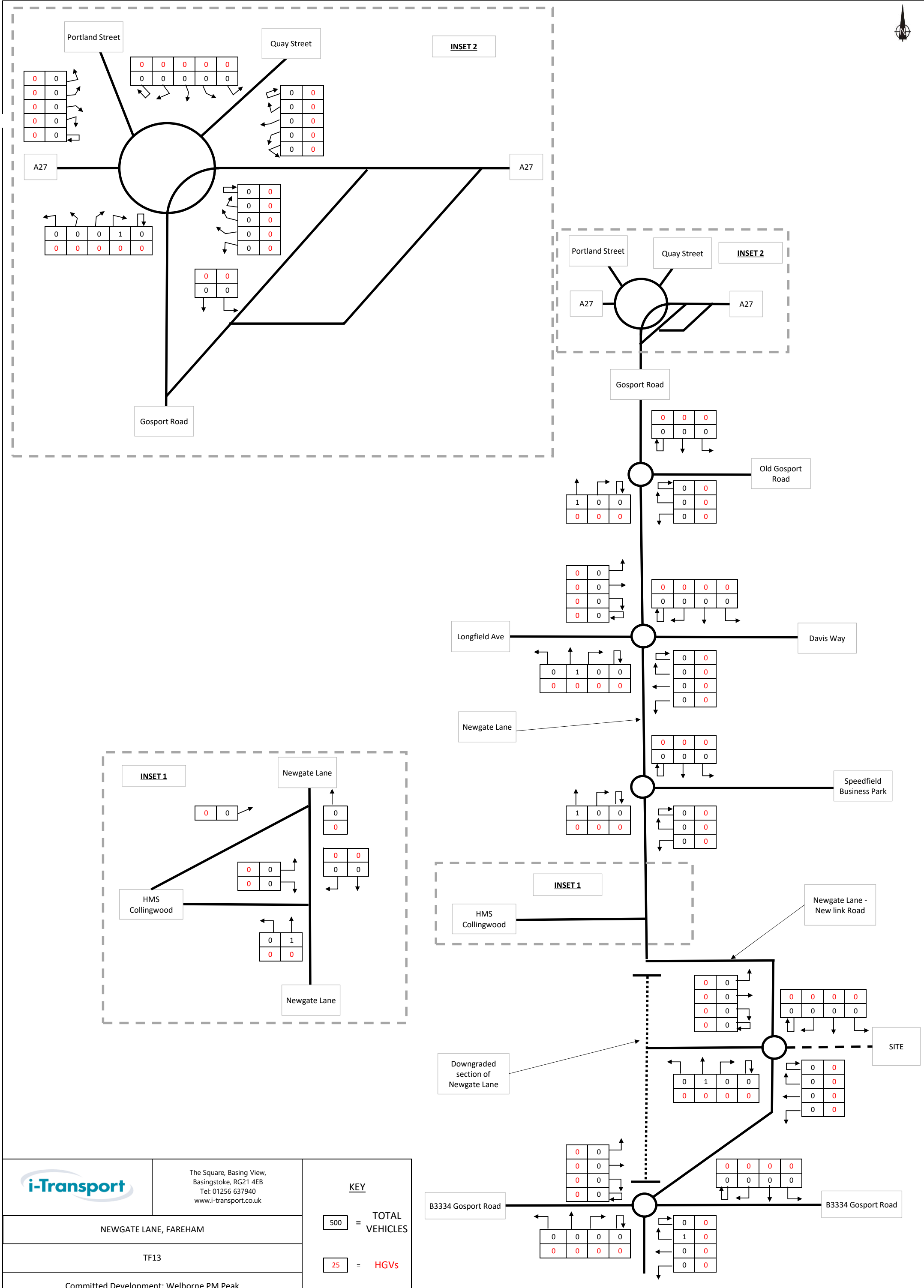
TF12

Committed Development: Welborne AM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

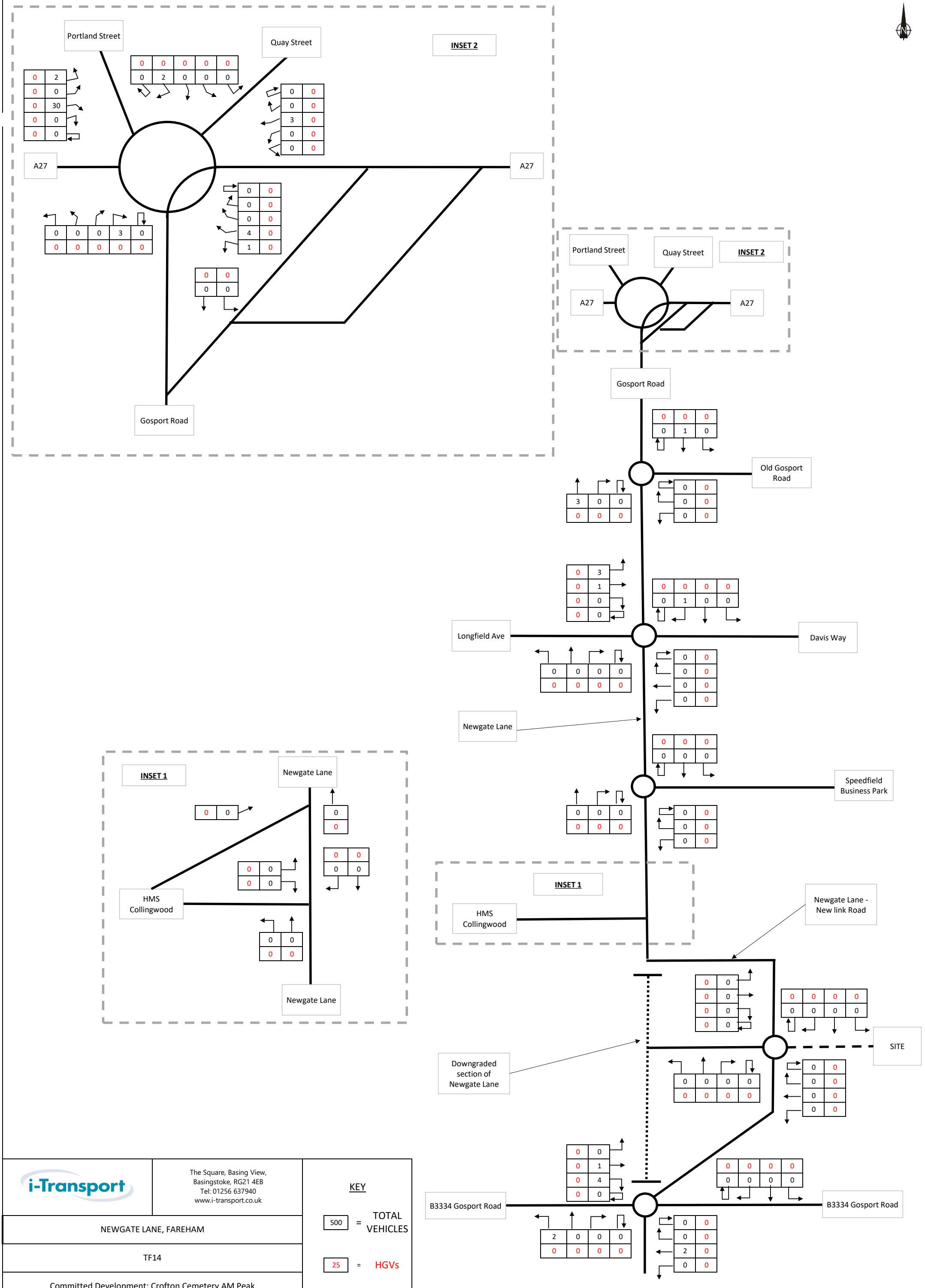
TF13

Committed Development: Welborne PM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

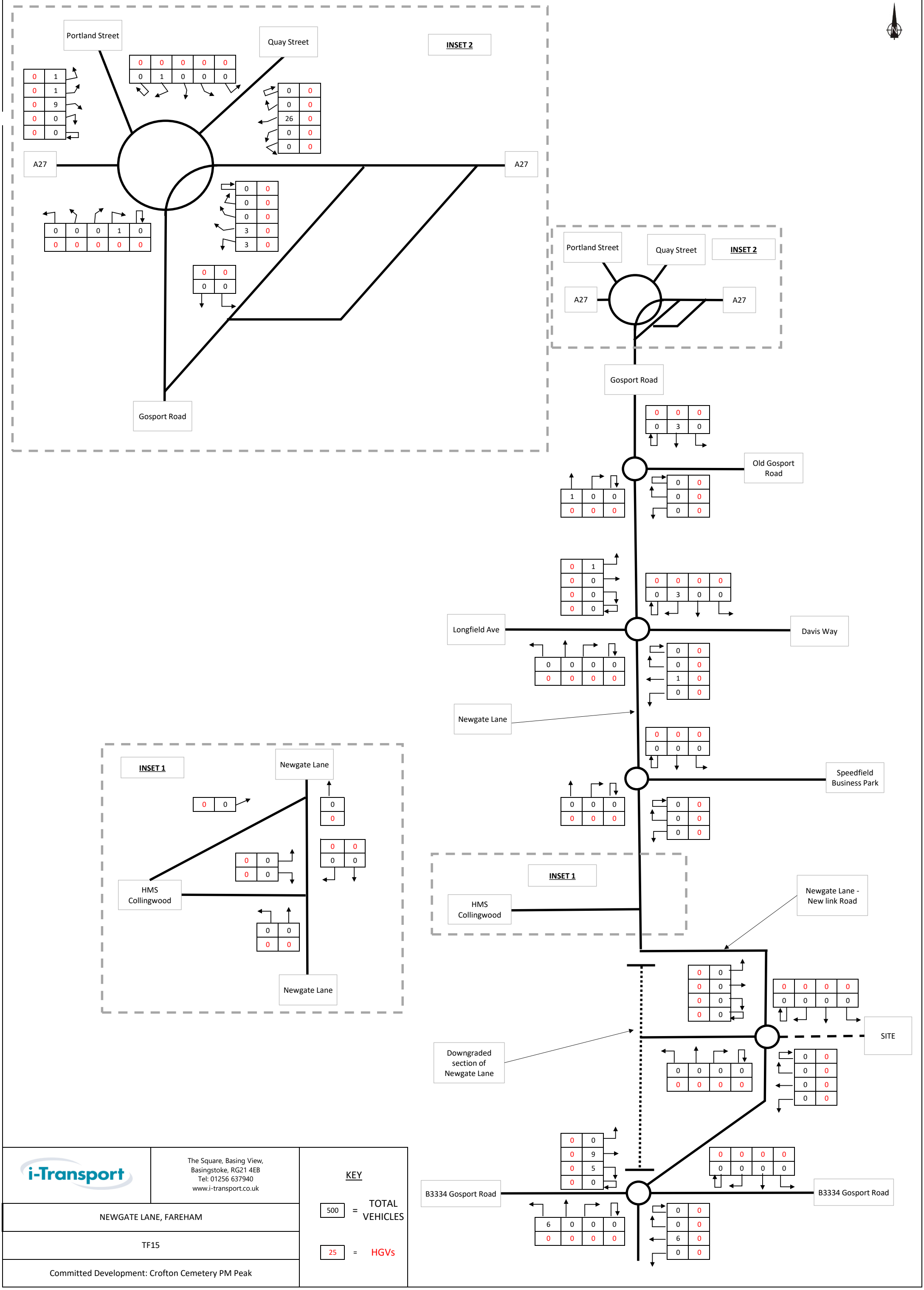
TF14

Committed Development: Crofton Cemetery AM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

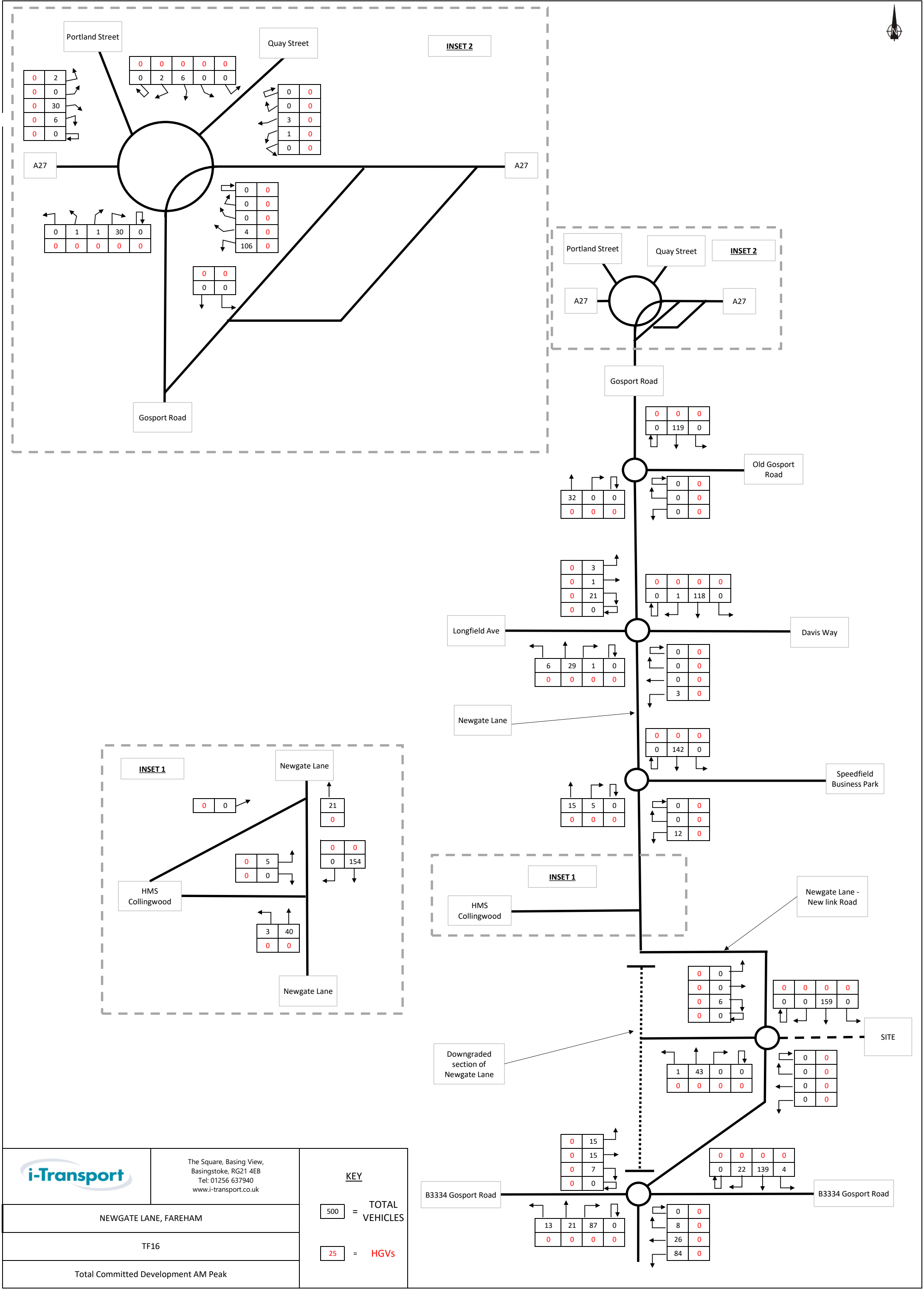
TF15

Committed Development: Crofton Cemetery PM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

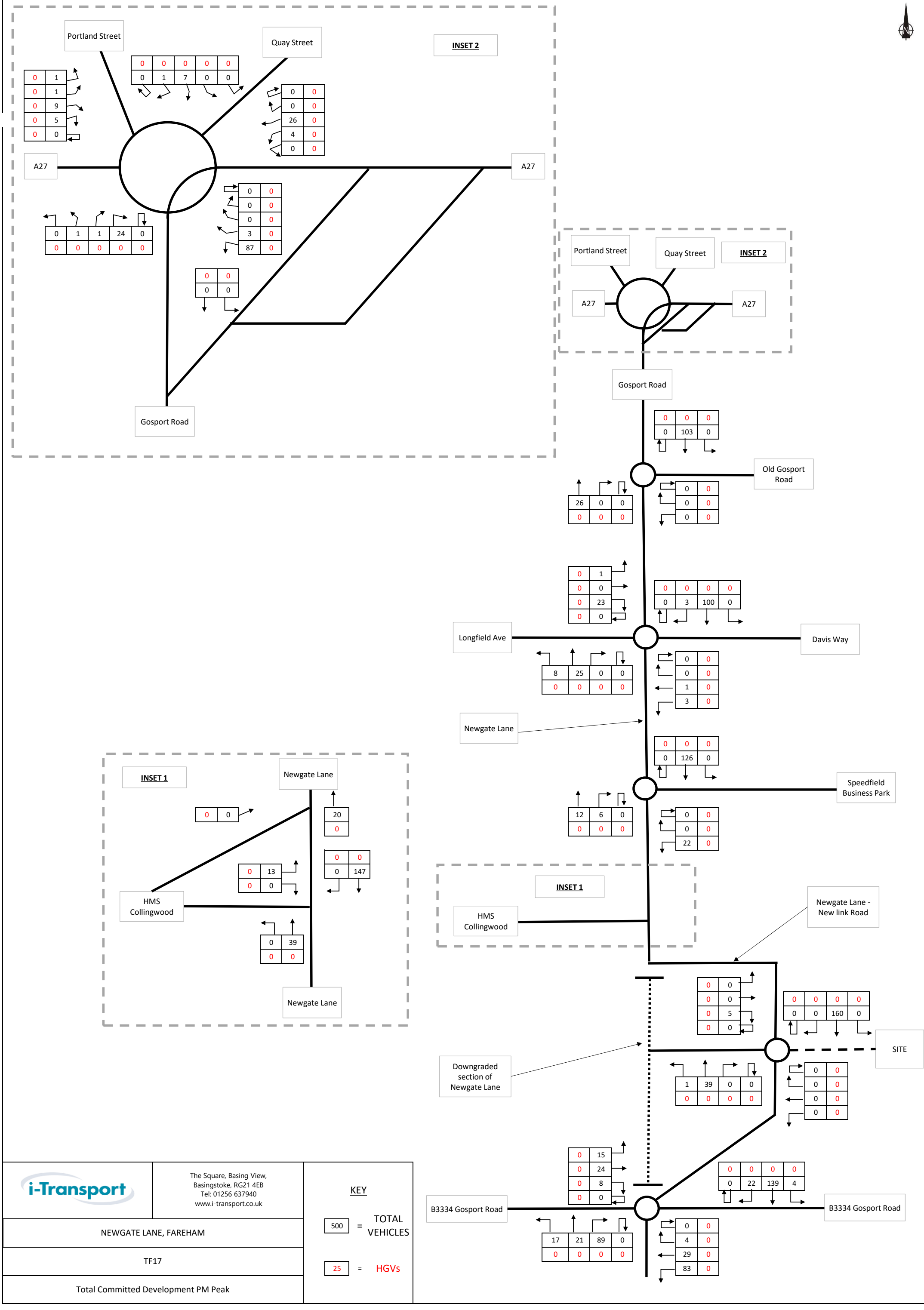
TF16

Total Committed Development AM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

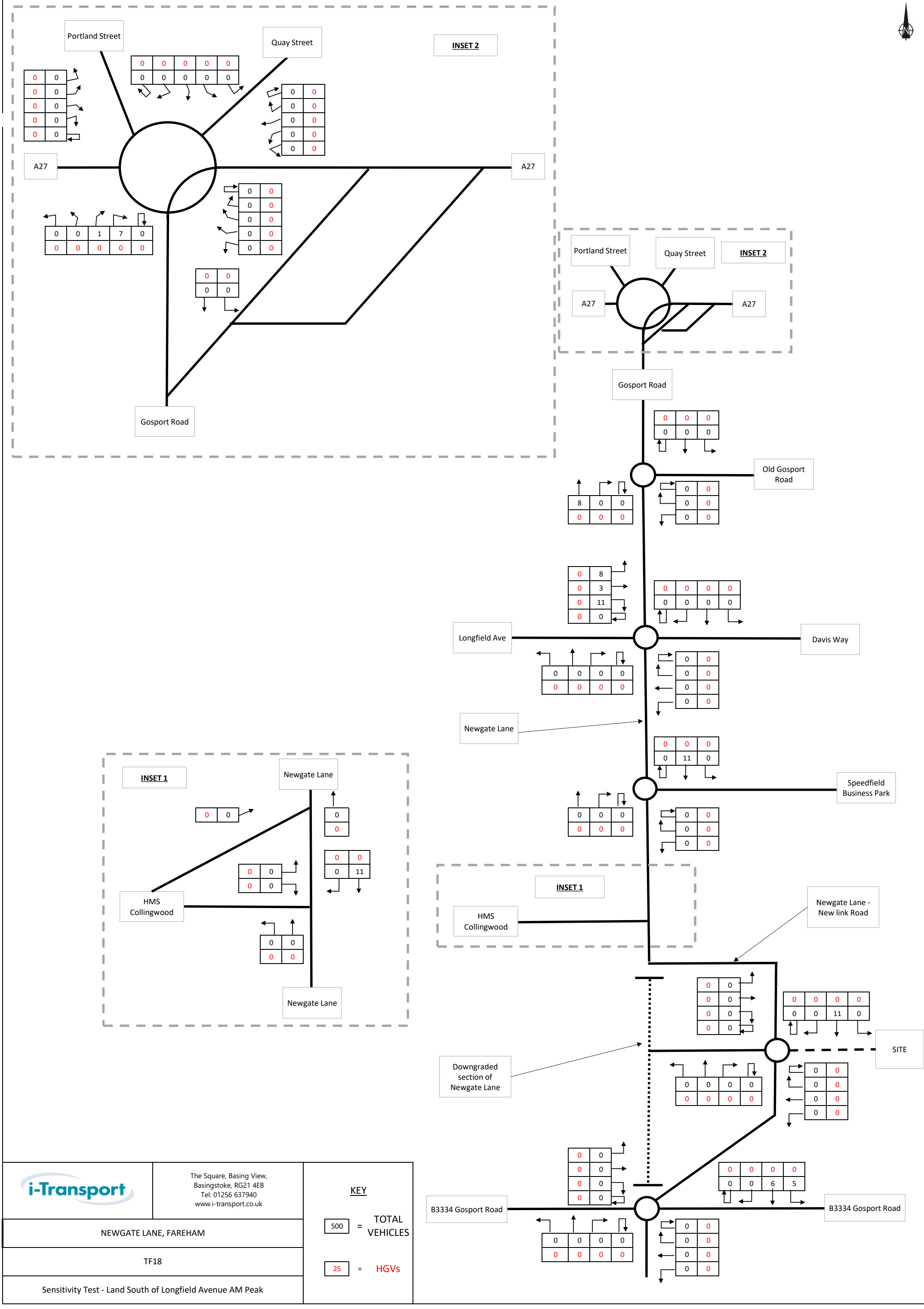
TF17

Total Committed Development PM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

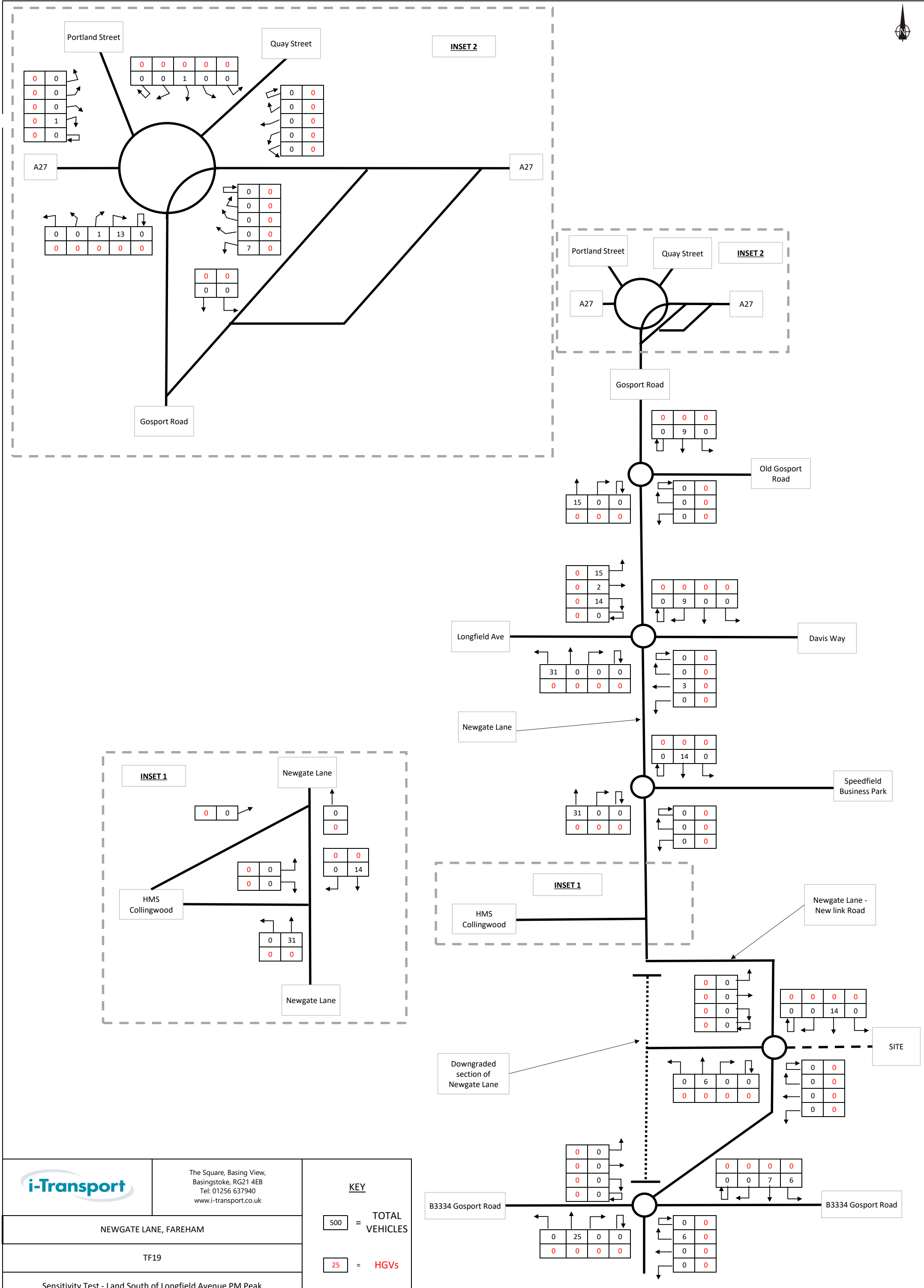
TF18

Sensitivity Test - Land South of Longfield Avenue AM Peak

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

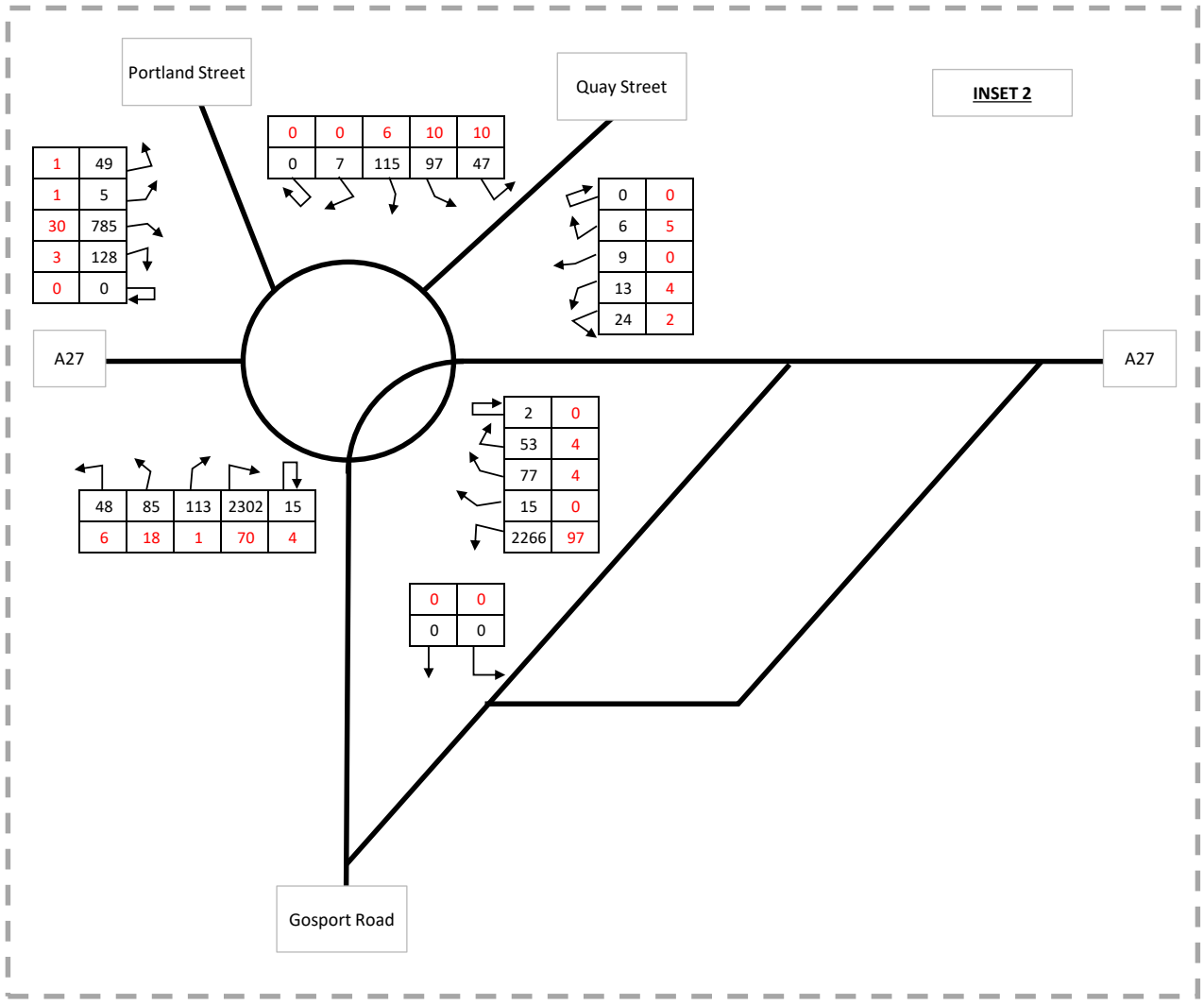
TF19

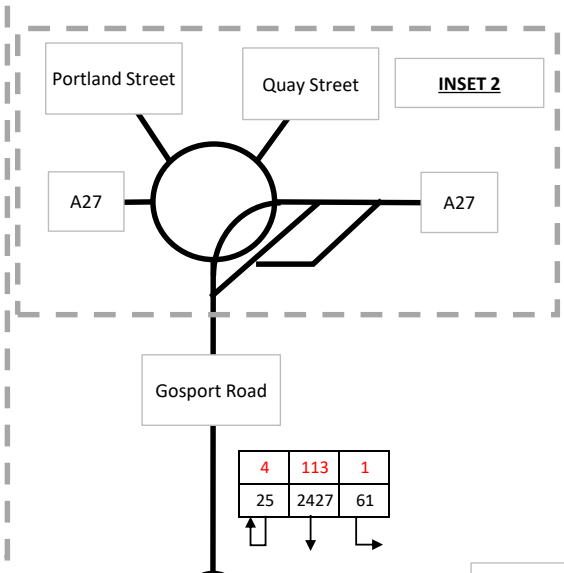
Sensitivity Test - Land South of Longfield Avenue PM Peak

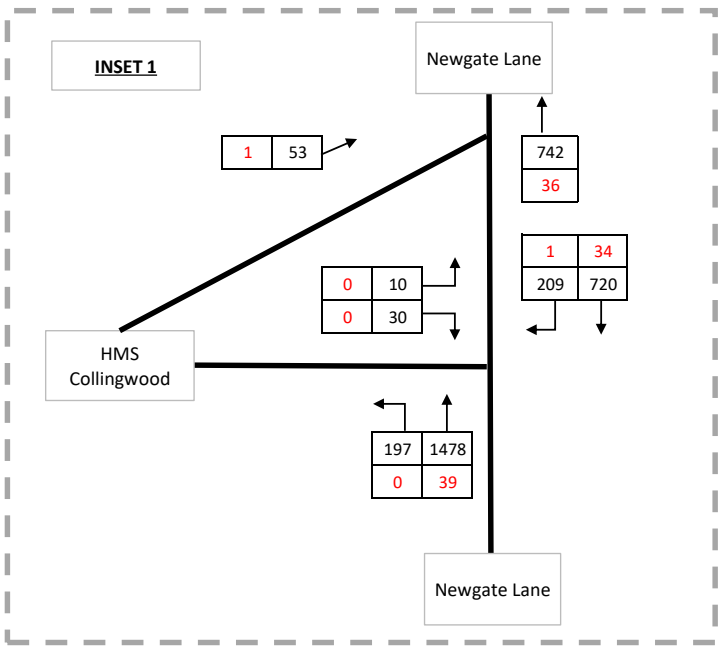
KEY

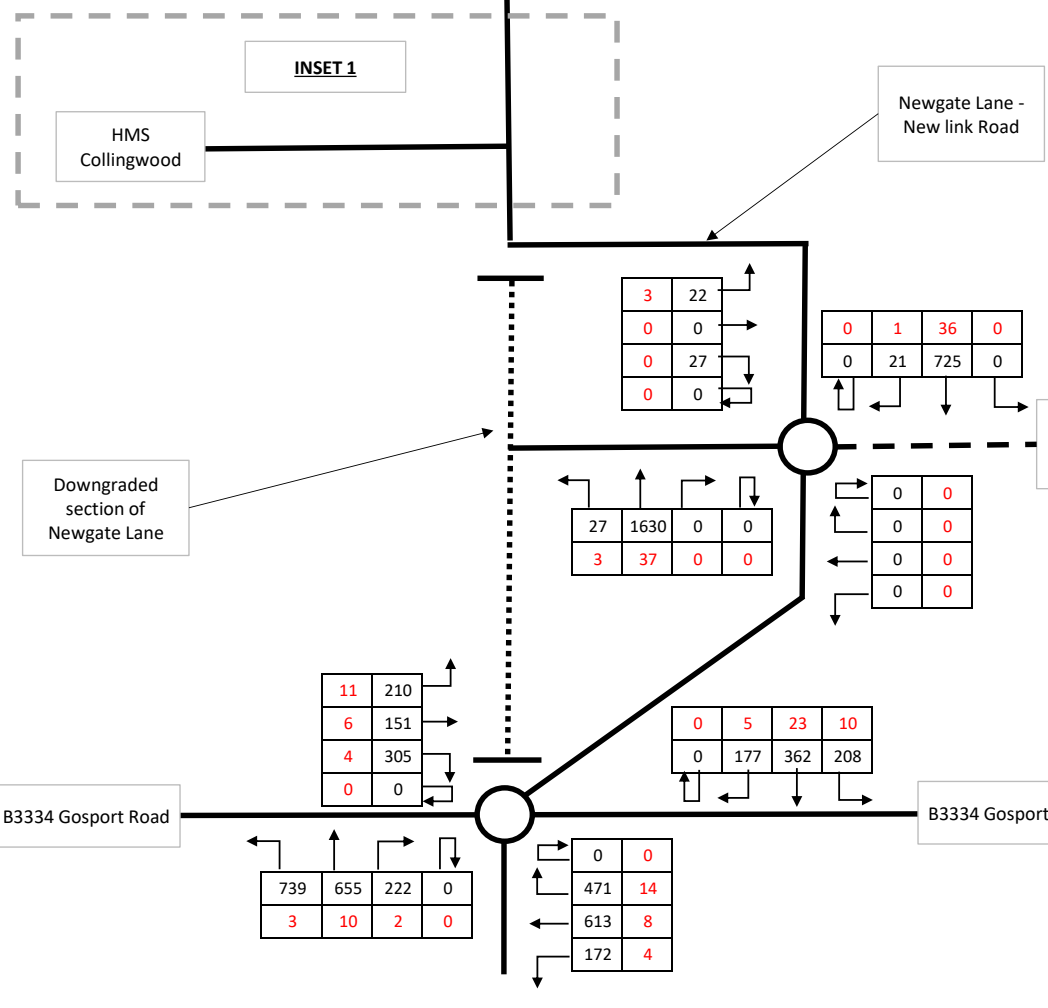
500 = TOTAL VEHICLES

25 = HGVs









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NEWGATE LANE, FAREHAM

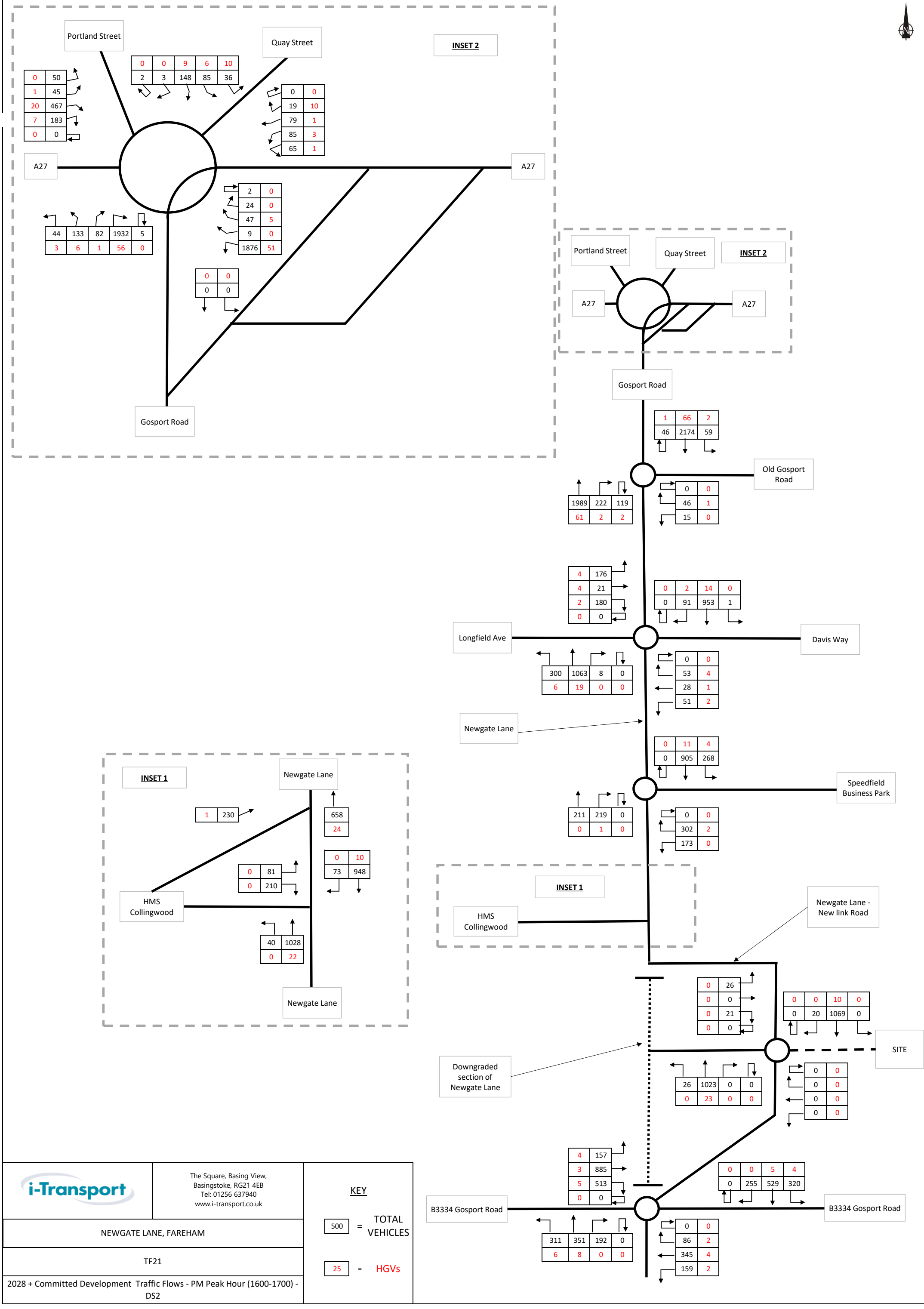
TF20

2028 + Committed Development Traffic Flows - AM Peak Hour (0745-0845) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

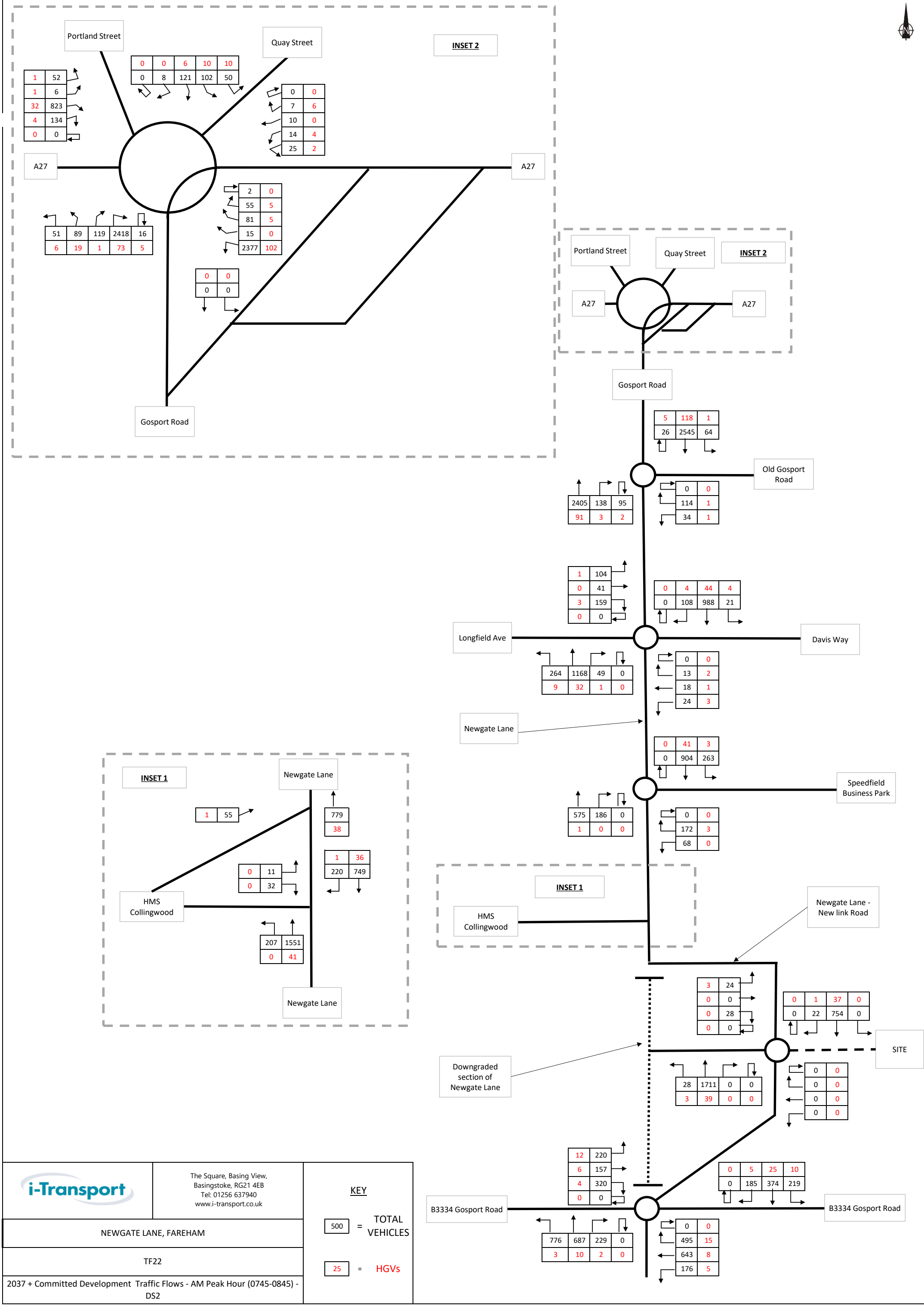
TF21

2028 + Committed Development Traffic Flows - PM Peak Hour (1600-1700) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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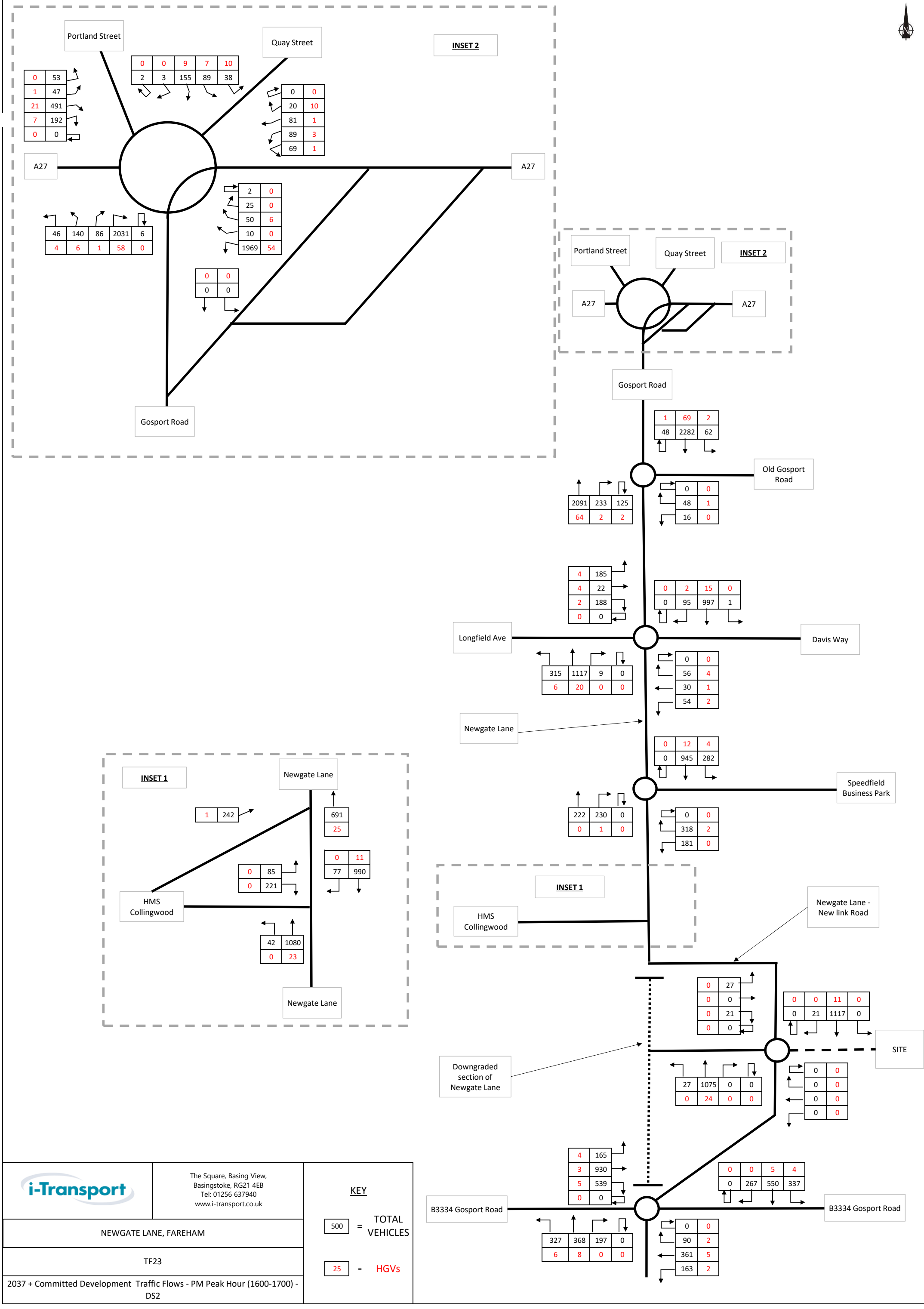
NEWGATE LANE, FAREHAM	
TF22	
2037 + Committed Development Traffic Flows - AM Peak Hour (0745-0845) - DS2	

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

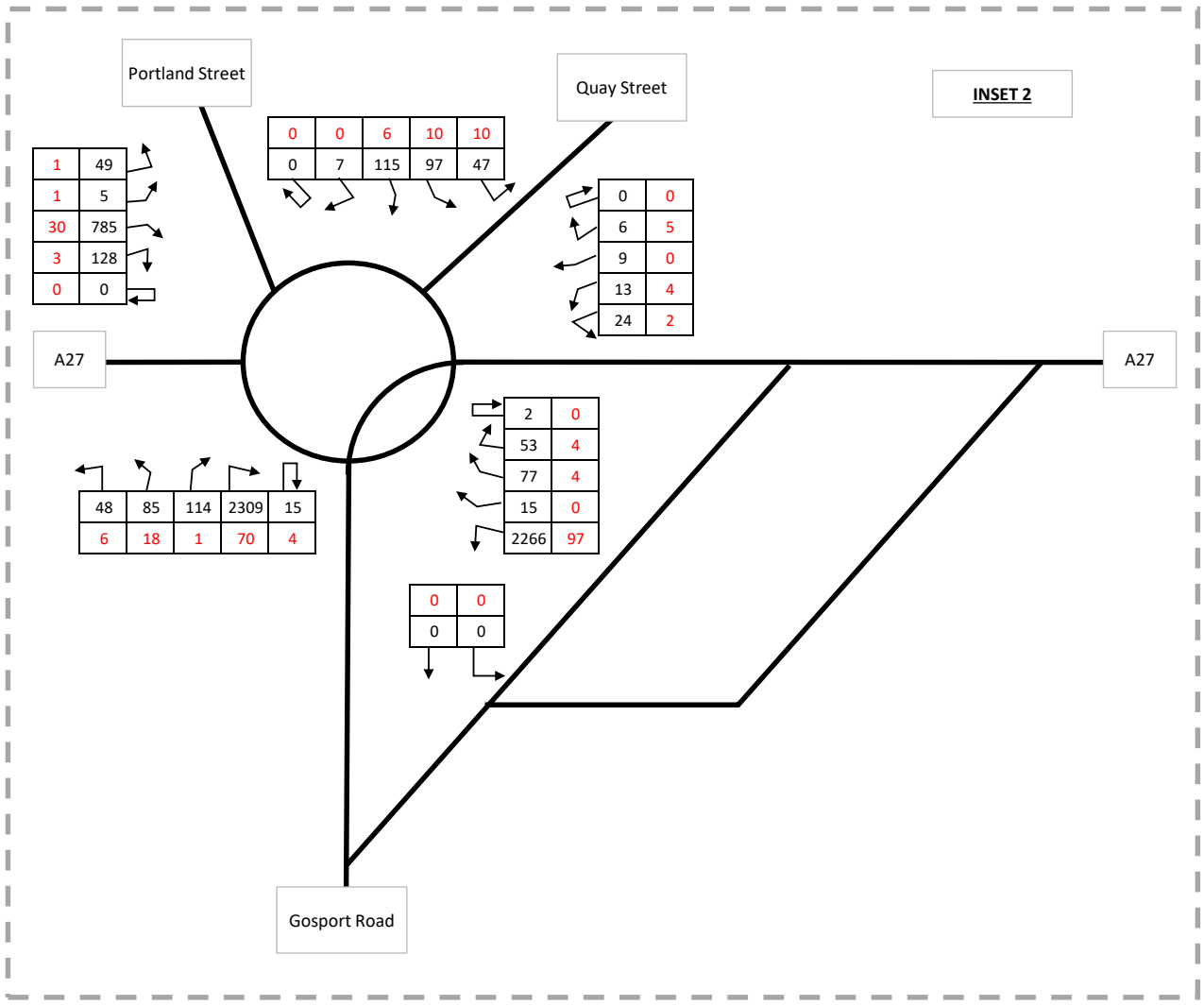
TF23

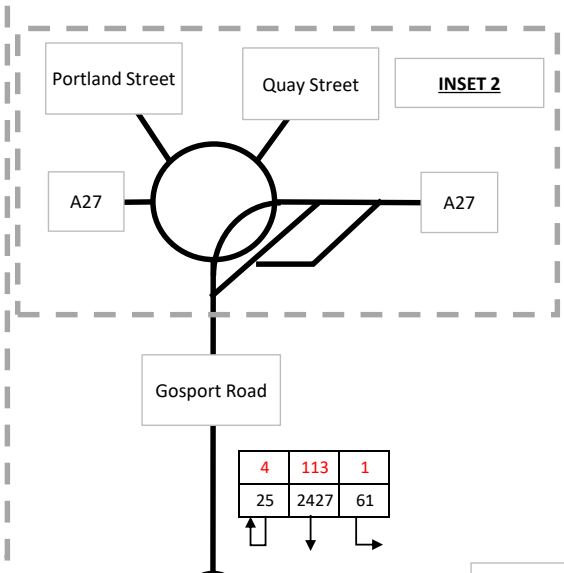
2037 + Committed Development Traffic Flows - PM Peak Hour (1600-1700) - DS2

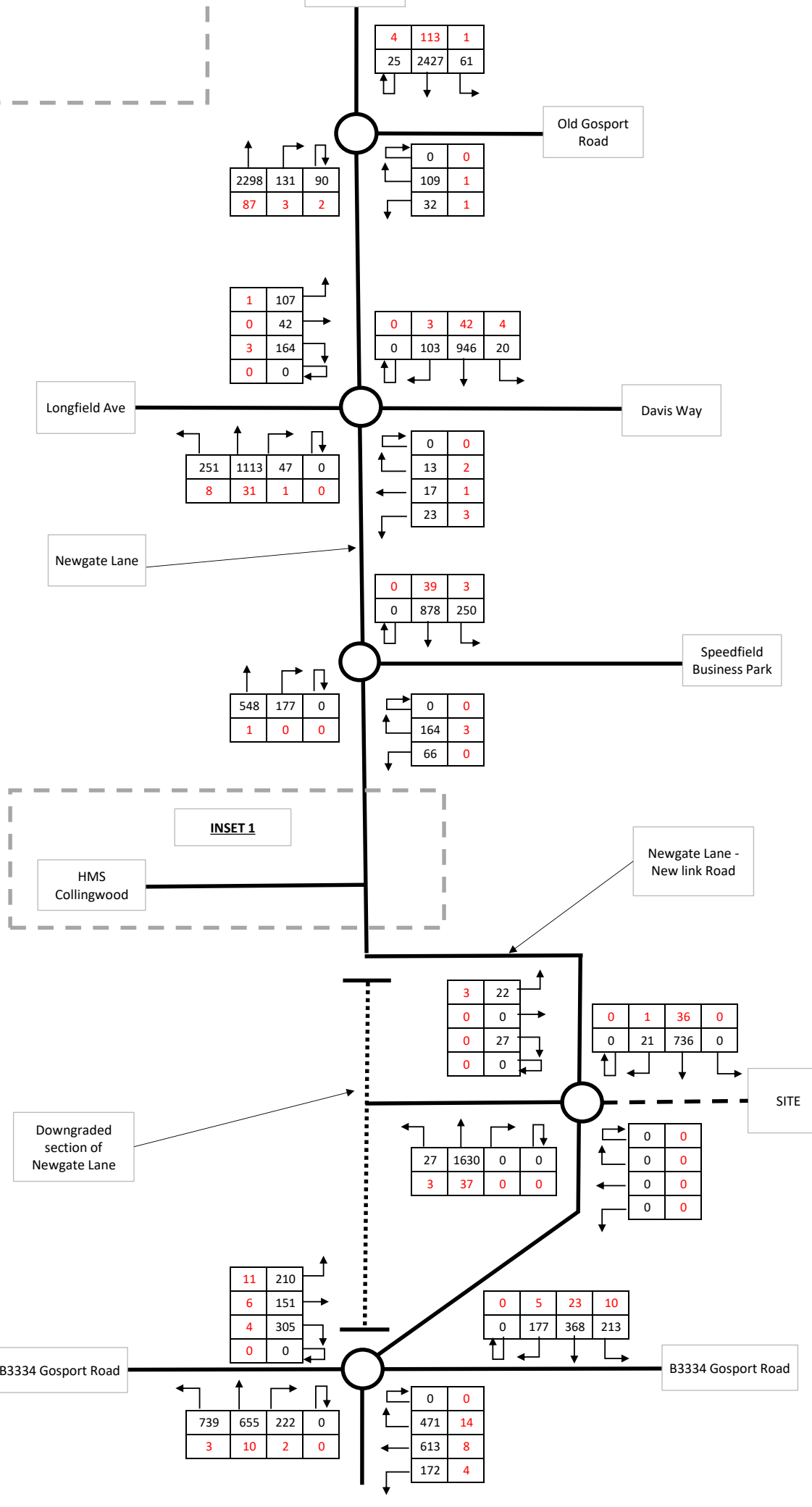
KEY

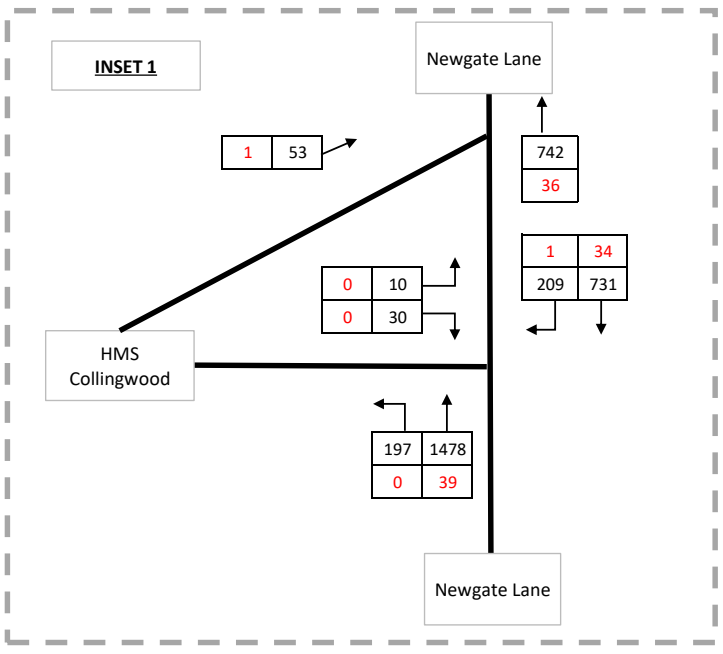
500 = TOTAL VEHICLES

25 = HGVs









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NEWGATE LANE, FAREHAM

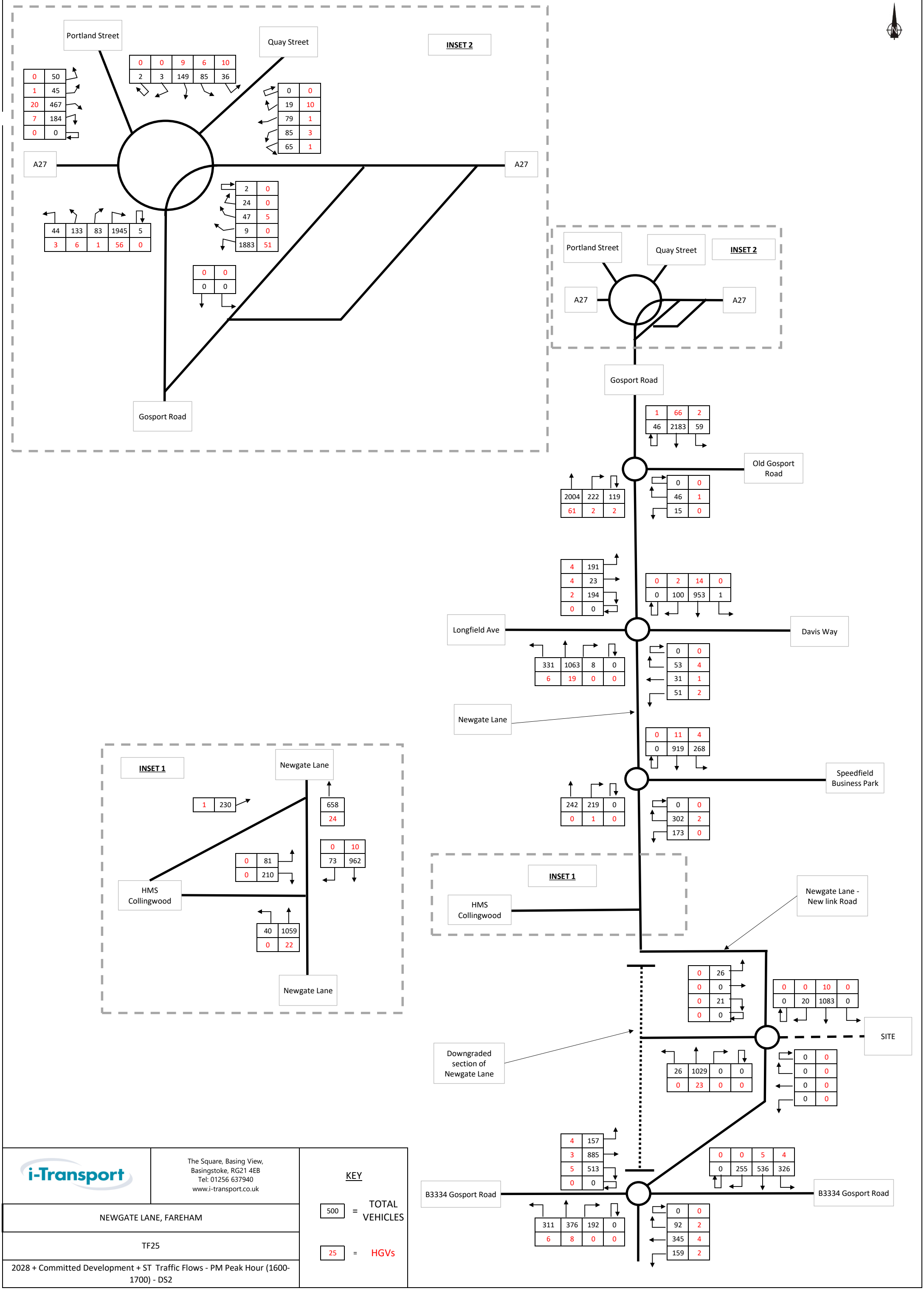
TF24

2028 + Committed Development + ST Traffic Flows - AM Peak Hour (0745-0845) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

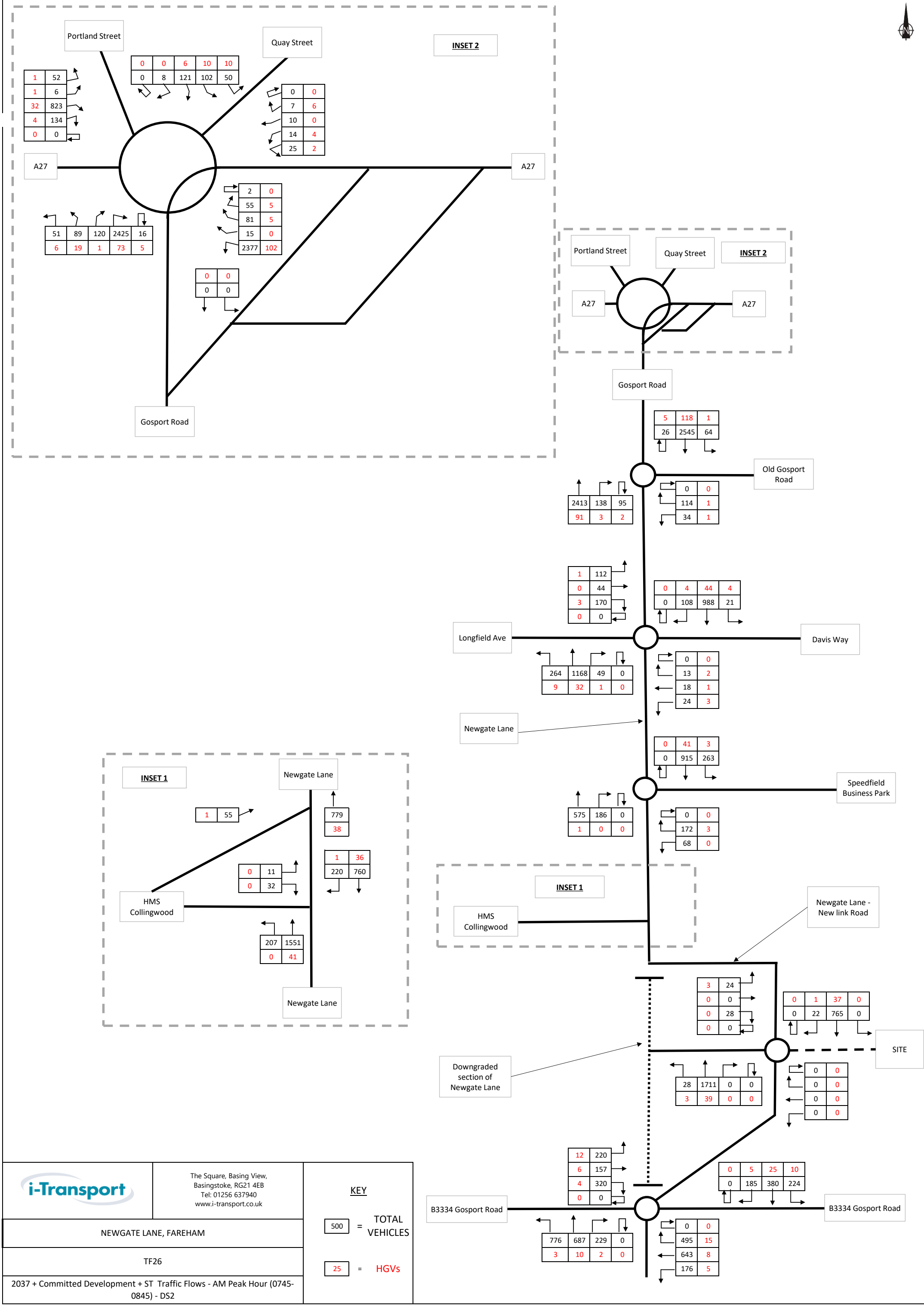
TF25

2028 + Committed Development + ST Traffic Flows - PM Peak Hour (1600-1700) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

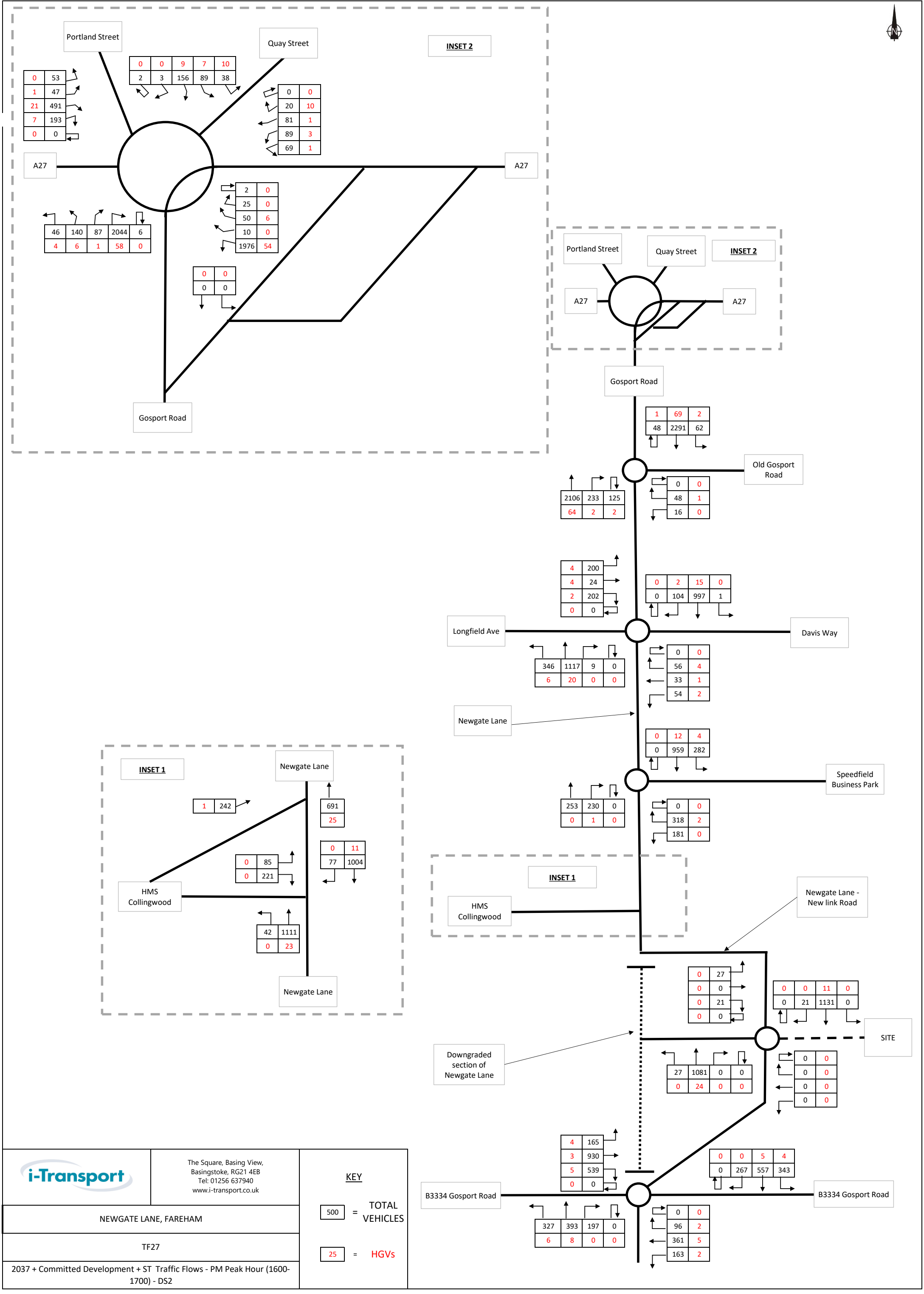
TF26

2037 + Committed Development + ST Traffic Flows - AM Peak Hour (0745-0845) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

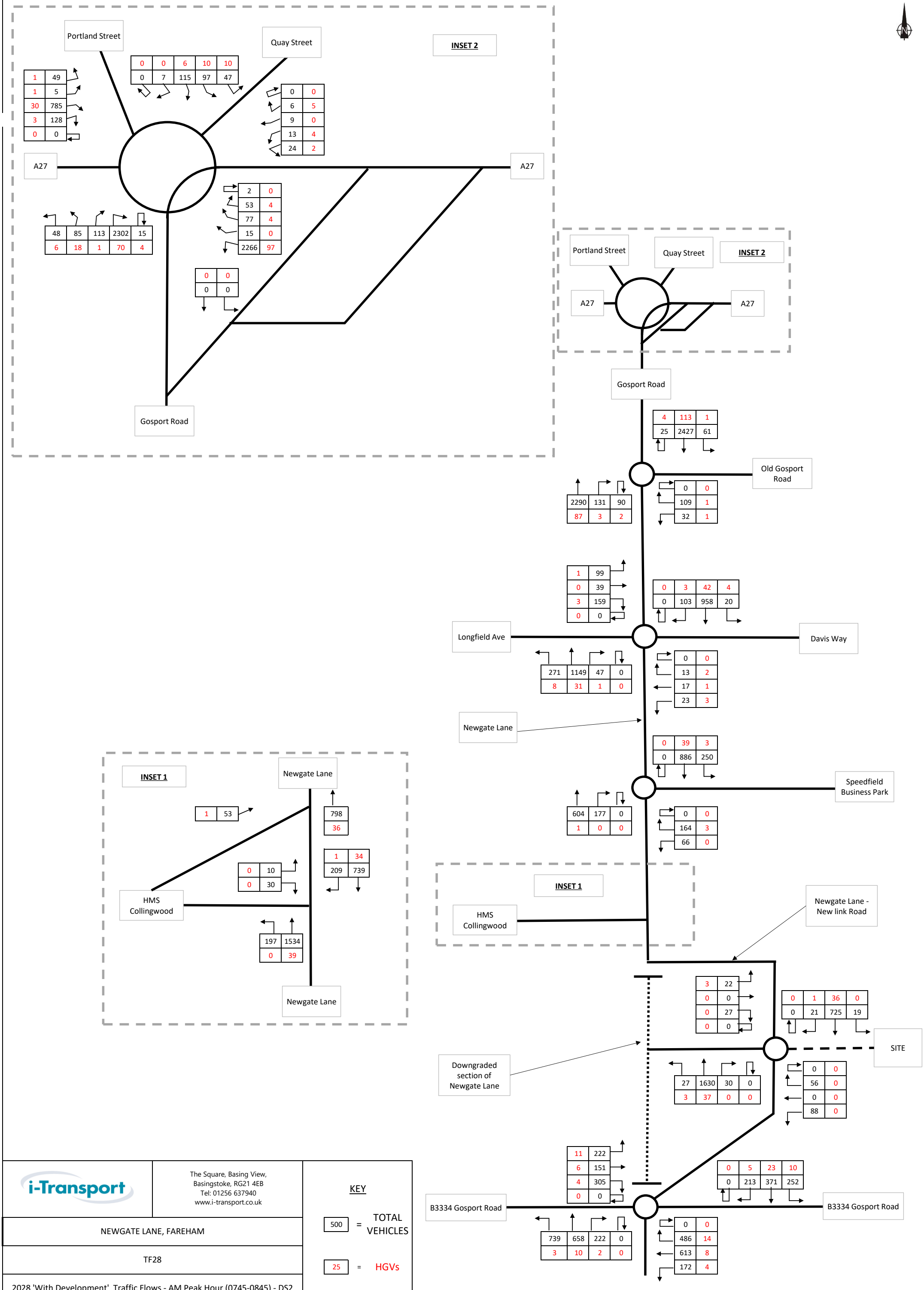
TF27

2037 + Committed Development + ST Traffic Flows - PM Peak Hour (1600-1700) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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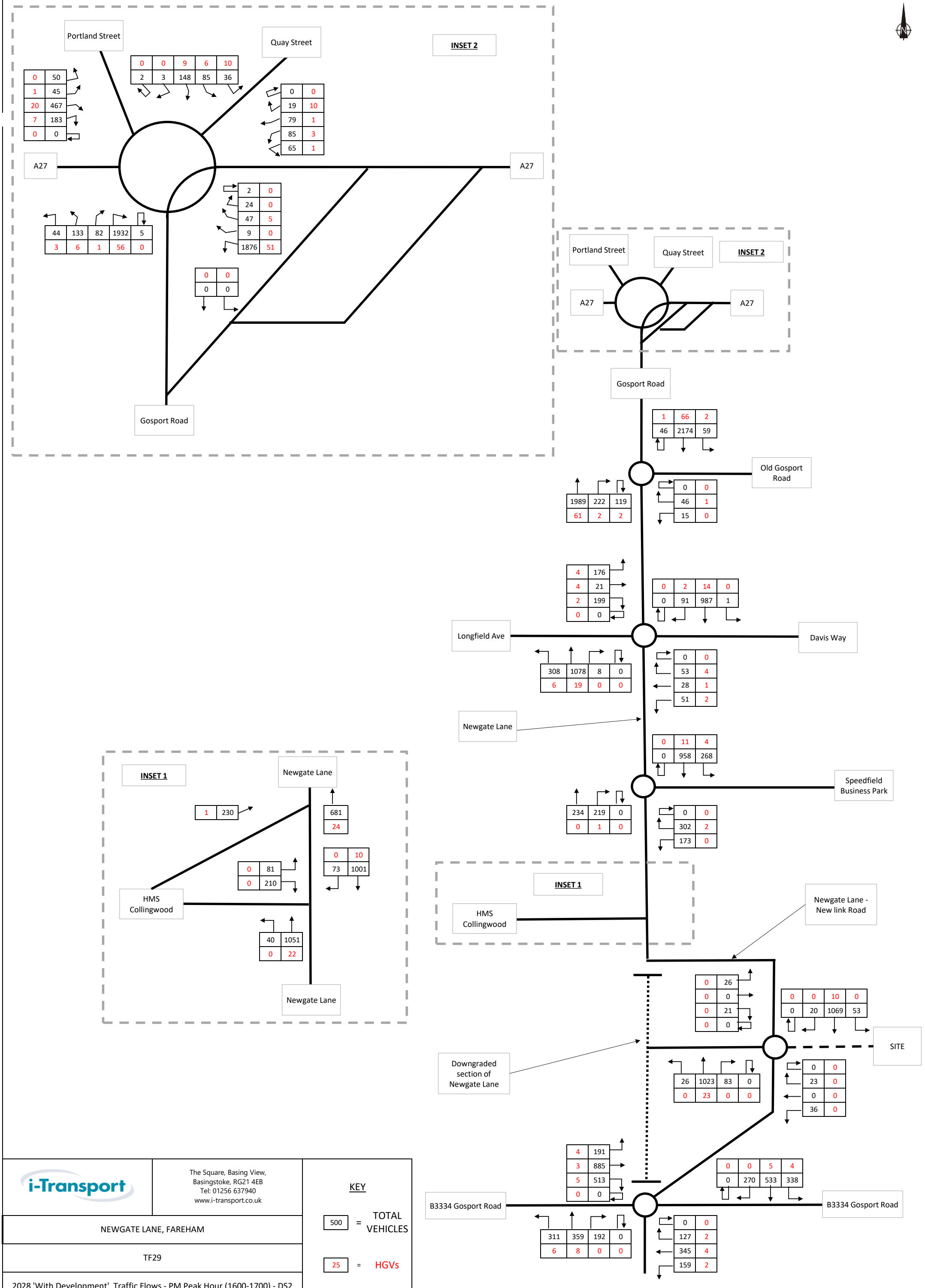
NEWGATE LANE, FAREHAM	
TF28	
2028 'With Development' Traffic Flows - AM Peak Hour (0745-0845) - DS2	

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

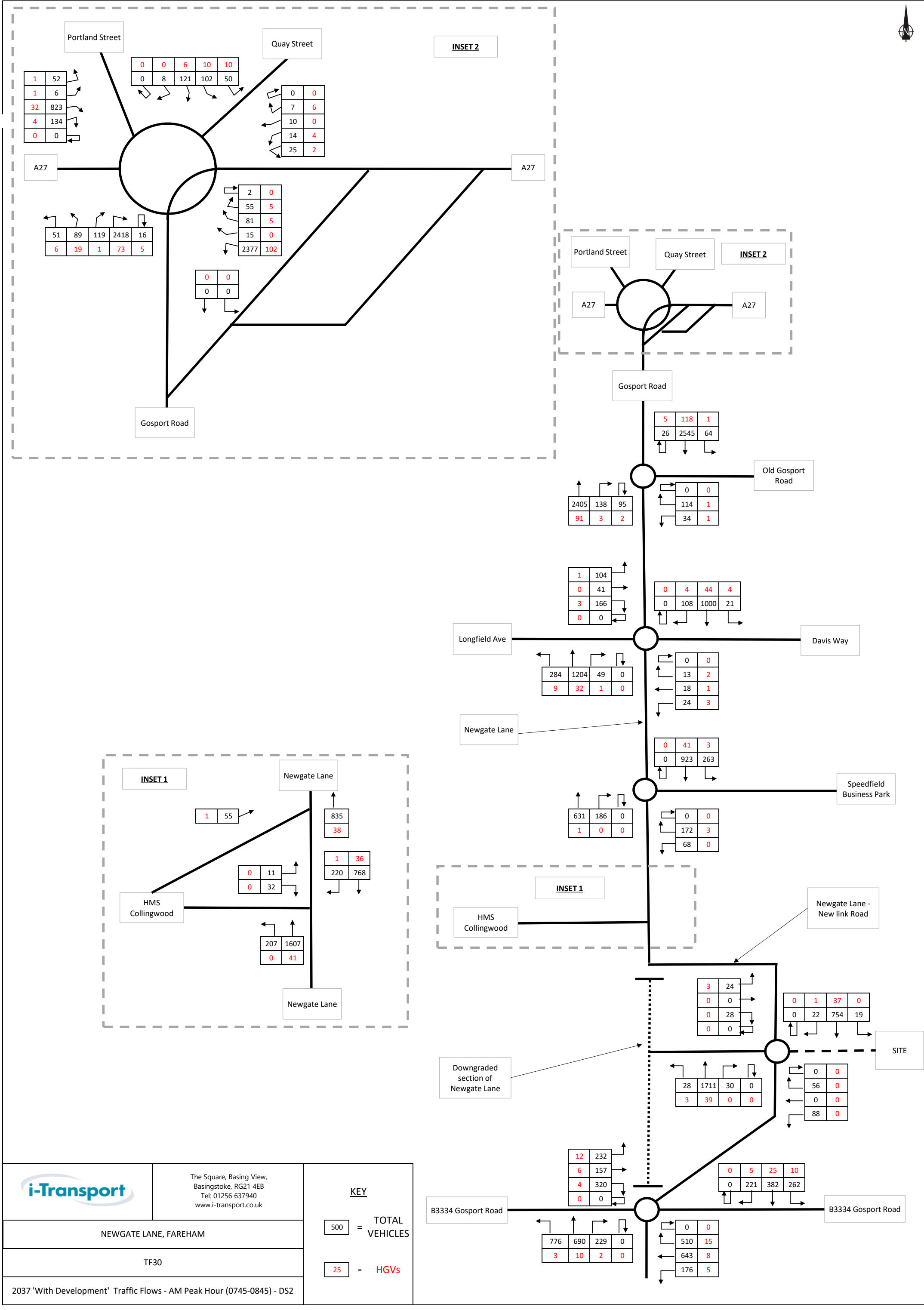
TF29

2028 'With Development' Traffic Flows - PM Peak Hour (1600-1700) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

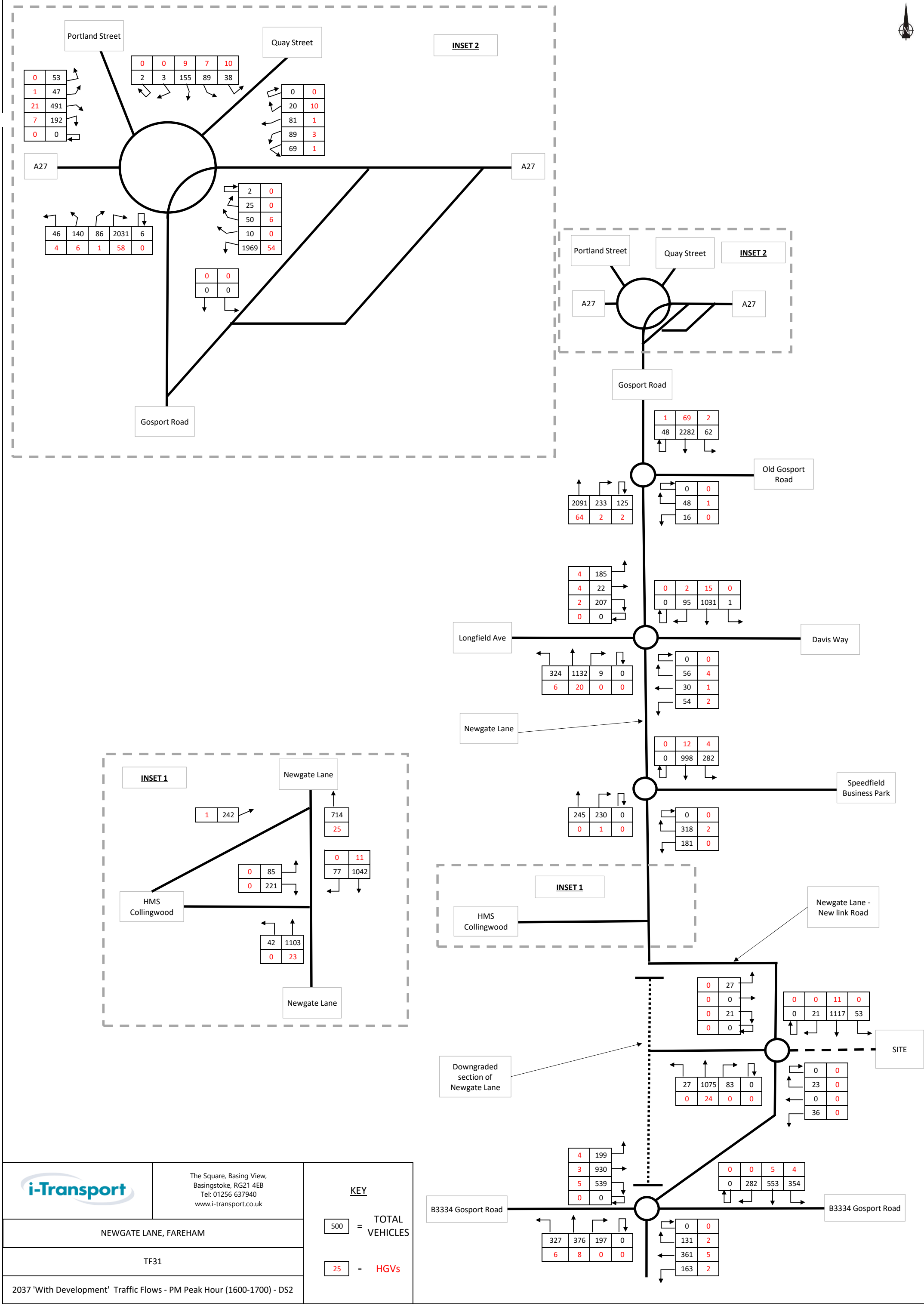
TF30

2037 'With Development' Traffic Flows - AM Peak Hour (0745-0845) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

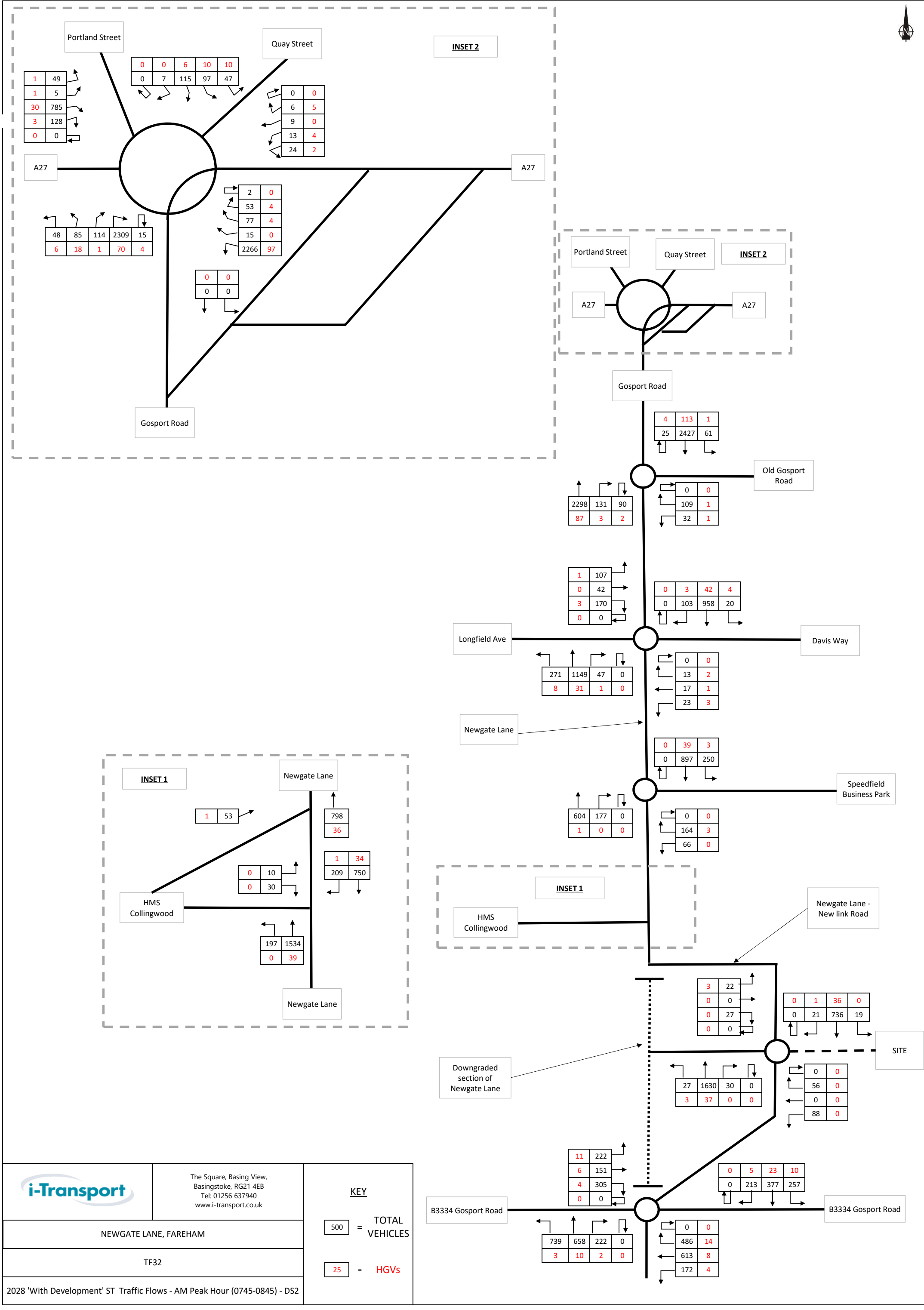
TF31

2037 'With Development' Traffic Flows - PM Peak Hour (1600-1700) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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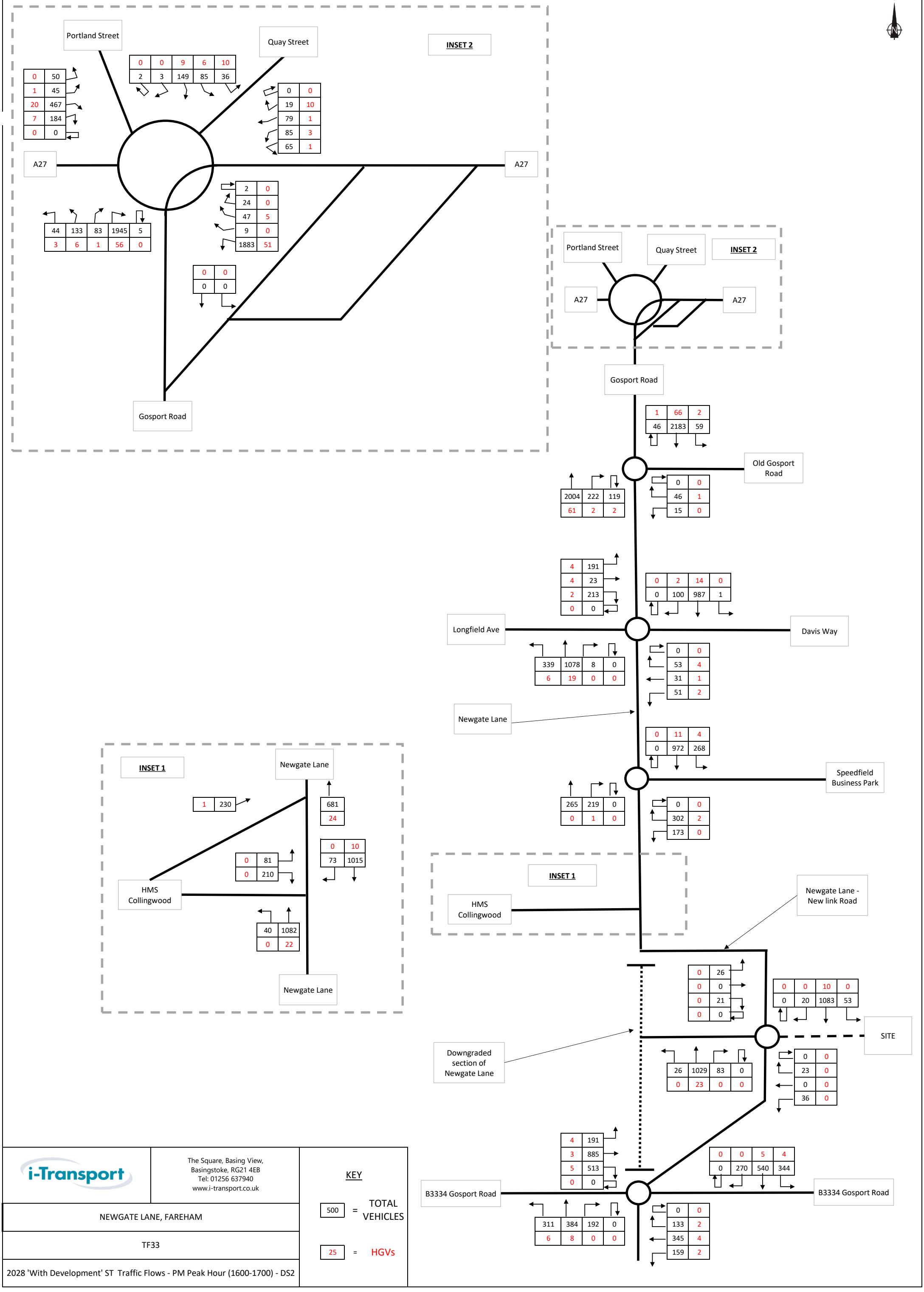
NEWGATE LANE, FAREHAM	
TF32	
2028 'With Development' ST Traffic Flows - AM Peak Hour (0745-0845) - DS2	

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

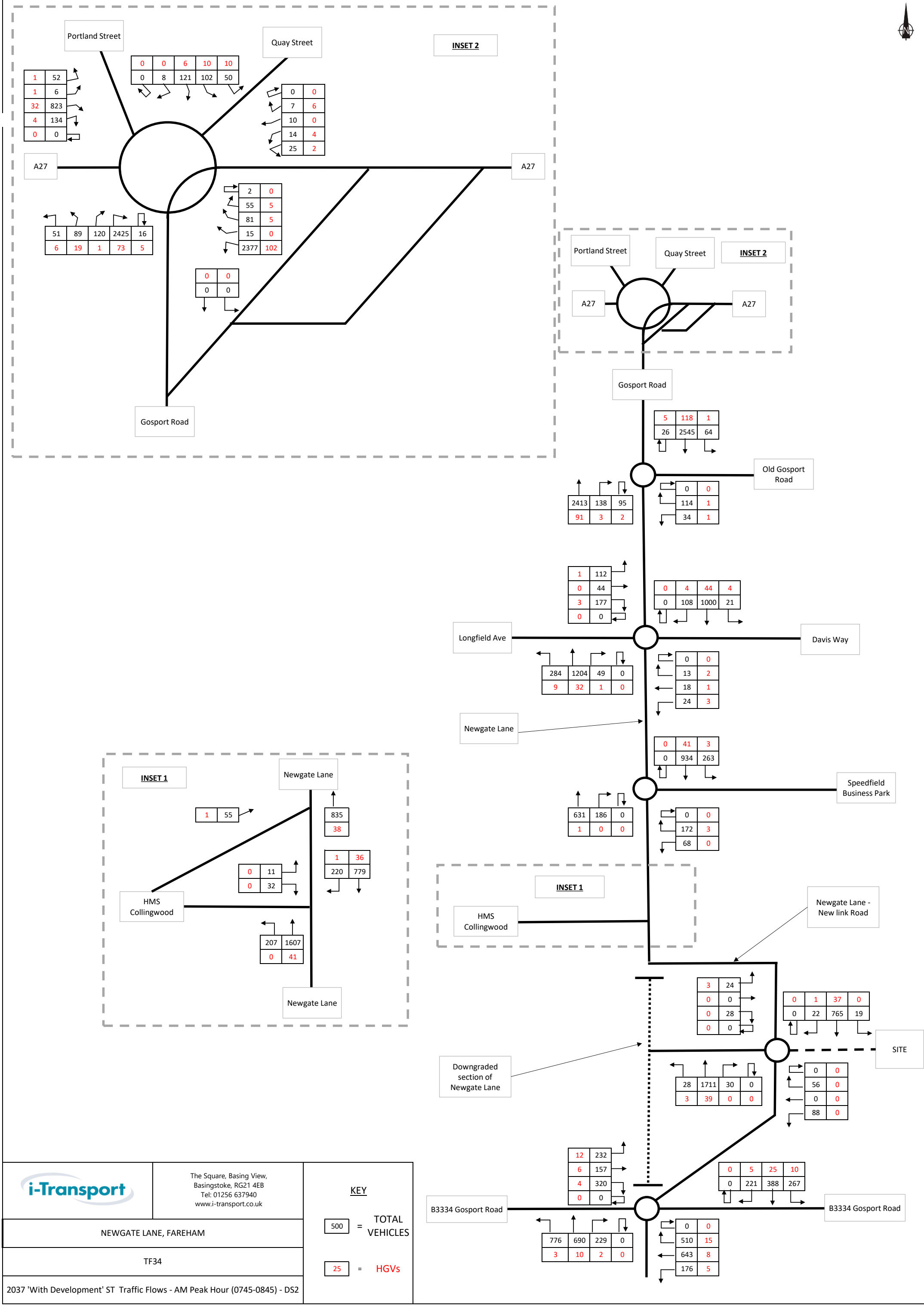
TF33

2028 'With Development' ST Traffic Flows - PM Peak Hour (1600-1700) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

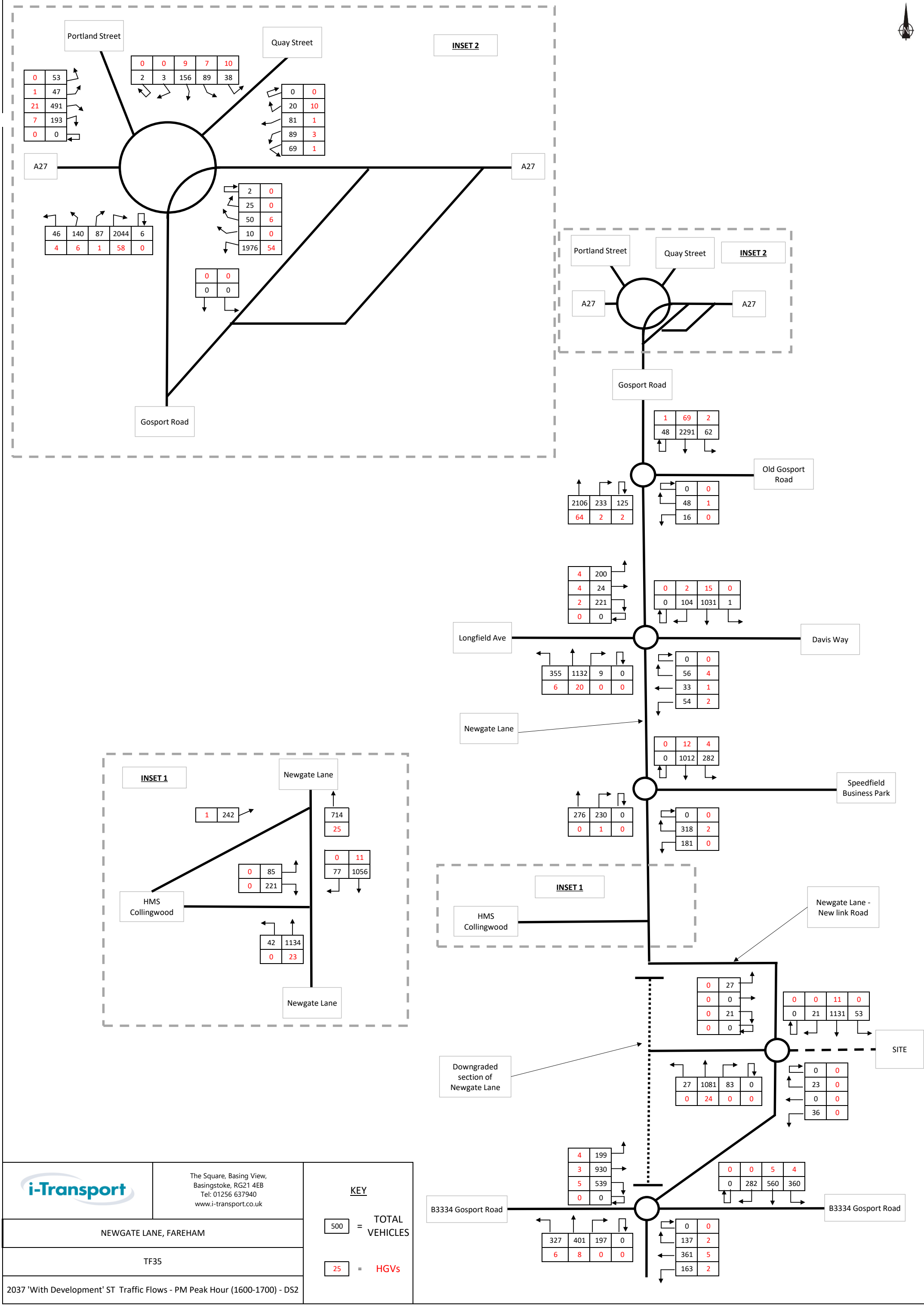
TF34

2037 'With Development' ST Traffic Flows - AM Peak Hour (0745-0845) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs



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NEWGATE LANE, FAREHAM

TF35

2037 'With Development' ST Traffic Flows - PM Peak Hour (1600-1700) - DS2

KEY

500 = TOTAL VEHICLES

25 = HGVs

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