

MEDWAY COUNCIL

LOCAL PLAN:

REGULATION 18 CONSULTATION

REPRESENTATIONS ON SITE HHH5

LAND AT BEACON HILL LANE

CHATTENDEN, ROCHESTER ME3 8LL



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1.0 Backg	1.0 Background		
1.1	Introduction	We act on behalf of the Executors of Mr James Mcphee Ashton Deceased as freehold owners of the subject property. These representations are provided in support of the allocation of Land at Beacon Hill Lane (the "Site"). The Site has been identified as suitable for a residential-led development in Medway's preferred Local Plan Strategy as site HHH5.	
1.2	Site	The site comprises a regular shaped block of pasture located on the outskirts of Chattenden. The site is a former MOD Transmission Station site with a number of dilapidated buildings present dating from this former use. The Site is well contained on all sides by mature established woodland and has road frontage to Four Elms Hill via a private roadway known as Beacon Hill Lane. The land is a brownfield largely redundant site which is well contained, screened from the wider landscape and viewed as part of Chattenden.	
1.3	Area	The site extends to 2.12 Hectares (5.23 acres).	
1.4	Access	The site benefits from existing access off Four Elms Hill via the private roadway known as Beacon Hill Lane. The access is deemed to be sufficient to support the proposed development of the Site. Beacon Hill Lane is a two-way surfaced highway linking straight onto Four Elms Hill located on the A228 Peninsula Way. Furthermore, the property has paved footpath links along the Peninsula way with a traffic controlled crossing over the main road. This provides pedestrian access to Chattenden and its services, including the nearby primary school.	
1.5	Proposed Development	The site is deemed suitable and achievable for residential development for 30 residential dwellings.  The intention is to bring forward a new high quality and sustainable residential development which complements existing development approved around the settlement, set within a landscape context, achieved through the retention and enhancement of the existing boundary vegetation and ecological features of most value.  Work completed to date, indicates the Site is capable of supporting residential development through provision of a landscape and ecologicalled scheme which responds positively to its surroundings, and delivers in the region of 30 residential dwellings.  Access for all users would be provided onto Four Elms Hill, by way of a the existing junction with Beacon Hill Lane along with new and existing pedestrian facilities, which would connect the Site for pedestrians to the existing services and facilities of the settlement, including bus stops, convenience store, and school, all within a short walking distance.  Whilst work is ongoing, at this stage no significant constraints have been identified which cannot be overcome through good urban, landscape and ecological design and/or standard mitigation.  In light of this, the location and scale of the emerging proposals for the Site, it is envisaged completions would commence on site within the first 5-years post-adoption of the Plan.	

			We consider the Site is 'suitable', as well as 'available' and 'achievable', and therefore 'deliverable'. It should be adopted by the Council as a proposed site allocation as the Plan process moves forward.	
2	Suitabi	ility		
	2.1	Chattenden	It is considered the Site forms a rational option for the continued growth of Chattenden as a sustainable location, complementing the recent developments to the east and north-east.	
			The settlement is suitably sized and served by a sufficient range of services and facilities to accommodate additional growth. This has been demonstrated through recent developments within Chattenden, notably the Four Elms Place development to the north-east and the Jury Drive development immediately to the east of the Site.	
			Chattenden has extensive road connections to the Hoo Peninsula as well as to Rochester and the Medway towns. The settlement has an extensive bus service, with numerous stops located off the Peninsula Way and providing regular routes throughout Medway.	
			The settlement benefits form educational facilities including a primary school as well as a host of leisure facilities. Development at Chattenden will further help bolster the services within the community.	
	2.2	Accessibility	The Site is in a highly accessible location. The site forms a natural extension as part of settlement of Chattenden and comprises part of the south-western built confines of the village. The site will also be viewed in association with the recent Jury Drive development immediately to the east.	
			The site has suitable road access, with Beacon Hill Lane leading to Four Elms Hill and the A228. This in turn provides vehicular links to Chattenden and the wider Hoo Peninsula to the east and the built confines or Rochester and Wainscott to the west.	
			The Site is linked to Chattenden via a paved pedestrian walkway ensuring the site is readily accessible to the nearby primary school and bus stops, thereby sustainably connecting the site to the settlement and the wider Medway region.	

	2.3	Allocation	BTF Partnership support the proposed allocation of site HHH5 for residential development. It represents a highly sustainable, accessible location and represents a logical natural extension to the settlement of Chattenden. Furthermore, the site comprises a former MOD brownfield site with little alternative uses.  As a summary of the opportunities and constraints of the site, it is:  Highly accessible to Chattenden, being centrally located; Suitably accessed from Four Elms Hill and the A228 with a two-way entrance onto Beacon Hill Lane leading directly to the Site; Visually contained by surrounding mature woodland and will be seen against the backdrop of the existing neighbouring dwellings and recent development immediately to the east of Jury Dive.  Not affected by any recognised landscape designations; Adjacent to a sole Heritage asset, with significant screening between them and the ability to further mitigate the impacts; Not affected by Flood Risk, Brownfield land with little alternative potential use. Not subject to any known ecological constraint;
3.0	Heritag	e & Landscape	
3.0		e & Lanuscape	
	3.1	Heritage	The site has little or no impact upon any heritage property. The nearest structure of heritage concern is a WW2 pillbox located to the south of the Site. This is shielded from view by matrue woodland, and will have no impact as to its setting, nor how it is viewed by the public.
	3.2	Landscape	The site is well screened on the broader landscape with the site surrounded by extensive mature woodland on all sides. This significantly limits the impact of any development upon the wider landscape setting. Furthermore, the Site will be viewed in association with the new development immediately to the east of Jusry Drive and as such will appear as part of the settlement of Chattenden from wider viewpoints.  As such, it is considered the site is well placed and does not result in any undue impact upon the wider landscape.
4.0	Spatial	Growth Options	
	4.1	SGO	The plan sets out three spatial growth options these being: - SGO1 – urban focus; - SGO2 – dispersed growth; and - SGO3 – blended strategy. The consultation reflects that a 'urban focus' approach alone is unlikely to meet growth needs in full with only a limited supply of previously

developed land available to accommodate this. There are however sensitivities across the District, including important habitats and landscapes, and the Green Belt, which need consideration. Nevertheless, the Council acknowledge that in order to meet the full scale of needs over the Plan period, complex issues will need to be considered and addressed as part of the development secured, including any mitigation necessary.

The Council identify the blended approach (SGO3) as its preferred strategy for meeting growth needs. We consider this is the right approach, supported by a strong mix of urban, suburban and rural development to deliver the diverse needs of the community.

### **5.0** Policy T11

### 5.1 Small Sites and SME Housebuilders

To aide delivery we welcome the introduction of a positively worded policy (Policy T11) which supports small sites that are well-connected to existing infrastructure provision and would maintain the character and scale of the local area.

The Home Builders Federation has identified trends within the development industry that small-scale development and SMEs have declined since the introduction of a plan-led planning system. The decline in numbers of SMEs and the numbers of houses produced within small-scale sites, has been a reversal of the traditional housing supply, which previously consisted of predominantly small-scale development. (HBF 2016:6) However, by taking steps to encourage small-scale development, through policy changes, it is deemed possible for small-scale sites to make a substantial collective addition to housing supply. This belief is shared by both the LGiU and the HBF, as well as house-building industry experts such as the Federation of Master Builders. It seems clear, therefore, that small-scale development does have a significant role to play in reversing the housing crisis.

We therefore encourage the introduction of Policy T11.

### 6.0 Interim Sustainability Appraisal

## 6.1 Interim Sustainability Appraisal (June 2024)

The Interim Sustainability Appraisal (June 2024) considers the Site, as HHH5, against the sustainability objectives and to consider whether the Site be identified as a preferred housing allocation option.

Table 8.15 identifies site HHH5 as suitable and thereby selected for a residential-led development. The appraisal identifies that:

The development would help to deliver the vision and the strategic objectives of the new Local Plan.

The Site is considered to be an 'Opportunity for sustainable development, supporting improved services.'

We concur with these findings and consider the site to be a sustainable residential development on a brownfield site comprising a logical extension of Chattenden. The site has extensive walking connections to the settlement as well as transport links with several nearby bus stops.

As such we support the council's appraisal of the Site.

### 7.0 **Summary** 7.1 Summary Site HHH5 is available for development, suitable, sustainably located and development would be achievable with the scheme being completed in full within five years of adoption. Moreover, there are no known viability issues which might prevent the development from being brought forward. The proposed residential-led development will enable a low density, high quality scheme, which can be sensitively amalgamated into the settlement and the landscape setting. The site provides a suitable re-use of an unproductive and brownfield site, in a logical extension development that corresponds well with the Jury Drive development immediately to the east. Furthermore, it complies with Medways preferred spatial growth option, providing a balance of sustainability considerations, promoting sustainable travel and providing growth to the settlement of Chattenden. The Site is within a couple of minutes walking distance of bus stops at Chattenden lane and Broadwood Road whilst Chattenden Primary School is located on the opposite side of the A228. Several leisure sites are within close walking proximity for future residents, including Hoo Common, Songbird Playground and Riverbourne Playground. The development will seek complement recent developments at Chattenden and provide a suitable extension to the settlement whilst making productive re-use of a largely unproductive site. It is considered the site has no insurmountable environmental or technical constraints to the delivery of the allocated site and is therefore readily available and deliverable for development.



Planning Policy Medway District Council Gun Wharf Dock Road Chatham Kent ME4 4TR

Taylor Wimpey West London Strategic Land Form 1 17 Bartley Wood Business Park Bartley Way Hook, Hampshire RG27 9XA

www.taylorwimpey.co.uk

Via Email to planning.policy@medway.gov.uk

5<sup>th</sup> September 2024

Dear Sirs,

### Medway Local Plan – Setting the Direction for Medway 2040 Representations on behalf of Taylor Wimpey

We are writing in response to Medway Council's Regulation 18 Local Plan consultation "Setting the Direction for Medway 2040".

Taylor Wimpey (TW) is one-the UK's largest housebuilders with a clear strategy to deliver new homes and thriving communities with a focus on sustainability. TW is active across Kent and the wider South East, delivering a significant number of new homes annually across the region.

TW has land interest within the District at Land West of Hoo, on land north of Main Road and south of A228 Peninsula Way. TW is also part of the wider Hoo Consortium, who, alongside individual representations, have submitted joint representations in response to the current consultation.

TW supports the Council's commitment to this plan-making process and the ambition it has to move forward towards submission of the Reg 19 Local Plan. However, it should be noted that there are still significant gaps in the evidence base that will need to be addressed before the Local Plan can progress further. The Council is still to publish a Transport Assessment, Infrastructure Delivery Plan, up-to-date Viability Assessment and a Cumulative Ecological Impact Assessment (CEIA) to support the HRA.

### Land West of Hoo

TW's interest in Land West of Hoo (the Site) extends from the existing western urban edge of Hoo St Werburgh, the residential properties on Aveling Close and the A228 dual carriageway (Peninsula Way) to the north-west. The Site is 31.12ha in total and primarily greenfield, currently in agricultural use, and is divided into two main parcels of land, either side of the Ratcliffe Highway (in which TW owns the freehold of the Site)1.

Taylor Wimpey UK Limited Registered Number: 1392762 England and Wales Registered Office: Gate House, Turnpike Road High Wycombe, Buckinghamshire HP12 3NR

<sup>1</sup> Site Plan (redline)

Taylor Wimpey West London is a division of Taylor Wimpey UK Ltd

The Site can be brought forward for development comprising the following2:

- 450 dwellings,
- Commercial floorspace (up to 500sqm),
- Community use building (up to 500sqm),
- Associated public open space, landscaping & outdoor sports facilities.

The Site is not subject to any restrictive covenants or other constraints which would potentially impact on the deliverability of the proposed development. The Site is "suitable", "available", and "achievable", and housing can be delivered on it within the next 5-years.

The Hoo Peninsula is identified as a growth location, where coordinated and comprehensive development could be delivered which addresses a sizable portion of the District's needs over the plan-period whilst also being of the scale to accommodate all social, environmental and physical infrastructure to create a new sustainable self-contained community.

TW is committed to bringing forward a scheme on the Site which achieves the Council's aspirations and delivers a high-quality, landscape-led mixed-use scheme that includes general market and affordable housing delivery, alongside public open space and a new "local centre" with elements of both community and retail uses.

### Medway Local Plan Review 2041 – Consultation (Regulation 18B) July 2024

Following a review of the Medway Local Plan Review 2041 Regulation 18B consultation document, we have the following comments on the policies and in response to the questions posted.

### **Spatial Growth Options**

The Council sets out three strategic growth options, which it has considered for the purposes of this Reg 18B consultation:

SGO1 - Urban Regeneration focus

SGO2 – Dispersed growth with less delivery through regeneration

SGO3 – Blended strategy with regeneration and greenfield.

With SGO3 being its indicative "preferred approach":

SGO3 blends regeneration and greenfield development, and is the preferred option. There is a 'brownfield first' focus with regeneration in urban centres and waterfront locations, complemented by a range of sites in suburban and rural areas. About half of the development would be on brownfield land. It provides for a range of housing and types, and density and heights in regeneration sites would reflect design guidance and heritage constraints, rather than focusing on maximising housing numbers to the detriment of the surrounding amenities and quality.

TW supports the "blended approach" (SGO3), as it combines the most appropriate elements of the other two SGOs and represents the most sustainable and deliverable spatial option. TW supports the Council's "preferred approach" (SGO3), and the identification of the Site as a preferred site allocation (Site Reference HHH8) for residential-led development on the North West Policies Map.

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<sup>&</sup>lt;sup>2</sup> Illustrative Layout

The Site contributes to the Council's approach of "best balancing" sustainability considerations by integrating urban regeneration with suburban and rural development, promoting sustainable travel, and addressing the needs of diverse communities.

### **Development Management Policies**

#### Policy T3: Affordable Housing

TW supports the Council's general approach to include a differential affordable housing rate between greenfield sites and brownfield sites. However, TW is concerned that this is based upon an out-of-date Viability Assessment (from 2021) that no longer reflects the likely strategic infrastructure requirements and other costs facing development coming forward under the presently emerging Local Plan.

The presently published (out-of-date) Local Plan Viability Assessment was undertaken prior to the removal of the £170M HIF funding (in May 2023) that was due to deliver key infrastructure improvements as part of the planned growth at Hoo. In the absence of HIF funding, the majority of these costs are likely to fall on development at Hoo and wider across the District.

This will significantly affect the overall viability of many developments at Hoo, and have consequences as to their ability to deliver an increased level of affordable housing — as presently being sought by Policy T3. The provision of affordable housing will have to considered alongside other social and community infrastructure requirements, and in the absence of an updated IDP, further uncertainty prevails.

In the light of such uncertainties presently, TW therefore objects to Policy T3 at this stage.

### Policy S15 & S16: Town Centres Strategy & Hierarchy of Centres

The Council outlines in para 8.2.1 that it "seeks to protect and strengthen town centres, so that they are positioned to adapt to changing trends. They are no longer the primary focus for shopping, but still reflect the well-established role as places to bring people together and provide services". In addition, it states in para 8.2.2 .... "Delivering housing in town centres locations will help to support demand for services and businesses, and provide for sustainable development, reducing the need to travel to services, and having a choice of sustainable transport options".

Hoo St Werburgh falls under the category of a rural centre in Medway's hierarchy of centres, which provides local top-up shopping to satisfy the day-to day needs of the local population. TW's proposals include the provision of a small "local centre", which will complement the existing services and facilities, and has been designed to be in scale and function in serving the new/growing communities.

### Policy S22: Hoo Peninsula

In para 8.12.1, it states that "the Council has identified the potential for significant development in some suburban areas in Medway and on the Hoo Peninsula as part of the preparation of the new local plan. In addition, "The council recognises that should major growth take place in this rural area, the local services, including retail, will need to be expanded. Currently rural residents often travel to either Strood or Bluewater to undertake their main grocery shop, and comparison shopping in the latter location."

"The existing provision in Hoo is limited, and the village centre is physically constrained. The smaller villages across the peninsula have even more limited retail facilities. There is a need to address the existing deficiencies to meet the needs of local residents. This may involve considering new services outside the existing village centres, and may be integrated with future development."

TW recognises the need for a coordinated approach for sustainable development within the Peninsula and supports the Council's approach to ensuring development meets the needs of new residents in Hoo.

TW supports the objectives of Policy S22, including that of new "local" retail provision and also the wider need for a new supermarket.

Question 39: How can the local plan ensure that development is inclusive and accessible for all members of our community, including people with disabilities?

The Local Plan should support development that create communities that meet the needs of the most wide and diverse range of people. It should ensure that policies align and are practical in achieving the aim of providing new housing that is inclusive and accessible both within urban and rural areas. TW supports the Council in pursuing such an approach and will reflect this in its proposed scheme in its overall design and the much-needed housing that meets the required housing tenure and types for the local area.

TW therefore supports the Council's objectives in creating developments that are inclusive and accessible for all members of the community.

Question 42: Do you agree identifying the required infrastructure to support the scale and locations of growth within Medway is the correct approach? Would a 'mini IDP approach' focusing on broad locations and strategic sites be preferred? Or do you have an alternative suggested approach?

Yes. Identifying the required infrastructure to support new development is critical to ensuring they are sustainable and can be deliverable in a coordinated manner. TW also supports the preferred approach of a 'mini IDP' as this would be beneficial to the planned growth at Hoo and provide clarity for the various strategic sites presently being proposed/allocated.

Question 43: Align infrastructure provision in line with this growth- how can we balance growth and new infrastructure requirements within funding gap?

Aligning infrastructure provision with expected growth within Medway is critical to successfully delivering sustainable communities. Where funding gaps appear in infrastructure provision, this leads to severe consequences for wider development coming forward within the Local Plan period, and ultimately impacting upon the Council's strategic growth aspirations. Coordination is required for major strategic sites to come forward in ways that are joined-up and planned for accordingly.

### **Summary**

TW supports the direction of travel set out in the Reg 18B Local Plan and its broad ambitions.

TW supports the proposed strategic growth option (SGO3) and consider it represents the most sustainable and achievable option.

TW is the freehold landowner of "Land West of Hoo" which is confirmed as being fully deliverable. Land West of Hoo is a suitable and sustainable location for housing development and can provide much-needed diversity in the size and tenure of homes for Hoo and the needs of the wider District.

In addition, infrastructure investment and a cohesive transport strategy are key factors in unlocking the wider potential of the Hoo Peninsula.

We would be pleased to discuss the content of these representations with Officers and look forward to engaging in the next stages of the Local Plan as it progresses.

Should you have any questions or comments, please do not hesitate to contact me as per the details below.

Yours faithfully,

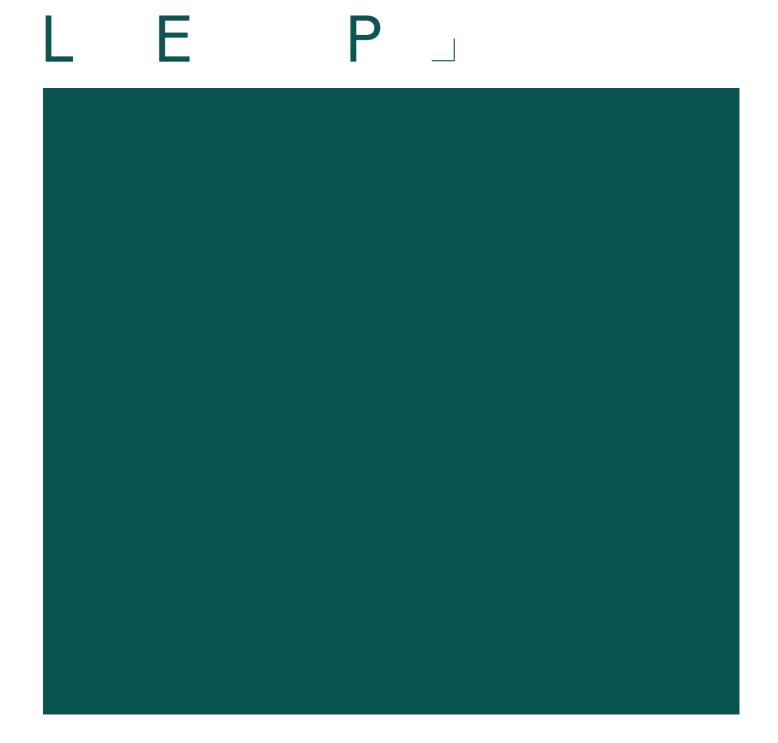
John Kelly MRICS Strategic Project Director Taylor Wimpey UK Limited

Annex 1 – Site Plan



Annex 2 – Emerging Masterplan





# Representations to the Regulation 18b Local Plan Consultation

Land Adjacent to Farm Cottages, Lodge Hill Lane, Chattenden, Kent

LEP Planning Ref: 9314 September 2024 Representations to the Regulation 18b Local Plan Consultation In respect of

Land adjacent to Farm Cottages, Lodge Hill Lane, Chattenden

Client Mr HG and Mrs DR Kemsley

Prepared by Lee Evans Partnership LLP

Author Reece Lemon

Signed off Nathan Anthony

Date September 2024

Status Final

### Lee Evans Partnership

St. John's Lane, Canterbury, Kent, CT1 2QQ

tel.: 01227 784444

### 1. INTRODUCTION

- 1.1 Lee Evans Partnership LLP is instructed by Mr HG and Mrs DR Kemsley (hereafter, the Landowners) to submit representations to the Regulation 18 Draft of the Medway Local Plan 2041.
- 1.2 The Plan outlines the scale and distribution of new development which is required to meet Medway's needs to 2041. It further builds on the consultation process undertaken in October 2023 which defined a vision and strategic objectives for the area, and this iteration of the Plan now identifies the planning principles and policies to guide the development strategy over the plan period to 2041. This includes potential sites and broad locations that could go on to form allocations for development.
- 1.3 This response offers the Landowners' initial view on whether the Plan satisfactorily meets or is aligned to meet the strategic vision and objectives as currently drafted through its spatial strategy. It makes specific reference to land interests at land adjacent to Farm Cottages, Lodge Hill Lane, Chattenden. This Site is available, achievable and deliverable for residential development in the plan period up to 2041.
- 1.4 For clarity, it is understood that the Site has been previously identified by the Council as site HHH40, with a capacity of 75 dwellings, and noted as a non-strategic reasonable alternative in the Sustainability Appraisal. These representations continue to advocate for the inclusion of the Site in the Plan, strongly identifying its potential to support the Plan's objectives.
- 1.5 This response advocates for the continued targeted distribution of growth across the authority area, including in urban, suburban and rural locations to meet need. It expresses a preference for a 'Blended Strategy', albeit one that is predicated on sustainable development in all its forms, combining brownfield and greenfield site opportunities to maximise development opportunities in appropriate locations.
- 1.6 In line with this, the case in support of the positive assessment of and subsequent allocation of the Site is made throughout this representation, which in summary emphasises that:
  - Through the preparation of the new Local Plan, the Council needs to allocate an appropriate level of housing to be provided up to 2041 to accord with the requirements of the NPPF;
  - Additional housing at the scale proposed would be appropriate at Chattenden either as
    a stand-alone development on the edge of the existing settlement or as part of a larger
    development around Chattenden alongside other nearby land being promoted for

allocation and those sites which already have planning permission in order to support the Council's preferred development scenarios;

- The allocation of the Site for residential development would contribute towards the Council's market and affordable housing supply making a significant contribution to the Council's housing requirements;
- The Site is in a suitable and sustainable location for major development. It has existing public transport links in close proximity and is near to the A228 which provides a main road link into Hoo and to the major towns to the south of the River Medway, ensuring that future residents would have good access to services, facilities and employment through links to major transport nodes across the county and into London;
- The development would be viewed in relation to the context of existing built development at Chattenden and by virtue of its location would not impact upon the wider open countryside or the open setting of the A228. Whilst the Site is currently within an Area of Local Landscape Importance (as defined by the adopted Medway Local Plan 2003) it is considered that residential development of the site would be able to be successfully integrated into the landscape through an appropriate landscaping scheme and that the development would conserve and enhance biodiversity through green infrastructure, ecology and wildlife benefits including habitat creation measures; and
- The provision of new housing development in this location would create economic benefits including spending on construction, creation of additional jobs, additional Council Tax payments, New Homes Bonus to Medway Council and additional expenditure in the local economy.
- 1.7 It should be noted that the subject to the ongoing evolution of the Plan, there is the potential for a planning application supported by relevant technical inputs to be prepared and submitted, evidencing the overarching deliverability of the Site in line with the aspirations of the Plan as drafted.
- 1.8 The following comments are therefore set out in a positive and constructive manner intended to aid the clarity and implementation of the Plan, structured around the following sections:
  - Section 2 of this Statement describes the representation site and its surroundings.
  - Section 3 sets out commentary on the Plan as drafted, with reference to its Vision,
     Objectives, and key policies;

- Section 4 summarises the case in support of the Site for positive assessment and subsequent allocation.
- 1.9 On behalf of the Landowners we strongly advocate for the continued inclusion of a broad and ambitious approach to development across the authority area, in a range of locations.
- 1.10 We welcome the opportunity to further assist or provide comment on the preparation of the Plan which will help shape future development in the area; and we welcome look forward to the opportunity to participate at later consultation stages.

### 2. SITE DESCRIPTION

The representation site 780 extends to approximately 4.07 hectares of land currently used for the keeping and grazing of horses. A site plan is attached at **Appendix 1**, and in extract at **Figure 1**.

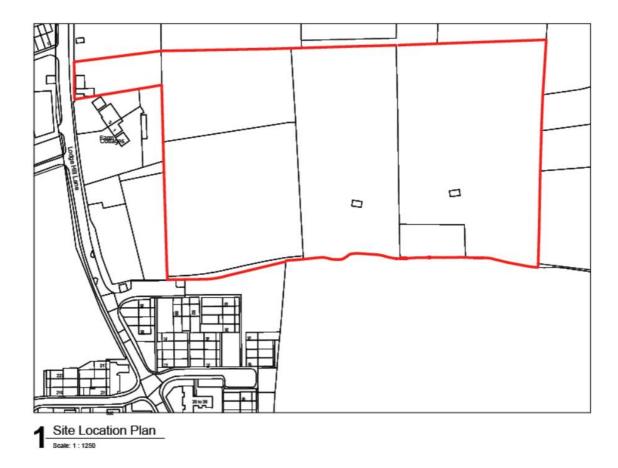


Figure 1. The Site Location, edged red.

- Access into the site is directly off Lodge Hill Lane, adjacent to a dilapidated rural building. At the front of the site to the west is a pair of cottages (known as Farm Cottages).
- 2.3 The site is undulating and ground levels steadily rise across the site from west to east, before plateauing at its eastern boundary.
- 2.4 To the north of the site are more grazing fields and the grounds of Chattenden Farm. Beyond Chattenden Farm is part of the former Chattenden and Lodge Hill Military Camps. The eastern boundary of the site adjoins the Council owned former Deangate Ridge Golf Club which closed in April 2018. To the south of the site is an existing residential development accessed off Lodge Hill Lane (allocated by Policy H1 of the adopted Medway Local Plan 2003 for 47 units Ref: MC001) and an agricultural field which forms part of a larger site that has historically been the subject of a planning application for up to 530 dwellings as part of a

large mixed use development. The wider Hoo Peninsula is widely acknowledged as a central component of Medway's previous local plan preparation, and a wide evidence base exists to support such.

- 2.5 To the west of the site on the opposite side of Lodge Hill Lane is another part of the former Chattenden and Lodge Hill Military Camps including a number of vacant, dilapidated former residential dwellings.
- 2.6 To the south-west of the site is the Lodge Hill Recreation Ground and further residential development accessed off Lodge Hill Lane, including Chattenden Community Centre. This development was part of the allocated site MC001 referred to above. Also to the south of the site are bus stops serving Chatham and Hoo.
- 2.7 The site is located in Flood Zone 1 and is therefore deemed to be at less than 0.1% chance of flooding in any year.
- 2.8 The site contains a Grade II Listed First World War sentry post, which forms part of a group of six sentry posts in the area and which would be protected in the event of development.
- 2.9 Land to the west of Lodge Hill Lane and to the north of Chattenden Farm is located within the Chattenden Woods and Lodge Hill SSSI, an area of ancient woodland and rare grassland, supporting a large nightingale population.

### 3. PLANNING REPRESENTATIONS TO REGULATION 18 LOCAL PLAN CONSULTATION

- 3.1. As above the Local Plan 2041 Regulation 18 Draft Plan (The Plan) establishes the scale and distribution of new development which is required to meet Medway Council's needs to 2041, identifying a series of growth areas (to later inform site allocations) and detailed development management policies against which development proposals will be assessed during the plan period. This follows a period of evidence-gathering, and previous consultation on former draft iterations of the Plan, a commentary against which is not provided here given the extensive period of plan making undertaken over a period in excess of a decade. We refer back to previous commentary made on behalf of the Landowners, however.
- 3.2. Detailed commentary is provided herein on the Vision, Objectives, and Policies of the Plan where outlined. Commentary is not provided for all policies, and is instead reserved for those considered of most relevance to the land interests cited here.
- 3.3. Due regard has been had to the wider evidence, and where necessary cross-reference has been made to the LPA's evidence as available as part of this consultation process.

### Overarching Vision & Objectives

- 3.4. The Overarching Vision for Medway is described as "establishing Medway as a leading regional city connected to its surrounding coast and countryside, with a thriving economy where residents enjoy a good quality of life and there is a clear strategy for addressing climate change and strengthening natural assets". This as an overarching vision is supported as a high level principle underpinning the aspirations of the Plan.
- 3.5. The Vision goes on to outline Medway as a location where "all sectors and ages of the community can find decent places to live" and where "the quality of new development has enhanced Medway's profile, and driven up environmental standards in construction...investment in new services and infrastructure such as transport, schools, healthcare and open spaces has supported housebuilding to provide a good quality of life for residents". The continued aspirations for Medway as a quality place to live are also supported in full.
- 3.6. Supporting this overall vision, the Plan identifies a number of strategic objectives in planning positively for development and infrastructure whilst conserving and enhancing the natural, built and historic environment. Whilst commentary is not provided for each of these objectives, due regard has been had to their content. In particular, the Landowners support aspirations to provide high quality energy efficient homes that meet the housing needs of Medway's communities, reflecting the range of sizes, types and affordability the area needs including provision for specialist housing. This objective is consistent with the thrust of the National Planning Policy Framework in its pursuit of sustainable development. Again, this is

- supported overall at the District-wide level as an appropriate and realistic vision for Medway over the plan period.
- 3.7. It is considered that the objectives are generally appropriate in supporting the implementation of the Vision, and that the objectives themselves are adequately reflected across the strategic policies as proposed, albeit subject to any refinement that may follow during the Examination process and later consultation stages beforehand.

### **Development Management Policies**

- 3.8. To support the Council in development of the Regulation 19 plan in due course, supplementary commentary is provided elsewhere, namely on emerging policies considered of most relevance at this stage as follows:
  - Policy T1 Promoting High Quality Design
  - Policy T2 Housing Mix
  - Policy T3 Affordable Housing
  - Policy T11 Small Sites and SME Housebuilders
  - Policy DM5 Housing Design
  - Policy DM9 Heritage Assets
- 3.9. Commentary is provided using the references above and, where relevant, the paragraph numbers as used in the Regulation 18 Draft.
- 3.10. Policy T1 Promoting High Quality Design: T1 deals with high quality design for which the Landowners are very supportive of. Its contents are not repeated here, though it is noted that the policy wording includes for a large number of criteria across topic areas spanning context, built form, and movement, among others. The Landowners commit to delivering a lasting legacy for this Site with high quality design. There are already references to the aspirations of the Plan to achieve high quality design, place making and the provision of Design Codes elsewhere in the Plan's Vision and Strategic Objectives. T1 refines the aspirations of the Plan to reflect the quality of proposed residential development. It outlines the base criteria required in demonstrating how residents can expect to achieve a good quality of living, with regard to space standards, accessibility, and amenity space.
- 3.11. The intention of this policy is supported in full in realising the Vision and Strategic Objectives set out elsewhere in the Plan. The Landowners will be promoting high quality design and will endeavour to meet the aspirations of the policy.
- 3.12. Policy T2 Housing Mix: Type and Mix of Housing is important in responding to the needs of the District over the Plan Period. The Landowners will be planning for and designing a market led housing mix to meet a variety of demographics. As drafted, T2 provides a clear objective for new development in responding to need. However, to support the

implementation of Policy T2 it is essential that the LPA retains an updated LHNA and is able to clearly direct Applicants to readily available information at any given period. It is recommended that the LPA commits – in the final wording of Policy T2 – to a signposting to the LHNA as the appropriate record of up to date housing need in the District. Without further clarity, the smooth implementation of Policy T2 is at risk given what otherwise ascribes too much uncertainty to applicants.

- 3.13. **Policy T3 Affordable Housing:** This policy sets out the LPA's position on affordable housing. It is derived from an extensive evidence base. The provisions of T3 are generally supported. The Landowners are supportive of delivering Affordable Housing for local people. It is welcomed that the policy allows for flexibility in the provision of affordable housing.
- 3.14. Policy T11 Small Sites and SME Housebuilders: This policy is generally supported in what it seeks to achieve, that being encouragement of small housing site development where it supports sustainable development, and where delivered largely by SME housebuilders. The criteria of the policy are clear in that the site should not exceed 60 dwellings net in order to maintain the character and scale of the local area, as well as matters of high quality design.
- 3.15. It is wholly agreed that the inclusion of this policy would be helpful to the Plan in a myriad of ways, noting that developing small (and medium) sites may help to make the best use of existing infrastructure and resources, minimise environmental impacts, and prevent urban sprawl. It is agreed that generally SMEs are more intrinsically linked with the local supply chain and are more likely to invest in local materials and construction, offer apprenticeships and utilise wider Kent based partners from concept through to sale.
- 3.16. Policy DM5 Housing Design: As outlined elsewhere, the Landowners are committed to quality design. DM5 builds on and refines the criteria of Policy T1 seeking quality development. It layers this with additional guidance for applicants which is supported, though caution is advised around an overly prescriptive form of wording. As drafted, DM5 appears detailed whilst still allowing for sufficient flexibility in planning terms to sustain and support good, robust and deliverable housing schemes.
- 3.17. Policy DM9 Heritage Assets: It is agreed that the Plan must make provision for guidance on the preservation and enhancement of heritage assets. It is agreed that development that impacts a heritage asset, or its setting, should achieve a high quality of design which will conserve or enhance the asset's significance and setting. Criteria as drafted appear reasonable, largely requiring specialist advice to inform relevant proposals, proportionate to the development and the asset(s) concerned. It is agreed that applications should be accompanied by relevant heritage inputs.

### Spatial Growth Options (SG01, SG02, SG03)

- 3.18. The Plan identifies three spatial growth options urban focus, dispersed growth, and a blended strategy. It is acknowledged that each offers a solution or potential solution to meeting the Council's housing and development needs up to 2041, albeit in varied configurations.
- 3.19. An urban focus prioritises brownfield land, and is acknowledged by the Landowners as a logical approach to addressing need through existing resources. It is aligned with national planning policies and would support efforts to regenerate urban areas. That said, it is emphasised that this approach would place significant pressure on urban areas to deliver almost exclusively on total housing need it potentially underestimates the difficulty in securing appropriate variation in housing typology with an urban-focus, as well as matters of viability dealing with brownfield sites potentially with onerous site conditions and cost factors. Importantly, this approach also downplays the contributions of greenfield sites in meeting delivery targets, namely through sustainable development in nearby areas such as Chattenden. Greenfield sites are a valuable asset in supporting the aspirations of the Plan, and a strategic growth option which fails to appropriately recognise this should not be viewed as a sound strategy.
- 3.20. A dispersed growth model SG02 centres a much higher and predominant role for greenfield sites. In theory this is supported, though it is again acknowledged that a wider reading of sustainable development should include for a combination of typologies and resources, whether land or buildings.
- 3.21. The Council has identified option SGO3 as its preferred indicative approach at this stage, and has set out more details of what this strategy could look like, in a draft policies map. In principle, the Landowners agree that SGO3 the Blended Strategy represents a logical and pragmatic approach at this stage to addressing development needs over the plan period. This aspiration is generally supported, described as:
  - "...likely to offer the best balance of sustainability considerations by integrating urban regeneration with suburban and rural development, promoting sustainable travel, and addressing the needs of diverse communities. On the whole, this option is likely to ensure a diverse range of housing types and tenures can be provided across Medway and economic needs can be met whilst directing the majority of new development to sustainable locations"
- 3.22. It is supported per the sustainability appraisal that this spatial strategy should afford the greatest potential for development prospects, and aligns with established principles of sustainable development, with considerable weight then afforded to brownfield land opportunities, as well as appropriate greenfield opportunities.

- 3.23. It is however noted that a 'brownfield first' approach is advocated for by the Council. In principle, this is supportable though this should not be at the expense of otherwise sustainable development opportunities elsewhere. The timing of site availability for brownfield developments should not unduly delay sustainable development on greenfield sites, particularly where they are available and deliverable. A combined approach or a blended approach must be truly blended and holistic to realise true benefit. The wording of any related policy must reflect this. It is underscored that national policies will of their own right, away from any strategic planning policies continue to advocate for brownfield development, and in that regard will not necessarily be wholly reliant on this strategic policy for their positive consideration in principle. It is therefore all the more important for any subsequent policy wording to adequately support in principle the delivery of a genuinely blended approach, with mechanisms both for allocated sites and windfall sites at various scales across the plan area.
- 3.24. It is then wholly acknowledged in agreement with the Council that
  - "...the Council needs to consider large and strategic scale development allocations in the Local Plan to address the community's needs for homes, jobs and services. This heightens the sensitivity of potential greenfield allocations, as small urban, or village extensions, are not sufficient to provide for development needs"
- 3.25. We note that Council's aspiration to allocate sites in the next iteration of public consultation documents. We request that we be kept informed of such opportunities. In the meantime, a number of broad areas of interest have themselves been identified on the draft Proposals Map. This includes for a number of sites at Chattenden, including those identified as HHH3 and HHH6 which sit in immediate proximity to the Landowners' interests at Farm Cottages (Figure 2).
- 3.26. These sites are specifically noted for their potential to contribute in meeting the Plan's objectives, namely here as residential-led proposals. Land at Farm Cottages is directly related to such, and carries a significant number of opportunities to support the aspirations of HHH3 and HHH6, either holistically as part of a larger allocation or separately as a standalone form of development that is well-related to such, and plus in to the specific deliverability of these emerging site proposals. With respect to HHH3 and HHH6, it is noted that these sites would provide a significant volume of residential development:
  - HHH3 500 dwellings, over 23.83 ha net area
  - HHH6 550 dwellings, over 35.32 ha net area
- 3.27. In both cases, the Sustainability Appraisal finds these capacity levels to be appropriate relative to their positioning as strategic sites for the Plan. Each is assessed in the Appraisal as follows: "...the development would help to deliver the vision and the strategic objectives

of the new Local Plan. Opportunity for sustainable development, supporting improved services". The Landowners do not contest this assessment, but wish to emphasise that a similar conclusion could be reached for their own land interests. At this Regulation 18 stage, it is confidently asserted that the Landowners' interests at Farm Cottage represent a logical extension of the potential housing-led delivery in and around Chattenden, as a genuinely deliverable form of development which merits detailed consideration by officers. For clarity, it is understood that the Site has been previously identified by the Council as site HHH40, with a capacity of 75 dwellings, and noted as a non-strategic reasonable alternative.

- 3.28. The Sustainability Appraisal assesses the Site pre mitigation in a manner consistent with all greenfield sites; that being low scoring for impact(s) on the natural environment, but high scoring for housing, economy, employment, and climate change adaptation. The Landowners do not dispute this pre-mitigation assessment which is accepted as an appropriate review at high level of the baseline greenfield land conditions of the Site.
- 3.29. The assumed post-mitigation impact(s) are shown to lead to some change, including improvement to cultural heritage and education relative to pre-mitigation baseline assessments. However, we consider greater review of the Site's potential can be undertaken, namely around the opportunities for improvement in heritage terms, and in ecological terms. It is also emphasised that the planning balance must also be taken into account the relative need for housing in sustainable locations.
- 3.30. There is a key argument that the strategy overall particularly where a blended strategy is advanced must acknowledge that some harms will result from change. This change need not be adverse in all regards, and further detailed mitigation can and would be provided.
- 3.31. To support this, an Indicative Concept Masterplan (Figure 3 shown overleaf; supporting plan submitted in Appendix) is provided to identify the development aspirations of the Landowners, here showing in broad terms how a suitable development scheme could delivery up to 75 dwellings in this location. Whilst subject to refinement with the benefit of later technical reporting, a development area incorporating extensive biodiversity net gain opportunities and open space could yield a reasonably well-contained residential led scheme of mixed character areas and housing typologies. Access would be provided variously, both vehicular via Lodge Hill Lane and by foot and on bicycle. There are numerous opportunities for development linkages between the Site and its immediate surroundings.
- 3.32. Development of the Site would be in keeping with, and at a scale proportionate to, the size and form of the existing settlement, all the while fully cognisant of the sustainable growth of Chattenden at nearby sites and the proposed indicative distribution of growth in such areas underscores the sustainability credentials of the area. The inclusion of the Site in later iterations of the Plan is considered to roundly accord with the thrust of the Vision and Strategic Objectives set out in the Plan.

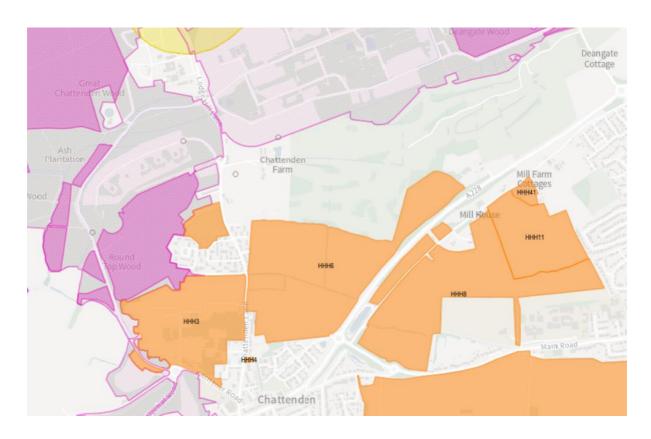


Figure 2. Extract of draft Proposals Map identifying HHH3 and HHH6.



Figure 3. Extract of the Indicative Concept Masterplan.

- 3.33. We note the Council's current assessment of the Site's potential as recorded in Table 8.14 of the Sustainability Assessment as being rejected at this stage for reasons relating to its proximity to the SSS1, the potential loss of Best and Most Versatile Land, and concerns surrounding the potential for coalescence, as well as commentary regarding walking distance to current public transport services.
- 3.34. It is acknowledged that the Council records "...preliminary reasons for selection and rejection of the sites proposed at this stage in the plan making process have been informed through consideration of the SA assessment findings as well as other evidence base information that has been available to the Council at this stage, including wider considerations of the suitability, availability and achievability of potential site allocations".

### 3.35. In this regard, we confirm the following:

- The Site is held in single ownership and no third parties are required in the delivery of housing in this location. The Site is considered available, suitable and deliverable.
- An Outline Planning Application evidencing the overarching deliverability of the Site in line with the aspirations of the Plan as drafted can be readily advanced in good time. Technical work has been instructed to underpin the detailed inputs to a future planning application. These representations are supported at this stage by some of this early-stage technical work emphasising the deliverability of the Site, evidenced principally in the supporting concept plan.
- The concept plan identifies how development here could support wider development aspirations, with retained buffers between nearby settlement areas. Coalescence can be mitigated against, through an appropriate design scheme. An indicative plan demonstrates how this could be achieved in an appropriate manner.
- Wider sustainability credentials in and around the Site will evolve over time, including substantial changes to public transport services. The distance from the Site to public transport will evolve in turn. The Site will itself centre non-car travel modes where possible.
- The close proximity of the site to the SSSI is noted, but need not preclude development. A sensible and robust design scheme – with mitigation and compensatory measures – could still come forward.
- The Site would not necessarily result in the loss of BMV land, and an appropriate wider planning balance could likely be achieved. The Site is not currently in agricultural use.

- 3.36. With this in mind, the Site is considered to be a logical candidate for inclusion in the Plan at the next stage for the following reasons:
  - Access to Centres The site is not located within a local & district centre however it is approximately 1.2 kilometres to the nearest local centre in Chattenden to the south of the A228. The site would however benefit from its close proximity to local bus services which would provide access for future residents to not only Chattenden but also the larger settlement of Chatham.
  - Access to Educational Facilities The site is approximately 800-900 metres away from Chattenden Primary School and there are continuous footpaths along Chattenden Lane and Lodge Hill Lane as well as bus stops which would provide access to the school. It is considered that by providing a footpath at the front of the representation site that this would ensure that the school would be attractive for future residents to walk to.
  - Access to Open Space The site is less than 100 metres away from an area of open space at Lodge Hill Recreation Ground.
  - Transport The site is approximately 150 metres away from existing bus stops on Lodge Hill Lane which provide a number of services to Chatham and Hoo throughout the day, and which in turn would provide connection to larger employment centres and train links to London.
  - Site Access Suitable vehicular access could be provided within site ownership or highways land.
  - Landscape and Environment The site is located within a landscape of high sensitivity and moderate condition (15 Deangate Ridge) as identified by the Medway LCA 2011 however development of the representation site would be self-contained and viewed in the context of surrounding development and therefore would not affect the characteristics for which the wider landscape character area is designated. Where appropriate all existing trees and hedgerows within and adjacent to the site would be preserved and integrated into the scheme and new landscaping and planting would provide appropriate buffers, which can also function as biodiversity corridors.
    - o The site is located to the south and east of the Lodge Hill SSSI and it is recognised that it falls within an Impact Risk Zone. Detailed assessment of any impact of the development upon the SSSI and any mitigation and enhancement measures that may be required would be incorporated into any development proposals.
  - Heritage As outlined above there is an existing Grade II Listed First World War Sentry
     Post on the site which forms part of a group of six in the area. This should not be

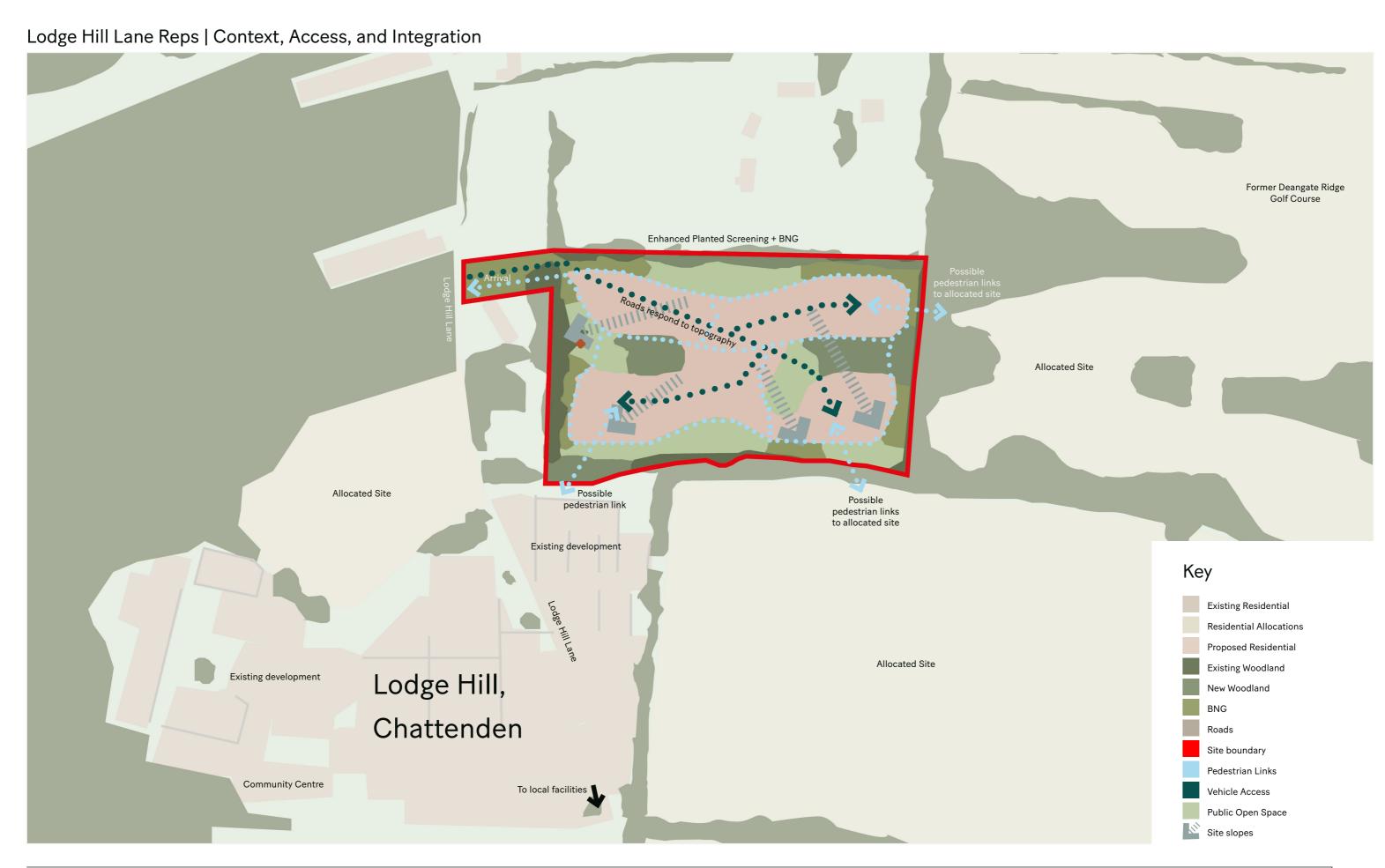
considered as s significant constraint to development and would be able to be protected in situ and integrated into the layout of any future proposals.

- Flood Risk The site is in Flood Zone 1 and is not in an area of high surface water flooding. It is therefore at low risk of flooding and a sequentially preferable location for housing development.
- Air Quality The site is not within or adjacent to an Air Quality Management Area. However, traffic generated by the development would be expected to route through the Four Elms Hill AQMA but the site will accommodate less than 200 units so is unlikely to have a significant impact on this management area.
- Contamination There is no evidence of contamination on the site.
- Agricultural Land The site is within an area of Good to Moderate Grade 3 agricultural land, however, is not currently used for agricultural purposes.
- 3.37. Notwithstanding the suitability of the site as a standalone development, it is submitted that the Council should also consider the suitability of Chattenden to accommodate a greater quantum of development in order to assist with delivering Medway's development needs.

### 4. SUMMARY

- 4.1. On behalf of the Landowners we strongly advocate for the inclusion of land adjacent to Farm Cottages, Lodge Hill Lane, Chattenden for residential development.
- 4.2. These representations conclude that the Plan's early stage preparation could provide a sound approach to planning in the authority over the plan period, subject to the detailed preparation and assessment of a wider evidence base and satisfaction of housing need figures.
- 4.3. The supporting concept plan demonstrates how a logical form of development could be included in the next iteration of the Plan. Specific to the Promoter's interests, an approach that advocates for the delivery of housing in this location is strongly supported, noting that:
  - The Site is well-related to the existing settlement and committed development- and is contained within the landscape and important trees and landscape features will be retained and, enhanced;
  - The local highway network has capacity to accommodate the additional traffic associated with the development, without adverse impact and in fact provide a betterment to the existing conditions and toto be explored in greater detail in the context of a planning application as currently being prepared;
  - The Sites falls within the EA Flood Risk Zone 1 (i.e. land assessed as having a less than 1 in 1,000 annual probability, or <0.1% chance of flooding);
  - There are few designated heritage assets within or immediately adjacent to the site, and the development is not considered to affect the setting of any Listed Buildings. The listed sentry post is part of a group locally, and provision can be made within a sensitively design masterplan layout to protect and conserve its significance. The attached concept layout demonstrates a comfortable development form that would afford a greater appreciation of such, and could be refined as the site principles develop with additional technical inputs, including proportionate heritage inputs.
- 4.4. We welcome the opportunity to further assist or provide comment on the preparation of the Plan which will help shape future development in the area; and we welcome look forward to the opportunity to participate at plan-making stages where appropriate.

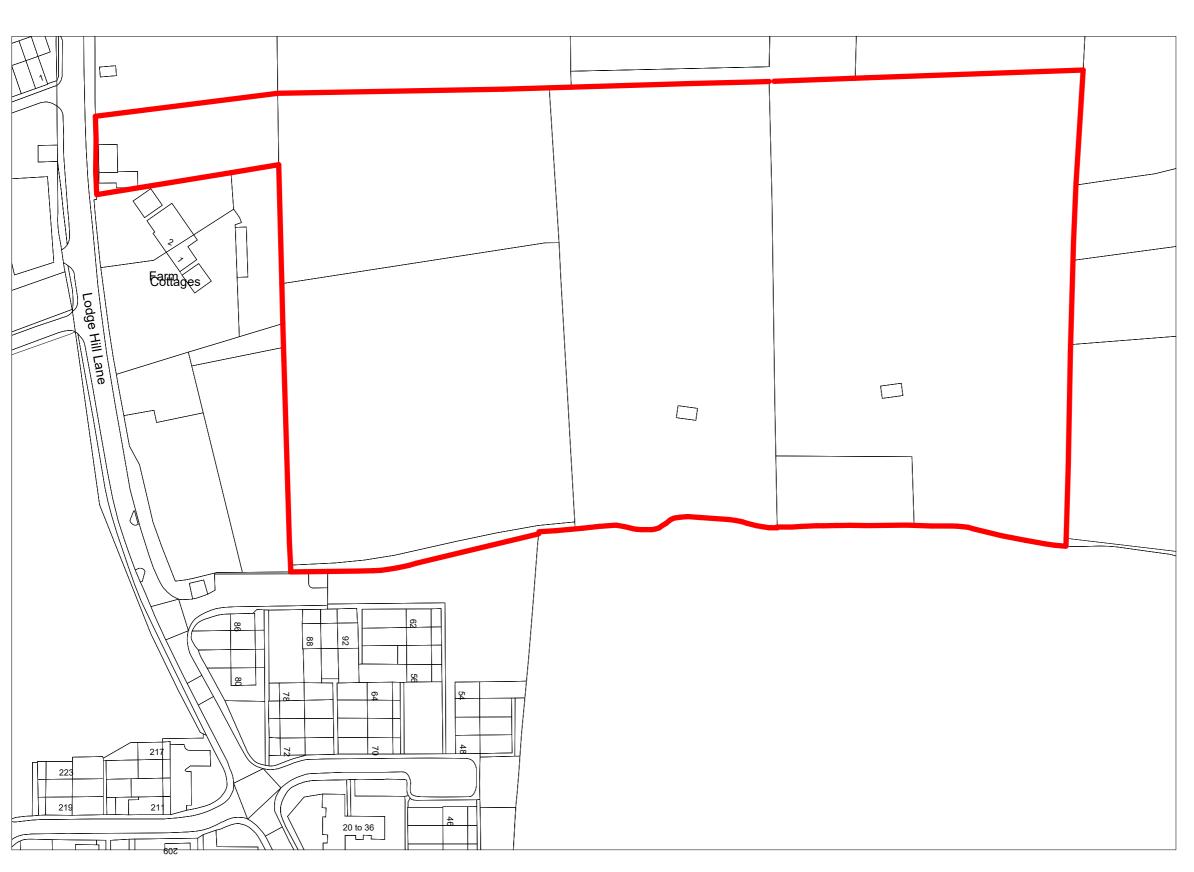
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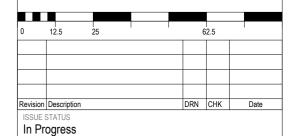


Site Location Plan

Scale: 1:1250

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CLIENT

### Mr HG and Mrs DR Kemsley

Land Adjacent to Farm Cottages,
Lodge Hill Lane, Chattenden

DRAWING TITLE
Site Location Plan

PROJECT NO
9314

ISSUE DATE
09/06/24

DRAWN BY
LF
CHECKED BY
LG
SCALE

DRAWING NUMBER

SCALE 1:1250@A3



# MEDWAY LOCAL PLAN REVIEW 2041: REG 18B DRAFT REPRESENTATIONS OF THE HOO CONSORTIUM

These representations have been prepared on behalf of the "**Hoo Consortium**", who comprise the following 5No companies:

Church Commissioners for England; Dean Lewis Estates; Gladman; Redrow; Taylor Wimpey

The Hoo Consortium continues to work positively and proactively with Medway Council in seeking to deliver a comprehensive sustainable expansion at Hoo and welcomes the production of this next stage of the emerging Local Plan.

These representations provide a high-level overview of the Reg18B Local Plan and has responded largely to the 44No questions posed within the Draft Local Plan, with some additional commentary where relevant. The Hoo Consortium Members have also submitted their own individual representations regarding their respective land-holdings, and these representations should also be considered in this context.

### **Natural Environment**

**Question 1**: The Council could consider setting local standards for development that go beyond national policy/regulations in addressing climate change. What evidence would justify this approach, and what standards would be appropriate?

We consider the Council should stick with National policy guidance/regulations in respect of Climate Change. We appreciate the objective and sentiment of seeking to do so, but there are already many challenging and competing demands and requests upon new development.

Our concerns are compounded due to the absence of complete "evidence base" presently, in particular the IDP. In the light of this, it is not possible to be more supportive of this suggestion presently.

**Question 2**: Do you consider that the Council should seek to go beyond the statutory minimum of a 10% increase in BNG? What evidence can you provide to support your view?

No. The statutory minimum 10% net gain already represents a significant gain and accords with the National requirement, which is set out clearly within the Environment Act 2021 and the NPPF.

We are committed to a minimum of 10% BNG, and propose to achieve this via various measures, inc: habitat creation and enhancement measures regularly proposed include the creation of modified and other neutral grassland (including breeding skylark / wintering bird compensation areas formed of a neutral grassland), areas of mixed scrub / willow car planting, SuDS, and new hedgerow / tree planting. Watercourse enhancements where possible.

The Hoo Consortium recognises the sentiment of seeking to "raise the bar", but there are already many competing demands and requests upon new development.

Achieving 10% BNG can already be difficult in some instances due to the complex nature of the BNG metric. Increasing BNG above the minimum 10% statutory figure could also then impact upon the overall viability of each scheme and its ability to deliver the much-needed housing (inc affordable housing) and supporting other social/community facilities required. The absence of an updated Viability Assessment and IDP compounds our concerns in this regard.

We therefore support the delivery of 10%, but not in excess of present statutory minimum.

**Question 3**: Do you agree that the tariff based strategic approach applied to development within 6 km of the designated areas, supporting the delivery of the Bird Wise SAMMS programme represents an effective means of addressing the potential impact of recreational disturbance on the designated SPA and Ramsar habitats of the Thames, Medway and Swale Estuaries and Marshes.

Yes – but SAMMS & SEMS (where required) – and we understand now known as "SAMMS+". We understand this will be secured via an extended SAMMS programme, which collects enhanced financial contributions from respective promoters/developments.

The Local Plan HRA confirmed that in-combination recreation impacts of new development would be mitigated through SAMMS payments in relation to the North Kent Marshes designations (under Policy S3); and that any additional mitigation (for sites in close proximity to designations) will be secured through additional policy wording (including wording on governance and funding)

As the Local Plan HRA (Reg18) has not undertaken an Appropriate Assessment due to strategic traffic modelling not being available to inform at this stage, it is considered that the above position still stands. As such, the level of planning risk is not considered to have increased/decreased following the publication of the Local Plan HRA.

We also **note and support** the reference to this matter in the draft Medway Green and Blue Infrastructure Framework (and Question 6), in respect of the Hoo Peninsula (Page 7):

On the Hoo Peninsula a Strategic Environmental Management Scheme (SEMS) was developed to deliver large scale new open spaces, managed for both wildlife and for access. This will be in addition to new parks, playgrounds, allotments and sports pitches that will be provided through new residential development. The SEMS included the following new green infrastructure:

- Cockham Community Parkland 127 acres of farmland converted into new habitats including grasslands, new hedges and woodland planting, plus the creation of new path networks and two car parks;
- Land at Deangate Ridge creation of over 6km of new access routes and the planting of nearly 5ha of woodland and scrub;
- New wetlands are being proposed to support the establishment of habitat for both breeding wading birds plus over-wintering wetland birds;
- The provision of safe pedestrian access across the A228 between the community of Hoo and Deangate Community Parkland.

Whilst Government funding to deliver all of SEMS is now not available the principle of mitigation to offset the impact of new developments on protected habitats still stands. However, the benefits of protecting and enhancing these designated environments is beneficial across the whole of Medway. Therefore, a tariff based S106 policy should apply to developments across the whole of Medway. We would suggest a two-tier policy where development within the zone of influence pays a higher tariff and development outside pays a lesser contribution.

**Question 4**: Do you consider that Medway Council should identify landscapes of local value as an additional designation in the new Local Plan. What should be the criteria for designation? Are there areas that you would identify as justifying a local valued landscape designation – where and why?

No, we do not consider such additional designations are necessary. We are of the opinion that the present Landscape Character Assessment provides sufficient guidance in this regard.

We are also mindful of the forthcoming National Development Management Policies (NDMPs), which will ultimately supersede many such local policies.

**Question 5**: Do you agree that the Council should promote Natural England's Green Infrastructure Framework standards in the Medway Local Plan policy?

The Hoo Consortium supports the principles of Natural England's Green Infrastructure Framework, but does not consider it necessary for such standards to be replicated in Medway Local Plan policy.

**Question 6**: Has the draft Medway Green and Blue Infrastructure Framework identified the correct key issues and assets, and provide effective guidance for strengthening Medway's green infrastructure?

We support the aims and objectives of the draft Medway Green and Blue Infrastructure Framework with regard to the Hoo Peninsula.

However, we not that the "Part 2 Area Priorities" (p.71/72) include reference to the HIF, which is no longer in place – so this needs to be corrected.

We also find the map (Plan 19/p.73) slightly confusing, and wonder if this could be made clearer and/or have zoomed-in section for Hoo itself.

**Question 7**: Do you consider the Green Belt boundary should be revised in line with the recommendations in the 2018 Green Belt Assessment?

The Hoo Consortium considers it appropriate to rectify any anomalies in respect of the Green Belt boundaries, but does not wish to comment further in this regard.

**Question 8**: Do you consider that exceptional circumstances exist to justify review of the Green Belt boundary?

Given the extent of relatively unconstrained land on the Hoo Peninsula, inc presently unallocated/identified land, we do not consider that exceptional circumstances exist presently for a review of wider Green Belt boundaries.

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#### **Built Environment**

**Question 9**: Should this policy be broadened out to areas adjacent or near to Conservation Areas rather than only within? If so, please explain why.

We do not consider this policy should be broadened out further, as the NPPF (and PPG) already provides sufficient guidance in this regard. Such considerations will also be considered in the forthcoming National Development Management Policies (NDMPs), and such local policies will become further unnecessary and superfluous.

If Council resources permit, LPAs should instead focus on preparing Conservation Area Appraisals for each Conservation Area.

#### **Housing**

The Draft Reg 18B was published for consultation ahead of the (new) Government's publication of the changes to the Draft NPPF (July 2024). It is anticipated that the Council will make the necessary changes to be reflected in the subsequent Reg 19 version of the Local Plan, and we therefore reserve our position on this at this stage.

However, the Council is to be congratulated on its proactive approach to meeting its own housing needs, as is now required under the (new) draft NPPF.

In having regard to the emerging NPPF requirements, we wonder whether the proposed Plan period (to 2041) will now be sufficient to provide for a min 15-year period from date of Adoption, in the light of the increased obligations for:

- "effective strategic planning across LPA boundaries" [new Para 24]
- "increased levels of collaboration" [new Para 27]
- "a consistent approach for the delivery of major infrastructure" [new Para 27a]
- "unmet needs from neighbouring authorities" [new Para 27b]

We would respectfully suggest that the originally anticipated LDS may well need to be revisited in the light of the above, with the Plan period being extended to 2042/43.

Nevertheless, the Hoo Consortium **supports** the blended approach between urban regeneration and greenfield sites (in line with the over-arching "Spatial Strategy SGO3") and the presently indicative site allocations on the draft Policies Map, and indeed increased release at Hoo, similar to that in the earlier HDF. However, please also note the individual representations of the individual Members in this regard too – some of whom may well be able to assist with an extended Plan period (beyond 2041 presently).

However, we do also have concerns at some of the emerging policy aspirations in the absence of an updated **Infrastructure Delivery Plan (IDP)** and updated **Viability Assessment**. We consider that robust versions of both of these documents are essential before committing further (at this stage) to many of the draft policies set out in the Reg 18B Plan and some of the questions being posed therein. Our responses below are therefore caveated in this regard.

**Question 10**: Do you think this policy provides effective guidance on the required housing mix in Medway?

Any such policy needs to provide flexibility to not only reflect the latest Local Housing Needs Assessment (LHNA), but also more local market forces.

**Question 11**: Do you agree with having a 10% requirement for affordable housing on urban brownfield sites and 30% requirement for affordable housing on greenfield sites and higher value urban locations? What do you consider would represent an effective alternative approach? Do you agree with a varied approach for affordable housing requirements based on the different value areas across Medway?

In the absence of an updated IDP and Viability Assessment, it is not possible to comment specifically on this matter presently.

We support the principle of a variation of affordable housing needs, but this is not always along the lines of a "brownfield vs greenfield" approach. Indeed, the Council's own regeneration plans will hopefully

create increased higher-value urban areas, which may support higher level of affordable housing provision than the suggested 10%.

Given many of the other competing demands/pressures upon the greenfield sites at Hoo, we do not expect any increase above the present 25% affordable housing is likely to be achievable on these sites presently. However, this can only be properly informed as part of a comprehensive IDP and/or areaspecific IDP.

**Question 12**: What do you consider would represent an effective split of tenures between social/affordable rent and intermediate/low-cost home ownership housing in delivering affordable housing?

We consider the LHNA should provide the necessary guidance in this regard.

**Question 13**: Do you have any views on the delivery of affordable housing, and the cascade principle? What evidence can you provide to support your views?

We support the principle of a cascade principle.

**Question 14**: Do you have views on defining the limits to over-concentration of HMOs in a community? What criteria would be recommended?

No comment

#### Question 15: Do you have any sites you wish to promote for self-build allocation?

We support the principle of the provision of self-build plots but question the **Policy T9** requirements of 4% on sites of 100+ units. We consider such provision is not presently evidenced or justified.

We also note the disparity of attention (in the draft Local Plan) being given to self-build provision (extensive coverage) against that of specialist housing for the elderly and our increasing ageing population (very limited coverage, if any).

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#### **Retail and Town Centres**

**Question 16**: Do you support the approach to manage ancillary development outside of centres in this way?

**Question 17**: Do you support the approach to protect Medway's centres by requiring impact assessments in circumstances set out in the policy above?

Question 18: Do you agree with the proposed Chatham town centre boundary?

**Question 19**: Do you agree with the identification of the Primary Shopping Area boundary proposed within Chatham town centre?

Question 20: Do you agree with the Rochester district centre boundary proposed?

**Question 21**: Do you agree with the Primary Shopping Area boundary proposed within Rochester district Centre?

**Question 22**: Which option or combination of options would you choose for the Gillingham district centre boundary?

Page | 5

**Question 23**: Do you agree with the Primary Shopping Area boundary proposed within Gillingham district centre?

**Question 24**: Which option or combination of options would you choose for the Strood district centre boundary?

**Question 25**: Do you agree with the Primary Shopping Area boundary proposed within Strood district centre?

**Question 26**: Which option or combination of options would you choose for the Rainham district centre boundary?

**Question 27**: Do you agree with the Primary Shopping Area boundary proposed within Rainham district centre?

Questions 16 - 27: No comment

**Question 28**: Would provision of a supermarket in Hoo be beneficial to residents to encourage sustainable travel patterns, convenience and sustainable lifestyles?

Draft **Policy S22: Hoo Peninsula** is <u>supported</u>, but not only in the context of "supermarket provision", but also in the provision of much wider social and community services and facilities. This would of course need to be "evidenced" (capacity and needs based assessment) to inform the emerging proposals for infrastructure and retail at Hoo Rural Town.

The close working relationship between the Hoo Consortium and its extensive land-holding interests enable the delivery of a variety of new social and retail opportunities to serve the new/growing Hoo community, and we would welcome further engagement with the Council in respect of this component of its evidence base.

This will not only provide for the creation of a more sustainable community, but also increased social cohesion and a greater number of internalised trips (resulting in less vehicular trips off the Peninsula).

Question 29: Do you agree with the boundaries and retention of these listed local and rural centres?

In commenting upon Q28 and our support for a new supermarket(s) at Hoo, we recognise and support the existing role/function at the centre of Hoo.

Question 30: Are there any other local and rural centres you may want to suggest for inclusion?

**Question 31**: Do you agree with the boundaries and retention of the listed shopping parades and neighbourhood centres?

**Question 32**: Are there any further neighbourhood centres or shopping parades you may want to suggest for inclusion?

**Question 33**: Do you agree with the proposed boundary for Dockside as a leisure destination? Please refer to the proposal map for the boundary suggestion.

**Question 34**: Do you support the percentage mix of uses proposed? If not, can you provide evidence for an alternate mix?

#### Questions 30 - 34: No comment

\_\_\_\_\_\_

#### **Transport**

Overall, the Consortium considers the emerging Medway Local Plan as an appropriate starting point for a cohesive vision for the Hoo Peninsula. The Consortium <u>welcomes the ambitious policies</u> that clearly target sustainable development on both the Hoo Peninsula and across the wider Medway region, and which are orientated around the key transport objectives of the LP.

The Consortium <u>strongly welcomes</u> the approach of a 'place-based vision' for access and movement as an essential component of sustainable transport planning and key to the LP achieving its strategic transport objectives. To date a reasonable worst-case scenario has been developed within the STA, whilst this was an industry-standard method of determining the impact of local development, the 'place-based' vision for the Peninsula should focus on a sustainable transport strategy that assesses a 'vision-led' strategy.

The Consortium also agrees with the principle of a **vehicle trip credit** and believes that a 10% reduction (**Policy DM15**) in vehicle trip generation is an achievable target for developments on the Hoo Peninsula against current trip levels, if the appropriate levels of mitigations are implemented at both local and strategic levels. Whilst a further reduction in vehicle trips should be targeted, consideration should be given to how the 10% reduction in vehicles is applied to the trip credit as the Vision-led strategy set out within the STA should already minimise vehicle trips on the road network. A sustainable transport strategy for the Hoo Peninsula will help to both achieve and potentially further increase the modal shift away from private car use.

The Consortium understands that different forms of development are expected to contribute towards transport mitigations commensurate with their impacts, but would query why accessible locations are proposed to be exempt from contributions (**Policy DM15**) as financial contributions will still be required for public transport and active travel. The Consortium therefore <u>objects</u> to **Policy DM15** as presently drafted, and in the absence of further clarification on this point.

Additionally, it should be ensured that allocated sites are <u>prioritised for trip credits</u> ahead of speculative applications and that vehicle trip budgets should not be degraded by developments not accounted for in the Local Plan.

The Consortium encourages Medway Council, in consultation with National Highways, Kent County Council, neighbouring Local Authorities and key stakeholders, to ensure that a full and robust transport evidence base is progressed and published alongside the Regulation 19 consultation. This will be important to ensure a sustainable, long term transport strategy for the plan period to facilitate the levels of growth required to meet housing and economic needs.

The delivery of a strategic scale development at the Hoo Peninsula would form an important element of the Local Plan and a robust highway strategy should be in place. The Consortium welcomes engagement with Medway Council on this key evidence base, in advance of publication of the Regulation 19 Plan.

**Question 35**: Adequate overnight lorry parking would reduce the risk of lorries parking in locations that lack proper facilities and/or cause a nuisance. Are there local shortages for overnight lorry parking in Medway?

No comment

#### Health, Communities and Infrastructure

The Hoo Consortium has been working closely with Medway Council with regard to the wide variety of social and community infrastructure that will be required to support major spatial growth at Hoo.

In addition to the health and wellbeing issues listed below, a key component of wider community infrastructure is "education", both Primary and Secondary provision – which is not specifically identified in the questions below.

The Hoo Consortium has been working collaboratively in respect of both **Primary and Secondary** education provision, along with Medway's Education Officers. We **support** Medway's aspirations for a **new Secondary School at Hoo** and are committed to help with its successful delivery, which will also help meet the wider needs of the Peninsula.

Question 36: Are there any core health and wellbeing issues or opportunities missing from the policy?

Question 37: What are examples of healthy development in Medway you would like to see more/less of?

Question 38: Of those health areas listed, what are the most important for the local plan to address?

**Question 39**: How can the local plan ensure that development is inclusive and accessible for all members of our community, including people with disabilities?

**Question 40**: The designation of land as Local Green Space allows communities to identify and protect green areas of particular importance to them. The Local Green Space designation should only be used where the green space is: a) in reasonably proximity to the community it serves; b) demonstrably special to a local community and holds a particular local significance, for example because of its beauty, historic significance, recreational value (including as a playing field), tranquillity or richness of its wildlife; and c) local in character and is not an extensive tract of land. Please use the online map to identify a green area

Questions 36 - 40: No comment

Question 41: Sport England require an up-to-date PPS to justify the protection, enhancement and provision of playing pitches. Based on an audit and assessment of the supply and demand for existing and future playing pitches, the PPS provides recommendations and an action plan for addressing issues regarding the quantity, quality and accessibility of playing pitches and ancillary facilities. Medway Council's latest PPS was completed in October 2019 for the period 2018-35. Medway Council is inviting local clubs, national governing bodies of sport and other users and providers to review the latest PPS. More specifically, are there any matters in the latest PPS that should be updated?

The Hoo Consortium is concerned and <u>objects</u> to the present wording/requirements of **Policy DM21**: **New Open Space and Playing Pitches**.

As presently drafted, the open space requirements come to 5.94ha per 1,000 population, and this is <u>without</u> any present provision for "Outdoor Sport" or formal sports pitches (which is "TBC", but often circa 1.2/1.4ha per 1,000). This would equate to an overall requirement of <u>circa 7.4ha per 1,000 people</u>, which is unprecedented in any other Local Plan the Hoo Consortium has been involved with.

The Hoo Consortium supports the provision of new open space areas to meet its own generated needs, but we should not be expected to rectify any existing deficiencies in the local area – if this is what has driven this unprecedented draft policy requirement of circa 7.4ha per 1,000 population. Such an approach is unjustified in policy terms and also contrary to the NPPF and CIL Regulations.

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**Question 42**: Do you agree identifying the required infrastructure to support the scale and locations of growth within Medway is the correct approach? Would a 'mini IDP approach' focusing on broad locations and strategic sites be preferred? Or do you have an alternative suggested approach?

The Hoo Consortium would support the principle of a "Hoo Peninsula IDP".

This would also need to be prepared in parallel to the wider IDP and overall Viability Assessment – both of which are absent and much needed to inform the next stage of the preparation of the Local Plan.

<u>Question 43</u>: Align infrastructure provision in line with this growth – how can we balance growth and new infrastructure requirements with funding gap?

In order to achieve the above, it is necessary for the Council to set realistic expectations as to what new development can actually deliver, and to prioritise such expectations accordingly.

To help achieve this, we consider essential for the Council to prepare/produce a comprehensive IDP and robust Viability Assessment. Unfortunately both are absent presently, but we are committed to working with the Council to help inform the production of both of these important reports/documents.

\_\_\_\_\_

#### **Waste Management**

**Question 44**: In light of the geological/spatial constraints in Medway and predicted limited ongoing need, do you agree that it is appropriate for the Council to plan for the management of non-inert waste that may require landfill on the basis that it will be managed at landfill sites located outside Medway?

No comment

\_\_\_\_\_\_

We trust the above comments and observations are helpful to Medway Council in the continued preparation of its emerging Local Plan.

We would welcome the opportunity of continuing with our collective discussions with Council Officers across their respective departments.

Please do not hesitate to contact us with any queries in respect of the above representations.

#### The Hoo Consortium

#### September 2024

planning transport design environment infrastructure land

# Medway Council Regulation 18b Consultation Response

LAND EAST OF RAINHAM LAA REF: RSE9, RSE10 & RN28
RESPONDENT ID REFREG18B PLN ID 3702
RESPONDENT ID REF INTERIUM SUSTAINABILITY ASSESSMENT: IB3705

CLIENT: BELLWAY HOMES STRATGIC LANDLTD

SEPTEMBER2024 DHA/16453



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### 1 INTRODUCTION

#### 1.1 PURPOSE OF THE STATEMENT

- 1.1.1 These representations have been prepared on behalf of Bellway Homes Strategic Land Ltd in response to Medway Council's (MC) Local Plan 2041 Regulation 18 b consultation document (July 2024).
- 1.1.2 These representations are set out in the context of the preferred Site allocations listed below, which are all identified for potential development in the consultation plan:
  - RSE9: Rainham South East, proposed capacity 40 homes
  - RSE10: Rainham South East, proposed indicative capacity 850 homes
  - RN28: Rainham North, capacity for 74 dwellings
- 1.1.3 Sites RSE9 and RSE10 make up "Land East of Rainham", which Bellway has promoted as "Miers Court". Site RN28 also known as "Moor Street" already benefits from Full planning permission for 66 homes (ref: MC/21/3125). However, following positive pre -application discussions with the Council, it is proposed that the total number of homes is uplifted to 76.
- 1.1.4 These representations seek to principally support the continued identification of these Sites as "preferred" sites for allocation. Representations are also made in respect of the proposed Vision and number of the Development Control policies. In doing so, these representations also make comment on the following evidence base documents:
  - Interim Sustainability Appraisal, June 2024
  - Draft Viability Assessment for Consultation, July 2024
  - Medway Landscape Character Assessment, Prepared by LUC, June 2024
  - Strategic Transport Assessment

#### 1.2 STRUCTURE OF THEREPRESENTATION

1.2.1 Below is an overview of the structure of the remainder of the consultation response:



- Chapter 2: Miers Court (Sites RSE10 & RSE9)
- Chapter 3: Moor Street (Site RN28)
- Chapter 3: Interim Sustainability Appraisal
- Chapter 5: Local Plan Executive Summary
- Chapter 6: Vision & Strategic Options
- Chapter 6: Spatial Growth Options
- Chapter 7: Natural Environment
- Chapter 8: Built Environment
- Chapter 9: Housing
- Chapter 10: Conclusions



# 2 MEIRS COURT (SITESRSE10 & RSE9)

#### 2.1 SUPPORT FOR PREFERREALLOCATION

2.1.1 Sites RSE10 and RSE9 have collectively been promoted by Bellway Homes as a strategic allocat ion to the east of Rainham, known as "M iers Court". The identification of the Sites as a preferred allocation in the accompanying proposals map is therefore strongly supported.



FIGURE 2.1 EXTRACT REG18B LOCAL PLAN CONSULTATION PROPOSALS MAP

- 2.1.2 As set out in the "Vision Document" previously provided, Bellway's Vision for Miers Court is to deliver circa 800 new homes as part of a high quality and sustainable extension at the edge of Rainham. Critically the development will deliver:
  - Circa 800 new homes, including affordable housing across a total site area of circa 65h.
  - Deliver a new strategic highway link through the new neighbourhood to assist with the distribution of traffic, especially on the A2 and thereby also offering improvements in respect of the AQMA in Rainham.



- Deliver a landscape led development including new strategic areas of open space and opportunities to improve PROW routes facilitating enhanced access to the countryside and new recreational opportunities.
- Space to provide new local facilities to enhance the sense of community in
  the local area and address requirements for new services and facilities. Two
  areas are proposed, comprising community space land and a local centre.
   There are a range of potential options for these spaces which can be informed
  by on-going discussions with Medway Council Officers.
- Provide a new landscaped transition to the countryside edge on the eastern boundary of the Site.
- Position development sensitively in respect of Moor Street Conservation Area , maintaining its distinct character as well as the setting of identified heritage assets.
- Incorporating existing landscape features such as traditional orchards, recognising their ecological value, but also the contribution they can make to creating a locally distinctive neighbourhood.





#### FIGURE 2.2: MIERS COURT ILLUSTRATIVE MASTERPLAN

2.1.2 The Vision Document was supported by technical appendices in respect of landscape and highways and demonstrates that the Site can positively contribute to delivering planned and sustainable growth within Medway, as recognised in the Local Pan proposals map.

#### 2.2 ASSESSMENT AGAINST EMERGING POLICIES

2.2.1 The following section considers how the proposals comply with key design, accessibility and infrastructure requirements as set out in the consultation Local Plan. The assessment further underlines the suitability of the Site for development.

#### Affordable Housing

2.2.2 As a suburban greenfield site and in line with Policy T3, the proposals will include 30% affordable housing.

#### Self-Build & Custom Housebuilding

2.2.3 The Miers Court Vision Document did not specify a housing mix. However, in accordance with Policy T9 the proposals can include not less than 4% self and custom build plots.

#### Conservation & Enhancement of the Natural Environment

2.2.4 As set out in the Vision Document, the emerging masterplan seeks to retain areas of priority habitat as well as ecological and landscape features such as established hedgerows. Where such features need to be lost to facilitate the development i.e. sections of hedgerow to achieve access connections, such losses will be compensated for on Site. The proposals will further secure at least 10% BNG.

#### Accessibility Standards

2.2.5 Draft Policy T26 sets out accessibility standards for strategic and major developments, requiring developments to be within 15 minutes of identified services and facilities. The Site and the proposals are assessed against this criteria as set out in Table 2.1 below.



LOCAL DESTINATION	MODE (15MINS)	ACCESSIBILITY	
Primary School	Walking	Parkwood Primary school is within 750m of the site as is Riverside Primary school which are within walking distance .	
		There is also the potential for a further educational facility within the community space land proposed as part of the masterplan.	
Secondary School	Walking	Leigh Academy is within 750m of the Site	
	Cycling	and is within walking and cycling distance.	
	Bus/Public Transport	Rainham School for Girls is also just over 2km from the Site and is accessible by cycle or bus routes along the A2.	
Top-Up Groceries	Walking	Rainham centre/high street is within 1200m of the Site (15min walk) which has a number of shops including shops, where top up groceries can be brought.	
	Cycling		
Places to Socialise	Walking	The masterplan area includes opportunities	
	Cycling	to provide places to socialise through the provision of new facilities as part of the	
	Bus/Public Transport	proposed community land Rainham centre/high street is also within 1200m of the Site, which provides additional opportunities to socialise including café's and restaurants etc.	
Places to Exercise	Walking	The masterplan area includes circa 13.6ha ha of open space providing for walking and other recreational opportunities. PROW routes also intersect the Site, which the proposals provide the opportunity to upgrade and enhance access to the countryside.	

2.2.6 When assessed against the requirements of Policy T26 the Site is well related to existing infrastructure with the proposals also providing the opportunity to enhance accessibility through the provision of new services and facilities as part of the development.

#### **Open Space**

2.2.7 Draft Policy DM21 sets out proposed new open space and playing pitch requirements. Per 1,000 people , 5.19ha of open space is required across different typologies. Not all open space typologies are necessarily required to be delivered on Site and it will be dependent on the needs of different areas. Notwithstanding, Miers Court is promoted for circa 8 00 new homes with an estimated population



- of circa 1,920 residents (average 2.4). Against Policy DM21 this generat es a requirement for circa 9.9ha of open space.
- 2.2.8 As set out in the Vision Document, the masterplan delivers circa 13.6ha of open space, demonstrating the proposals are more than capable of meeting open space requirements.

#### 2.3 INFASTRUCTUREDELIVERY

- 2.3.1 Following initial discussions with Medway Council Officers , these representations are accompanied by a Transport Technical Note (TN) which considers in detail the timing of the proposed highway link through the Site and when this needs to be in place. The technical assessment demonstrates that the development would only have a severe impact at the occupation of 600 dwellings, including accounting for the non -residential uses. The link road will therefore be provided prior to the occupation of the 600 the dwelling. The precise timing of this can be subject to further discussion with Officers.
- 2.3.2 It is proposed that works can commence at both site entrances at Moor Street (A2) and Mierscourt Road, allowing for two sales outlets. The space for the community facility and local centre are located in the south of the Site and are accessible from the link road. Due to their proximity to the M ierscourt Road entrance, these spaces will be easily accessible early in the build programme.
- 2.3.3 The nature of the uses that can be provided within the community and local centre have yet to be determined, but as identified in the Vision Document could include educational facilities. The local centre also provides the opportunity for a new medical hub. The precise nature of the uses can be tailored in response to on going dialogue with Officers to address identified needs.

#### 2.4 HOUSING DELIVERY

- 2.4.1 Bellway as a National house builder has a strong track record of delivery in Medwa.
- 2.4.2 As demonstrated in the Vision document, the Site is relatively unconstrained. As such it can come forward early in the plan period and would contribute to broadening the variety of allocated Sites across Medway to ensure a robust housing land supply, espec ially where larger strategic sites such as at Hoo or brownfield sites might be more delayed in coming forward because of infrastructure or technical constraints.



#### 2.5 SUMMARY

- 2.5.1 The identification of M iers Court (Sites RSE10 & RSE9) is strongly supported and would contribute to the sustainable expansion of Rainham. As set out in the previously submitted Vision Document , the masterplan further accords with emerging planning policies underlining the suitability of the Site for development. The Site should therefore continue to be identified in the Reg19 Local Plan.
- 2.5.2 Alongside new housing, the Site can deliver new strategic infrastructure . The timing of infrastructure delivery can be subject to on -going discussions with Officers to ensure it is provided at the right time, with the link road being provided before the 600 th occupation.



# 3 MOOR STREET (RN28)

#### 3.1 SUPPORT FOR PREFERRED ALLOCATION

3.1.1 The identification of Site RN2 8 is supported. The Site already benefits from Full planning permission for 66 homes pursuant to application MC/21/3125 (APP/A2280/W/22/3310119). Following discussions with Medway Council Officers, an uplift in the number of homes to 76 is supported by the Council in principle.

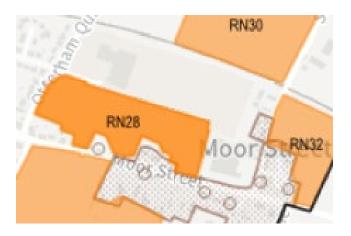


FIGURE 3.1: EXTRACT REG18B LOCAL PLAN CONSULTATION PROPOSALS MAP

3.1.2 The supporting Interim Sustainability Appraisal identifies the Site with capacity for 74 homes, this should be uplifted to 76 accordingly. This should also be reflected in any future Local Plan policy.

#### 3.2 SUMMARY

3.2.1 Site RN28 should continue to be identified as suitable for development in the Reg19 Local Plan, reflecting the Outline permission consented, with the number of proposed homes increased to 78 reflecting recent discussions with Officers.



### 4 INTERIUM SUSTAINABILITY APPRASIAL

#### 4.1 OVERVIEW

- 4.1.1 As identified in the Interim Sustainability Appraisal (SA), it considers two growth options:
  - **Option 1:** Meet Medway's identified housing (circa 22,643 homes) and employment needs (274,66m3).
  - **Option 2:** Option 1, plus meeting Gravesham's unmet need of circa 2,000 homes .
- 4.1.2 To deliver on either option, the SA identifie s 12 spatial delivery options (SDOs), representing broad potential locations for new development across Medway, a combination of which could form a spatial strategy. Across all the SDOs there is identified capacity for between 36,123 -42,018 homes.
- 4.1.3 Bellway sites RSE9, RSE10 & RN**2** all fall within SDO "East of Rainham". Amongst other sites, this SDO has a collective capacity for circa 1,243 1,432 homes.
- 4.1.4 On average, accounting for all scoring, East of Rainham ranks 6 <sup>th</sup> (average of all scores for the SDO). Overall, East of Rainham is therefore considered to rank favourably as a sustainable location for development.
- 4.1.5 At this stage the SA does not take into account site specific mitigation, which can improve the overall performance of individual sites. However, mitigation is considered in assessing strategic sites options for 24 sites, these being sites of at least 500 homes or more, or 300 in the case of more rural areas. Site RSE10 (Miers Court) is identified as a strategic site and for the purpose of that assessment RSE9 also (SA Strategic Sites Map groups RSE10 & RSE9 together). O verall, site RSE10 is assessed favourably taking into account the wider mitigation set out in the Miers Court Vision Document (as described in Section 2).
- 4.1.6 Where site RSE10 is assessed less favourably a further explanation is provided below together with further details of mitigation. Where appropriate, adjustments to the proposed scoring of the Site against the SA criteria is therefore also proposed. Notwithstanding, the SA assessment demonstrates that Miers Court performs strongly against the SA criteria and therefore its allocation should continue to be supported in the Reg19 Local Plan, as a suitable and sustainable location for development either on its o wn or part of the wider "East of Rainham" SDO.



4.1.7 Site RN28 (Moor Street) already benefit's from Full planning permission for 66 new homes (ref MC/21/3125). The principal of residential development is therefore established, with the Counci I supporting through pre-application discussions, an uplift in the no. of homes to 76. Its continued identification for residential development should therefore also be supported and should be borne out in the SA.

#### 4.2 SITE REFERENCINGAND ASSESSMENT OF SITESRSE1, RSE9 & RN28

- 4.2.1 The SA identifies Miers Court as spanning two separate sites comprising Sites RSE10 & RSE9The SA assesses Site RSE9 both on its own and as part of RSE10 based on the Strategic Sites map (SA, Figure D.1.1). Similarly, Site RN28 is included in the assessment of RSE10 and is also assessed on its own.
- 4.2.2 Site RN28 is a standalone site, already benefiting from Full planning permission.

  The assessment of the Site is therefore not contingent on Site RSE10 . It should therefore continue to also be considered on its own merits .
- 4.2.3 Site RSE9 is contingent on the wider RSE10 ste and is not deliverable on its own. It should therefore not be considered on its own as well, which the SA currently appears to do. This approach also risks double counting sites, which could lead to a misrepresentation in potential housing numbers, especially if this error is repeated across several sites. The SA should therefore be reviewed in this regard.

#### 4.3 SA OBJECTIVE 4-LANDSCAPE (RSE10)

- 4.3.1 Site RSE10 is assessed negatively against several of the criteria, albeit this is common to most of the sites assessed, by virtue of them principally comprising greenfield sites.
- 4.3.2 The SA assessment draws on the Draft Medway Landscape Character Assessment (LCA). The LCA identifies and explains the unique landscape characteristics which make up the district. Defining the characteristics is a key component in managing growth sustainably. It is intended to help shape development to ensure that it does not undermine what is valued or characteristic in a landscape to help guide positive change. It does not assess the landscapes sensitivity to change and ability to absorb development.
- 4.3.3 The Miers Court Vision document accompanying the previous Reg 18a representations included a landscape technical appendix comprising a "Landscape and Visual Technical Assessmen t". The assessment was formative to the development of the masterplan in the Vision Document. It demonstrates that the proposed development could be successfully accommodated on the Site and



assimilated within its immediate and wider landscape context without unacceptable effects on the landscape or visual amenity. It does not identify the Kent Downs AONB (circa 1.2km to the south of the Site) as a constraining feature or a feature that would be harmed by the proposed development. Furthermore, it demonstrated that development of the Site would not result in the coalescence of settlements (Rainham and Newington). The development would only reduce the separating function of the open area between Rainham and Newington by 11%. It was also assessed that it was unlikely that there would be any reduction in perceived separation due to the lack of intervisibility between the two settlements and because the Site does not exten d as far east as Moor Street Conservation Area.

- 4.3.4 Having regard to the technical evidence previously submitted the assessment of the Site against criteria listed below, must be adjusted from "-"to "0"
  - AONB/National Landscapes
  - Landscape Character Area
  - Coalescence/Uran Sprawl

#### 4.4 SA OBJECTIVE5 – POLLUTION AND WASTE (RSE10)

- 4.4.1 Overall, Site RSE10performs well against this criterion and indeed is the <u>only</u> site which is positively assessed against the AQMA criteri on. However, along with 9 other sites, it is assessed negatively against the "Main Road" criterion, because it is within 200m of the A2. As such there is identified the potential for a minor negative impact associated with air quality and noise levels.
- 4.4.2 As illustrated in the proposed masterplan (Figure 2.2) a large proportion of the proposed residential development is expected to sit some distance back from the A2. Therefore, only a small proportion of the Site might be impacted by noise. However, as established by other consented developments on the A2, such as at site RN28 (Moor Street), noise impacts can be mitigated through standard noise mitigation measures such as window specification/insulation. As such the Site should be scored "0" against the noise criterion.
- 4.4.3 With regards to air quality, and as acknowledged in the assessment, the proposals will help alleviate such issues through the introduction of the proposed new connecting road between the A2 and M ierscourt Road. As such the Site should be scored "0" against the "Main Road" criterion.



#### 4.5 SA OBJECTIVE6 – NATURAL RESOURCES (RSE10)

- 4.5.1 Nearly all sites assess ed score poorly against the identified criteria, which negatively scores those sites comprising greenfield land and Best and Most Versatile (BMV) agricultural land.
- 4.5.2 As acknowledged in the SA, there is insufficient sites available on brownfield sites to meet the identified housing and employment needs. A large proportion of Medway is also made up of BMV land. To meet identified needs, the loss of greenfield and BMV Sites is therefore inevitable and therefore should not be a factor that is weighed against Site RSE10 at Reg 19. The Site must be considered in the context of the wider benefits the proposals will de liver, including delivering new services and facilities that will also benefit wider Rainham alongside the wider SA score for the Site where it performs favourably against the majority of the criteria.

#### 4.6 SA OBJECTIVE 9-CULTURAL HERITAGE (RSE10)

4.6.1 Site RSE10is located adjacent to Moor Street Conservation Area and is in proximity to Listed Buildings principally located to the east of the Site. As illustrated in the masterplan (Figure 2.2) and the Site Concept Plan (extract at Figure 3.1) , development is purposely set away from the identified heritage assets . Any impacts on these assets will therefore be minimised, through maintaining separation. Whilst these measures are acknowledged in the SA assessment (para D.10.4.2) and it is generally agreed the proposals could impact heritage assets, the level of harm is expected to be at the lower end of the scale (if at all) with no significant impacts likely, which should also be reflected in the a seessment.





FIGURE 3.1: EXTRACT OF MIERS COURT CONCEPT PLAN

#### 4.7 SUMMARY

- 4.7.1 Sites RSE9, RSE10 & RN28 perform well against the sustainability criteria. However, the assessment of Site RSE10 should be re-considered in respect of objectives 4 (Landscape), 5 (Pollution & Waste) 6 (Natural Resources) & 9 (Cultural Heritage) for the reasons identified.
- 4.7.2 The SA should be re-visited to check that the double counting of sites is not occurring. For example, sites RSE9 and RN28 are assessed individually but also as part of strategic site RSE10.



## 5 LOCAL PLAN EXECUATIVE SUMMARY

#### 5.1 HOUSING NEED & PLAN PERIOD

- 5.1.1 This is the only place in the entire Draft Local Plan where the number of homes being planned for is mentioned. No where in the Plan is it is also clear what the start date for the Plan period is. Based on the total I housing requirement it is taken to run for just 16yrs. These are fundamental elements to the Local Plan and provide essential context to the proposed spatial strategies being put forward as well as for the vision for the district.
- 5.1.2 As set out in comments on the Vision and Strategic Objectives, the housing requirement and Plan period must be reflected in the "Vision". It must also be set out within its own housing delivery/development policy which clearly identifies the housing and employment floorspace requirement. Currently the Plan fails to adequately and clearly identify the level of development that is being planne d for contrary to the NPPF (para 20), which requires strategic policies to "set out an overall strategy for the pattern, scale and design quality of places".



## 6 VISION AND STRATEGIC OBJECTIVES

#### 6.1 COMMENTS ON THEPROPOSED VISION

- 6.1.1 The "Vision" for Medway encompasses broad policy principles for the future emerging Local Plan covering transport, employment, the environment, retail, waste and minerals.
- 6.1.2 However, t he "Vision" is silent on its intention to meet its identified housing and economic/employment needs. Indeed, the overarching principles for the "Vision" fails to identify housing at all as an important component of the Plan.
- 6.1.3 Whilst the "Vision" talks in general terms about how development is to be provided, central to the "Vision" must be how much development is provided as a matter that is fundamental to the framework for growth and the spatial strategy as a determinative matter. This is a significant failing, considering the "Context" identifies "the supply of new homes is central to the Local Plan" (para 2.7).
- 6.1.4 NPPF (para 15) states that:

"The planning system should be genuinely plan -led. Succinct and up-to-date plans should provide a positive vision for the future of each area; a <u>framework for addressing housing needs</u> and other economic, social and environmental priorities; and a platform for local people to shape their surroundings. \*(our emphasis)"

- 6.1.5 This matter was previously raised at Regulation 18a stage and has still not been addressed in this current consultation. In the absence of the "Vision" setting out its intention of how much development will be delivered, specifically housing development, it does not provide a positive framework for addressing housing need contrary to the NPPF (para 15). This failing is further perpetrated by the "Strategic Objectives" (see Section 7 of this Statement), which also does not address the scale of housing provis ion that should be delivered, contrary to the NPPF (para 20). This underlines the importance of the "Vision", setting out the intentions for growth.
- 6.1.6 The "Vision" as set out in para 2.1 must be amended as follows (new text in red):

Medway has conserved and enhanced its intrinsic cultural and natural heritage and landscapes alongside high quality development to strengthen the area's distinctive character. Medway has achieved sustainable growth through the development of housing, transport, environment, retail, employment and waste and minerals sites that have responded positively to tackling climate change, providing for



healthier and more sustainable choices of homes, transport and workplaces, and reducing and mitigating the risks of flooding, overheating, drought and soil erosion.

6.1.7 In line with previous representations (Reg 18a , October 2023 ), a new paragraph must also still be added, or existing paragraphs amended as part of the "Vision" to set out the intention of the Local Plan to meet identified housing and employment needs. The 7 <sup>th</sup> paragraph (un -numbered) could be amended as follows:

The Plan will seek to deliver at least 27,854 new homes (1,658 pa + 5%) to ensure the needs of all sections and ages of the community can find decent places to live. The quality of new development has enhanced Medway's profile, and driven up environmental standards in construction, and older properties have been retro -fitted to improve sustainability. Custom and self -build housing has provided new living opportunities for residents. Investment in new services and infrastructure, such as transport, schools, healthcare and open spaces, has supported house buildin g to provide a good quality of life for residents.

- 2.18 The proposed change aligns with the "Development Needs" (set out in the executive summary of the draft Local Plan), which sets out the approximate housing target of 28,000 homes to be delivered across the Plan Period. However, as set out in Section 7 of this Statement, it is thought that the proposed number of homes being planned for needs to be increased.
- 2.19 The outline d changes are essential to ensure the Plan is "Positively Prepared", "Consistent with National Policy", and therefore "Sound" (NPPF, para 35)

#### Summary

6.1.8 Contrary to the requirements of the NPPF (para 15), the "Vision" fails to identify the provision of housing as an important component of the Plan and does not set out how much development should be provided for. This is a determinative matter in identifying the preferred spatial strategy. In not expressing the amount of development that is to be delivered, the Plan also fails to be positively prepared in not providing a suitable framework for addressing housing needs for the delivery of at least 27,854 new homes.

#### 6.2 COMMENTS ON THE STRATEGIC OBJECTIVES

6.2.1 The consultation document sets out four strategic objectives to positively plan for the development and infrastructure needs of Medway whilst conserving and



enhancing the natural as well as the built and historic environment. The objectives are:

- Prepared from sustainable and green future;
- Supporting people to lead healthy lives and strengthen our communities;
- Securing jobs and developing skills for competitive economy; and
- Boost pride Medway through quality and resilient development.
- 6.2.2 The strategic objectives, including their sub-objectives, which have not materially changed since the previous Reg 18a consultation. Therefore, our concerns remain the same as those previously submitted and are outlined below.
- 6.2.3 Paragraph 2.2.1 sets out that these objectives "feed into the wording of policies and how sites and different locations are assessed for potential development". It is, therefore, notable that there is no strategic objective dealing expressly with the amount of housing that needs to be delivered.
- Whilst it is acknowledged that , in general terms , the objective of "Supporting People to Lead Healthy Lives and Strengthening Our Communities" mentions in general terms the types of housing to be delivered, it does not set out how much. This is a determining factor in deciding what is the most appropriate spatial strategy and should inform the basis of future strategic policies, as required by the NPPF (para 20 and 23). In accordance with the NPPF (para 11 ), this should also reflect, as a minimum, the objectively assessed need /housing requirement.
- 6.2.5 In the absence of clearly setting out the housing requirement and whether the Plan is looking to meet identified need (which it should ), the process of using the stated objectives to inform the Council's assessment of different sites and locations for development cannot be considered "Positively Prepared" or "Justified," contrary to the NPPF (para 35).
- 6.2.6 The "Strategic Objectives" must therefore, be either expanded to include the amount of housing that is to be planned for, which must reflect the objectively assessed need as a minimum (NPPF, para 11b), or a new objective added that identifies th is.
- 6.2.7 The general principles are supported for the spatial objectives more generally. However, they further highlight the need for the amount of development to be planned for to be expressed as an objective since many of the objectives are dependent on the delivery of housing, including the ambitions for improved employment floorspace and higher -value employment opportunities, which are also reliant on providing enough housing .



6.2.8 More generally, the objectives also only discuss development on brownfield land as part of its regeneration objectives. They do not directly address the need to release greenfield land for development. This is misleading since the release of greenfield sites is essential to meeting the objectives of the Plan and, therefore, must be referenced for clarity.

#### **Summary**

6.2.9 The strategic objectives as currently drafted do not provide a "Sound" basis to inform the development strategy, where they fail to set out the amount of development that is to be planned for. This is fundamental to informing the spatial strategy and policy making, especially in respect of setting strategic policies (NPPF, para 20). The objectives must therefore either be expanded or a new objective added which sets out that the Plan seeks to deliver its full objectively assessed need as a minimum (NPPF, para 11b). Greenfield land must be released to aid the delivery of this, which should further be acknowledged.



# 7 SPATIAL GROWTH OPTIONS

#### 7.1 CONTEXT

7.1.1 The following section considers the spatial options being consulted on as part of the Local Plan, However, in doing so it is first relevant to consider whether the amount of development that is being planned for is appropriate , especially in the context of the current NPPF consultation.

#### 7.2 NPPF CONSULTATION

- 7.2.1 Following publication of the Reg18b consultation Local Plan, proposed changes to the NPPF were also published reflecting the new Labour Government's manifesto to "kickstart growth". Central to the manifesto, are reforms to the planning system to support and increase house building, this includes consulting on proposed changes to the Standard Method, amongst other NPPF updates/amendments.
- 7.2.2 Medway Council under the current Standard Method is required to deliver 1,658 dwellings per annum (pa), compared to the Revised Standard Method of 1,644 dwellings pa, a decrease in requirement of just 14 dwellings. This does not materially change the amoun to fevelopment that M edway should be planning for. However, it is of significance that the proposed changes to the NPPF also seek to reverse relaxations introduced in December 2024 (para 62) which advised that the Standard Method was a "starting point" for plan making. This is proposed to be removed, and the expectation re -introduced that Plans, should as a minimum, plan for the number of homes identified through the Standard Method.
- 7.2.3 Following the conclusion of the NPPF consultation there is likely to be refinements to the proposed changes. However, housing delivery is integral to the Government's agenda, including a commitment to build 1.5million new homes over the next parliament. It is therefore almost certain that the proposals to change the Standard Method and remove the relaxation on how this should inform plan making will come into effect. In this context, it is therefore paramount that the Council continues to Plan to meet in full its identified housing need for the Plan to be found "Sound".

#### 7.3 PLAN PERIOD & HOUSING REQUIREMENT

7.3.1 The Government's current Standard Method sets out a requirement of 1 ,658 homes pa. The Interim Sustainability Appraisal sets out that this results in a



- requirement for 26,528 homes increasing to 27,854 accounting for the required 5% uplift. This covers a period of just 16yrs.
- 7.3.2 The NPPF (para 69a) requires the Plan to cover a period of at least 15yrs from the date of adoption (para 22). Whilst at face value the Plan would appear to cover the required period , covering 16yrs, this provides little flexibility should Plan preparations stall or examination be delayed, meaning it would fall short of the required 15yrs. Indeed, the Council's published Local Development Scheme (Feb 2024) does not anticipate adoption of the Local Plan until Autum 2026 . At this point the Plan would only hav e 15yrs left, allowing for no slippage, which is highly unlikely.
- 7.3.3 For the Plan to be considered to be "Positively Prepared" and therefore "Sound", the Plan period must be extended by at least a further year to provide flexibility and to cover inevitable delays in adoption, to ensure it is "Consistent with National Policy".
- 7.3.4 The Plan period should be increased to at least 17yrs , with a requirement for at least 29,595 new home s, including the 5% buffer .

#### 7.4 MEETING NEIGHBOURINGAUTHORITIES'UNMET NEED

- 7.4.1 It is noted that Gravesham Borough Council through its previous Reg18 consultation requested that Medway Council take 2,000 homes to assist it in meeting its housing need. Under the July 24 draft NPPF consultation the proposed Revised Standard Method incre ased Gravesham's annual housing requirement by an additional 32 homes on top of its 661 homes pa target (693).
- 7.4.2 It is currently unresolved as to whether Medway Council intend to assist Gravesham in meeting its housing requirement. Furthermore, neighbouring Tonbridge and Malling Borough Council (TMBC) is also likely to have its housing requirement increased under the Revised Standard Method by a further 237 homes pa taking its total pa requirement to 1,057 homes. Like Gravesham, TMBC is also a highly constrained Borough, with circa 70% of the Borough being Green Belt. It is therefore also highly probable that TMBC wil I look to Medway as well, to assist in meeting its housing requirement.
- 7.4.3 Through the evidence available, it is not apparent whether Medway intends to assist neighbouring authorities in meeting their housing requirement , which must be addressed in the context of the NPPF (para 11 and 60).
- 7.4.4 If Medway Council does not assist neighbouring authorities, then it becomes even more pressing that Medway plans to meet its housing requirement in full, otherwise it will contribute to a worsening housing supply and affordability in east Kent.



7.4.5 As a <u>minimum</u>, the objective to meet the objectively assessed need in full is supported, as required by National policy , with the Council to explore further whether it also needs to plan to meet any needs arising from Gravesham Borough Council or any other Council's (as appropriate) i.e Tonbridge & Malling, which also boarders Medway.

#### 7.5 COMMITTED DEVEOPMENT ANDWINDFALL HOUSING SUPPLY

- 7.5.1 Windfall development is defined at Annex 2 of the NPPF as sites not specifically identified in the Development Plan.
- 7.5.2 The NPPF (para 71) sets out that:

Where an allowance is to be made for windfall sites as part of anticipated supply, there should be compelling evidence that they will provide a reliable source of supply. Any allowance should be realistic having regard to the strategic housing land availability assessment, historic windfall delivery rates and expected future trends. (Our emphasis)

- 7.5.3 The Interim Sustainability Appraisal (para 3.1.2) sets out that after accounting for windfall sites and sites that are already committed, there is a residual requirement to identify 22,491 homes. Based on a housing requirement of 27,854 homes, windfalls and existing commitments make up 5,363 homes or 19% of the overall requirement, which is very significant.
- 7.5.4 Neither the Plan nor the supporting technical assessments provide a ny breakdown of what proportion of the 5,363 homes are already committed and what proportion is windfall or indeed what committed sites are being relied upon. In the absence of this information the full 5,363 committed and windfall homes cannot be depended upon.
- 7.5.5 As acknowledged in the NPPF (para 71), the Council can refer to historic windfall delivery. However, this must be considered in the context that Medway Council has not had an up -to-date Local Plan for some 20yrs. The vast majority of sites that have come forward are therefore not allocated and thus contribute to windfall provision. This significantly distorts the historic windfall delivery rate and fails to consider that moving forward a larger proportion of future windfall sites are likely to be allocated in the Local Plan, thus also raising concerns in respect of double counting.
- 7.5.6 Having regard to the NPPF (para 71), this consultation Plan is not supported by any compelling evidence that would justify placing such significant reliance on the windfall supply or that the number is even realistic.



- 7.5.7 With regards to committed developments, as with the windfall supply, there is no evidence provided which identifies the sites and permissions being relied upon. It can therefore not be determined if the permissions are still extant or if developments have already been completed. Moreover, it cannot be assumed that every consented development comes forward and for the full number of homes that have been granted permission. As such a discount mu st also be applied to consented development, accounting for under delivering.
- 7.5.8 Based on the lack of available evidence, it has not been demonstrated that any reliance can be placed on the delivery of committed developments and windfall sites, as part of the Council's housing land supply. This is a significant omission, especially given the level of reliance that is placed on this element of the housing land supply. It can therefore only be concluded at this stage, that the Council has a deficit of at least 5,363 homes against requirements. As such the Plan cannot be considered "Sound", unless sufficient evidence is provided to support Reg19 and/or additional sites are identified to address the deficit.

#### 7.6 PREFERRED SPATIAL GROWTH OPTION

- 7.6.1 The consultation Plan sets out three Strategic Growth Options (SGO) . The accompanying diagrams broadly identify locations for development against each of the options. Whilst the boundaries to each site are not identified, it appears Bellway sites RES10, RSE9 and RN28, appear as preferred locations for development in all the options considered.
- 7.6.2 The Council's preferred growth option is SGO3 which forms the basis of the indicative site allocations shown on the proposals map. For the reasons set out under Sections 2 and 3 of this Statement the proposed allocations are supported. option SG03 "Blended Strategy" is supported where it More broadly, growth provides for a range of Sites, including a mixture of suburban and rural locations for development, recognising that reliance on brownfield sites alone will not be sufficient to meet the identified housing requirement. A mixture of sites is also essential to secure a deliverable and reliable source of housing, acknowledging that brownfield sites often suffer from complex issues, such as contamination. viability or multiple landownerships, which might delay development in coming forward. Whilst the general aspiration of SGO3 is "brownfield first", it will be essential that gr eenfield sites also come forward at the same time, to ensure housing numbers are met.

#### 7.7 SUMMARY



7.7.1 Whilst SGO3 is supported, for reasons already set out, the number of homes being planned for must be re -visited and in all likelihood increased, to account for increasing the Plan period to at least 2042, a review of committed and windfall housing land supply and accommodating (if possible and necessary), growth from neighbouring authorities.



## 8 NATURAL ENVIRONMENT

## 8.1 POLICY S1: PLANNING FOR CLIMATE CHANGE

8.1.1 There is a discrepancy between Policy S1 as described in the accompanying Draft Viability Assessment and Policy S1 as set out in the consultation Local Plan. It is therefore not clear whether the climate change measures, as described in the Local Plan have been properly accounted for in Viability Report. This must be revisited to ensure that the Plan is supported by an appropriate and robust evidence base to ensure it is deliverable.

Question 1: The Council could consider setting local standards for development that go beyond national policy/regulations in addressing climate change. What evidence would justify this approach, and what standards would be appropriate?

- 8.1.2 It is noted that the Council declare d a "climate change emergency" in 2019 making the move to net zero—carbon as a priority. The C—ouncil's preferred approach—to achieve this is to make—t new homes achieve a 31% carbon reduction, which is equivalent to the Future Homes Standard option 2. The Council viability report at paragraph 10.47 states that this would increase—build costs by 3.1%.
- 8.1.3 The PPG provides guidance in respect of climate change and specifically addresses whether Local Planning Authorities can set higher energy performance standards than building regulations in their Local Plan. The PPG specifically states that authorities "can set energy performance standards for new housing or the adaptation of buildings to provide dwellings, that are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes". (para 012 Ref ID: 6 -012-20190315). Building Regulations now closely aligns with this.
- 8.1.4 The NPPF (para 16 f) further sets out that Plans should avoid unnecessary duplication of policies. Matters of energy performance are already addressed through Building Regulations, which support the transition to zero carbon, taking into account the availability of technology and othe renergy sources, to ensure developments remain deliverable. Planning policies should support proposals which seek to provide improvements over Building Regulations and not hamper innovation. However, it should not be a require ment to exceed Building Regulations, thus risking housing delivery, especially where this is not supported by the Council's evidence, including its Viability Assessment.



8.1.5 Introducing additional local standards if therefore not supported where it would not be "consistent with National Planning Policy" and is not "Justified" based on the evidence base.

# POLICY S2: CONSERVATION AND ENHANCEMENT OF THE NATURAL ENVIRONMENT

8.1.6 Policy S2 should remain as is, with proposals only having to demonstrate a 10% net gain in accordance with the Environment Act, as required by law.

Question 2: Do you consider that the Council should seek to go beyond the statutory minimum of a 10% increase in BNG? What evidence can you provide to support your view?

- 8.1.7 The principle of BNG is supported in accordance with the statutory requirement of 10%. However, the increased requirement for 20% BNG is not "Justified" and is not supported by the Council's evidence base.
- 8.1.8 The Council's evidence base fails to take into account any additional space requirements to attain 20% BNG, which can vary significantly from site to site depending on habitats present. This can have significant spatial implications in terms of where devel opment can be delivered on a site, including the overall quantum of development that can be achieved. It can further significantly reduce the capacity of sites, undermining housing delivery as well as the Council's spatial strategy, if more sustainable sit es cannot maximise their development opportunity which in turn can increase pressure on further greenfield release to meet housing numbers. As such the Plan would fail to be "Effective" if the requirement was increased.

## 8.2 POLICY S3: NORTH KENT ESTUARY AND MARSHES DESIGNATED SITES

8.2.1 Policy S3 is similar to that currently implemented by the Council through developer contributions as part of any planning application within the zone of influence of the identified areas set out within the policy. Therefore, our client does not object to i ts premise.

Question 3: Do you agree that the tariff based strategic approach applied to development within 6 km of the designated areas, supporting the delivery of the Bird Wise SAMMS programme represents an effective means of addressing



the potential impact of recreational disturbance on the designated SPA and Ramsar habitats of the Thames, Medway and Swale Estuaries and Marshes.

8.2.2 No objection is raised in respect of the development within 6 km of designated areas. Medway Council already has SAMMS payments as part of the development contributions. The contributions are currently clearly set out within the Developer Contributions Guide, which is updated annually. This policy just formalises the existing approach in the Local Plan.

## 8.3 POLICY DM3: AIR QUALITY

8.3.1 Any future draft policy at the Reg 19 stage needs to set out the criteria for which development is required to submit such information, i.e., any major planning applications, any applications within an Air Quality Management Area, or other criteria that the Council may consider appropriate. This will clarify what technical information is required at any future planning application stage. This is necessary to ensure the policy stratifies the requirements of the NPPF (para 16 d). Currently the policy is ambig uously written.



## 9 BUILT ENVIRONMENT

## 9.1 POLICY T1: PROMOTING HIGH QUALITY DESIGN

- 9.1.1 Contrary to the requirements of the NPPF (para 16), the policy is neither clearly nor concisely written. However, the policy does introduce the requirement for all developments to demonstrate sustainability criteria, such as:
  - (1) Meeting the BREEAM standard of 'Very Good' for both energy and water efficiency; and
  - (2) Biodiversity 2020, and Building with Nature Standards
- 9.1.2 BREEAM is only applicable to non -residential development. Ther e is no evidence to justify why development s need to adhere to Biodiversity 2020. This layers on additional unnecessary guidance, which repeats other policies aims in the Local Plan and competes or overlaps with BNG requirements. The above standards are therefore not considered "Justified".
- 9.1.3 We further note the requirement at the end of the Policy that all units are M4.

  This is a minimum building regulation requirement and as such does not need to be repeated in planning policy

## 9.2 POLICY DM 5: HOUSING DESIGN

- 9.2.1 As with Policy T1, the policy is cumbersome and should be refined. As with other policies it is also highly repetitive. It is also not entirely clear in all instances what the Council is seeking, for example, the last bullet point seeks a design for "flexible living: successful places that are robust and support long life and loose fit' neighbourhoods that are flexible and adaptable to rapidly changing circumstances". What standards does the Council intend to apply to help determine whether something is fle xible living, and what are the key design criteria for long -life and loose -fit neighbourhoods?
- 9.2.2 The NPPF requires policies to be written so the decision maker knows how to react to development proposals (NPPF, para 20 d). There is no guidance to suggest how this requirement is to be satisfied. This criterion is therefore not "Justified" and must be r emoved.



#### 9.3 POLICY DM6: SUSTAINABLE DESIGN AND CONSTRUCTION

- 9.3.1 No in principal objections are raised to Policy DM6, which in general repeats established sustainable design principles. The exceptions being:
  - a) Include design principles founded on locally sourced and/or recycled materials; and
  - b) Any submission must include details of how the proposal is seeking to address the climate emergency with an aim to achieve or aspire to net zero carbon with due regard to Medway's current Climate Action Plan and Corporate Strategy. The whole life cycle of a building should be considered.
- 9.3.2 In terms of point a) it is not clear what is being asked for. This seems to ask for both local design techniques (whatever these might be) and/or use of recycled materials?. What is being asked for needs to be clarified. However, it must be acknowledged, t hat it might not be possible to meet either of these requirements, because of other design requirements /expectations such as building regulations or lack of available local materials.
- 9.3.3 In respect of b) See comments in respect of Policy S1, but this is now superseded by the requirements of Building Regulations. The matter is also already addressed under Policy S1. This should therefore be removed to avoid unnecessary repetition.

#### 9.4 POLICY T2: HOUSING MIX

9.4.1 Policy T2 is considered a strategic policy to ensure that the Council delivers a sustainable and suitable mix of housing to meet local housing needs as set out in the Local Housing Needs Assessment (2021).

Question 10: Do you think this policy provides effective guidance on the required housing mix in Medway?

- 9.4.2 Yes. The general thrust of the policy provides that the Local Housing Needs Assessment is the starting point for assessing the appropriateness of the range of housing types and sizes proposed, to ensure identified needs are met . However, it acknowledges that the mix must also be appropriate to the size, location and characteristics of the Site, which is essential to ensuring developments are in keeping with the character of an area.
- 9.4.3 Notwithstanding, the policy as currently word ed is repetitive and is in need of refinement. It also refers to self -build plots, which is already covered in Policy T9 and as such this reference should be removed.



## 9.5 POLICY T3: AFFORDABLE HOUSING

9.5.1 it is noted that the Council have an annual net shortfall of 870 affordable dwellings per annum and that this policy seeks to reduce this overall shortfall. Bellway Homes are satisfied with a 30% affordable homes policy on Greenfield sites

Question 11: Do you agree with having a 10% requirement for affordable housing on urban brownfield sites and 30% requirement for affordable housing on greenfield sites and higher value urban locations? What do you consider would represent an effective alte rnative approach? Do you agree with a varied approach for affordable housing requirements based on the different value areas across Medway?

9.5.2 Council's varied approach to affordable housing requirement based on different value areas across Medway is considered appropriate given the level of needs in different parts of the district.

Question 12: What do you consider would represent an effective split of tenures between social/affordable rent and intermediate/low -cost home ownership housing in delivering affordable housing?

9.5.3 Bellway Homes does not object to the principle of having a percentage split relating to social/affordable rent and intermediate low -cost home ownership. It is considered that the policy should use percentages led by the need requirement set out in Table 7.1 of the Loca I Housing Needs Assessment which is reflected in Policy T3 (51% social/affordable housing & 49% affordable home ownership, including First Homes).

Question 13: Do you have any views on the delivery of affordable housing, and the cascade principle? What evidence can you provide to support your views?

9.5.4 Paragraph 6.3.13 of the Local Plan consultation document sets out the cascade principle. The preference for on - site delivery of affordable housing then off - site provision as an alternative site as last resort or financial contribution. At this time, no concerns are raised regarding the policy approach outlined.

#### 9.6 POLICY T9: SELF-BUILD AND CUSTOM HOUSEBUILDING

9.6.1 Bellway Homes raise no in principle objection to the policy requirement that sites of 100+ dwellings will be expected to provide no less than 4% plots for self and custom build. However, the final number of plots to be provided should be informed by the level of interest identified on the Council's register. Furthermore,



there should be an agreed marketing period, which releases the plot/s from being self or custom build, should the plot/s be unsuccessfully marketed within the agreed timeframes.



# 10 TRANSPORT

## 10.1 POLICY DM15: MONITORING AND MANAGING DEVELOPMENT

10.1.1 In principle no objection is raised in respect of this policy, which aligns with DfT Circular 01/2022. However, currently the Council has not completed it full transport evidence base having only modelled with development but no mitigation. Until the further modelling is completed, in cluding mitigation the Council will not know if the requirements of this policy are achievable. As such this should be re -visited when the complete evidence base is available to ensure it is "Justified" and "Effective".



# 11 CONCLUSIONS

## 11.1 SUMMARY AND CONCLUSIONS

- 11.1.1 These representations have been prepared on behalf of Bellway Homes Strategic Ltd in response to Medway Council's (MC) Local Plan 2041 Regulation 18b consultation document (July 2024).
- 11.1.2 These representations are set out in the context of the preferred Site allocations listed below, which are all identified for potential development in the consultation plan:
  - RSE9: Rainham South East, proposed capacity 40 homes
  - RSE10: Rainham South East, proposed indicative capacity 850 homes
  - RN28: Rainham North, capacity for 74 dwellings
- 11.1.3 Overall, these representations support the identification of the above Sites as preferred allocations and provide additional information to support their continued identification in the Reg19 Local Plan . Critically, following consultation with Officers, this includes providing a detailed Transport Note, evidencing when the link road through the Site should be provided.
- 11.1.4 The representations support Strategic Growth Option 3 (SGO3) as the Council's preferred and most suitable option for growth. Furthermore, following successive years of under delivery in Medway, it supports the Council's objective to meet and plan for its full objectively assessed housing need. However, in reviewing the Draft Local Plan and accompanying evidence base, the following matters must also be raised:
  - The Plan period increased, to ensure it covers the required 15yrs from the date of adoption (NPPF, para 22);
  - The number of windfall sites and committed sites must be critically reviewed and compelling evidence provided to justify the anticipated supply (NPPF, para 72). Currently the contribution they make to the housing land supply is disproportionately high and unevidenced. Consequently, it cannot be relied upon, leaving a significant shortfall in the housing supply;
  - The potential to help address the housing need from neighbouring authorities, such as Gravesham and Tonbridge and Malling Borough Council needs to be reviewed and an uplift in housing provided for if necessary.



- 11.1.5 As an outcome of the above, there is a strong likelihood that additional sites will need to be identified and Sites RSE9, RSE10 and RN28 must continue to be identified as part of the supply as suitable and sustainable sites.
- 11.1.6 Allied to the above, comments have been provided on several of the development management policies which require further refinement.





# TRANSPORT TECHNICAL NOTE

JOB REF. CLIENT

PL/TV/34055 Bellway Homes (Strategic) Ltd.

Land East of Rainham, Medway

#### 1.1 INTRODUCTION

1.1.1 This Transport Technical Note (TN) has been produced by DHA on behalf of Bellway Homes (Strategic) Ltd in relation to the proposed residential-led development at Land East of Rainham, Medway. The proposals comprise the construction of approximately 800 dwellings, community buildings and a local centre. To facilitate the proposed development - as well as to relieve existing highway capacity constraints locally - it is proposed that a link road will be provided through the centre of the site, from Mierscourt Road to the A2 Moor Street. The indicative link road alignment can be seen in Figure 1.



FIGURE 1: INDICATIVE LINK ROAD ALIGNMENT

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- 1.1.2 It is noted that a TN was submitted as part of Bellway's representations to the previous Medway Local Plan Regulation 18 consultation in October 2023, which considered the highway capacity impacts of the proposals with specific regard to the A2 / Mierscourt Road and A2 / Otterham Quay Lane / Meresborough Road signalised junctions. It also provided a review of the proposed site access arrangements. The TN (a copy of which is included at **Appendix A** for reference) concluded that the link road would significantly enhance the operation of the A2 junctions.
- 1.1.3 This TN has been prepared in support of Bellway's representations to the latest Regulation 18 Local Plan consultation and following engagement with Medway Council's Planning Policy Team. It considers the appropriate trigger point at which the link road should be provided during the development build-out period.

### 1.2 TRIP GENERATION

1.2.1 The vehicular trip generation assessment of the proposed development, as set out in the previous TN, is outlined below for reference. TRICS was robustly assessed for surveys in the category '03 – RESIDENTIAL, A - HOUSES PRIVATELY OWNED'. Survey sites outside of London, within England, Scotland and Wales, were considered in Suburban and Edge of Town locations and the population criteria were refined to reflect the location of the proposal site. Only surveys completed prior to the COVID-19 pandemic were selected. The resulting average TRICS trip rates are shown in Table 1 below. The full TRICS report is included at **Appendix C** of the previous TN for reference.

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	0.116	0.392	0.508
1700-1800	0.355	0.139	0.494
0700-1900	2.284	2.336	4.620

TABLE 1: TRICS TRIP RATES - HOUSES PRIVATELY OWNED (TRIPS/DWELLING)

1.2.1 The trip rates in Table 1 were subsequently factored by the previously indicated 900 dwellings to provide the forecast vehicle trip generation shown in Table 2. It is noted that approximately 800 dwellings are now proposed; however, 900 dwellings have been considered to provide a robust assessment. Please note that any inaccuracies are the result of rounding in MS Excel.

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	104	353	457
1700-1800	320	125	445
0700-1900	2,056	2,102	4,158

TABLE 2: TRIP GENERATION - HOUSES PRIVATELY OWNED (900 DWELLINGS)



1.2.2 As has been noted, the site will also contain community buildings and a local centre; however, given the strategic scale of the development, it is considered that any vehicle trips associated with them will either be internal to the site or pass-by/diverted in nature. As such, no primary trip attraction for these land uses was undertaken.

## 1.3 TRIP DISTRIBUTION

1.3.1 To inform the assessment of the appropriate trigger point for the delivery of the link road during the development build-out period, two trip distribution exercises have been undertaken.

## Trip Distribution 1

- 1.3.2 The previous TN presented a trip distribution assessment that assumed the implementation of the link road. This method separated the site into two parcels A and B to the west and east of Meresborough Road, respectively. It was assumed that the majority of the dwellings (65%) will be located in Area A, with the balance in Area B (35%). The purpose of this exercise was to determine the likely point of access and egress (i.e. from the A2 or Mierscourt Road).
- 1.3.3 To distribute the development trips on a phased basis, the total trip generation has been broken down into 300, 600, and 900 dwellings, the results of which are shown in Table 3 to Table 8. In line with the above, the phased trips are broken down into Area A, which accounts for 65 per cent of the dwellings, and Area B which accounts for the remaining 35 per cent.

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	23	76	99
1700-1800	69	27	96
0700-1900	445	456	901

TABLE 3: AREA A – TRIP GENERATION WITH LINK ROAD (300 UNITS)

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	45	153	198
1700-1800	138	54	193
0700-1900	891	911	1,802

TABLE 4: AREA A - TRIP GENERATION WITH LINK ROAD (600 UNITS)

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PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	68	229	297
1700-1800	208	81	289
0700-1900	1,336	1,367	2,703

TABLE 5: AREA A - TRIP GENERATION WITH LINK ROAD (900 UNITS)

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	12	41	53
1700-1800	37	15	52
0700-1900	240	245	485

TABLE 6: AREA B - TRIP GENERATION WITH LINK ROAD (300 UNITS)

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	24	82	107
1700-1800	75	29	104
0700-1900	480	491	970

TABLE 7: AREA B – TRIP GENERATION WITH LINK ROAD (600 UNITS)

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	37	123	160
1700-1800	112	44	156
0700-1900	719	736	1,455

TABLE 8: AREA B - TRIP GENERATION WITH LINK ROAD (900 UNITS)

1.3.4 These trips were distributed and assigned to the local highway network based on Census 2011 'Journey to Work' data for Middle-Layer Super Output Area (MSOA) Medway 032, in which the site is located, and typical peak period journey times from the Google real-time journey planner. The associated network diagrams are included at **Appendix B.** 

## Trip Distribution 2

1.3.5 The second trip distribution exercise assumes that the link road has not been implemented and that principal vehicular access to the site is obtained from Mierscourt Road. The above Census data has been redistributed accordingly and the associated diagrams are included at **Appendix B.** 

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1.3.6 As with the first methodology, the total trip generation has been broken down into 300, 600, and 900 dwellings; the results of which are shown in Table 9 to Table 11.

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	35	118	152
1700-1800	107	42	148
0700-1900	685	701	1,386

TABLE 9: TRIP GENERATION - NO LINK ROAD (300 UNITS)

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	70	235	305
1700-1800	213	83	296
0700-1900	1,370	1,402	2,772

TABLE 10: TRIP GENERATION - NO LINK ROAD (600 UNITS)

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	104	353	457
1700-1800	320	125	445
0700-1900	2,056	2,102	4,158

TABLE 11: TRIP GENERATION - NO LINK ROAD (900 UNITS)

## 1.4 ASSESSMENT METHODOLOGY

- 1.4.1 On the basis of the above distribution assessments, further capacity assessments of the A2 / Mierscourt Road and A2 / Otterham Quay Lane / Meresborough Road signalised junctions have been conducted. Five-year build-out periods have been considered within the assessment, against an assumed build-out trajectory of 60 dwellings per year over a 15-year period, as detailed previously.
- 1.4.2 The junctions have firstly been assessed in the future year scenarios with no link road, to determine the stage at which it should be delivered. A second round of assessments including the link road have then been undertaken, to illustrate its impact.
- 1.4.3 Future year scenarios of 2029 (300 dwellings), 2034 (600 dwellings), and 2039 (900 dwellings) have been assessed. The following scenarios have been tested in each case:-
  - 'Do Nothing' (no development, but including committed development);



- 'Do Minimum' (as above, plus the proposed development trips); and
- 'Do Something' (as above, with the delivery of the link road).
- 1.4.4 To inform the A2 junction capacity assessments, use has been made of a baseline Manual Classified Count traffic survey which was undertaken on 21<sup>st</sup> February 2023 during the AM and PM peak periods by K&M Traffic Surveys Ltd.
- 1.4.5 The traffic flows were converted into Passenger Car Units (PCUs) using the following industry-standard factors in Table 12:-

	CAR/LGV	HGV	BUS	CYCLE/MCYCLE
Factor	1.0	2.3	2.0	0.4

TABLE 12: PCU CONVERSION FACTORS

- 1.4.6 TEMPro v8.0 has been used to growth the 2023 survey data to a 2024 baseline. The growth factors used are shown in Table 13 and the associated traffic flows are included at **Appendix C.** The TEMPro parameters used for all growth factors are outlined below:-
  - Data selections Trip Ends by time period;
  - Scenario Core;
  - Base year 2023, Future Year 2024;
  - Trip end selection Car Driver;
  - Trip end by time period selection Weekday AM and PM, Origin Destination; and
  - Road Type A-Road (A2) / Minor (All other roads assessed).
- 1.4.7 As confirmed within the TEMPro v 8.0 release notes, the 'Core' scenario is the best representation of future travel behaviour and has therefore been applied to this assessment.

Year	AM Peak	PM Peak
2023 to 2024 (A-road)	1.0028	1.0020
2023 to 2024 (Minor)	1.0030	1.0021

TABLE 13: TEMPRO TRAFFIC GROWTH FACTORS - MSOA MEDWAY 015



1.4.8 Several committed developments have been accounted for separately within Rainham, as summarised in the following section of this TN. As such, 'alternative planning assumptions' have been applied within TEMPro to avoid the double-counting of the associated vehicle trips.

#### 1.5 COMMITTED DEVELOPMENTS

- 1.5.1 A number of committed developments have been incorporated within the impact assessment, in accordance with those included within the previous TN. Those assessed are included below:-
  - MC/15/4539 Construction of 134 dwellings with associated parking, access, landscaping and infrastructure works - Land to the East of Mierscourt Road/ South of Oastview, Rainham;
  - MC/16/2051 A sustainable urban extension comprising up to 300 new dwellings (of a range of sizes, types and tenures, including affordable housing), including public open and amenity space, together with associated landscaping, access, highways (including footpaths and cycleways), parking, drainage (including a foul water pumping station), utilities and service infrastructure works (all matters reserved except for points of access) resubmission of MC/15/0761 Land at Otterham Quay Lane, Rainham;
  - MC/17/1820 Approval of reserved matters (access, appearance, landscaping, layout and scale) pursuant to condition 1 of MC/14/0285 (APP/A2280/W/15/3002877) for outline planning permission with all matters reserved for future consideration, ref Outline application with all matters reserved for residential development comprising 90 dwellings Bakersfield, Station Road, Rainham;
  - MC/17/3687 (and MC/19/3275) Outline planning application with some matters reserved (appearance, landscaping, layout and scale) for demolition of existing structures and construction of up to 121 residential dwellings including new vehicle access, internal roads, car parking, open spaces, sustainable urban drainage systems, earthworks and associated landscaping and infrastructure Berengrave Nursery, Berengrave Lane and construction of 60 dwellings, together with associated parking, landscaping and infrastructure. Representing a net increase of 18 new dwellings over and above 121 dwellings granted under outline application MC/17/3687 Berengrave Nursery, Berengrave Lane, Rainham;
  - MC/18/1307 Construction of 18no. 3-bedroom dwellings with access works, associated parking and landscaping - Bakersfield Phase 2, Station Road, Rainham;

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- MC/18/1796 Outline planning application (all matters reserved except access) for the development of up to 202 residential dwellings (Use Class C3), open space, landscaping (including Sustainable Urban Drainage), access, up to 455 car parking spaces and associated works – Land South of Lower Rainham Road, Rainham;
- MC/18/3168 Construction of nine residential dwellings comprising six 3 bedroom houses, two 4 bedroom houses and one 5 bedroom house, with associated access, amenity areas, and associated garaging and parking for proposed and existing dwelling - Demolition of the existing garage and outbuildings - Land At 143 Berengrave Lane, Rainham;
- MC/18/3577 Construction of eight dwellings consisting of five 3 bedroom, two 4 bedroom and one 5 bedroom dwellings with associated car parking and garaging, together with new highway access and other associated works - Land adjacent Blue Barn, Seymour Road, Rainham;
- MC/19/2530 Construction of a secondary school with formation of new access from Otterham Quay Lane, together with associated car parking and drop-off area, pedestrian access, drainage, landscaping, sports pitches and areas for formal and informal outdoor play - Land at Westmoor Farm (North) Moor Street, Rainham;
- MC/19/2532 Construction of 29 dwellings alongside associated parking, access, infrastructure and landscaping works - Land at The Maltings, Rainham;
- MC/19/2898 Outline planning application with all matters (appearance, landscaping, layout and scale) reserved except for access for the construction of up to 76 dwellings (C3 use class), open space, landscaping (including Sustainable Urban Drainage) with associated infrastructure - Land West of Station Road, Rainham;
- MC/20/1800 Full planning consent for 79 dwellings, including affordable housing together with access, open space, landscaping and associated infrastructure works - Land off Lower Rainham Road, Rainham;
- MC/21/3125- Full planning application for the development of 66 dwellings
   Land North of Moor Street, Rainham; and
- MC/21/2225 Outline planning application with all matters reserved (except access) for a residential development of up to 48 dwellings Land East of Seymour Road, Rainham.
- 1.5.2 It is important to note that a number of these developments have been partially built-out, and therefore an element of their vehicular trip generation would have been captured in the February 2023 baseline traffic survey. This serves to further increase the robustness of the capacity assessments presented.



- 1.5.3 The methodology for distributing and assigning the vehicle trips associated with the committed developments accords with that applied in the previous TN, which was itself based on that undertaken by DHA in support of the recent Land North of Moor Street and Land East of Seymour Road planning applications. For the 'Do Something' scenario, the committed development trips have been re-distributed based on their location relative to the proposed link road.
- 1.5.4 The total committed development flows both with and without the link road are included at **Appendix C.**

#### 1.6 NETWORK TRAFFIC GROWTH

1.6.1 The TEMPro growth factors used to ascertain the 2029, 2034 and 2039 future assessment year traffic flows are summarised in Table 14. The associated traffic flows are also included at **Appendix C.** 

Year	AM Peak	PM Peak
2024 to 2029 (A-road)	1.0343	1.0313
2024 to 2029 (Minor)	1.0342	1.0313
2029 to 2034 (A-road)	1.0301	1.0278
2029 to 2034 (Minor)	1.0299	1.0276
2034 to 2039 (A-road)	1.0210	1.0181
2034 to 2039 (Minor)	1.0210	1.0181

TABLE 14: TRAFFIC GROWTH FACTORS – MSOA MEDWAY 025

1.6.2 The 2029, 2034 and 2039 'Do Nothing' scenarios have been produced by adding the committed development traffic flows to the baseline traffic flows factored by the above TEMPro growth rates. The 'Do Minimum' scenarios have been produced by adding the proposed development traffic flows to the 'Do Nothing' scenarios, details of which are included at **Appendix C**. These scenarios form the assessment of the proposed development on the local highway network without the link road.

## 1.7 LINK ROAD

1.7.1 To inform the assessment of the link road in the 'Do Something' scenario, consideration has been given to the relative proportions of vehicles that will re-

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- route via the link road and those that will be required to re-route following the proposed closure of Meresborough Road.
- 1.7.2 Within the previous TN, the 2023 baseline flows were re-assigned based on the implementation of the relief road and growthed to the future year scenarios. In the interests of consistency, this methodology has been replicated, and the 2024 flows have been re-assigned and then growthed to 2029, 2034 and 2039 to provide the baseline flows for the 'Do Something' scenarios. These flows are included at **Appendix C.**

#### 1.8 JUNCTION CAPACITY ASSESSMENTS

1.8.1 Junction capacity assessments have been undertaken for the identified junctions using industry-standard LinSig software. The signal timing data for the junctions has been sourced from Medway Council and is included at Appendix F of the previous TN (included as **Appendix A** to this Technical Note).

## A2 High Street / Mierscourt Road Signal Junction

- 1.8.2 The A2 High Street / Mierscourt Road junction is a signalised, three-arm junction. A summary of the capacity assessment results for this junction is provided in Table 15 overleaf, with the full LinSig output report included at **Appendix D**.
- 1.8.3 The outputs of LinSig include:-
  - Degree of Saturation (DoS) the DoS (in percent) is a ratio of demand to capacity for each traffic phase, with a value of 90 percent indicating that an arm is operating at practical capacity;
  - Mean Maximum Queue (MMQ) the MMQ provides an indication of how the overall junction performance may affect adjacent junctions on the highway network; and
  - Practical Reserve Capacity (PRC) the PRC is calculated from the maximum percentage DoS and is a measure of how much additional traffic could pass through the junction before it reaches full capacity.



SCENARIO	LINK	AM		Pi	<b>M</b>
		DoS %	MMQ	DoS %	MMQ
2024 Base	A2 High Street (W)	84.1%	14.5	88.6%	16.7
	A2 High Street (E)	86.0%	21.9	85.8%	21.1
	Mierscourt Road	85.8%	15.5	86.2%	16.8
	PRC	4.7	<b>'</b> %	1.6	%
	Average Delay (s/pcu)	52	.8	54	.4
2029 Do	A2 High Street (W)	118.9%	61.2	108.8%	43.1
Nothing	A2 High Street (E)	116.7%	94.6	110.9%	66.7
	Mierscourt Road	118.5%	61.6	109.2%	44.5
	PRC	-32.	.1%	-23.	2%
	Average Delay (s/pcu)	354	.0	245	5.1
2029 Do	A2 High Street (W)	121.5%	66.5	111.8%	50.2
Minimum	A2 High Street (E)	119.4%	103.0	114.6%	78.0
	Mierscourt Road	120.3%	68.0	111.3%	49.8
	PRC	-35.	O%	-27.4%	
	Average Delay (s/pcu)	390.4		289.4	
2034 Do	A2 High Street (W)	117.5%	60.1	115.7%	57.6
Nothing	A2 High Street (E)	121.9%	112.9	91.4%	27.1
	Mierscourt Road	121.7%	69.1	115.7%	59.1
	PRC	-35.	5%	-28.	6%
	Average Delay (s/pcu)	393	3.8	214	.5
2034 Do	A2 High Street (W)	126.4%	76.9	116.8%	63.2
Minimum	A2 High Street (E)	125.3%	123.3	118.8%	92.5
	Mierscourt Road	124.9%	82.0	119.8%	69.4
	PRC	-40.	4%	-33	1%
	Average Delay (s/pcu)	457	7.8	368	3.0
2039 Do	A2 High Street (W)	119.6%	64.8	117.3%	61.5
Nothing	A2 High Street (E)	124.1%	121.2	91.2%	27.2
	Mierscourt Road	123.9%	74.3	121.8%	72.2
	PRC	-37.	9%	-35.	3%
	Average Delay (s/pcu)	423	3.7	244	1.2
2039 Do	A2 High Street (W)	129.4%	84.6	120.1%	72.6
Minimum	A2 High Street (E)	131.1%	142.9	121.8%	103.3



Mierscourt Road	127.7%	93.4	123.8%	79.7
PRC	-45.7		-37.6	
Average Delay (s/pcu)	513.	3	412.	9

TABLE 15: SUMMARY OF A2 HIGH STREET/ MIERSCOURT ROAD JUNCTION – LINSIG RESULTS

- 1.8.4 Please note the following:-
  - Observations of the junction's operation were previously undertaken on 21<sup>st</sup> October 2021;
  - With respect to pedestrian demand, it was observed that on average, the
    pedestrian stage is called 50 per cent of the time during both the network
    AM and PM peak periods. The modelling has been undertaken on this basis;
    and
  - The cycle time was also observed, and an average taken, equating to 120 seconds.
- 1.8.5 It is noted that the junction is forecast to operate over capacity in the future year scenarios with the addition of background traffic growth and the phased development of the proposal site. However, following the completion of 300 dwellings in the 2029 'Do Minimum' scenario, the increase in average delay per vehicle is forecast at approximately 30–40 seconds in both the AM and PM peak hours and the Mean Maximum Queue lengths are forecast to increase by fewer than 10 PCUs. These residual increases are not considered to represent a 'severe' residual impact with reference to Paragraph 115 of the National Planning Policy Framework (NPPF) and in the context of the highway robust assessment undertaken.

# A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signal Junction

1.8.6 The A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road junction is a signalised, four arm junction. A summary of the capacity assessment results for this junction is provided in Table 16 overleaf. The full LinSig output report is included at **Appendix D**.



SCENARIO	LINK	Α	М	PI	1
		DoS %	MMQ	DoS %	MMQ
2024 Base	A2 High Street	49.7%	10.9	51.2%	11.7
	Otterham Quay Lane	48.6%	7.3	51.4%	8.4
	A2 Moor Street	45.5%	9.6	52.6%	12.6
	Meresborough Road	22.0%	0.9	37.6%	1.7
	PRC	81.	2%	71.1	1%
	Average Delay (s/pcu)	22	9	25.	.7
2029 Do	A2 High Street	76.4%	20.1	63.5%	15.5
Nothing	Otterham Quay Lane	75.5%	18.1	73.0%	15.2
	A2 Moor Street	73.1%	17.5	73.0%	18.0
	Meresborough Road	22.0%	0.9	40.9%	1.9
	PRC	17.8%		23.2	2%
	Average Delay (s/pcu)	40.9		36.	.9
2029 Do	A2 High Street	77.0%	19.9	63.7%	15.5
Minimum	Otterham Quay Lane	75.7%	18.1	73.7%	15.4
	A2 Moor Street	72.9%	17.1	73.5%	18.1
	Meresborough Road	22.0%	0.9	40.9%	1.9
	PRC	16.	8%	22.′	1%
	Average Delay (s/pcu)	41	.1	37	.1
2034 Do	A2 High Street	77.5%	19.5	65.1%	15.9
Nothing	Otterham Quay Lane	78.1%	18.8	74.3%	15.5
	A2 Moor Street	78.1%	17.3	75.2%	18.5
	Meresborough Road	23.2%	1.0	42.1%	1.9
	PRC	15.	2%	19.8	3%
	Average Delay (s/pcu)	43	3.5	37.	.8
2034 Do	A2 High Street	77.6%	19.6	16.0	16.0
Minimum	Otterham Quay Lane	80.1%	19.3	16.0	16.0
	A2 Moor Street	78.1%	17.1	18.7	18.7
	Meresborough Road	23.2%	1.0	1.9	1.9
	PRC	12.	4%	18.4	1%
	Average Delay (s/pcu)	43	3.6	38.	.3
	A2 High Street	77.8%	19.6	66.3%	16.2



2039 Do Nothing	Otterham Quay Lane	80.5%	19.4	75.3%	15.9
	A2 Moor Street	78.9%	17.5	76.8%	18.9
	Meresborough Road	24.4%	1.0	43.3%	2.0
	PRC	11.	8%	3.0	%
	Average Delay (s/pcu)	44	.0	38.	6
2039 Do	A2 High Street	75.9%	21.5	66.8%	16.4
Minimum	Otterham Quay Lane	88.3%	21.6	77.0%	16.4
	A2 Moor Street	85.5%	24.3	77.9%	19.2
	Meresborough Road	24.4%	1.0	43.3%	2.0
	PRC	2.0%		15.5	5%
	Average Delay (s/pcu)	46	5.0	39.	3

TABLE 16: SUMMARY OF A2 HIGH STREET / OTTERHAM QUAY LANE / A2 MOOR STREET / MERESBOROUGH ROAD JUNCTION – LINSIG RESULTS

1.8.7 The junction is shown to operate within capacity in isolation in all assessed scenarios, albeit Practical Reserve Capacity is reduced to 2 per cent in the 2039 AM peak 'Do Minimum' scenario. It is acknowledged, moreover, that the operation of this junction can be influenced by downstream congestion at the A2 / Mierscourt Road junction in practice.

# 'Do Something' - With Link Road

## A2 High Street/ Mierscourt Road Signal Junction

1.8.8 Table 17 overleaf summarises the capacity assessment of the A2 junction with Mierscourt Road with the proposed link road in place. The full LinSig output report is included at **Appendix D**.



SCENARIO	LINK	Al	М	Р	М
		DoS %	MMQ	DoS %	MMQ
2029 Do	A2 High Street (W)	58.5%	12.7	65.4%	14.7
Something	A2 High Street (E)	53.7%	11.5	59.5%	12.9
	Mierscourt Road	56.7%	7.3	63.8%	8.3
	PRC	53.	8%	37.	.6%
	Average Delay (s/pcu)	29	.5	31	1.3
2034 Do	A2 High Street (W)	59.9%	13.2	66.9%	15.2
Something	A2 High Street (E)	53.3%	11.5	60.9%	13.4
	Mierscourt Road	57.9%	7.5	65.0%	8.5
	PRC	50.	2%	34.	.4%
	Average Delay (s/pcu)	29	.7	31	1.9
2039 Do	A2 High Street (W)	63.0%	14.1	69.2%	16.2
Something	A2 High Street (E)	54.4%	11.7	60.5%	13.5
	Mierscourt Road	62.5%	8.3	69.9%	9.1
	PRC	42.	9%	28.	.8%
	Average Delay (s/pcu)	30	.9	32	2.1

TABLE 17: SUMMARY OF A2 HIGH STREET / MIERSCOURT ROAD JUNCTION LINSIG RESULTS - WITH LINK ROAD

1.8.9 With the delivery of the relief road and the associated reduction in left-and right-turning vehicles to and from the A2 (E), the junction is shown to operate comfortably within capacity in all assessed scenarios.

# A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signal Junction

1.8.10 Table 18 overleaf summarises the capacity assessment of the A2 junction with Otterham Quay Lane and Meresborough Road with the link road in place and Meresborough Road stopped up. The full LinSig output report is included at **Appendix D** 



SCENARIO	LINK	A	M	Pl	М
		DoS %	MMQ	DoS %	MMQ
2029 Do	A2 High Street	55.6%	7.5	43.7%	6.0
Something	Otterham Quay Lane	57.1%	7.5	58.7%	6.9
	A2 Moor Street	44.9%	4.4	60.0%	9.8
	Meresborough Road	N/A	N/A	N/A	N/A
	PRC	57.	5%	49.	9%
	Average Delay (s/pcu)	24	.5	22	.0
2034 Do	A2 High Street	56.8%	7.7	45.8%	6.3
Something	Otterham Quay Lane	57.7%	7.6	57.6%	6.9
	A2 Moor Street	45.9%	4.5	59.0%	9.2
	Meresborough Road	N/A	N/A	N/A	N/A
	PRC	55.	9%	52.	7%
	Average Delay (s/pcu)	24	.8	22	).1
2039 Do	A2 High Street	58.6%	8.0	46.3%	6.4
Something	Otterham Quay Lane	58.6%	7.7	61.3%	7.3
	A2 Moor Street	50.2%	4.9	63.2%	10.5
	Meresborough Road	N/A	N/A	N/A	N/A
	PRC	53.	7%	42.	4%
	Average Delay (s/pcu)	25	5.3	22	7

TABLE 18: SUMMARY OF A2 HIGH STREET / OTTERHAM QUAY LANE / A2 MOOR STREET / MERESBOROUGH ROAD JUNCTION LINSIG RESULTS – WITH LINK ROAD

1.8.11 With the link road in place and Meresborough Road stopped up, the junction is seen to operate with a greater Practical Reserve Capacity in all future year scenarios.

## 1.9 CONCLUSION

- 1.9.1 This Transport Technical Note (TN) has been produced by DHA on behalf of Bellway Homes (Strategic) Ltd. with respect to the proposed residential-led development at Land East of Rainham in Medway, Kent. The proposals comprise the construction of up to 800 dwellings, community buildings, and a local centre.
- 1.9.2 This TN has been prepared in support of Bellway's representations to the latest Regulation 18 Medway Local Plan consultation and following engagement with Medway Council's Planning Policy Team. It considers the appropriate trigger point



- at which the link road through the site from Mierscourt Road to the A2 Moor Street should be provided during the development build-out period.
- 1.9.3 It has been demonstrated that the link road should be provided prior to the occupation of 600 dwellings in order to avoid 'severe' residual impacts to the operation of the local highway network.







# TRANSPORT TECHNICAL NOTE

JOB REF. CLIENT

PL/AH/32313 Bellway Homes (Strategic) Ltd.

SITE

Land at Moor Street, Rainham, Kent

#### 1.1 INTRODUCTION

- 1.1.1 This Transport Technical Note (TN) has been produced by DHA on behalf of Bellway Homes (Strategic) Ltd. with respect to the proposed residential-led development at Land East of Rainham in Medway. The proposals comprise the construction of up to 800 dwellings, community buildings and a local centre. To facilitate the proposed development as well as to relieve existing highway capacity constraints locally a relief road will be provided through the centre of the site, from Mierscourt Road to the A2 Moor Street.
- 1.1.2 This TN considers the highway capacity impacts of the proposals, with specific regard to the A2 / Mierscourt Road and A2 / Otterham Quay Lane / Meresborough Road signalised junctions. It also provides an initial review of the proposed site access arrangements.

## 1.2 PROPOSAL SITE

1.2.1 The site is located to the south of the A2 Moor Street and to the east of Mierscourt Road, approximately 550m south-east of Rainham town centre. The location of the site within a local context is shown in Figure 1 overleaf.







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FIGURE 1: SITE LOCATION WITHIN LOCAL CONTEXT (COURTESY OF GOOGLE MAPS)

- 1.2.2 The site currently comprises of agricultural land, including a riding school which would be removed as part of the proposals.
- 1.2.3 The site is bound to the north by the A2 Moor Street and residential dwellings, to the east and south by further agricultural land and to the west by Mierscourt Road and further residential dwellings.

## 1.3 DEVELOPMENT PROPOSALS

1.3.1 The proposals comprise the development of up to 800 residential dwellings, community buildings and a local centre. The indicative site layout is shown in Figure 2 overleaf.





FIGURE 2: INDICATIVE SITE LAYOUT

- 1.3.2 It is noted that the nearby A2 / Mierscourt Road signalised junction operates at capacity during the network peak periods and that there is limited scope to materially improve its operation within publicly-available land. The Medway Local Transport Plan identifies it as a 'critical point' within the primary highway network, where significant congestion is either experienced or predicted during the Plan period (2011-2026). Furthermore, it is understood that there are local highway safety and amenity concerns around the associated diversion of through traffic via local residential streets. The Council has recently announced its intention to designate the A2 High Street between Maidstone Road and High Dewar Road as a 'red route' to seek to ameliorate the situation in the short-term.
- 1.3.3 The proposals include a link road to enable through traffic between Mierscourt Road and the A2 to bypass both this junction and also the adjacent A2 / Otterham Quay Lane junction.
- 1.3.4 The proposed link road would form priority junctions with the A2 Moor Street and Mierscourt Road. The junction with the A2 would incorporate a ghost right-hand turn lane and be located to provide adequate separation from the A2 / Otterham Quay Lane junction to the west. The feasibility design of this junction is included at **Appendix A**.
- 1.3.5 The proposals also include the relocation of the change in speed from a 30mph to a 40mph further to the east of the site and therefore visibility splays of 2.4 x 43 metres have been provided as per the Manual for Streets (MfS) guidance. The



access road will be provider with a width of 6.75 metres which is deemed suitable for a local distributor road.

- 1.3.6 The junction with Mierscourt Road would be configured such that the link road would take priority over Mierscourt Road (north) to incentivise its use. The feasibility design of this junction is included at **Appendix B**. It is demonstrated that the existing section of Mierscourt Road would tie in with the new 6.75 metre wide local distributor road. It is noted that visibility splays of 2.4 x 43 metres have been provided for the new Mierscourt Road junction as per the Manual for Streets (MfS) guidance.
- 1.3.7 Both access points will be provided with footways to tie in with the existing provision on the A2 and Mierscourt Road. A pedestrian crossing will also be provided at the new Mierscourt Road junction to enable pedestrians to access the footways on the western side of the road and also a further crossing to the south of the junction. A pedestrian crossing with dropped kerbs, tactile paving and a refuges island will also be provided just to the east of the proposed access location on the A2.

## 1.4 TRIP GENERATION

1.4.1 The vehicular trip generation of the proposed development has been forecast with reference to the national TRICS trip rate database. To ensure a robust assessment, surveys in the category 'O3 – RESIDENTIAL, A - HOUSES PRIVATELY OWNED' have been selected. Survey sites outside of London, within England, Scotland and Wales, have been considered in Suburban and Edge of Town locations and the population criteria refined to reflect the location of the proposal site. Only surveys completed prior to the COVID-19 pandemic have been selected. The resulting average TRICS trip rates are shown in Table 1 overleaf. The full TRICS report is included at **Appendix C**.

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	0.116	0.392	0.508
1700-1800	0.355	0.139	0.494
0700-1900	2.284	2.336	4.620

TABLE 1: TRICS TRIP RATES - HOUSES PRIVATELY OWNED (TRIPS/DWELLING)

1.4.2 These trip rates have subsequently been factored by 900 dwellings to provide the forecast vehicle trip generation in Table 2 below. It is noted that approximately 800 units are proposed; however 900 dwellings have been considered to provide a robust assessment of trip generation. Please note that any inaccuracies are the result of rounding in MS Excel.



PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	104	353	457
1700-1800	320	125	445
0700-1900	2,056	2,102	4,158

TABLE 2: TRIP GENERATION - HOUSES PRIVATELY OWNED (900 DWELLINGS)

- 1.4.3 It is noted that the site could generate up to 4,158 vehicle trips across the 12-hour weekday period, of which 457 would take place during the AM peak hour and 445 during the PM peak hour. This equates to approximately 347 vehicle movements per hour (or five-to-six per minute) across the 12-hour day.
- 1.4.4 As has been noted, the site will also contain community buildings and a local centre; however given the strategic scale of the development, it is considered that any vehicle trips associated with them will either be internal to the site or pass-by/diverted in nature. As such, no primary trip attraction has been allowed for in this assessment.

## 1.5 TRIP DISTRIBUTION

1.5.1 For the purposes of trip distribution, the site has been separated into two parcels

– A and B – to the west and east of Meresborough Road respectively:-





FIGURE 3: MASTERPLAN - AREAS A AND B

1.5.2 It has been assumed that the majority of the dwellings (65%) will be located in Area A, with the balance in Area B (35%). The trip generation of the site has been separated accordingly, as shown in Table 3 and Table 4 below.

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	68	229	297
1700-1800	208	81	289
0700-1900	1,336	1,367	2,703

TABLE 3: AREA A - TRIP GENERATION

PERIOD	ARRIVALS	DEPARTURES	TOTAL
0800-0900	37	123	160
1700-1800	112	44	156
0700-1900	719	736	1,455

TABLE 4: AREA B - TRIP GENERATION



1.5.3 These trips have been distributed and assigned on to the local highway network based on Census 2011 'Journey to Work' data for Middle-Layer Super Output Area (MSOA) Medway 032 – in which the site is located – and the Google Real-Time Journey Planner. The associated network diagrams are included at **Appendix D**.

#### 1.6 ASSESSMENT METHODOLOGY

- 1.6.1 To inform the A2 junction capacity assessments, use has been made of a Manual Classified Count traffic survey which was undertaken on 21st February 2023 during the AM and PM peak periods by K&M Traffic Surveys Ltd.
- 1.6.2 The traffic flows were converted into Passenger Car Units (PCUs) using the following factors:-

	CAR/LGV	HGV	BUS	CYCLE/MCYCLE
Factor	1.0	2.3	2.0	0.4

TABLE 5: PCU CONVERSION FACTORS

- 1.6.3 The junction capacity assessments consider a future year of 2040, to reflect the emerging Medway Local Plan period. In order to ascertain the extent to which the junctions have capacity for future traffic, the following scenarios have been considered:-
  - 'Do Nothing' (no development, but including committed development);
     and
  - 'Do Minimum' (as above, plus the proposed development traffic and relief road).

## 1.7 TRAFFIC GROWTH

1.7.1 Use has been made of the Department for Transport's TEMPro software to growth the surveyed traffic flows to the 2040 future year. All roads have been assumed to be 'Principal' routes for the purposes of this assessment. Table 6 below summarises the TEMPro growth factors applicable to these roads for MSOA Medway 025, in which the junctions are located.

ROAD TYPE	AM	PM		
2023-2040				
Principal	1.0619	1.0567		

TABLE 6: TEMPRO GROWTH FACTORS

1.7.2 Several committed developments have been accounted for separately within Rainham, as summarised in the following section of this TN. As such, 'alternative planning assumptions' have been applied within TEMPro.

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#### 1.8 COMMITTED DEVELOPMENT

- 1.8.1 The following committed developments have been incorporated within the impact assessment:-
  - MC/15/4539 Construction of 134 dwellings with associated parking, access, landscaping and infrastructure works - Land to the East of Mierscourt Road / South of Oastview, Rainham;
  - MC/16/2051 A sustainable urban extension comprising up to 300 new dwellings (of a range of sizes, types and tenures, including affordable housing), including public open and amenity space, together with associated landscaping, access, highways (including footpaths and cycleways), parking, drainage (including a foul water pumping station), utilities and service infrastructure works (all matters reserved except for points of access) resubmission of MC/15/0761 Land at Otterham Quay Lane, Rainham;
  - MC/17/1820 Approval of reserved matters (access, appearance, landscaping, layout and scale) pursuant to condition 1 of MC/14/0285 (APP/A2280/W/15/3002877) for outline planning permission with all matters reserved for future consideration, ref Outline application with all matters reserved for residential development comprising 90 dwellings Bakersfield, Station Road, Rainham;
  - MC/17/3687 (and MC/19/3275) Outline planning application with some matters reserved (appearance, landscaping, layout and scale) for demolition of existing structures and construction of up to 121 residential dwellings including new vehicle access, internal roads, car parking, open spaces, sustainable urban drainage systems, earthworks and associated landscaping and infrastructure Berengrave Nursery, Berengrave Lane and Construction of 60 dwellings, together with associated parking, landscaping and infrastructure. Representing a net increase of 18 new dwellings over and above 121 dwellings granted under outline application MC/17/3687 Berengrave Nursery, Berengrave Lane, Rainham;
  - MC/18/1307 Construction of 18no. 3-bedroom dwellings with access works, associated parking and landscaping - Bakersfield Phase 2, Station Road, Rainham;
  - MC/18/1796 Outline planning application (all matters reserved except access) for the development of up to 202 residential dwellings (Use Class C3), open space, landscaping (including Sustainable Urban Drainage), access, up to 455 car parking spaces and associated works - Land South of Lower Rainham Road, Rainham;
  - MC/18/3168 Construction of nine residential dwellings comprising 6no. 3 bedroom houses, 2no. 4 bedroom houses and one 5 bedroom house, with associated access, amenity areas and associated garaging and parking for proposed and existing dwelling - Demolition of the existing garage and outbuildings - Land At 143 Berengrave Lane, Rainham;



- MC/18/3577 Construction of eight dwellings consisting of five 3 bedroomed and two 4 bedroomed and one 5 bedroomed dwellings with associated car parking and garaging together with new highway access and other associated works - Land adjacent Blue Barn, Seymour Road, Rainham;
- MC/19/2530 Construction of a secondary school with formation of new access from Otterham Quay Lane together with associated car parking and drop-off area, pedestrian access, drainage, landscaping, sports pitches and areas for formal and informal outdoor play - Land at Westmoor Farm (North) Moor Street, Rainham;
- MC/19/2532 Construction of 29 dwellings alongside associated parking, access, infrastructure and landscaping works - Land at The Maltings, Rainham;
- MC/19/2898 Outline planning application with all matters (appearance, landscaping, layout and scale) reserved except for access for the construction of up to 76 dwellings (C3 use class), open space, landscaping (including Sustainable Urban Drainage) with associated infrastructure - Land West of Station Road, Rainham;
- MC/20/1800 Full planning consent for 79 dwellings, including affordable housing together with access, open space, landscaping and associated infrastructure works - Land off Lower Rainham Road, Rainham;
- MC/21/3125 Full planning application for the development of 66 dwellings
   Land North of Moor Street, Rainham; and
- MC/21/2225 Outline planning application with all matters reserved (except access) for a residential development of up to 48 dwellings - Land East of Seymour Road, Rainham.
- 1.8.2 It is noted that a number of the above developments have been partially built out and therefore an element of their vehicular trip generation would have been captured in the February 2023 baseline traffic survey. This serves to further increase the robustness of the capacity assessments presented.
- 1.8.3 The methodology for distributing and assigning the committed development trips accords with that undertaken by DHA in support of the Land North of Moor Street and Land East of Seymour Road applications. For the 'Do Minimum' scenario, the committed development trips have been re-distributed based on their location with respect to the proposed relief road.
- 1.8.4 The total committed development flows for both the 'Do Nothing' and 'Do Minimum' scenarios are included in **Figures 0-1 to 0-4** appended to this TN.
- 1.8.5 Please note that the Figures indicate roundabout junctions for the relief road intersections with the A2 Moor Street and Mierscourt Road; however it is reiterated that these are likely to take the form of priority junctions, as per the feasibility designs presented in Section 3.



### 1.9 RELIEF ROAD

- 1.9.1 To inform the assessment of the proposed relief road in the 'Do Minimum' scenario, consideration has been given to the relative proportions of vehicles continuing along the A2 at the A2 / Otterham Quay Lane / Meresborough Road junction and those turning into and out of Mierscourt Road to/from the A2 (east) in the 2023 baseline. These are as follows:-
  - AM peak hour 79% of left-turning vehicles and 63% of right-turning vehicles from the A2 (east) and Mierscourt Road; and
  - PM peak hour 55% of left turning vehicles and 66% of right turning vehicles from the A2 (east) and Mierscourt Road.
- 1.9.2 The 2023 flows have been re-assigned based on these proportions and then growthed to the 2040 future year to provide a 2040 'Do Minimum' baseline.
- 1.9.3 The 2023 base, 2040 base and 2040 'Do Nothing' and 'Do Minimum' scenarios are included at **Figures 0-5 to 0-12** appended to this TN.

#### 1.10 JUNCTION CAPACITY ASSESSMENTS

1.10.1 Junction capacity assessments have been undertaken for the identified junctions using industry-standard LinSig software. The signal timing data for the junctions has been sourced from Medway Council and is included at **Appendix E**.

### A2 High Street / Mierscourt Road Signal Junction

- 1.10.2 The A2 High Street / Mierscourt Road junction is a signalised, three-arm junction. A summary of the capacity assessment results for this junction is provided in Table 7 overleaf, with the full LinSig output report included at **Appendix F**.
- 1.10.3 The outputs of LinSig include the Degree of Saturation (DoS), the Mean Maximum Queue (MMQ) and the Practical Reserve Capacity (PRC) units of measure. The DoS (in percent) is a ratio of demand to capacity for each traffic phase, with a value of 90 percent indicating that an arm is operating at practical capacity. The PRC is calculated from the maximum percentage DoS and is a measure of how much additional traffic could pass through the junction before it reaches full capacity. The MMQ provides an indication of how the overall junction performance may affect adjacent junctions on the highway network.



SCENARIO	RIO LINK AM		М	М	
		DoS %	MMQ	DoS %	MMQ
2023 Base	A2 High Street (W)	84.0%	14.5	83.6%	15.5
	A2 High Street (E)	85.7%	21.8	84.6%	20.8
	Mierscourt Road	85.6%	15.5	86.7%	17.1
	PRC	59	%	3.8%	
	Average Delay (s/pcu)	52	.5	51	1.6
2040 Do	A2 High Street (W)	117.0%	58.8	113.2%	53.4
Nothing	A2 High Street (E)	121.4%	110.7	111.5%	68.6
	Mierscourt Road	120.9%	67.3	113.0%	55.5
	PRC	-34.	9%	-25	.8%
	Average Delay (s/pcu)	388	3.4	28	3.6
2040 Do	A2 High Street (W)	61.7%	13.7	68.5%	15.9
Minimum	A2 High Street (E)	55.6%	12.1	60.6%	13.5
	Mierscourt Road	62.3%	8.2	66.6%	8.8
	PRC	44.	5%	31.	4%
	Average Delay (s/pcu)	30	.9	32	2.3

TABLE 7: SUMMARY OF A2 HIGH STREET / MIERSCOURT ROAD JUNCTION - LINSIG RESULTS

### 1.10.4 Please note the following:-

- Observations of the junction's operation were previously undertaken on 21<sup>st</sup>
   October 2021;
- With respect to pedestrian demand, it was observed that on average, the pedestrian stage is called 50% of the time during the peak periods. The modelling has been undertaken on this basis; and
- The cycle time was also observed, and an average taken, equating to 117 seconds.
- 1.10.5 It is noted that the junction currently operates marginally within practical capacity in isolation in both peak hours. As committed developments and wider background traffic growth are added to 2040, the junction is forecast to operate significantly over capacity with excessive queueing and delay, which would result in frequent interaction with adjacent junctions and increased diversionary movements via local residential streets.
- 1.10.6 On completion of the proposed relief road and the associated reduction in leftand right-turning vehicles to and from the A2 (E), the junction is shown to operate comfortably within capacity in the 2040 'Do Minimum' scenario.
- 1.10.7 Average delay at the junction is significantly reduced, with a maximum reduction of just under six minutes per vehicle in the 2040 AM peak hour 'Do Minimum'



- scenario. Queueing on all arms of the junction is also considerably reduced, resulting in no interaction with downstream junctions.
- 1.10.8 On this basis, it is considered that the proposed relief road has the ability to achieve significant planning gain, mitigating not only the impact of the proposed development but also existing and future highway capacity issues in the area.

# A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signal Junction

- 1.10.9 The A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road junction is a signalised, four arm junction. A summary of the capacity assessment results for this junction is provided in Table 8 below. The full LinSig output report is included at Appendix G.
- 1.10.10 The existing junction arrangement has been considered for the 2023 base and 2040 'Do Nothing' scenarios. In the 2040 'Do Minimum' scenario, the Meresborough Road arm of the junction is assumed to have been closed, with alternative access provided through the proposal site and via Moor Park Close.

SCENARIO	LINK		AM	Р	М
		DoS %	MMQ	DoS %	MMQ
2023 Base	A2 High Street	48.6%	10.3	50.3%	11.5
	Otterham Quay Lane	48.2%	6.8	52.8%	8.5
	A2 Moor Street	44.4%	9.1	52.9%	12.2
	Meresborough Road	22.0%	0.9	37.6%	1.7
	PRC	(	85.2%	70.	2%
	Average Delay (s/pcu)		21.9	25	5.5
2040 Do	A2 High Street	73.4%	20.3	65.8%	16.1
Nothing	Otterham Quay Lane	82.1%	19.0	73.7%	15.0
	A2 Moor Street	82.9%	22.9	74.2%	18.0
	Meresborough Road	23.2%	1.0	43.3%	2.0
	PRC	8.5%		21.3%	
	Average Delay (s/pcu)		42.3	37	'.2
2040 Do	A2 High Street	57.5%	7.8	44.6%	6.2
Minimum	Otterham Quay Lane	56.2%	7.4	61.9%	7.2
	A2 Moor Street	47.2%	4.8	61.3%	10.1
	Meresborough Road	-	-	-	-
	PRC	56.5%		45.4%	
	Average Delay (s/pcu)		24.8	22.2	

TABLE 5: SUMMARY OF A2 HIGH STREET / OTTERHAM QUAY LANE / A2 MOOR STREET / MERESBOROUGH ROAD JUNCTION – LINSIG RESULTS



### 1.10.11 Please note the following:-

- The cycle times have been optimised to provide the vehicle actuated (VA) max. The cycle time has been run at 165 seconds based on the VA max of the junction in the 2023 base and 2040 'Do Nothing' scenarios, which was recorded during the aforementioned site visit on 21st October 2021;
- For the 'Do Minimum' scenario, a cycle time of 80 seconds has been utilised, to account for the closure of Meresborough Road.
- 1.10.12 The junction is shown to operate within capacity in the 2023 scenarios; however site observations confirm that interaction can occur with the Mierscourt Road junction, resulting in capacity issues in practice.
- 1.10.13 Following the addition of the local committed developments and background traffic growth, the junction is shown to operate marginally within practical capacity in the 2040 'Do Nothing' scenario; however forecast queue lengths and average delay are much increased and it can be expected that instances of interaction with the Mierscourt Road junction would be more frequent, together with associated diversionary movements via local residential streets.
- 1.10.14 With the proposed development and relief road in place, together with the closure of the Meresborough Road arm, the junction is forecast to operate more efficiently in the 2040 'Do Minimum' scenarios. Average delay per vehicle is shown to improve by up to 18 seconds in the AM peak hour scenario, with associated reductions in queueing observed on all arms of the junction.

### 1.11 NEXT STEPS

1.11.1 As part of any forthcoming planning application a full Transport Assessment (TA) would be prepared, informed by the Medway AIMSUN Model (MAM), which would consider the highway capacity impacts of the proposed development in combination with other local committed and allocated developments on the local and strategic highway networks. Proportionate contributions to off-site highway mitigation measures identified through the Local Plan process would be made where necessary, with an emphasis on highway safety improvements and enhancements to sustainable and active travel infrastructure, in line with the principles of Department for Transport Circular 01/2022.

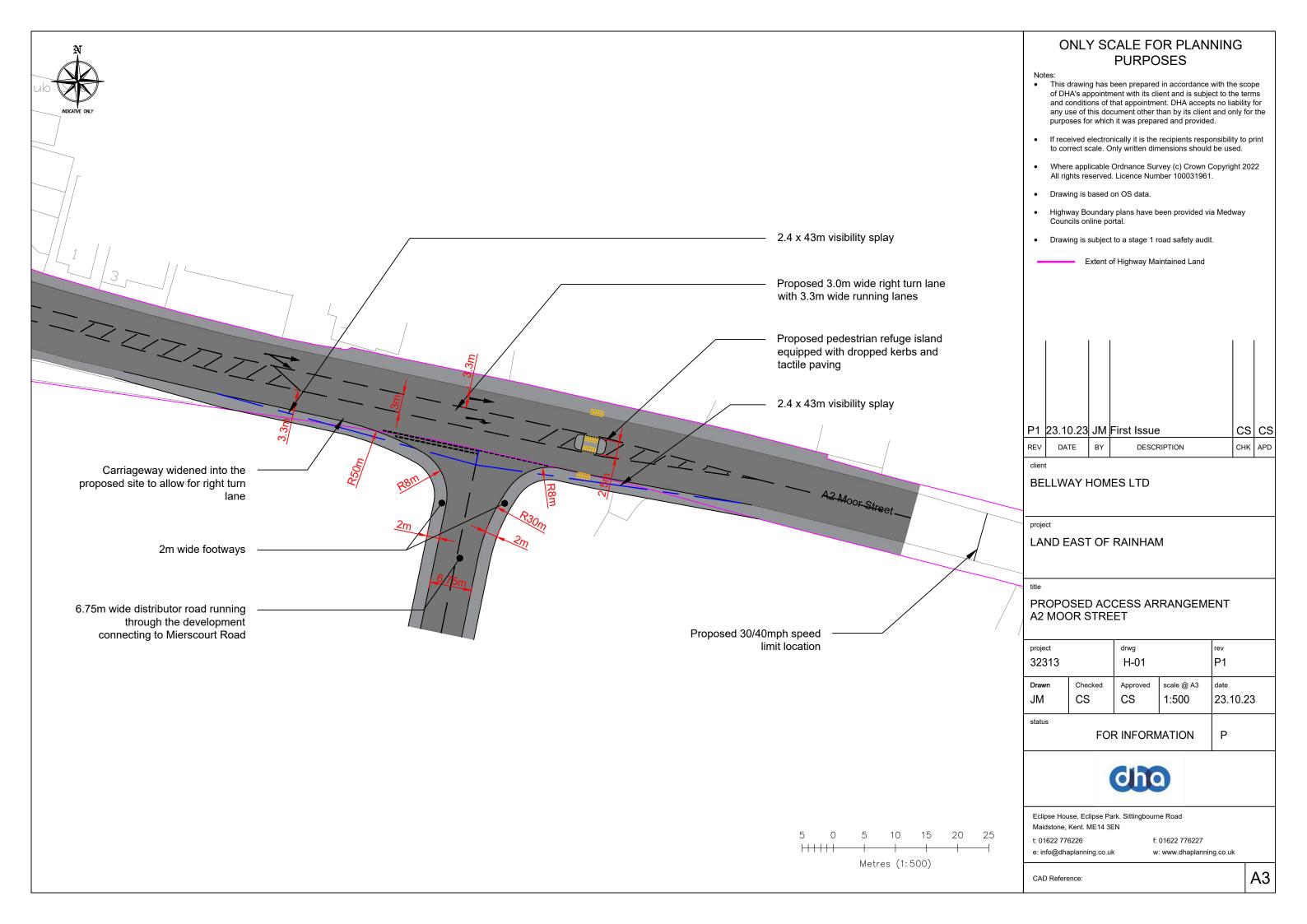
### 1.12 SUMMARY AND CONCLUSION

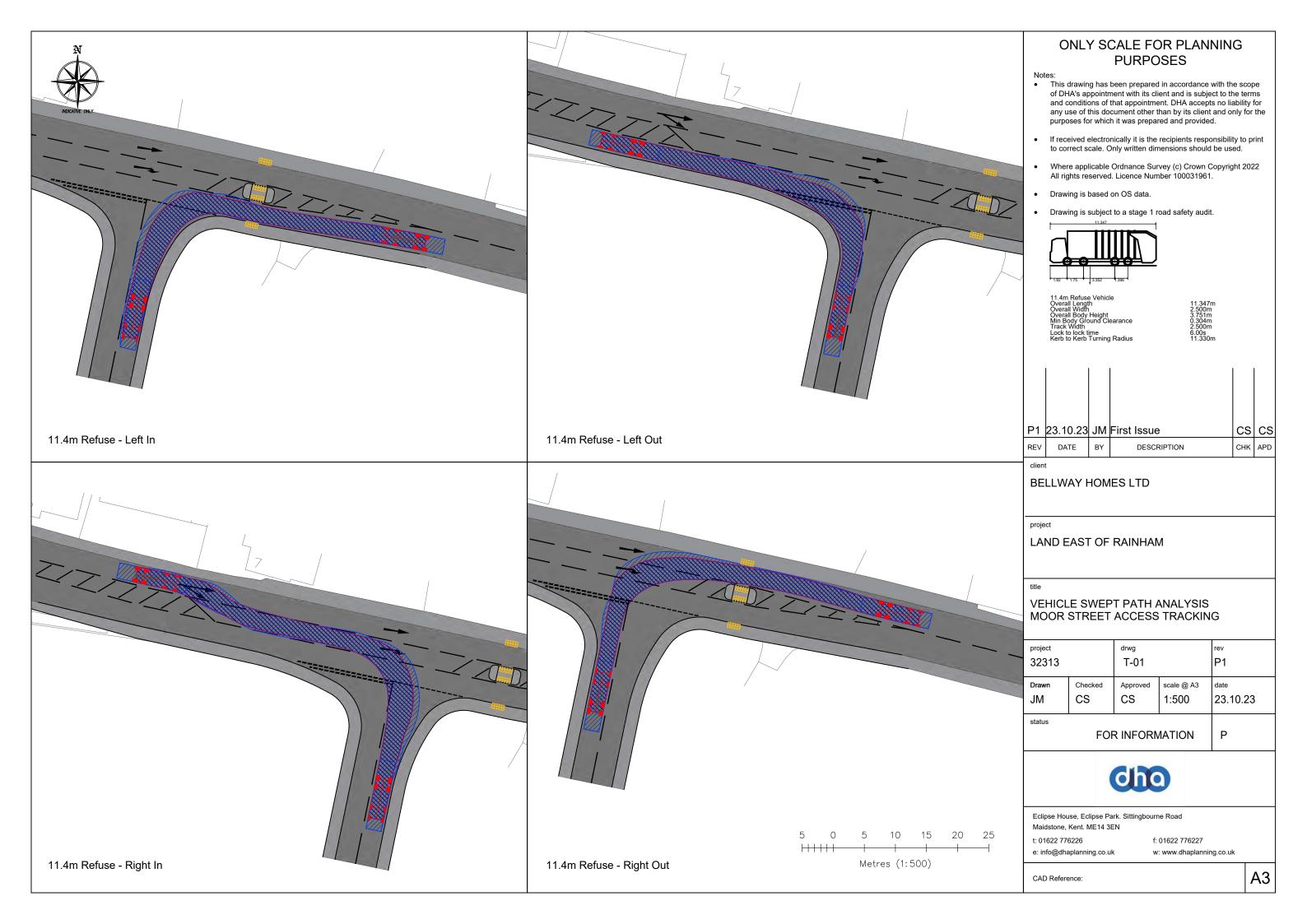
1.12.1 This Transport Technical Note (TN) has been produced by DHA on behalf of Bellway Homes (Strategic) Ltd. with respect to the proposed residential-led development at Land East of Rainham in Medway. The proposals comprise the construction of up to 800 dwellings, community buildings and a local centre. To facilitate the proposed development, a relief road would be provided through the centre of the site, from Mierscourt Road to the A2 Moor Street.



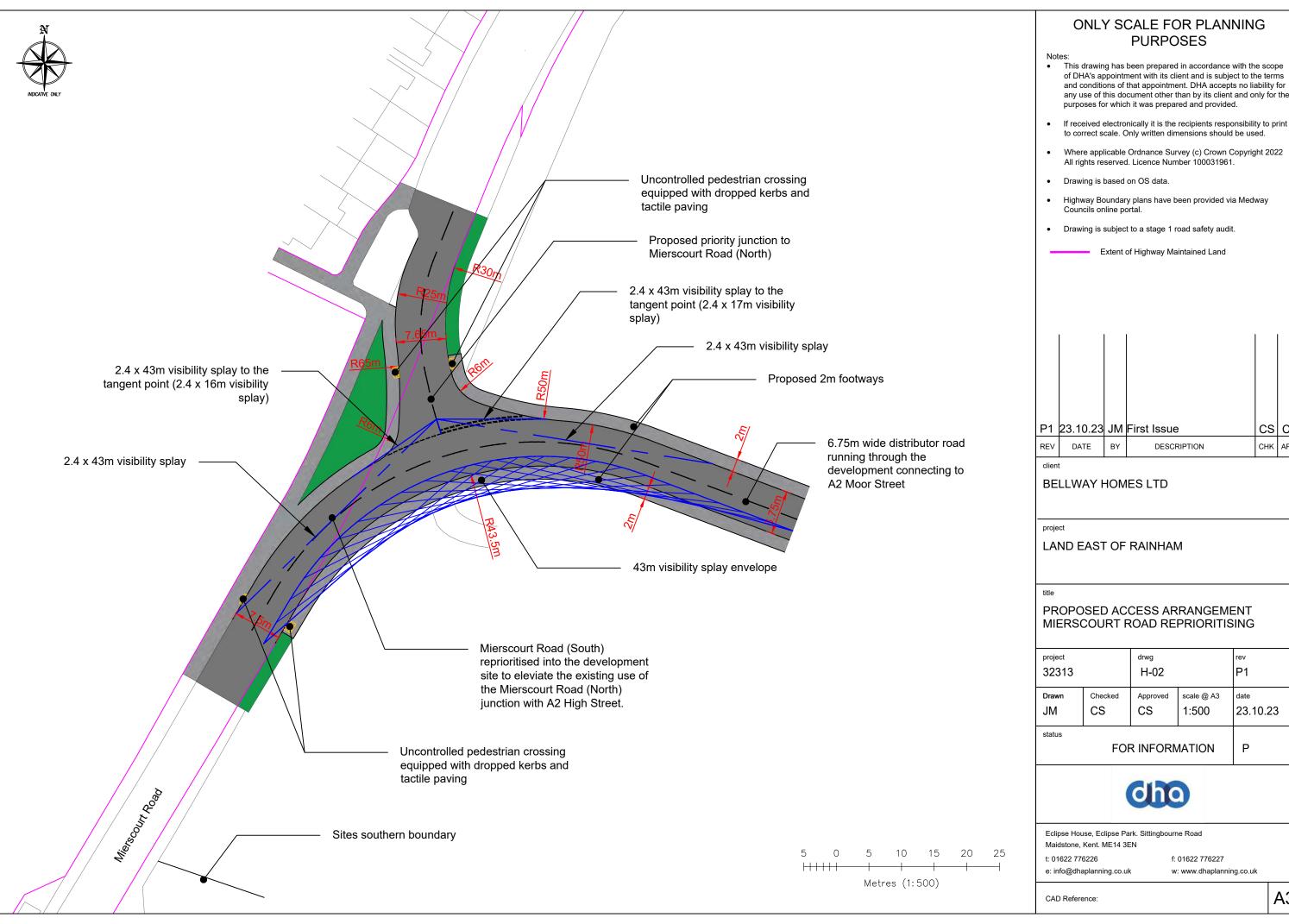
- 1.12.2 It has been demonstrated that the relief road would significantly enhance the operation of local junctions on the A2 corridor, offering planning gain to at least the end of the emerging Local Plan period.
- 1.12.3 It has been further demonstrated that the proposed site access arrangements are feasible, and these would also be subject to capacity assessments as the proposals progress.











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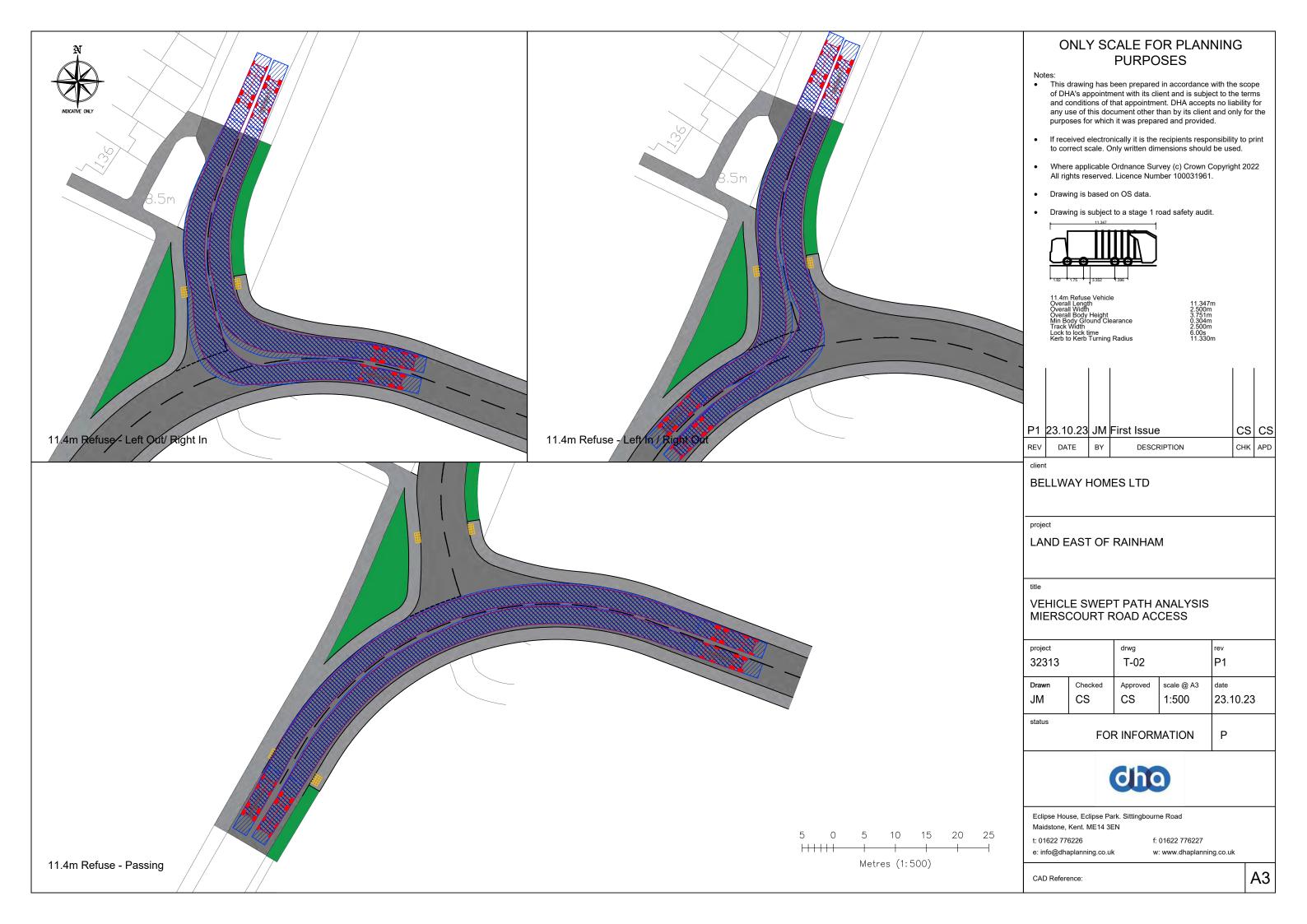
P1	23.10.23	JM	First Issue	CS	cs
REV	DATE	BY	DESCRIPTION	СНК	APD

## PROPOSED ACCESS ARRANGEMENT MIERSCOURT ROAD REPRIORITISING

project 32313		drwg H-02		rev P1
Drawn JM	Checked CS	Approved CS	scale @ A3 1:500	date 23.10.23
status	FOF	Р		

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**A3** 





**Houses Privately Owned** 

Page 1 DHA Transport Limited Eclipse Park Maidstone Licence No: 704001

Calculation Reference: AUDIT-704001-201118-1152

Wednesday 18/11/20

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

: 03 - RESIDENTIAL

: A - HOUSES PRIVATELY OWNED Category

TOTAL VEHICLES

Selected regions and areas:

02 SOUTH EAST **EAST SUSSEX** 2 days FS HC HAMPSHIRE 2 days KC **KENT** 1 days SC SURREY 2 days WS WEST SUSSEX 3 days 04 EAST ANGLIA CAMBRIDGESHIRE CA 1 days NF **NORFOLK** 1 days 05 **EAST MIDLANDS DERBYSHIRE** 1 days DS 07 YORKSHIRE & NORTH LINCOLNSHIRE NORTH YORKSHIRE NY 1 days 08 NORTH WEST СН CHESHIRE 1 days LANCASHIRE LC 1 days 09 NORTH DH DURHAM 1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

#### Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings Actual Range: 11 to 371 (units: ) Range Selected by User: 6 to 4334 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

#### Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 19/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

#### Selected survey days:

5 days Monday Tuesday 3 days Wednesday 3 days Thursday 3 days Friday 3 days

This data displays the number of selected surveys by day of the week.

# Selected survey types:

Manual count 17 days Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

#### Selected Locations:

Suburban Area (PPS6 Out of Centre) 5 Edge of Town 12

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

### Selected Location Sub Categories:

Residential Zone

TRICS 7.7.3 121120 B20.02 Database right of TRICS Consortium Limited, 2020. All rights reserved Wednesday 18/11/20 Houses Privately Owned Page 2

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This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

#### Use Class:

C3 17 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

#### Population within 500m Range:

#### All Surveys Included

# Population within 1 mile:

5,001 to 10,000	2 days
10,001 to 15,000	6 days
15,001 to 20,000	6 days
20,001 to 25,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

### Population within 5 miles:

100,001 to 125,000	2 days
125,001 to 250,000	15 days

This data displays the number of selected surveys within stated 5-mile radii of population.

#### Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	12 days
1.6 to 2.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

### Travel Plan:

Yes	6 days
No	11 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

### PTAL Rating:

No PTAL Present 17 days

This data displays the number of selected surveys with PTAL Ratings.

DHA Transport Limited Eclipse Park Maidstone Licence No: 704001

LIST OF SITES relevant to selection parameters

1 CA-03-A-05 DETACHED HOUSES CAMBRIDGESHIRE

EASTFIELD ROAD PETERBOROUGH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 28

Survey date: MONDAY 17/10/16 Survey Type: MANUAL

2 CH-03-A-08 DETACHED CHESHIRE

WHITCHURCH ROAD

CHESTER

**BOUGHTON HEATH** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 11

Survey date: TUESDAY 22/05/12 Survey Type: MANUAL

3 DH-03-A-03 SEMI-DETACHED & TERRACED DURHAM

PILGRIMS WAY DURHAM

Edge of Town
Residential Zone
Total No. of Dwelling

Total No of Dwellings: 57

Survey date: FRIDAY 19/10/18 Survey Type: MANUAL

4 DS-03-A-02 MIXED HOUSES DERBYSHIRE

RADBOURNE LANE

**DERBY** 

Edge of Town Residential Zone

Total No of Dwellings: 371

Survey date: TUESDAY 10/07/18 Survey Type: MANUAL

5 ES-03-A-03 MIXED HOUSES & FLATS EAST SUSSEX

SHEPHAM LANE POLEGATE

Edge of Town Residential Zone

Total No of Dwellings: 212

Survey date: MONDAY 11/07/16 Survey Type: MANUAL

6 ES-03-A-05 MIXED HOUSES & FLATS EAST SUSSEX

RATTLE ROAD
NEAR EASTBOURNE
STONE CROSS
Edge of Town
Residential Zone

Total No of Dwellings: 99

Survey date: WEDNESDAY 05/06/19 Survey Type: MANUAL

7 HC-03-A-21 TERRACED & SEMI-DETACHED HAMPSHIRE

PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS Edge of Town Residential Zone

Total No of Dwellings: 39

Survey date: TUESDAY 13/11/18 Survey Type: MANUAL

8 HC-03-A-22 MIXED HOUSES HAMPSHIRE

BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE Edge of Town Residential Zone

Total No of Dwellings: 40

Survey date: WEDNESDAY 31/10/18 Survey Type: MANUAL

DHA Transport Limited Eclipse Park Maidstone Licence No: 704001

LIST OF SITES relevant to selection parameters (Cont.)

9 KC-03-A-04 SEMI-DETACHED & TERRACED KENT

KILN BARN ROAD AYLESFORD DITTON Edge of Town Residential Zone

Total No of Dwellings: 110

Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

0 LC-03-A-31 DETACHED HOUSES LANCASHIRE

GREENSIDE PRESTON COTTAM Edge of Town Residential Zone Total No of Dwellings:

al No of Dwellings: 32

Survey date: FRIDAY 17/11/17 Survey Type: MANUAL

11 NF-03-A-02 HOUSES & FLATS NORFOLK

DEREHAM ROAD NORWICH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 98

Survey date: MONDAY 22/10/12 Survey Type: MANUAL

12 NY-03-A-08 TERRACED HOUSES NORTH YORKSHIRE

NICHOLAS STREET

YORK

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 21

Survey date: MONDAY 16/09/13 Survey Type: MANUAL

13 SC-03-A-04 DETACHED & TERRACED SURREY

HIGH ROAD BYFLEET

Edge of Town
Residential Zone
Total No of Dwellin

Total No of Dwellings: 71

Survey date: THURSDAY 23/01/14 Survey Type: MANUAL

14 SC-03-A-05 MIXED HOUSES SURREY

REIGATE ROAD HORLEY

Edge of Town
Residential Zone
Total No of Dwelling

Total No of Dwellings: 207

Survey date: MONDAY 01/04/19 Survey Type: MANUAL

15 WS-03-A-05 TERRACED & FLATS WEST SUSSEX

UPPER SHOREHAM ROAD SHOREHAM BY SEA

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 48

Survey daté: WEDNESDAY 18/04/12 Survey Type: MANUAL

16 WS-03-A-08 MIXED HOUSES WEST SUSSEX

ROUNDSTONE LANE

ANGMERING

Edge of Town Residential Zone

Total No of Dwellings: 180

Survey date: THURSDAY 19/04/18 Survey Type: MANUAL

TRICS 7.7.3 121120 B20.02 Database right of TRICS Consortium Limited, 2020. All rights reserved Wednesday 18/11/20 Houses Privately Owned Page 5

DHA Transport Limited Eclipse Park Maidstone Licence No: 704001

LIST OF SITES relevant to selection parameters (Cont.)

17 WS-03-A-09 MI XED HOUSES & FLATS WEST SUSSEX

LITTLEHAMPTON ROAD WORTHING WEST DURRINGTON Edge of Town Residential Zone

Total No of Dwellings: 197

Survey date: THURSDAY 05/07/18 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

Page 6

Eclipse Park DHA Transport Limited Maidstone Licence No: 704001

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	107	0.072	17	107	0.355	17	107	0.427
08:00 - 09:00	17	107	0.116	17	107	0.392	17	107	0.508
09:00 - 10:00	17	107	0.144	17	107	0.186	17	107	0.330
10:00 - 11:00	17	107	0.127	17	107	0.154	17	107	0.281
11:00 - 12:00	17	107	0.149	17	107	0.142	17	107	0.291
12:00 - 13:00	17	107	0.147	17	107	0.150	17	107	0.297
13:00 - 14:00	17	107	0.167	17	107	0.160	17	107	0.327
14:00 - 15:00	17	107	0.161	17	107	0.187	17	107	0.348
15:00 - 16:00	17	107	0.251	17	107	0.174	17	107	0.425
16:00 - 17:00	17	107	0.273	17	107	0.158	17	107	0.431
17:00 - 18:00	17	107	0.355	17	107	0.139	17	107	0.494
18:00 - 19:00	17	107	0.322	17	107	0.139	17	107	0.461
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00							•		•
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.284			2.336			4.620

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

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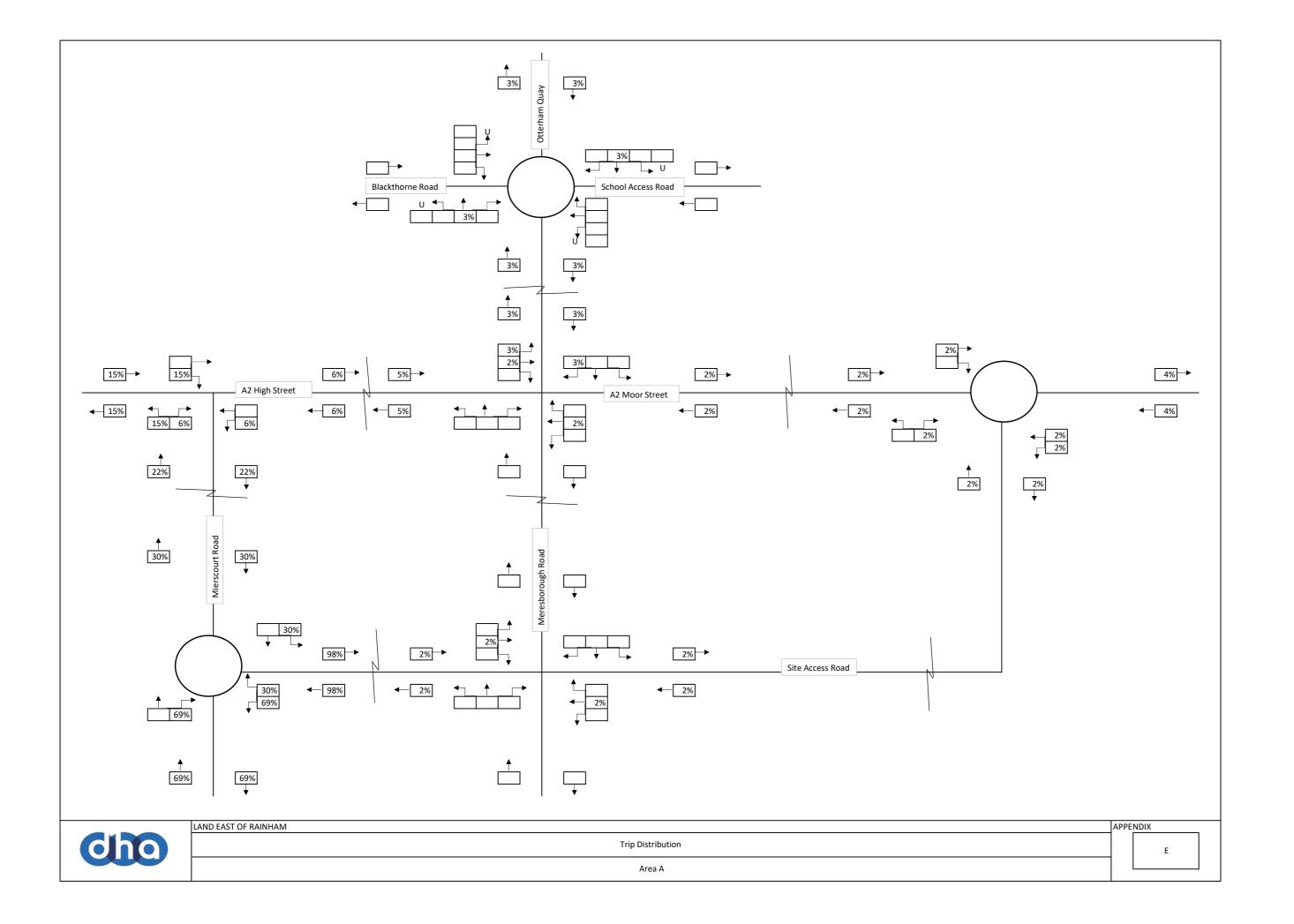
#### Parameter summary

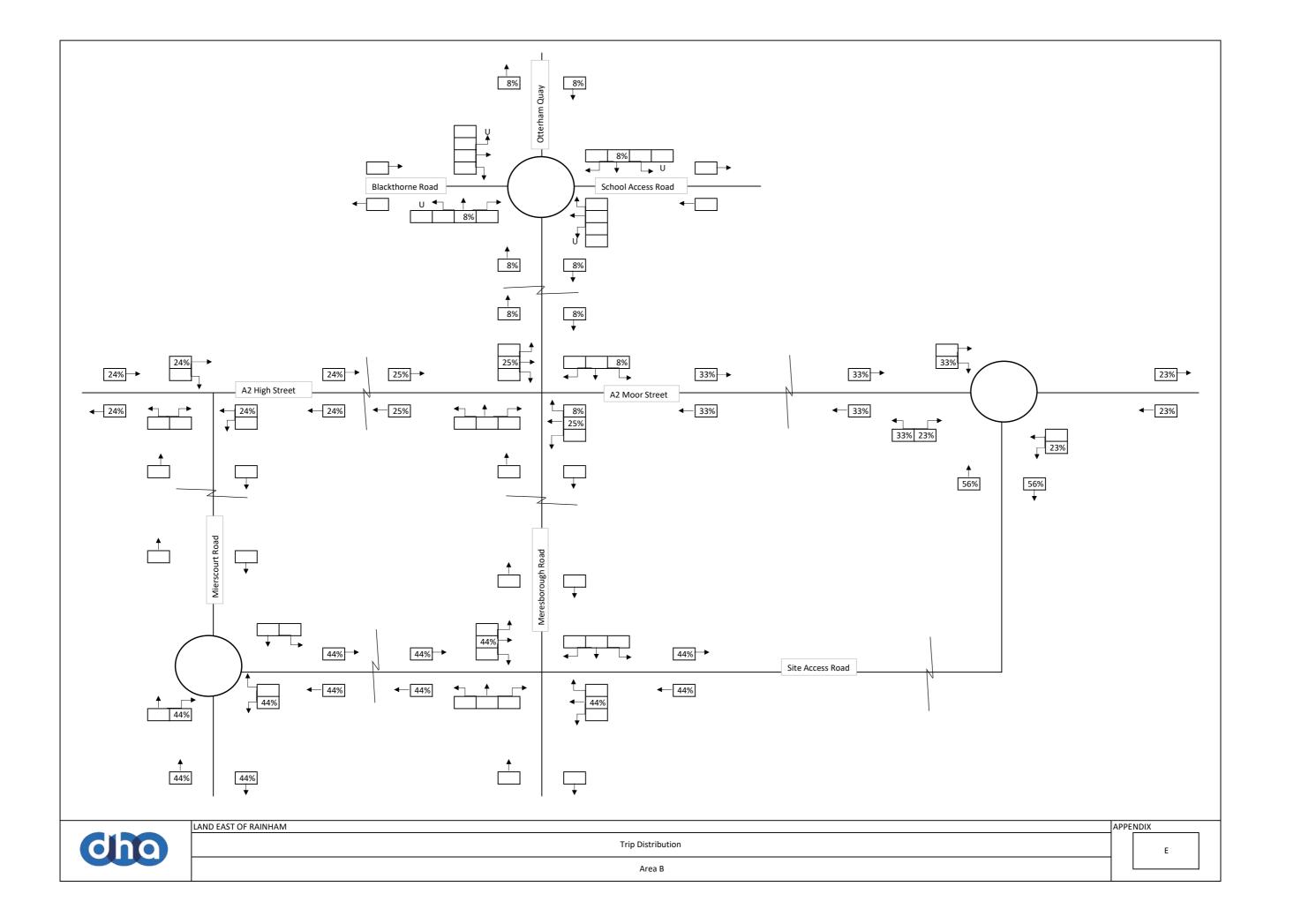
Trip rate parameter range selected: 11 - 371 (units: ) Survey date date range: 01/01/12 - 19/11/19

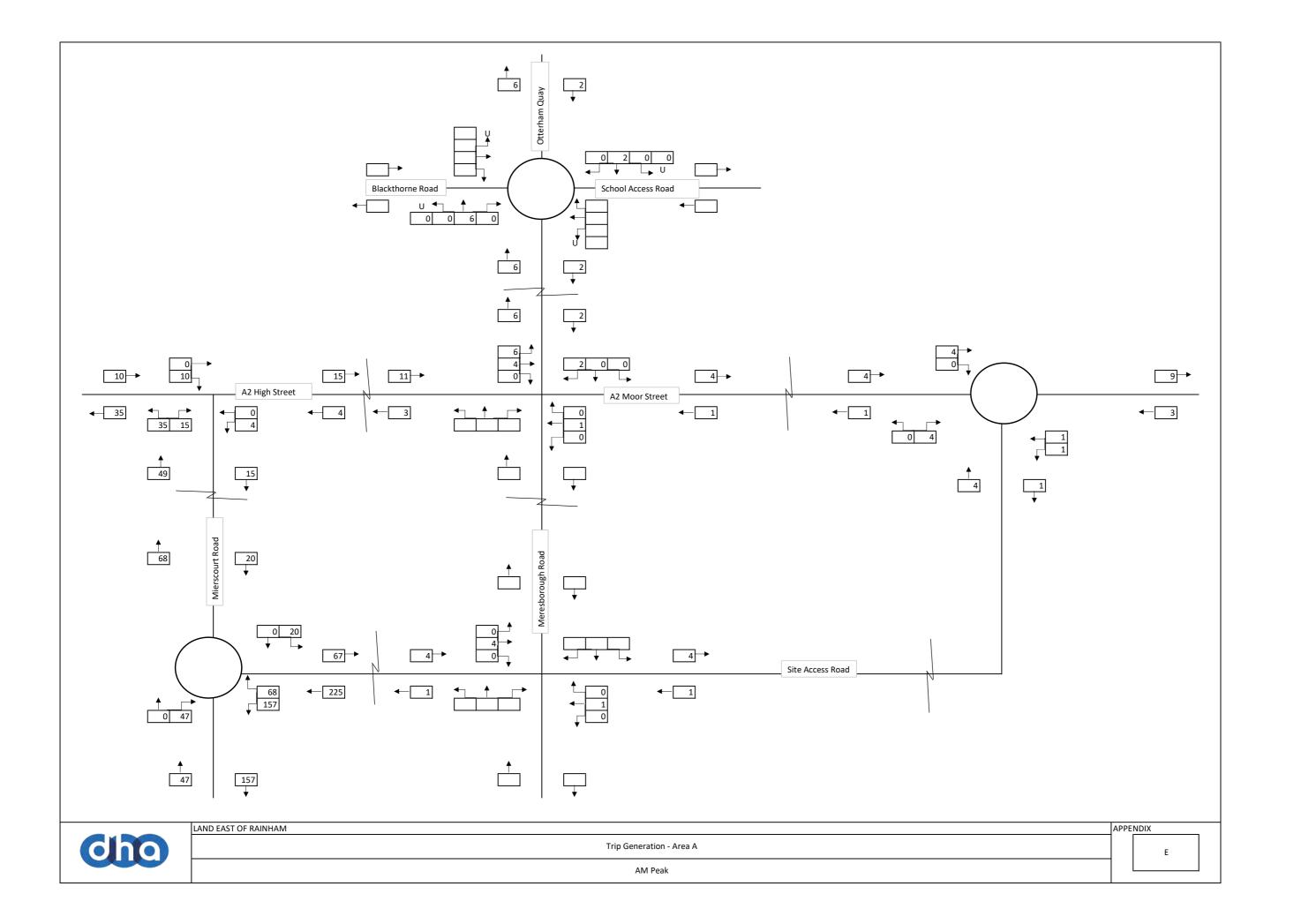
Number of weekdays (Monday-Friday): 17 Number of Saturdays: 0 Number of Sundays: 0 Surveys automatically removed from selection: 0 Surveys manually removed from selection: 0

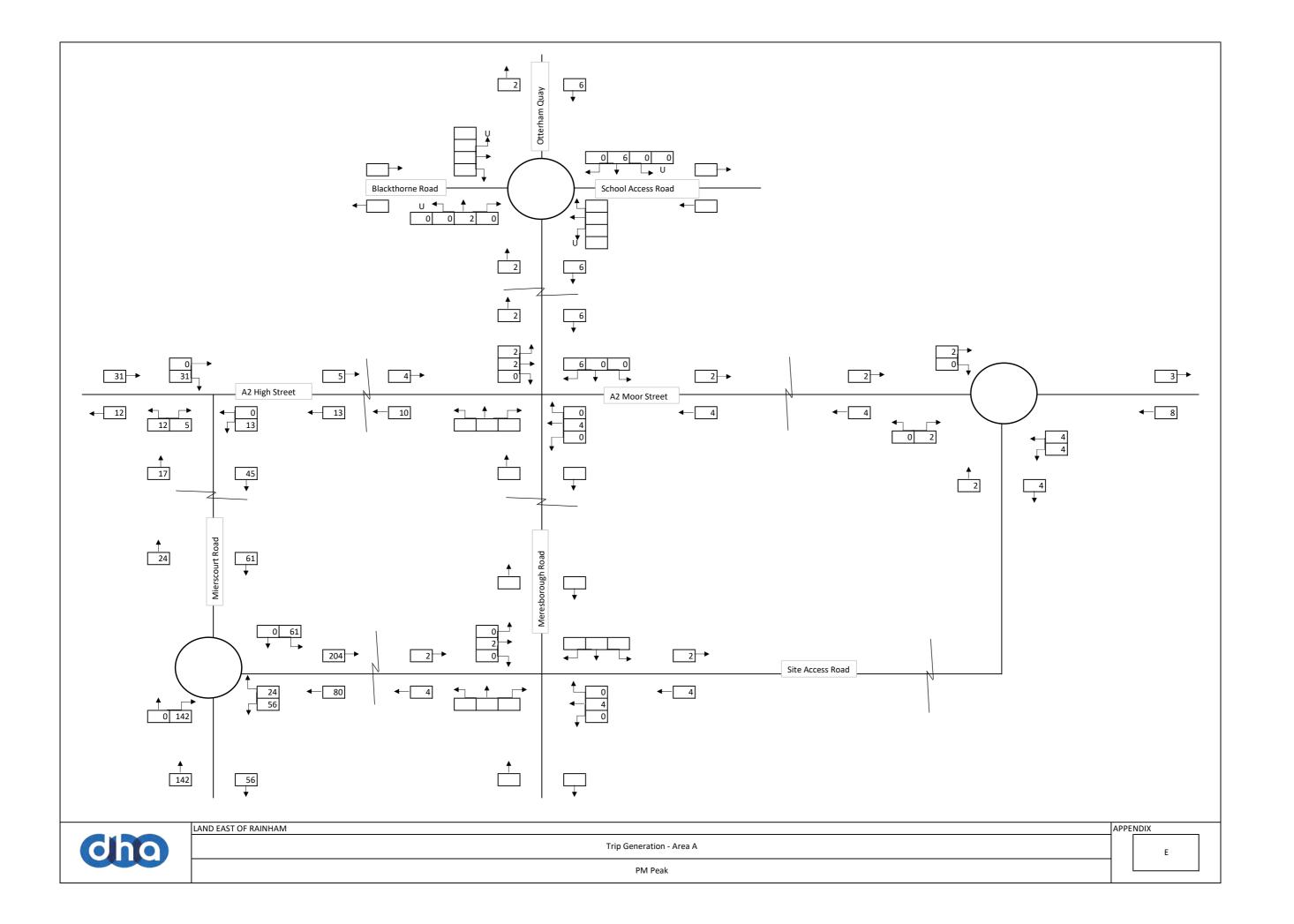
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

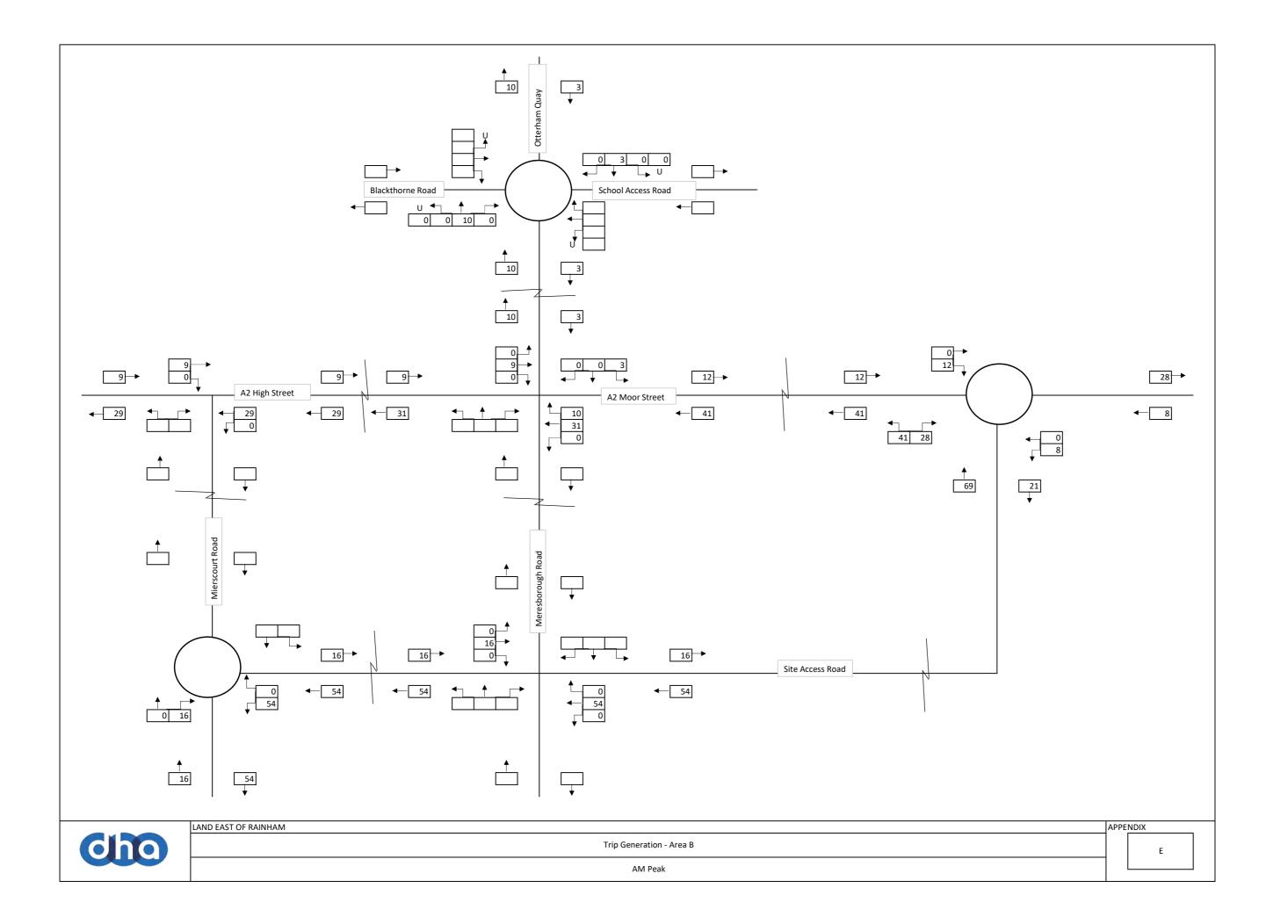


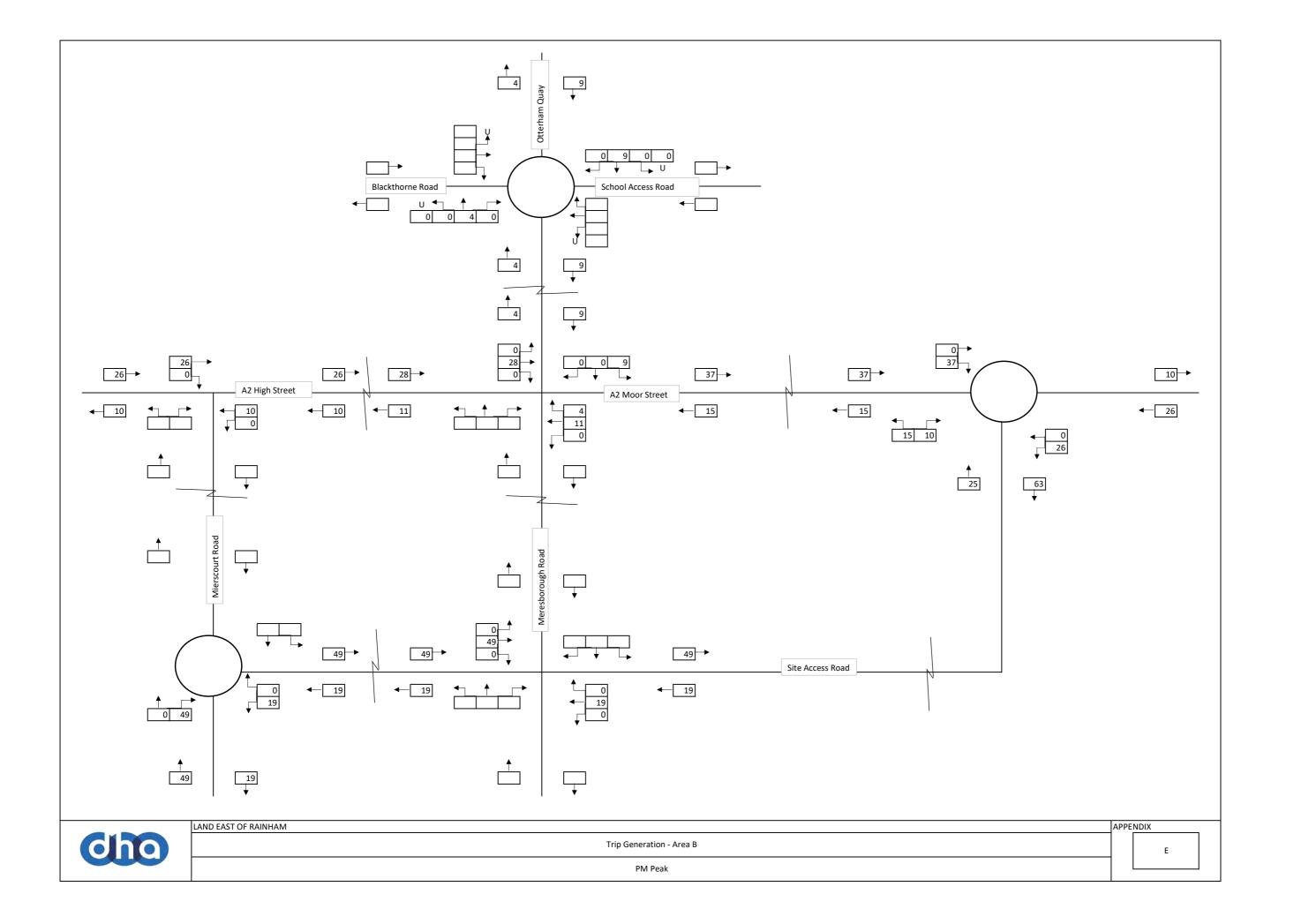


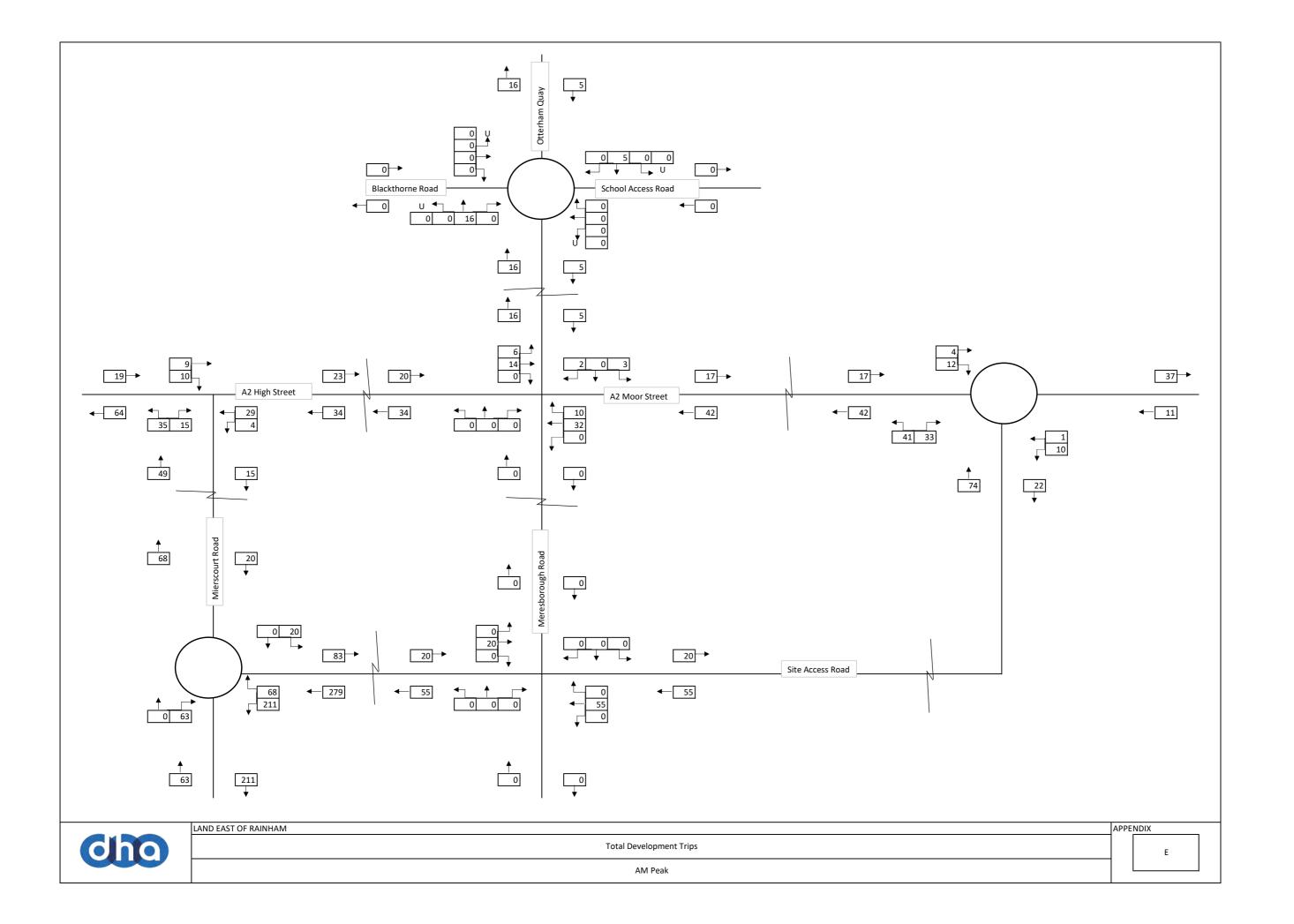


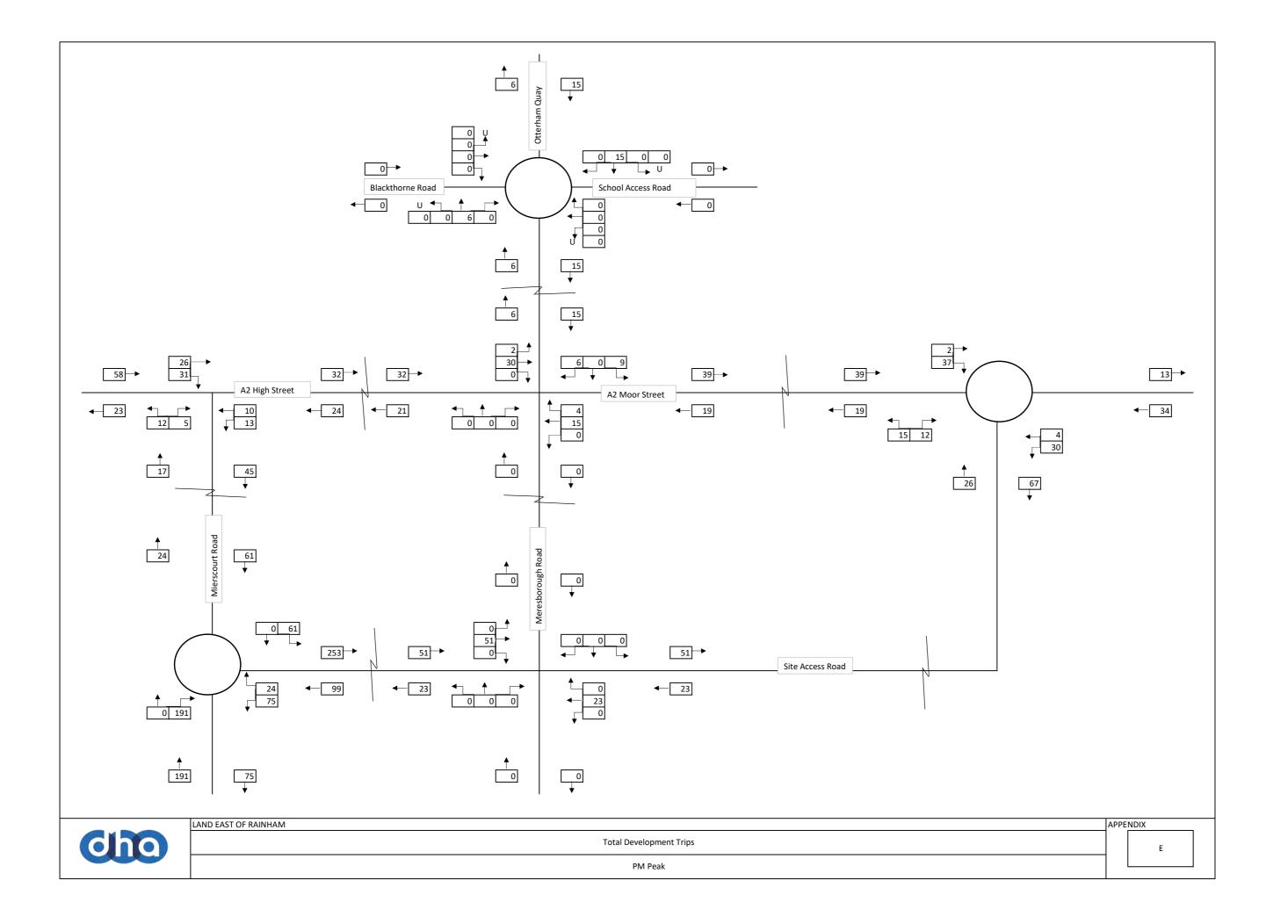














EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

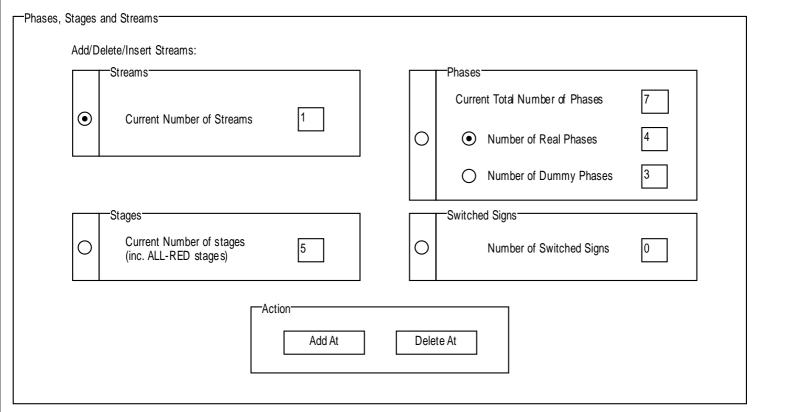
# Administration

General Specifications			
Customer Name	Medway Council	Customer Order No.	851127285
Intersection/ General Description	A2 High Street / Otterham Quay Lane, Rainham - Site 04/ 0801	Controller/ Serial Number	NEED SERIAL NUMBER
	Sile 04/ 0001	S.T.S. /EM Number	62310 Issue 5
Controller	New	Equipment Installation by	Siemens Mobility Traffic Solutions
Area Specifications/ Customer Drawings		Slot Cutting by	Siemens Mobility Traffic Solutions
Specification Section		Civil Works by	Civils Contractor
Contract/Tender Ref:		Customer's Engineer	
Quotation No.		Telephone Number	
Works Order No.	NEED NUMBER		
Signal Company Use Only			
Signal Engineer Kevin	L Roberts (IF PROM	Label as >) PROM Number  Configuration Check Value	16260 PROM Variant 0  8F 69 F8 BB
Controller Options		Configuration Check value	e <u>                                     </u>
Hardware T800	Firmware Type and Issue PB8	00 ISS 19	Other Options KTD LO
ST950/ST900/ST750 Ser	ies Cabinet Options		
Cabinet/Rack	Kit Type Op	otions O	0 0
Cabinet/Rack Variant	Cuckoo	Options	
Mains Supply—	240 -Vdts50 -Hz		
Peak Lamp Current Average Lamp Power Total Average Power	4 Amps Dimming Voltage 800 Watts Low Inrush Transformer	Answer Issue Edit Issue	2 Date Created 18/06/03
-	quires 30 Amp minimum for controller, 15 Am	p minimum for pelican/lightly I	oaded controller

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# Phases, Stages and Streams



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

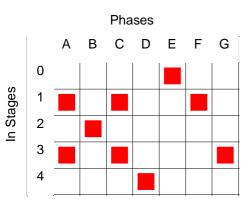
# Facilities/Modes Enabled and Mode Priority Levels

Facilities  UTC  Serial/Internal UTMC OTU  Free-standing OTU  Integral TC12 OTU  Serial MOVA  9  Starting Intergreen	Master Time Clock ☐ Holiday Clock ☑ FT To Current MAX ☐ Linked Fixed Time	□ Lamp Monitoring     □ RED Lamp Monitoring     □ Pelican/Puffin/Toucan     □ Standalone Manual	☑ Extend All Red
Mode Priority  ☐ Part Time ☐ Emergency Vehicles ☐ Hurry Call ☐ Priority Vehide ☐ Manual Control ☐ Manual Step On ☐ Selected FT or VA or CLF ☐ UTC ☐ CLF (Non-Base Time) ☐ CLF (Base Time) ☐ Vehicle Actuated ☐ Fixed Time	1 2 3 4 5 6 7 8 0		standard.8DF  Default PROM data file  Correspondence Monitoring to inc.  Reds Switched Signs  Flash Rate (ms)  400  Off  Off  Off  Maximum  Maximum  Ignore Reds Maximum  Maximum

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# Phases in Stages

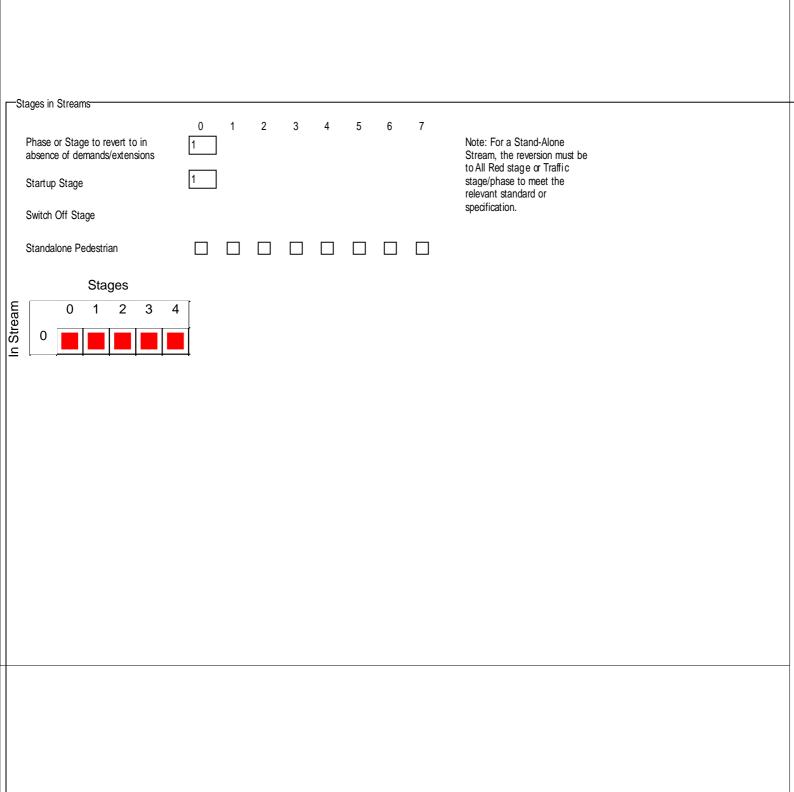


EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# Stages in Streams



Last Modified 27/04/2020, Issue 5.2.22

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# Phase Type and Conditions

riiase	Type and Conditions  Phases Ato P	0	
Phase	Title	Туре	App. Term. Assoc. Type Type Phase
Α	A2 High Street	0 - UK Traffic	0 0 - E
В	Otterham Quay Lane	0 - UK Traffic	0
С	A2 Moor Street	0 - UK Traffic	0 - E
D	Meresborough Road	0 - UK Traffic	0 0 - E
Е	Dummy All Red Stage 0	2 - UK GreenArrow	0 0 - E
F	Dummy for UTC Stage 1	2 - UK GreenArrow	0 0 - E
G	Dummy for UTC Stage 3	2 - UK GreenArrow	0 0 - E

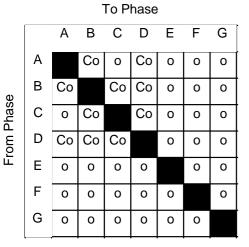
<sup>1)</sup> App Types: 0 = Always Appears, 1 = Appears if dem'd prior to interstage, 2 = If dem'd, 3 = If dem'd before end of window time
2) Term Types: 0 = Term's at end of stage, 1 = Term's when Assoc phase gains R.O.W, 2 = Term's when Assoc phase loses R.O.W.
3) The HW Fail Flash fields are for information only on all but ST900ELV Controllers. For other controllers, physical switches or links (etc.) select which aspects flash and these need to be set up manually.

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# Opposing and Conflicting Phases

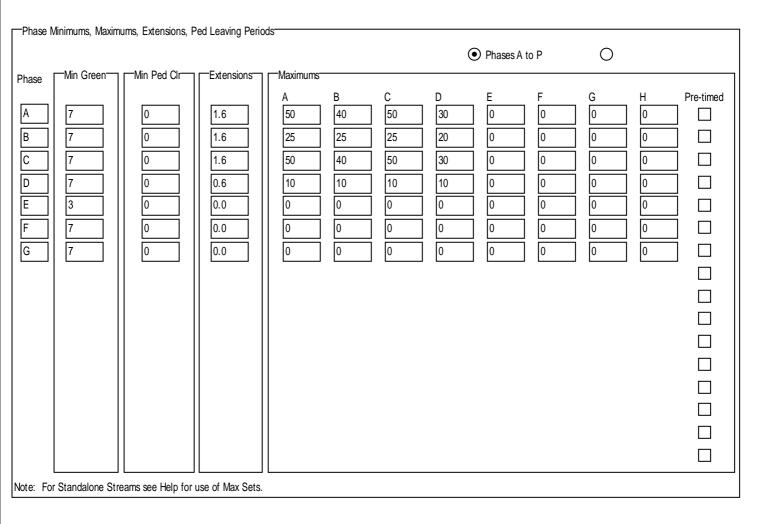




EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

### Phase Minimums, Maximums, Extensions, Ped Leaving Periods



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# Phase Intergreen Times

Select St	ream(s) To C	Configure—							
O All	O 0	0	0	0	0	0	0	0	

Note: On a Stand Alone Pelican/Toucan/ Puffin Stream the Intergreens between Pedestrian and Traffic Phases are controlled by the timings (PBT, PIT, CMX, CDY, CRD and PAR), therefore 0 should be entered for the appropriate intergreen times in grid below.

#### To Phase

	Α	В	С	D	Е	F	G
Α		8		9	3		
В	8		8	9	3	5	5
С		8		9	3		
D	5	6	5		3	5	5
Е	2	2	2	2			
F		2		2			
G		2		2			

EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# Intergreen Handset Limits

HIGH 30 Copy Intergreen Values

To Phase

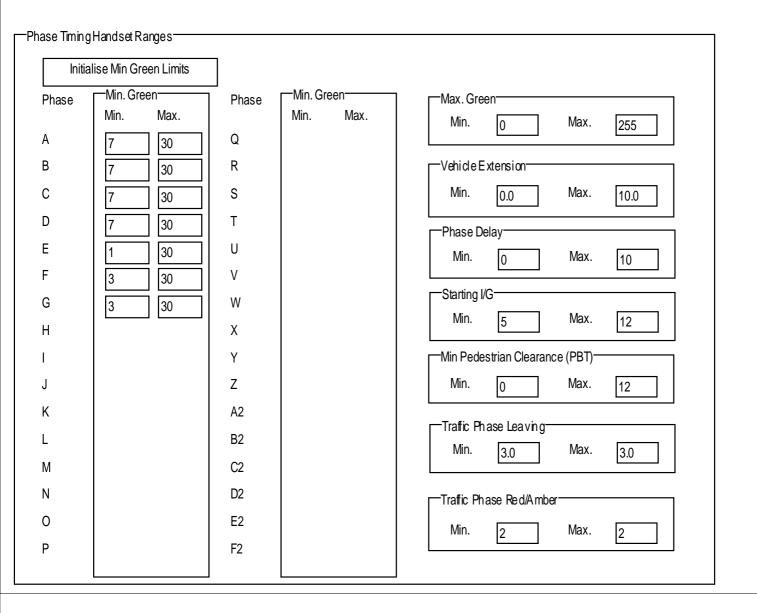
	Α	В	С	D	Е	F	G
Α		8		9	3		
В	8		8	9	3	5	5
С		8		9	3		
D	5	6	5		3	5	5
E	2	2	2	2			
F		2		2			
G		2		2			

From Phase

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

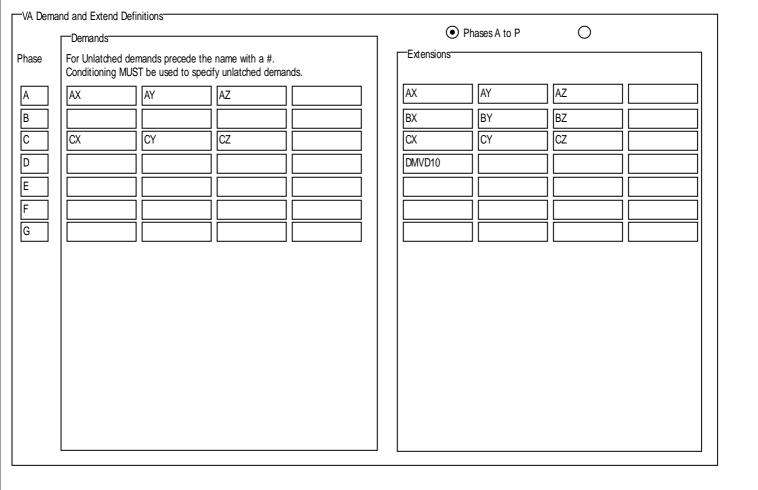
### Phase Timing Handset Ranges



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

#### VA Demand and Extend Definitions



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

### Phase Internal/Revertive Demands

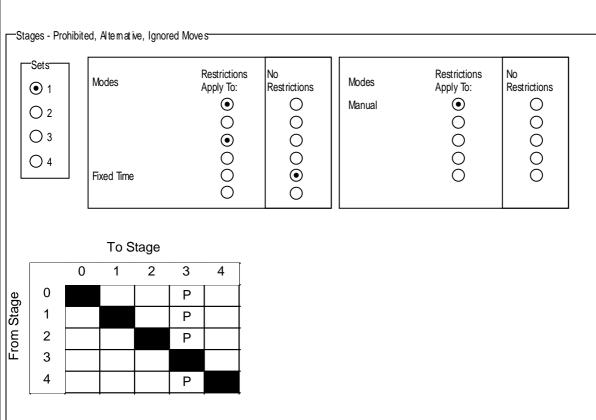
TPhase Inte	ernal/Revert	ive Deman	ds												
Start-up	Vehicle Re	sponsive [	Demands—												
A 🗸	В✓	c 🗸	D 🗸	Ε	F $\square$	G 🗌									
Demand	ds Inserted	When Leav	<i>i</i> ng Manua	l and Fixed	Time Mode	es es									
A 🔽	в ✓	c 🗸	D 🗸	Ε	F $\square$	G $\square$									
Unlatche	ed Demands	s that Star	t Max Timer	rs											
A 🗸	В	c 🗸	D 🗸	E 🗸	F 🗸	G ☑									
Revertiv	e Phase De	emands													
A A	В	C C	D	E	F	G	Н	I	J	K	L	M	N	0	Р
Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2

EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

### Stages - Prohibited, Alternative, Ignored Moves



EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

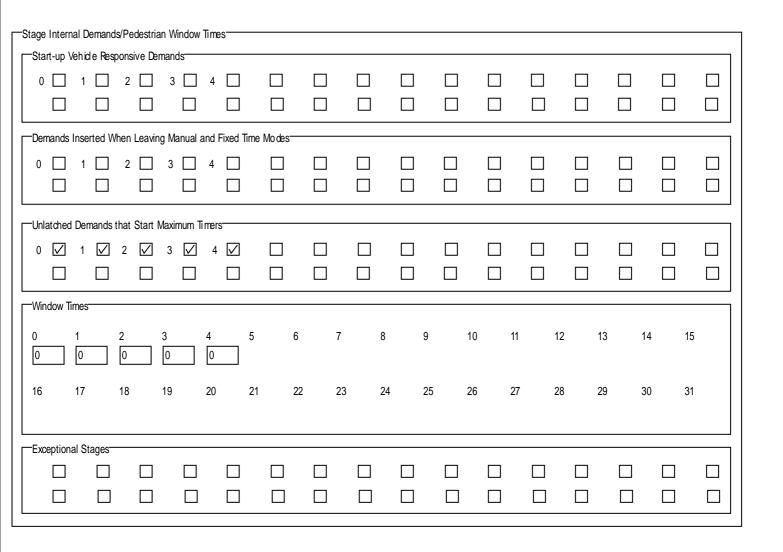
# Stages - Prohibited, Alternative, Ignored Moves

	② 2 ○ 3 ○ 4		Urban Tra	ctuated	rol	Apply To:  O O O O O	Restrictions  O O O O O O	Modes	Apply To:  O O O O	Restrictions  O O O O O	
			To S	Stage							
		0	1	2	3	4					
age	0										
From Stage	2	P									
Fro	3	Р									
	4	Р									

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

### Stage Internal Demands/Pedestrian Window Times



EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

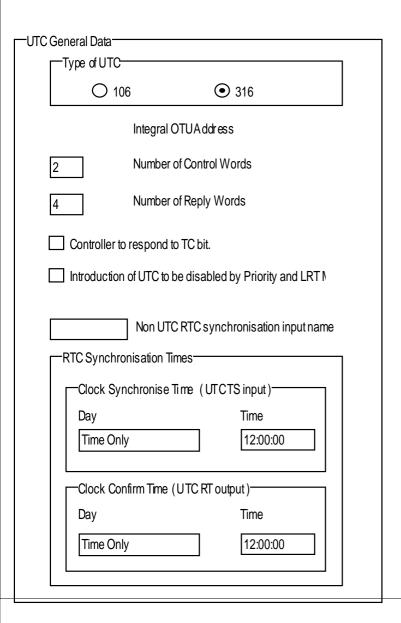
#### **Fixed Time**

Current Stage	Fixed Time	/N-+ T	ua d Tas	4 a Ouman	. Ma.s)-													
Next Stage   Time   Current Stage   8   9   10   11   12   13   14   15   Next Stage   Time   Current Stage   16   17   18   19   20   21   22   23   Next Stage   Time   Current Stage   24   25   26   27   28   29   30   31   Next Stage   Time																		
Time  Current Stage 8 9 10 11 12 13 14 15  Next Stage  Time  Current Stage 16 17 18 19 20 21 22 23  Next Stage  Time  Current Stage 24 25 26 27 28 29 30 31  Next Stage  Time  Phases Demanded and Extended under Fixed Time to Ourrent Max.  Phases Demanded and Extended under Fixed Time to Ourrent Max.  Phases Demanded and Extended under Fixed Time to Ourrent Max.  Phases Demanded and Extended under Fixed Time to Ourrent Max.  Phases Demanded and Extended under Fixed Time to Ourrent Max.  Ourrent Stage 24 25 26 27 28 29 30 31  Demand	<del>-</del>	0	1	2	3		4	5	6	7								
Current Stage	Next Stage																	
Next Stage   Time   Current Stage   16	Time																	
Time   Current Stage   16   17   18   19   20   21   22   23   Next Stage   Time   Current Stage   24   25   26   27   28   29   30   31   Next Stage   Time   Time   Time   Time   Time   Current Max.	Current Stage	8	9	10	1	1	12	13	14	15								
Current Stage         16         17         18         19         20         21         22         23           Next Stage         Time         Current Stage         24         25         26         27         28         29         30         31           Next Stage         Time         Time         Time         Next Stage         Time         Next Stage         Next Stage         Next Stage         Next Stage         Time         Next Stage	-																	
Next Stage   Time   Current Stage   24   25   26   27   28   29   30   31   Next Stage   Time   Time   Next Stage   Ne	Time																	
Next Stage         Time         Current Stage       24       25       26       27       28       29       30       31         Next Stage       Time     Phases Demanded and Extended under Fixed Time to Qurrent Max.  Phase Demanded and Extended under Fixed Time to Qurrent Max.  Phase Demanded and Extended under Fixed Time to Qurrent Max.  Phase Demanded and Extended under Fixed Time to Qurrent Max.  Phase Demanded and Extended under Fixed Time to Qurrent Max.  Phase Demanded and Extended under Fix	Current Stage	16	17	18	1	9	20	21	22	23								
Current Stage		-					-											
Next Stage   Time	Time																	
Time  Phases Demanded and Extended under Fixed Time to Qurrent Max.  A B C D E F G H I J K L M N O P  Demand	_	24	25	26	2	7	28	29	30	31								
—Phases Demanded and Extended under Fixed Time to Qurrent Max.         —Phases Demanded and Extended under Fixed Time to Qurrent Max.         — Demand       ✓																		
A         B         C         D         E         F         G         H         I         J         K         L         M         N         O         P           Demand         □ </td <td>Time</td> <td></td>	Time																	
Demand         Image: square squa	Phases Demanded	and Exter	nded unde	er Fixed Tir	me to Cu	rrent Ma	x.											$\neg$
Demand         ✓ </td <td></td> <td>Α</td> <td>В</td> <td>С</td> <td>D</td> <td>F</td> <td>F</td> <td>G</td> <td>Н</td> <td>1</td> <td>J</td> <td>K</td> <td>1</td> <td>М</td> <td>N</td> <td>0</td> <td>Р</td> <td></td>		Α	В	С	D	F	F	G	Н	1	J	K	1	М	N	0	Р	
Extend         V         V         V         W         X         Y         Z         A2         B2         C2         D2         E2         F2           Demand         0	Demand														_			
Q R S T U V W X Y Z A2 B2 C2 D2 E2 F2  Demand	Extend				$\checkmark$													
Demand						U	V	W	X	Υ	Z	A2	B2	C2	D2	E2	F2	
Extend	Demand																	
	Extend																	

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

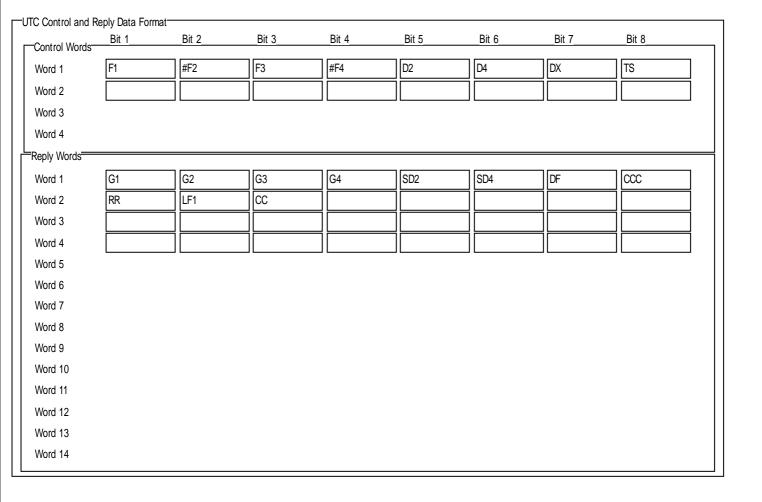
#### **UTC** General Data



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

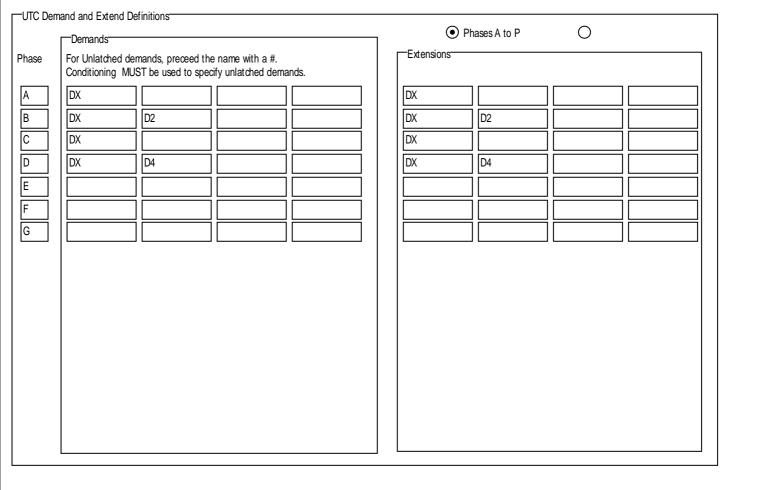
### UTC Control and Reply Data Format



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

#### **UTC Phase Demand and Extend Definitions**



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# UTC Stage and Mode Data Definitions

-UTC Stag	e and Mode Data	Definitions						
Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit	Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit	Manual Mode Operative: ☐ G1/G2
0				16				
1	F1	G1		17				Manual Mode Selected:
2	#F2	G2	SD2	18				☐ G1/G2
3	F3	G3		19				No Lamp Power, or Lamps Off due to RLM
4	#F4	G4	SD4	20				or Part Time:
5				21				
6				22				Detector Fault:
7				23				☐ ☐ ☑ DF
8				24				Normal NOT selected on the
9				25				Manual Panel: ☐ G1/G2 ☑ RR ☐
10				26				G1/G2     KIX
11				27				RR Button Selected:
12				28				☐ G1/G2
13				29				If UTC Reply Confirms are required for a
14				30				Controller Fault (CF) OR for separate MC
15				31				and RR replies, Conditioning must be used.

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

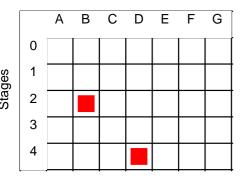
### **UTC Demand Dependent Forces**

Clear Grid Data

Notes:

If no data is entered for a stage then a demand for any phases in that stage will be considered. The data specified on this screen will also change the screen CLF - Demands to Consider with Demand Dependent Stage Moves.

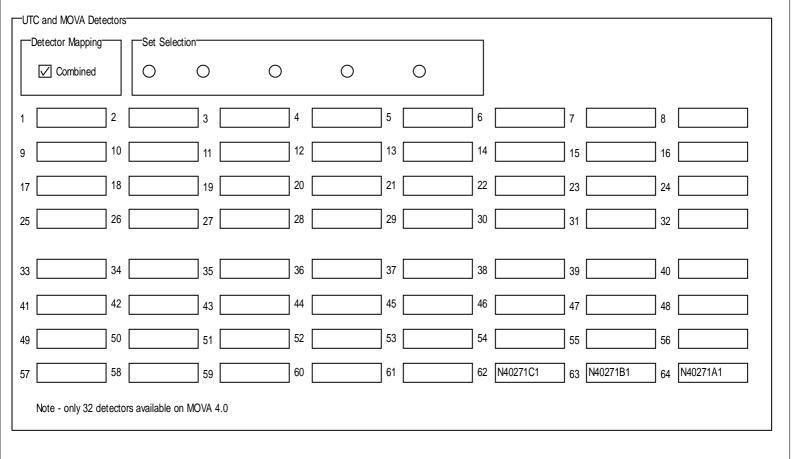




EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

#### **UTC** and MOVA Detectors



TMTC - Time Switch Parameters

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

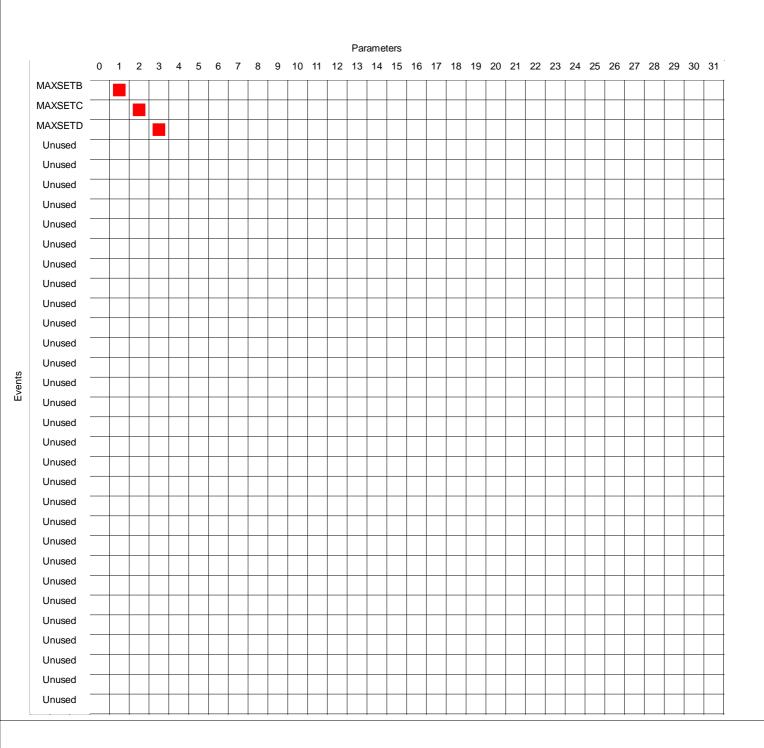
### MTC - Time Switch Parameters

	Туре	Event		Туре	Event
0	Alternate Max	MAXSETB	16	No Action	
1	Alternate Max	MAXSETC	17	No Action	
2	Alternate Max	MAXSETD	18	No Action	
3	No Action		19	No Action	
4	No Action		20	No Action	
5	No Action		21	No Action	
6	No Action		22	No Action	
7	No Action		23	No Action	
8	No Action		24	No Action	
9	No Action		25	No Action	
10	No Action		26	No Action	
11	No Action		27	No Action	
12	No Action		28	No Action	
13	No Action		29	No Action	
14	No Action		30	No Action	
15	No Action		31	No Action	

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# MTC - Time Switch Parameters Array



EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# MTC - Day Type

WITC - Day	у туре						
No.	Mon	Tue	Wed	Thu	Fri	Sat	Sun
0							
1							$\square$
2							
3		abla					
4			$\square$				
5							
6							
7	abla	$\checkmark$	$\checkmark$		abla		$\square$
8		abla	$\checkmark$	$\square$	abla		
9			$\square$	$\checkmark$			
10							
11							
12							
13							
14							
15							

EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

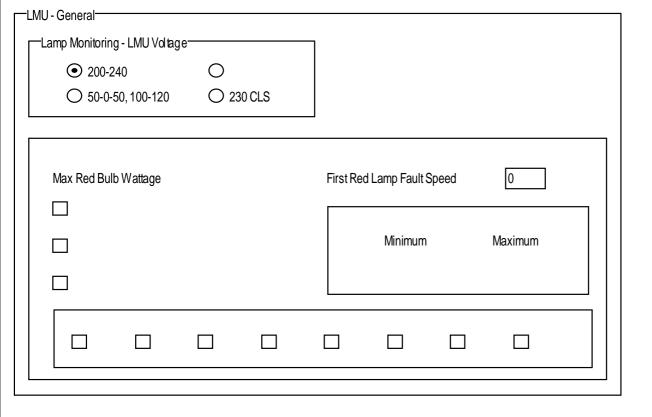
#### MTC - Timetable

MTC - Ti	imetable——		View Timetable	Settings				7
			<ul><li>0 - 15</li></ul>	O 16 - 31	O 32	- 47	O 48 - 63	
No.	Day Type	Time	Description			Function Code	Plan/ Parameter	
0	9	07:30:00	MAXSET A			2	0	Function Codes:
1	9	09:30:00	MAXSET B			2	1	0 = Isolate From CLF
2	9	16:30:00	MAXSET C			2	2	1 = Introduce a CLF Plan
3	9	18:30:00	MAXSET D			2	3	2 = Introduce a Parameter
4	0	07:30:00	MAXSET B			2	1	(Combination of event switches)
5	0	19:30:00	MAXSET D			2	3	,
6	1	08:30:00	MAXSET B			2	1	3 = Selects an Individual event switch to be set
7	1	18:30:00	MAXSET D			2	3	4 = Selects an Individual event
8	0					0	0	switch to be cleared.
9	0					0	0	
10	0					0	0	
11	0					0	0	
12	0					0	0	
13	0					0	0	
14	0					0	0	
15	0					0	0	
								╛

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

#### LMU - General



EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

### LMU - Sensors

-Onboard	d Sensors					External Sens	sors		
Sensor\ Phase	Sensor Type	Bulb Watts	Sensor\ Phase	Sensor Type	Bulb Watts	Sensor\ Pin	Drive	Sensor Type	Bulb Watts
1 \ A	As Seq.	50	17 \ Q			33 \ b14		Regulatory Sign	7
2 \ B	As Seq.	50	18 \ R			34 \ z16		Regulatory Sign	7
3 / C	As Seq.	50	19 \ S			35 \ z14		Regulatory Sign	7
4 \ D	As Seq.	50	20 \ T			36 \ z12		Regulatory Sign	7
5 \ E	As Seq.	40	21 \ U			37 \ b14			
6 \ F	As Seq.	40	22 \ V			38 \ z16			
7 \ G	As Seq.	40	23 \ W			39 \ z14			
8 \ H	As Seq.	40	24 \ X			40 \ z12			
9 \ I			25 \ Y			41 \ b14			
10 \ J			26 \ Z			42 \ z16			
11 \ K			27 \ A2			43 \ z14			
12 \ L			28 \ B2			44 \ z12			
13 \ M			29 \ C2			45 \ b14			
14 \ N			30 \ D2			46 \ z16			
15 \ O			31 \ E2			47 \ z14			
16 \ P			32 \ F2			48 \ z12			

EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

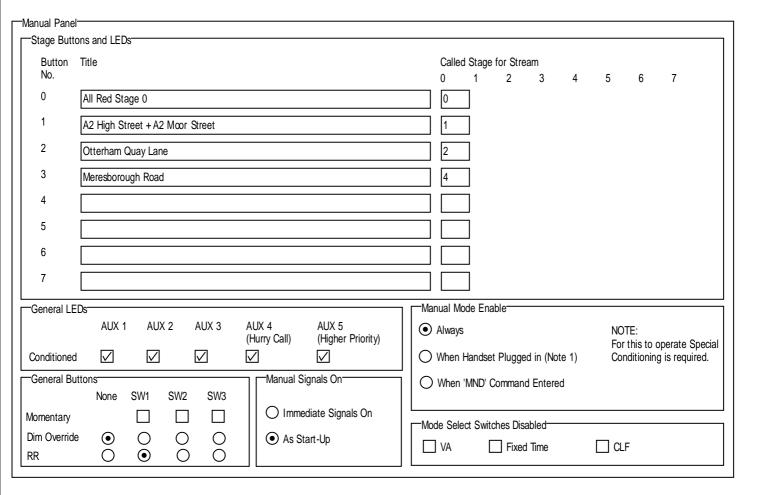
### LMU Sensor Load Types



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

#### Manual Panel



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

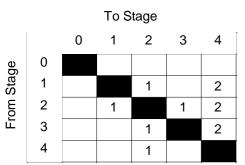
#### Extend All Red - General

-Auto	Extend to Max		All Red Timings								
E	Part Time Emergency Vehide Hurry Call		Stream  Extension Time	0	1	2	3	4	5	6	7
F	LRT Priority Manual		Max Time	8							
ľ	Manual Step On UTC										
(	MOVA CLF VA*		* Selecting Extend	to May on VA	النب مام سنال						
	Fixed Time		also cause Extend and Priority modes.	to Max on CLF	F, UTC						
ъ.		AUD 15	11.9								
Dete Unit	ectors Associated with t	n All Red Extension		iated Detector	rs						
Unit		AR2		iated Detector	rs						
Unit 1	t			iated Detector	rs						between detectors and
Unit 1 2	t AR1			iated Detector	rs						between detectors and
Unit 1 2 3	t AR1			iated Detector	rs						between detectors and extension units must be performed in
Unit 1 2 3 4	t AR1			iated Detector	rs						between detectors and extension units must be
	t AR1			iated Detector	rs						detectors and extension units must be performed in special

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

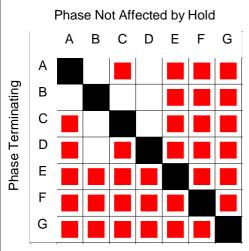
# Extend All Red - Stage To Stage Moves



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

### Extend All Red - Independent Intergreens



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# Speed Discrimination / Speed Assessment Equipment

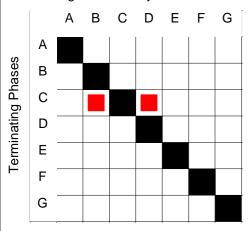
Speed Discrimination / Spe	ed Assessm	ent Equipment					•			
_	Assessor Number	Assessor Input Name	Assessor Type *	Associated Phase	Phase Terminated	Extra Intergreen	Curtailed VA Extensions to Force Extra	Phase Terminated	Extra Intergreen	Curtailed VA Extensions to Force Extra
SDE/SA Card			_				IGN		· ·	IGN
O Internal SDE/SA	0	SDC	1	С	A			Q		
	1				В			R		
Equipment Type	2				С	2		S		
SDE     SA	3				D			T		
Loop Spacing	7 4				E			U		
○ 3.05m ● 3.66m	5				F			V		
Note:	6				G			W		
3.05m is Non-Standard	7				н			Χ		
Number of Assessors	8				1			Υ		
1	9				J			Z		
	10				К			A2		
	11				L			B2		
*	12				М			C2		
Assessor Types: 1 = Double SDE	13				N			D2		
2 = Triple SDE Inner 3 = Triple SDE Outer	14				0			E2		
4 = Speed Assessment	15				Р			F2		

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Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# SDE - Gaining Phase Delays Affected

#### Gaining Phase Delays to be Increased



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

### **Special Conditioning**

```
; AUX LED'S
MAUXSW1=MIL22
                                                 ; AUX 1 LED LIT WHEN AUX1 SWITCH ACTIVE SENDS RR TO INSTATION
                                                 ; AUX 2 LED LIT WHEN UTC MODE ACTIVE
MODEO EQL<6>=MIL23
                                                  ; AUX 3 LED NOT USED
                                                 ; AUX 4 ( HURRY CALL ) - LED NOT USED
                                                 ; AUX 5 ( HIGHER PRIORITY ) - LED NOT USED
; UTC REPLIES
LMPON.LPSPRD.SWLMPS.NOT(FLF17).NOT(STAGE1)=G1
                                                ; LAMPS OFF AND STAGE CONFIRMS FOR UTC G1 _G2 BITS
LMPON.LPSPRD.SWLMPS.NOT(FLF17).NOT(STAGE2)=G2
NOT(LMPANY0)=LF1
                                                 ; ANY LAMP FAIL REPLIES UTC LF1 BIT
; ALL RED LOOPS
AR1+AR1_EXT+AR2+AR2_EXT+SSFIX=IGEO1
                                                 ; ALL RED UNIT 1 ACTIVE
AR1'+AR2'+SSFIX=IGEC1
                                                 ; ALL RED UNIT 1 CLEARD
AR1+AR1_EXT+SSFIX=IGEO2
                                                 ; ALL RED UNIT 2 ACTIVE
AR1'+SSFIX=IGEC2
                                                 ; ALL RED UNIT 2 CLEARED
; DOOR SWITCH OMU SERIAL LINK
NOT(DOORSW)=ESPTX0
                                                 ; DOOR OPEN SEND SIGNAL TO OMU VIA SERIAL LINK
; DOOR CLOSED DISABLES MANUAL PANEL
DOORSW:=MNCONT
                                                  ; DOOR CLOSED DISABLES MANUAL MODE CONTROL
      *=MSCONT
```

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

### **Special Conditioning**

EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

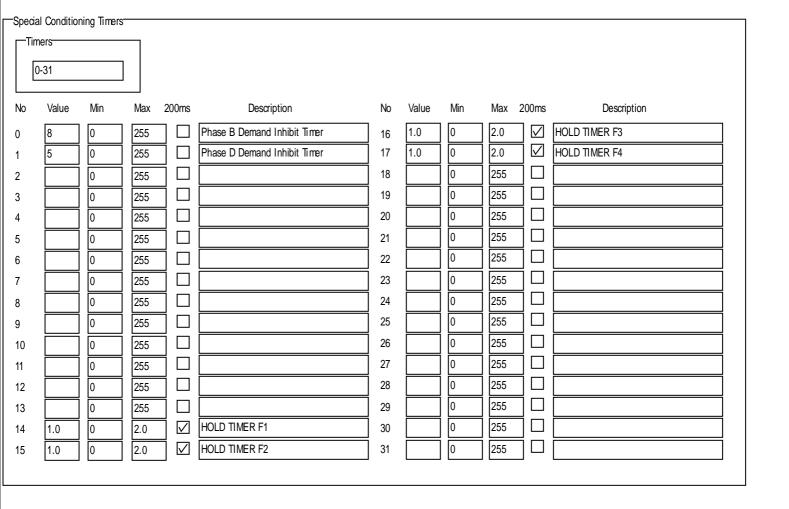
### **Special Conditioning**

```
; RTC SYNC CONFIRM SIGNAL ( FOR KENT COUNTY COUNCIL IN ACCORDANCE WITH TR2523 4.5.16 )
; CONFIRM SIGNALS AFTER SYNC TIME AS FOLLOWS -
; SUNDAY---- FOR 3 SECONDS
; MONDAY---- FOR 5 SECONDS
; TUESDAY---- FOR 7 SECONDS
; WEDNESDAY-- FOR 9 SECONDS
; THURSDAY--- FOR 11 SECONDS
; FRIDAY---- FOR 13 SECONDS
; SATURDAY--- FOR 15 SECONDS
IFT 1SCRT254.NOT CC THN
       TRUE=1SCRT255
END
1SCRT254.NOT(1SCRT255)=CCC
NOT(MODE0 EQL<8>)=+1SCRT254
NOT((RTCDYS EQL<1>).(RTCSEC GRT<2>))=.1SCRT255 ; RESET FLAG - SUNDAY NOT((RTCDYS EQL<2>).(RTCSEC GRT<4>))=.1SCRT255 ; RESET FLAG - MONDAY NOT((RTCDYS EQL<3>).(RTCSEC GRT<6>))=.1SCRT255 ; RESET FLAG - TUESDAY NOT((RTCDYS EQL<4>).(RTCSEC GRT<8>))=.1SCRT255 ; RESET FLAG - WEDNESDAY NOT((RTCDYS EQL<5>).(RTCSEC GRT<10>))=.1SCRT255 ; RESET FLAG - THURSDAY NOT((RTCDYS EQL<5>).(RTCSEC GRT<10>))=.1SCRT255 ; RESET FLAG - THURSDAY NOT((RTCDYS EQL<5>).(RTCSEC GRT<12>))=.1SCRT255 ; RESET FLAG - FRIDAY
NOT((RTCDYS EQL<0>).(RTCSEC GRT<14>))=.1SCRT255 ; RESET FLAG - SATURDAY
```

EM Number : 62310 Engineer : Kevin L Rob

Engineer: Kevin L Roberts
Intersection: A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

### **Special Conditioning Timers**



EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# **Special Instructions**

62310							
Board	Position	Skt	Port	Type I or O	Line	Cable	Block
CPU	A	X3I	0	I	00 - 07	101	1TBG
CPU	A	X3I	1	I	08 - 15		1TBH
CPU	A	X30	11	0	88 - 91	105	1TBX
IO1	В	В	2	I	16 - 23	103	1TBJ
IO1	В	E	4	0	32 - 39		1TBK
IO1	В	C	3	I	24 - 31	103	1TBL
IO1	В	D	5	0	40 - 47		1TBM
SDE	F	В	6	I	48 - 55	104	1TBN
SDE	F	В	7	I	56 - 63		1TBP
SDE	F	C	8	I	64 - 71	104	1TBR
SDE	F	C	9	I	72 - 79		1TBS

The socket X3 on the CPU pcb is the double stacked one X3I = Inner (nearest the board)
X3O = Outer

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# **Special Instructions**

ST800 CONTROLLER ITEMS LIST SHEET 1 (\*I\*L\*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
1 2 3 4 5 6 7 8 9 10 11	667/1/27000/003 667/1/27000/002 667/1/27001/001 667/1/27001/002	Cabinet 8 Phase wired 8 Phase   Cabinet 24 Phase wired 32 Phase   Rack 8 Phase wired 16 Phase   Rack 24 Phase wired 32 Phase	1		
13 14 15 16 17 18 19 20 21					
23 24 25 26 27 28 29 30 31 32 33 34 35 36	667/1/27072/001   667/1/27002/000   667/1/27003/000   667/1/27005/000   667/1/27004/000	Cableform 8 Phase (long)   Lamp Switch Kit 8 Phase   I/O Kit     SDE Facility Kit   Integral OTU Kit			
37 38 39 40	  667/1/16260/000   		1	       	

Note 1: Please refer to special instruction pages for additional information on items marked with an '\*'.

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# **Special Instructions**

ST800 CONTROLLER ITEMS LIST SHEET 2 (\*I\*L\*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS	
41	<u> </u>					
42		Manual Panel Assy (Intersection Cont)			ļ	
43		Manual Panel Assy (Sigs on/off)				
44	06//1/2/056/000	Manual Panel Blanking Kit				
1 46						  Note 2:
1 47	 	 		l	] 	Ancillary Processor PLD
48						Variants
49	İ		i	i	İ	101 OTU & LMU
50	İ	į	i	i	İ	102 OTU Only
51			İ	İ	İ	103 LMU Only
52	667/7/25171/000	Current Transformer				104 OTU & LMU + Up/Download
53						105 OUT Only + Up/DownLoad
54					ļ.	NB Controller Has built in LMU
55	1 1 1	Lamp Switch Kit 8 Phase CLS			ļ	So LMU on Ancillary Processor
56	667/1/27002/102	Lamp Switch Kit 8 Phase Export CLS				Not required included for info
5 5 7	   667/1/27000/000	CLS Mod Kit (firmware only)				only.
59	1 00 7/1/2/000/000	CLS MOD KIC (IIIIWAFE OHIY)				
60	 		-	l	] 	  Note 3:
61	  667/1/27000/101	Cabinet Export 8 Phase wired 16 Phase	1	1	i	Fit Current Transformer
62		Cabinet Export 24 Phase wired 32 Phase				starting from position
63	667/1/27001/101	Rack Export 8 Phase wired 16 Phase	i	i	İ	TLB/z/16 on the first phase
64	667/1/27001/102	Rack Export 24 Phase wired 32 Phase	İ	İ	İ	driver PCB. if more than 3
65	667/1/27002/100	Export Lamp Switch Kit	İ	İ		sensors are called up fit the
66	667/1/27084/001	Dimming Assembly (1.5KVA)(Fit Std UK)				4th sensor to the second
67	667/1/27084/002	Dimming Assembly (2.0KVA)			[	Phases driver PCB, and so on
68	667/1/27084/003	Dimming Assembly (3.0KVA)			ļ	until all sensors have been
69	667/1/27130/000	30A Controller Kit				used up.  TLB/b/14 - 1st sensor terminal
70	   667/1/27001/210	ST800 SE Export Rack up to 8 Phase				TLB/z/16 - 2nd sensor terminal
72		ST800 SE 8 Phase Driver No LMU			<u> </u>	TLB/z/14 - 3rd sensor terminal
73	667/1/27223/403	ST800 SE 4 Phase Driver No LMU			i	TLB/z/12 - 4th sensor terminal
74			1	i	i	2nd Phases driver PCB
75	İ		i	i	İ	TLB/b/14 - 5th sensor terminal
76			İ	İ		TLB/z/16 - 6th sensor terminal
77	667/1/27000/301	ST800 P In a Cabinet 4Ph 1 Stream PED	İ	İ	İ	İ
78	667/1/27012/000	PED 2nd Stream Kit for ST800 P	İ	İ	ĺ	
79	667/1/27001/300	ST800 P Rack Only 4Ph 1 Stream PED				

EM Number : 62310

Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

# **Special Instructions**

EM Number : 62310

Engineer : Kevin L Roberts

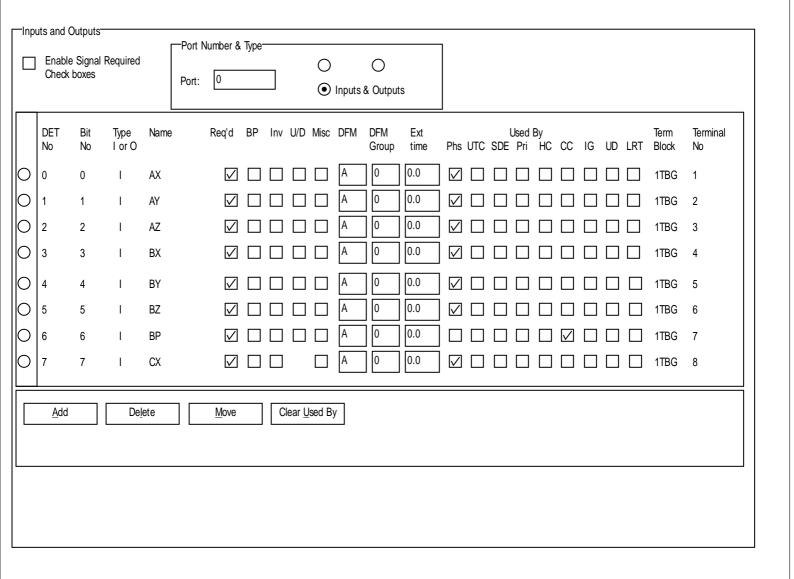
Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

## Call Cancel

Call Can	cel				
	Unit No.	Input Name	Call Delay	Cancel Delay	Phase Demanded (Unlatched Demand)
	0	BP	3	0	
,	1	DP	3	0	
2	2		0	0	
	3		0	0	
4	4		0	0	
į	5		0	0	
(	6		0	0	
7	7		0	0	

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EM Number : 62310 Engineer : Kevin L Roberts

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-	uts and O		D	Port 1	lumber &	Туре					7					
	Check b	Signal	Required	Port:	1		• •	Inputs	& Output	s						
	DET No	Bit No	Type I or O	Name	Req'd	BP Inv	U/D Misc	DFM	DFM Group	Ext time	Phs UTC	Used SDE Pri	IG	UD LRT	Term Block	Terminal No
0	8	0	I	CY	$\checkmark$			Α	0	0.0					1TBH	1
0	9	1	I	CZ	$\checkmark$			Α	0	0.0					1TBH	2
0	10	2	I	DMVD10	$\checkmark$			Α	0	0.0					1TBH	3
0	11	3	1	DP	$\checkmark$			Α	0	0.0					1TBH	4
0	12	4	1	AR1	$\checkmark$			Α	0	0.0					1TBH	5
0	13	5	1	AR2	$\checkmark$			Α	0	0.0					1TBH	6
0	14	6	1												1TBH	7
0	15	7	1												1TBH	8
	<u>A</u> dd		Del	ete	<u>M</u> ove	(	ilear <u>U</u> sed B	у								

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

mp	uts and O			Port N	lumber &	Туре					1						
	Enable Check b	Signal coxes	Required	Port:	2		<ul><li>•</li></ul>	Inputs	Output	s							
	DET No	Bit No	Type I or O	Name	Req'd	BP Inv	U/D Misc	DFM	DFM Group	Ext time	Phs UTC	Used SDE Pri	By HC C	C IG	UD LRT	Term Block	Terminal No
0	16	0	1	N40271A1	abla			Α	0	0.0						1TBJ	1
0	17	1	1	N40271B1	$\checkmark$			Α	0	0.0						1TBJ	2
0	18	2	I	N40271C1	$\checkmark$			Α	0	0.0						1TBJ	3
0	19	3	I													1TBJ	4
0	20	4	I													1TBJ	5
0	21	5	I													1TBJ	6
0	22	6	I													1TBJ	7
0	23	7	I													1TBJ	8
	<u>A</u> dd		Deļ	ete	<u>M</u> ove	C	ilear <u>U</u> sed B	у									

EM Number : 62310 Engineer : Kevin L Roberts

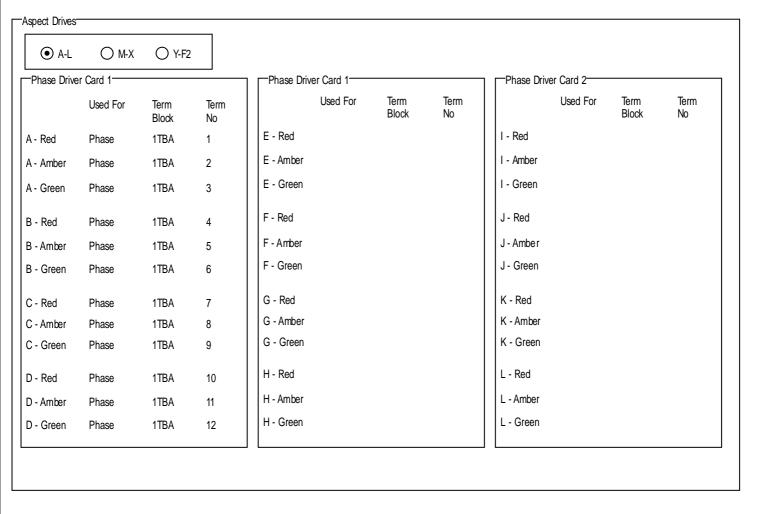
Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

	uts and C			Γ	Port N	lumber &	Туре						1							
	Enable Check	boxes	Required		Port:	6		]	<ul><li>○</li><li>●</li></ul>	Inputs	Output	S								
	DET No	Bit No	Type I or O	Name		Req'd	BP II	nv U/D	Misc	DFM	DFM Group	Ext time	Phs UTC	Used SDE Pri	I By HC	CC	IG	UD LRT	Term Block	Terminal No
0	48	0	1	SDCa		$\checkmark$				Α	0	0.0							1TBN	1
0	49	1	I	SDCb		$\checkmark$				Α	0	0.0							1TBN	2
0	50	2	1																1TBN	3
0	51	3	1																1TBN	4
0	52	4	1																1TBN	5
0	53	5	1																1TBN	6
0	54	6	1																1TBN	7
0	55	7	I																1TBN	8
	Add		Del	ete		<u>M</u> ove		Clear <u>L</u>	Jsed By	у										

EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

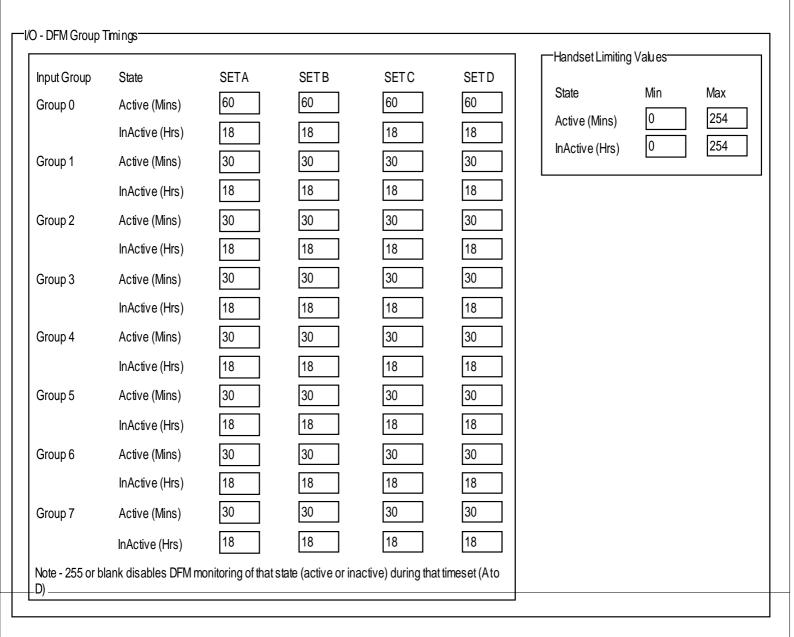
## **Aspect Drives**



EM Number : 62310 Engineer : Kevin L Roberts

Intersection : A2 High Street / Otterham Quay Lane, Rainham - Site 04/0801

### I/O - DFM Group Timings



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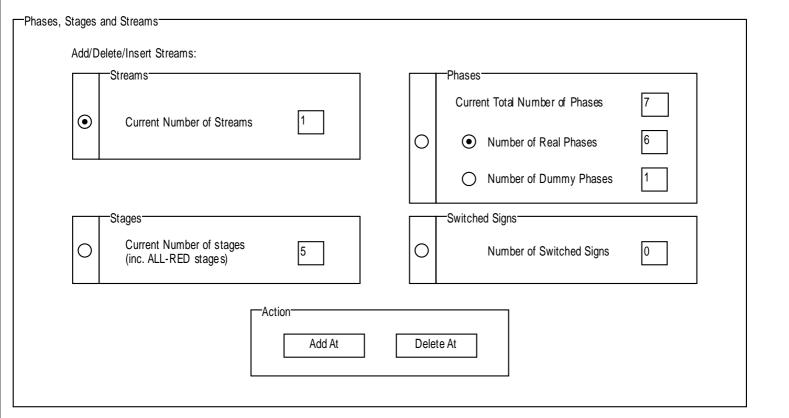
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

#### Administration

General Specifications			
Customer Name	Medway Council	Customer Order No.	851127285
Intersection/ General Description	A2 High Street / Meirscourt Road, Rainham Site 04/ 0825	Controller/ Serial Number	
	010 0 17 0020	S.T.S. /EM Number	60526 Issue 6
Controller	New	Equipment Installation by	S.T.C
Area Specifications/ Customer Drawings		Slot Cutting by	S.T.C
Specification Section		Civil Works by	Civils Contractor
Contract/Tender Ref:		Customer's Engineer	
Quotation No.		Telephone Number	
Works Order No.	460165878	·	
Signal Company Use Only Signal Engineer Kevin  Controller Options		Label as >) PROM Number Configuration Check Valu	16260 PROM Variant 271  De 2F 4F A4 88
Hardware T800	Firmware Type and Issue PB8	00 ISS 19	Other Options KTD LO
ST950/ST900/ST750 Ser	ies Cabinet Options		
Cabinet/Rack	Kit Type Op	otions O	
Cabinet/Rack Variant	Cuckoo	Options	
Mains Supply-	240 -Volts 50 -Hz		
Peak Lamp Current	7 Amps Dimming Voltage 160	Answer Issue	0 Date 25/04/01 Created
Average Lamp Power  Total Average Power	1000 Watts Low Inrush Transformer	Edit Issue	24
Power feed fuse rating: re-	quires 30 Amp minimum for controller, 15 Am	p minimum for pelican/lightly l	loaded controller

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/0825

## Phases, Stages and Streams



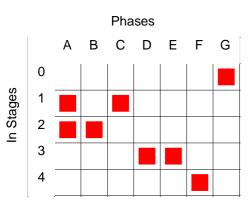
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## Facilities/Modes Enabled and Mode Priority Levels

Facilities  UTC  Serial/Internal UTMC OTU  Free-standing OTU  Integral TC12 OTU  Serial MOVA  10  Starting Intergreen	✓ Master Time Clock ☐ Holiday Clock ☑ FT To Current MAX ☐ Linked Fixed Time	✓ Lamp Monitoring     ✓ RED Lamp Monitoring       Pelican/Puffin/Toucan       Standalone Manual	☑ Extend All Red     ☐ Non-UK     ☐ Speed Measurement     ☐ Ripple Change     ☐ Fail To Hardware Flashing     ☐ London IMU     ☐ Download To Level 3
Mode Priority  Part Time Emergency Vehicles Hurry Call Priority Vehide Manual Control Manual Step On Selected FT or VA or CLF UTC CLF (Non-Base Time) CLF (Base Time) Vehicle Actuated Fixed Time		8 9 10 11 12 13 0	Configuration Complexity  Low Medium High Maximum  standard.8DF  Default PROM data file  Correspondence Monitoring to inc.  Reds Ambers Switched Signs Ignore Reds and Ambers during  Flash Rate (ms)  400 Off 400 On

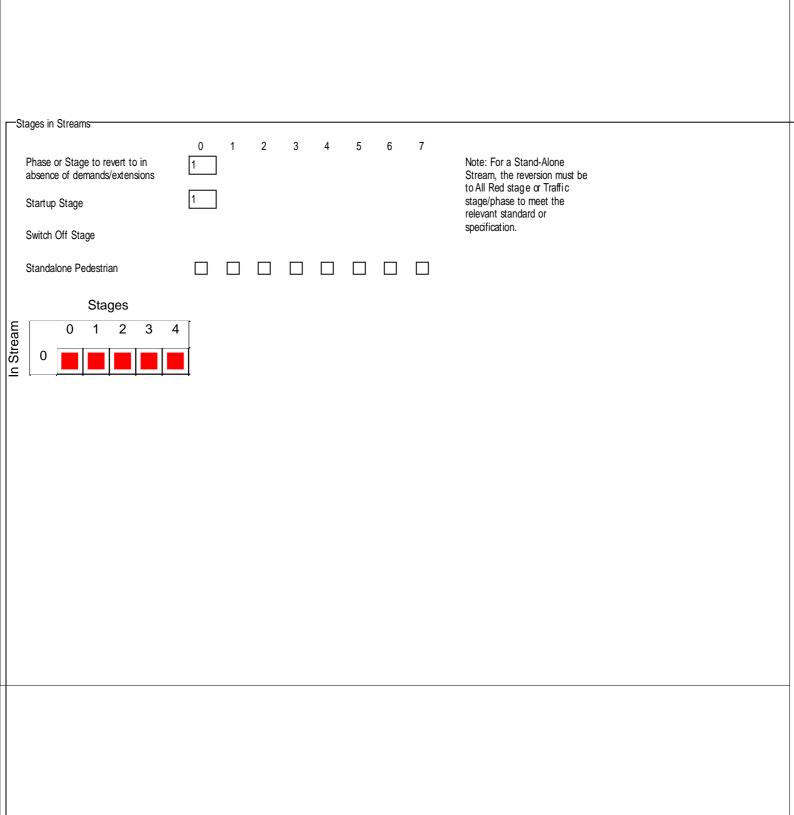
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

# Phases in Stages



Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/0825

## Stages in Streams



Last Modified 01/10/2019, Issue 6.0.24

Phase Type and Conditions

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

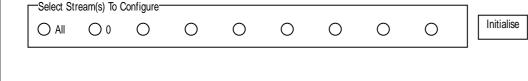
## Phase Type and Conditions

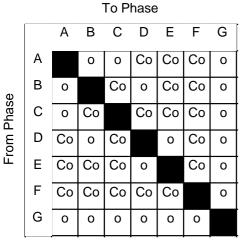
i ilasc	rype and conditions  Phases A to P	0	
Phase	Title	Туре	App. Term. Assoc. Type Type Phase
Α	A2 High Street (W)	0 - UK Traffic	0 0 - E
В	A2 High Street (W) Right Turn IGA	2 - UK GreenArrow	0 2 - P A
С	A2 High Street (E)	0 - UK Traffic	0 - E
D	Pedestrians across A2 High Street (E)	1 - UK Far Side Pedestrian	0 0 - E
Е	Pedestrians across Mierscourt Road	1 - UK Far Side Pedestrian	0 0 - E
F	Mierscourt Road	0 - UK Traffic	0 0 - E
G	Dummy All Red Stage 0	2 - UK GreenArrow	0 0 - E

<sup>1)</sup> App Types: 0 = Always Appears, 1 = Appears if dem'd prior to interstage, 2 = If dem'd, 3 = If dem'd before end of window time
2) Term Types: 0 = Term's at end of stage, 1 = Term's when Assoc phase gains R.O.W, 2 = Term's when Assoc phase loses R.O.W.
3) The HW Fail Flash fields are for information only on all but ST900ELV Controllers. For other controllers, physical switches or links (etc.) select which aspects flash and these need to be set up manually.

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/0825

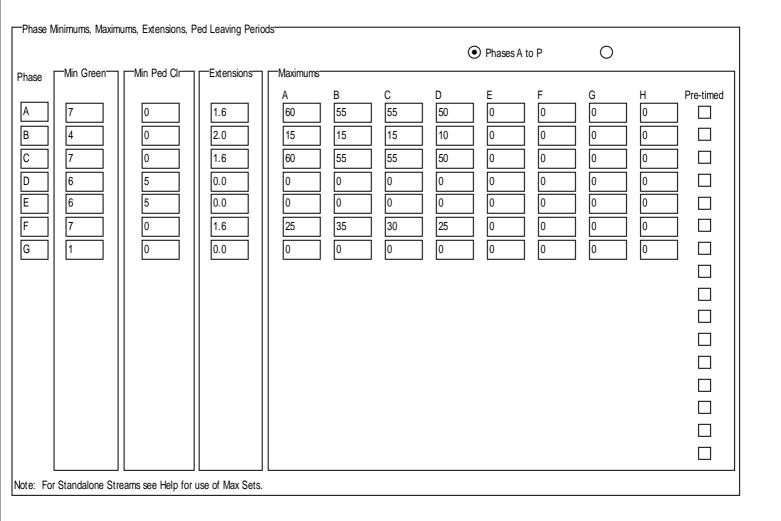
## Opposing and Conflicting Phases





Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## Phase Minimums, Maximums, Extensions, Ped Leaving Periods



Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## Phase Intergreen Times

Select Str	ream(s) To (	Configure—							
O All	O 0	0	0	0	0	0	0	0	

Note: On a Stand Alone Pelican/Toucan/ Puffin Stream the Intergreens between Pedestrian and Traffic Phases are controlled by the timings (PBT, PIT, CMX, CDY, CRD and PAR), therefore 0 should be entered for the appropriate intergreen times in grid below.

#### To Phase

	Α	В	С	D	Е	F	G
Α				9	8	6	3
В			5		8	6	3
С		5		5	8	5	3
D	10		10			10	5
E	10	10	10			10	5
F	7	7	7	9	5		3
G	2	2	2	2	2	2	

From Phase

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## Intergreen Handset Limits

HIGH 30 Copy Intergreen Values

To Phase В F Α Ε G Α 9 8 6 3 В 5 8 6 3 С 5 5 3 5 D 10 5 10 10 Е 10 10 10 10 5 F 7 7 7 9 5 3

2

2

2

2

From Phase

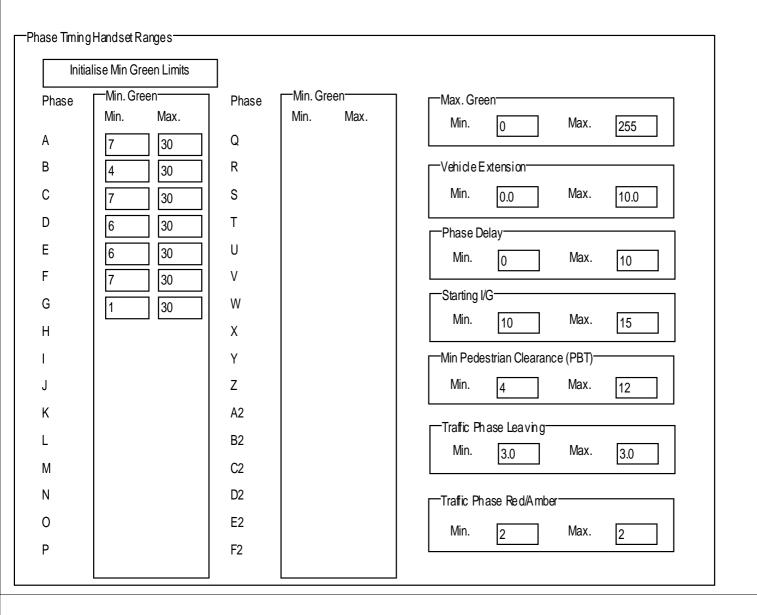
G

2

2

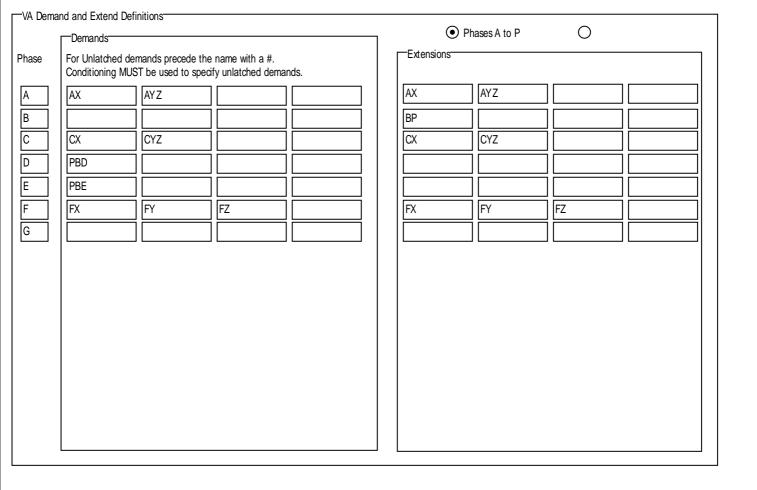
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/0825

## Phase Timing Handset Ranges



Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

#### VA Demand and Extend Definitions



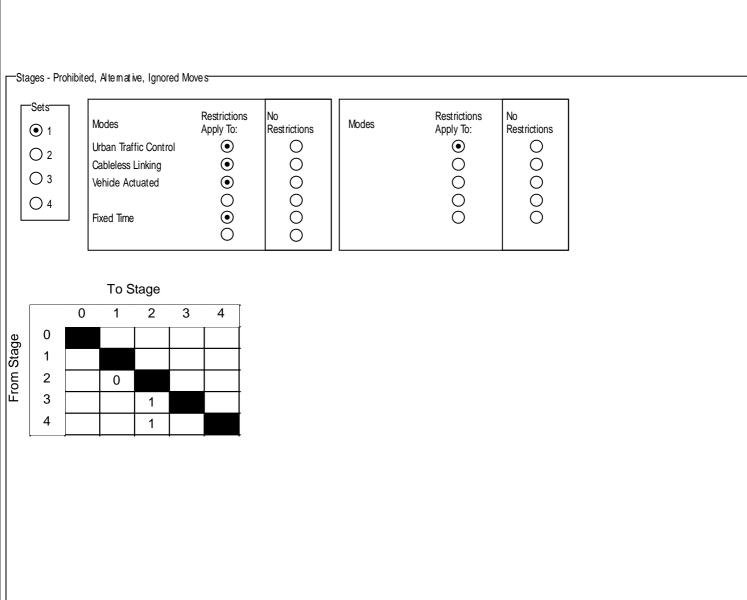
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

#### Phase Internal/Revertive Demands

Phase Inte	ernal/Revert	tive Deman	ıds												
Start-up	Vehicle Re	esponsive [	Demands—												
A 🗸	Demands Inserted When Leaving Manual and Fixed Time Modes  A ☑ B ☑ C ☑ D ☑ E ☑ F ☑ G ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐														
Demand	ds Inserted	When Leav	ving Manua	l and Fixed	Time Mod	es									
A 🗸															
Unlatche	ed Demand	s that Star	t Max Time	rs											
A 🔽	в☑	c 🗸	D 🗸	E 🗸	F 🗸	G $\square$									
Revertiv	e Phase De	emands													
Α	В	С	D	E	F	G	Н	1	J	K	L	М	N	0	Р
А	А	С			F										
Q	R	S	Т	U	V	W	Χ	Υ	Z	A2	B2	C2	D2	E2	F2

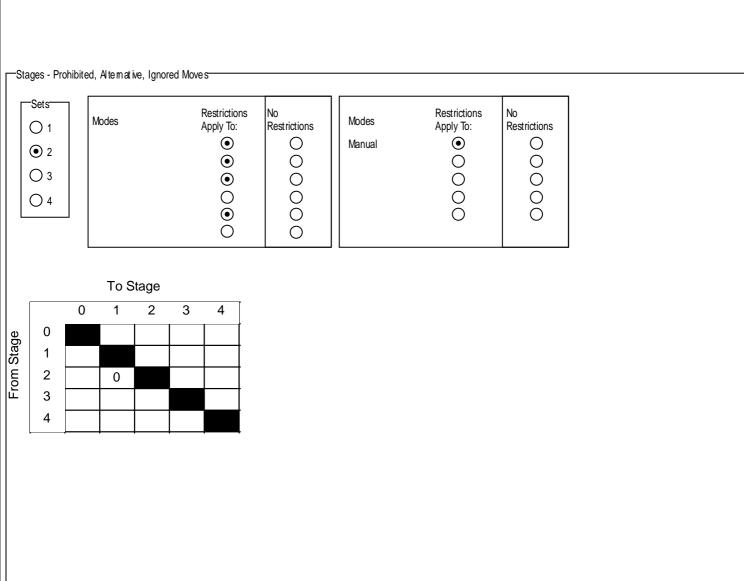
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## Stages - Prohibited, Alternative, Ignored Moves



Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## Stages - Prohibited, Alternative, Ignored Moves



Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## **Fixed Time**

Fixed Time	/N-+ T	d Tier :	4 n O mars = 1	Mand													
-Stage Moves & Tim																	
Current Stage	0	1	2	3		4	5	6	7								
Next Stage																	
Time																	
Current Stage	8	9	10	11	1	12	13	14	15								
Next Stage																	
Time																	
Current Stage	16	17	18	19	9	20	21	22	23								
Next Stage	-	·				-											
Time																	
					_												
Current Stage Next Stage	24	25	26	27	1	28	29	30	31								
Time																	
Phases Demanded	and Exter	nded unde	er Fixed Tir	me to Cur	rrent Ma	x											$\neg$
	Α	В	C	D	E	F	G	H	1	J	K	L	M	N	0	P	
Demand	$\checkmark$	$\checkmark$	$\checkmark$			$\checkmark$											
Extend	$\checkmark$	$\checkmark$	$\checkmark$			$\checkmark$											
	Q	R	S	Ţ	U	٧	W	X	Y	Z	A2	B2	C2	D2	E2	F2	
Demand	Ш																
Extend																	

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

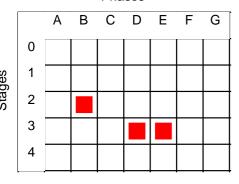
# **CLF - Demand Dependent Moves**

Clear Grid Data

Notes:

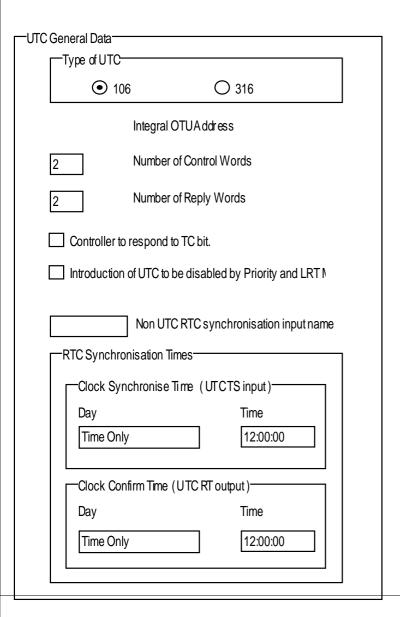
If no data is entered for a stage then a demand for any phases in that stage will be considered. The data specified on this screen will also change the screen CLF - Demands to Consider with Demand Dependent Stage Moves.





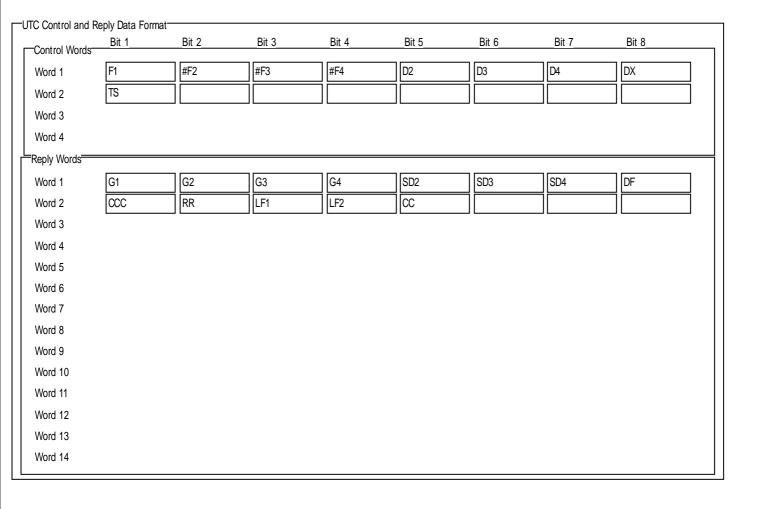
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

#### **UTC General Data**



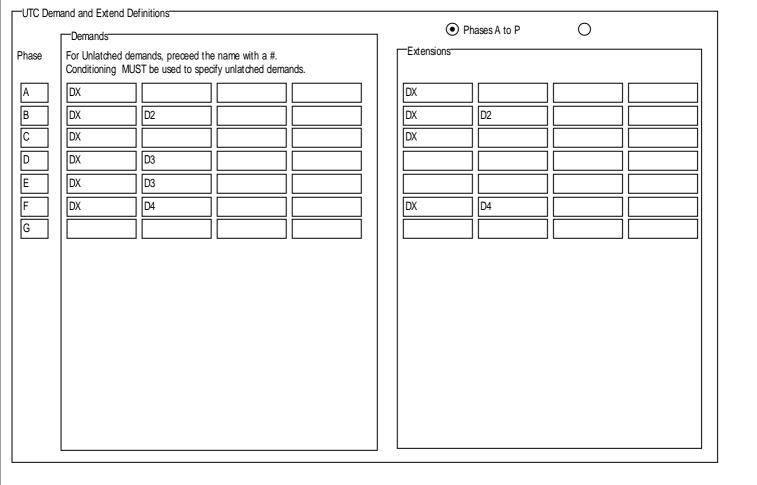
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## UTC Control and Reply Data Format



Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

#### **UTC Phase Demand and Extend Definitions**



Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## UTC Stage and Mode Data Definitions

O TO Olay	e and wode Dat	a Definitions						
		Green	Demand			Green	Demand	Mode Data Definitions
Stage	Force Bit	Confirm Bit	Confirm Bit	Stage	Force Bit	Confirm Bit	Confirm Bit	Manual Mode Operative:
0				16				☐ G1/G2 ☑ RR ☐
1	F1	G1		17				Manual Mode Selected:
2	#F2	G2	SD2	18				G1/G2 RR
3	#F3	G3	SD3	19				No Lamp Power, or Lamps Off due to RLM
4	#F4	G4	SD4	20				or Part Time:
5				21				☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
6				22				Detector Fault:
7				23				□ □ Ø DF
8				24				Normal NOT selected on the
9				25				Manual Panel: ☐ G1/G2 ☑ RR ☐
10				26				
11				27				RR Button Selected:
12				28				☐ G1/G2
13				29				If UTC Reply Confirms are required for a
14				30				Controller Fault (CF) OR for separate MC and RR replies, Conditioning must be used.
15				31				and the replies, Conditioning must be used.

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

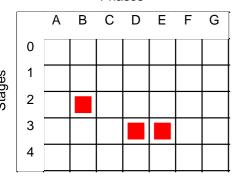
## **UTC Demand Dependent Forces**

Clear Grid Data

Notes:

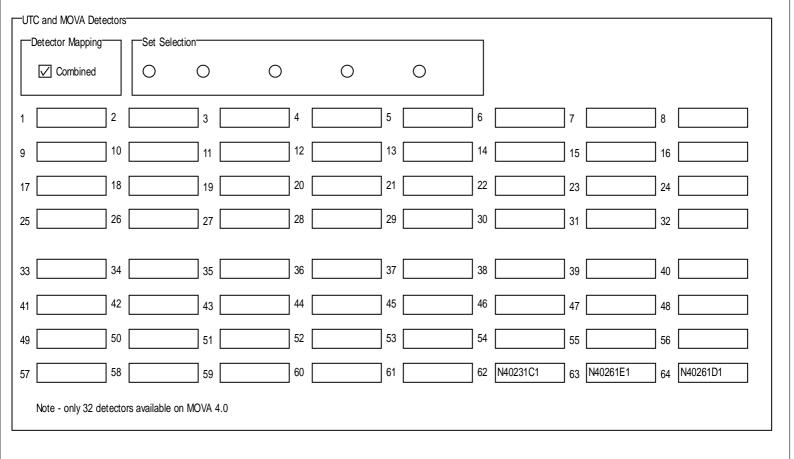
If no data is entered for a stage then a demand for any phases in that stage will be considered. The data specified on this screen will also change the screen CLF - Demands to Consider with Demand Dependent Stage Moves.





Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/0825

#### **UTC** and MOVA Detectors



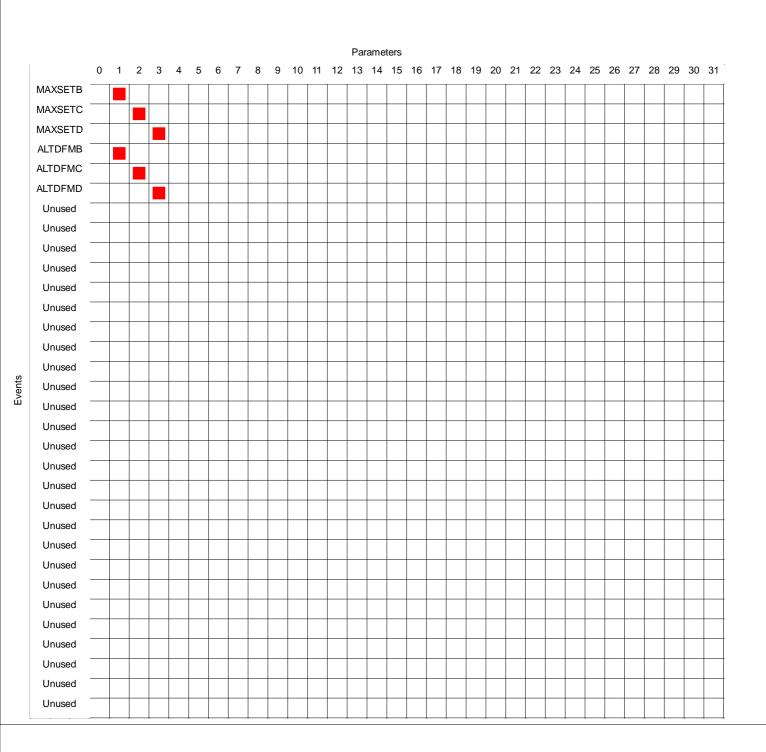
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

#### MTC - Time Switch Parameters

	Туре	Event		Туре	Event
)	Alternate Max	MAXSETB	16	No Action	
1	Alternate Max	MAXSETC	17	No Action	
2	Alternate Max	MAXSETD	18	No Action	
3	Alternate DFM	ALTDFMB	19	No Action	
4	Alternate DFM	ALTDFMC	20	No Action	
5	Alternate DFM	ALTDFMD	21	No Action	
6	No Action		22	No Action	
7	No Action		23	No Action	
3	No Action		24	No Action	
9	No Action		25	No Action	
10	No Action		26	No Action	
11	No Action		27	No Action	
12	No Action		28	No Action	
13	No Action		29	No Action	
14	No Action		30	No Action	
15	No Action		31	No Action	

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## MTC - Time Switch Parameters Array



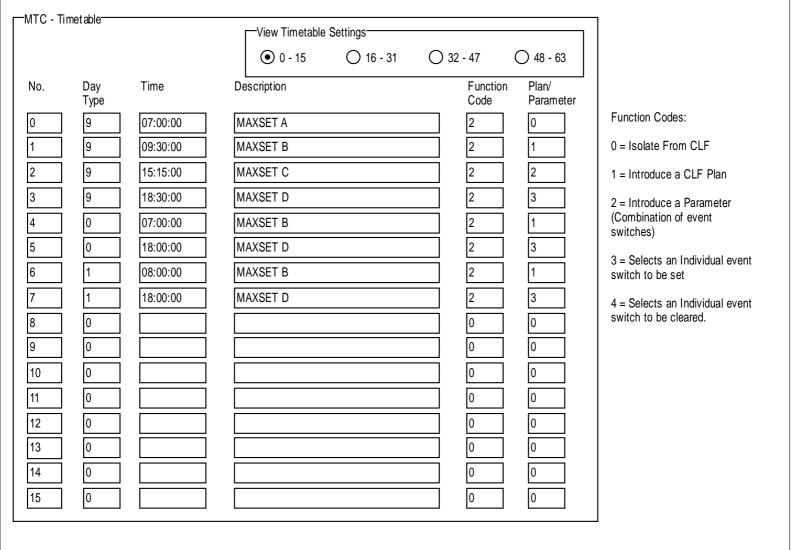
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

# MTC - Day Type

WITC - Day Type									
No.	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
0									
1							$\square$		
2									
3		$\checkmark$							
4			abla						
5				$\checkmark$					
6									
7		$   \overline{\checkmark} $	$\checkmark$	$\checkmark$					
8	$\checkmark$	$   \overline{\checkmark} $	$\checkmark$	$\checkmark$					
9	$\square$	$\checkmark$	$\square$	$\checkmark$	$\square$				
10									
11									
12									
13									
14									
15									

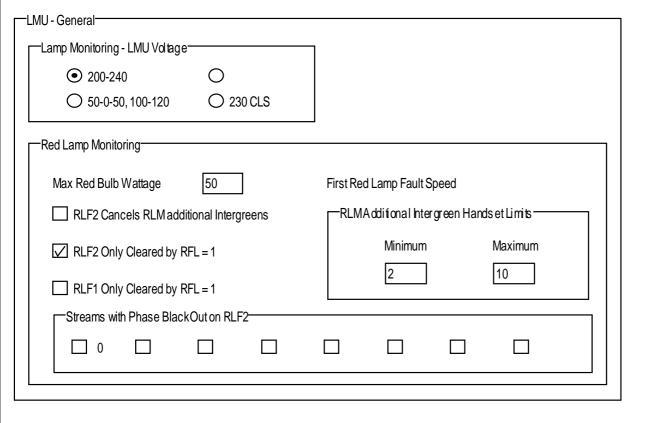
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

#### MTC - Timetable



Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/0825

### LMU - General



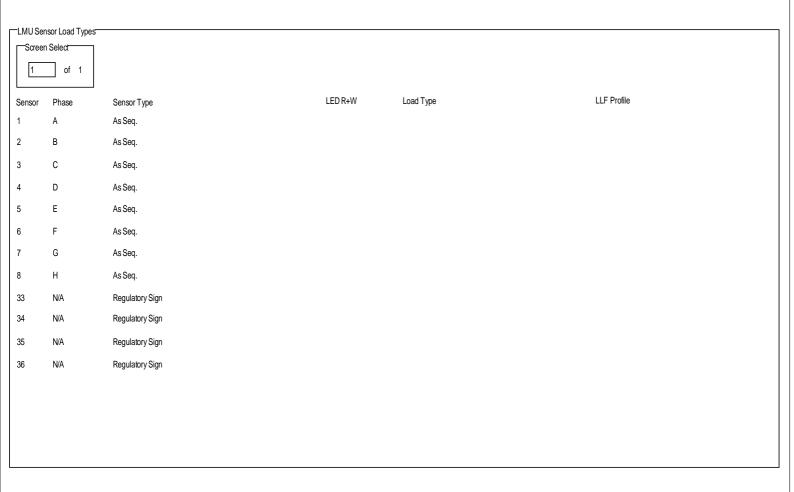
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

### LMU - Sensors

Sensor\ Phase	Sensor Type	Bulb Watts	Sensor\ Phase	Sensor Type	Bulb Watts	Sensor\ Pin	Drive	Sensor Type	Bulb Watts
1 \ A	As Seq.	50	17 \ Q			33 \ b14		Regulatory Sign	7
2 \ B	As Seq.	40	18 \ R			34 \ z16		Regulatory Sign	7
3 \ C	As Seq.	50	19\S			35 \ z14		Regulatory Sign	7
4 \ D	As Seq.	40	20 \ T			36 \ z12		Regulatory Sign	7
5 \ E	As Seq.	40	21 \ U			37 \ b14			
6 \ F	As Seq.	50	22 \ V			38 \ z16			
7 \ G	As Seq.	40	23 \ W			39 \ z14			
8 \ H	As Seq.	40	24 \ X			40 \ z12			
9 \ I			25 \ Y			41 \ b14			
10 \ J			26 \ Z			42 \ z16			
11 \ K			27 \ A2			43 \ z14			
12 \ L			28 \ B2			44 \ z12			
13 \ M			29 \ C2			45 \ b14			
14 \ N			30 \ D2			46 \ z16			
15 \ O			31 \ E2			47 \ z14			
16 \ P			32 \ F2			48 \ z12			

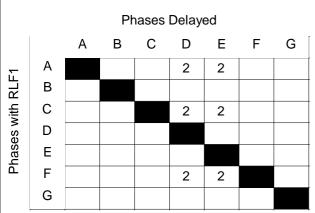
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

# LMU Sensor Load Types



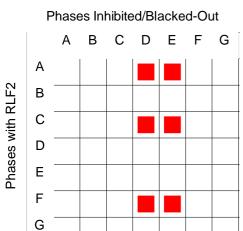
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

# **RLM Additional Intergreens**



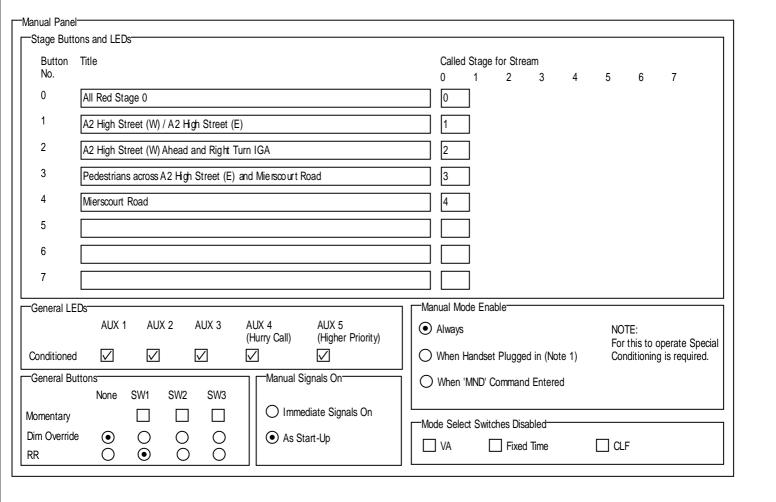
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

### **RLM Phase Inhibits**



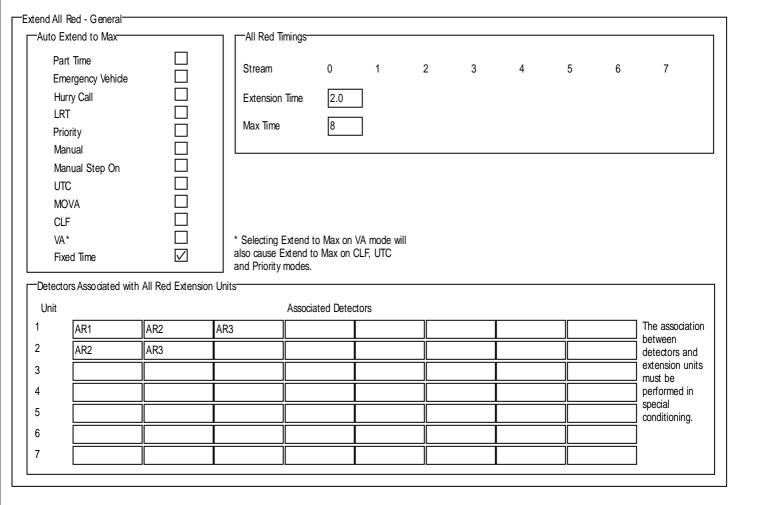
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

### Manual Panel



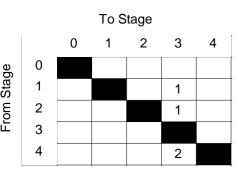
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

### Extend All Red - General



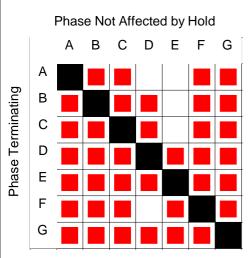
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

# Extend All Red - Stage To Stage Moves



Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

# Extend All Red - Independent Intergreens



Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

### **Special Conditioning**

```
; AUX LED'S
MAUXSW1=MIL22
                                                 ; AUX 1 LED LIT WHEN AUX1 SWITCH ACTIVE (SENDS RR TO INSTATION)
(MODEO EQL<6>)=MIL23
                                                 ; AUX 2 LED LIT WHEN UTC MODE ACTIVE
(MODE0 EQL<3>)=MIL05
                                                 ; AUX 3 LED LIT WHEN CLF MODE ACTIVE
                                                 ; AUX 4 ( HURRY CALL ) - LED NOT USED
                                                 ; AUX 5 ( HIGHER PRIORITY ) - LED NOT USED
; VA MODE EXTENSIONS
IFT MODEO EQL<2>.(STAGE2) THN
                                                 ; IN VA MODE LIFT EXTENSIONS ON PHASE A DURING STAGE 2.
   FALSE:=EXOA
         *=EXCA
END
; UTC REPLIES
LMPON.LPSPRD.SWLMPS.NOT(FLF17).NOT(STAGE1)=G1
                                                 ;LAMPS OFF AND STAGE CONFIRMS FOR UTC G1 _G2 BITS
LMPON.LPSPRD.SWLMPS.NOT(FLF17).NOT(STAGE2)=G2
NOT(LMPANY())=LF1
                                                 ; ANY LAMP FAIL REPLIES LF1
                                                 ; 2ND RED LAMP FAIL REPLIES LF2
NOT(LMP2RED0)=LF2
; SCOOT INPUTS INTO THE SERIAL INTERFACE
N40261D1=+MOVADET64
N40261E1=+MOVADET63
N40231C1=+MOVADET62
; ALL RED LOOPS
AR1+AR1_EXT+AR2+AR2_EXT+AR3+AR3_EXT+SSFIX=IGEO1 ;ALL RED UNIT 1 OCCUPIED
                                     ;ALL RED UNIT 1 CLEARED
AR1'+AR2'+AR3'+SSFIX=IGEC1
                                                ;ALL RED UNIT 2 OCCUPIED
AR2+AR2_EXT+AR3+AR3_EXT+SSFIX=IGEO2
AR2'+AR3'+SSFIX=IGEC2
                                                ;ALL RED UNIT 2 CLEARED
```

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

### **Special Conditioning**

```
; RTC SYNC CONFIRM SIGNAL ( FOR KENT COUNTY COUNCIL IN ACCORDANCE WITH TR2523 4.5.16 )
; CONFIRM SIGNALS AFTER SYNC TIME AS FOLLOWS -
; SUNDAY---- FOR 3 SECONDS
; MONDAY---- FOR 5 SECONDS
; TUESDAY---- FOR 7 SECONDS
; WEDNESDAY-- FOR 9 SECONDS
; THURSDAY--- FOR 11 SECONDS
; FRIDAY---- FOR 13 SECONDS
; SATURDAY--- FOR 15 SECONDS
IFT 1SCRT254.NOT CC THN
       TRUE=1SCRT255
END
1SCRT254.NOT(1SCRT255)=CCC
NOT(MODEO EQL<8>)=+1SCRT254
NOT((RTCDYS EQL<1>).(RTCSEC GRT<2>))=.1SCRT255 ; RESET FLAG - SUNDAY NOT((RTCDYS EQL<2>).(RTCSEC GRT<4>))=.1SCRT255 ; RESET FLAG - MONDAY NOT((RTCDYS EQL<3>).(RTCSEC GRT<6>))=.1SCRT255 ; RESET FLAG - TUESDAY NOT((RTCDYS EQL<4>).(RTCSEC GRT<8>))=.1SCRT255 ; RESET FLAG - WEDNESDAY NOT((RTCDYS EQL<5>).(RTCSEC GRT<10>))=.1SCRT255 ; RESET FLAG - THURSDAY NOT((RTCDYS EQL<5>).(RTCSEC GRT<10>))=.1SCRT255 ; RESET FLAG - THURSDAY NOT((RTCDYS EQL<6>).(RTCSEC GRT<12>))=.1SCRT255 ; RESET FLAG - FRIDAY
NOT((RTCDYS EQL<0>).(RTCSEC GRT<14>))=.1SCRT255 ; RESET FLAG - SATURDAY
```

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

# **Special Instructions**

Line 00 - 07 08 - 15 88 - 91 Board Position Port Type I or O Cable 0 CPU X3I 1TBG CPU Α X3I 1TBH 105 CPU

The socket X3 on the CPU pcb is the double stacked one X3I = Inner (nearest the board)
X3O = Outer

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

# **Special Instructions**

ST800 CONTROLLER ITEMS LIST SHEET 1 (\*I\*L\*)

1	ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
8	2   3   4   5   6	667/1/27000/002 667/1/27001/001	Cabinet 24 Phase wired 32 Phase Rack 8 Phase wired 16 Phase	   1     		
17	8     9     10     11     12     13     14					
25   667/1/27003/000   I/O Kit	17     18     19     20     21	667/1/27072/001	    -    Cableform 8 Phase (long)			
32	25   26   27   28   29   30	667/1/27002/000 667/1/27003/000 667/1/27005/000	Lamp Switch Kit 8 Phase  I/O Kit  SDE Facility Kit	         		
39   667/1/16260/271   Configuration Eprom (Issue 6. 0)   1	32   33   34   35   36   37			           		
	39	667/1/16260/271		1	   	

Note 1: Please refer to special instruction pages for additional information on items marked with an '\*'.

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

# **Special Instructions**

ST800 CONTROLLER ITEMS LIST SHEET 2 (\*I\*L\*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS	
41			ļ	·		
42 43	667/1/27056/001 667/1/27056/010	Manual Panel Assy (Intersection Cont)   Manual Panel Assy (Sigs on/off)				
44	667/1/27056/000	Manual Panel Blanking Kit	!			
45	<u> </u> 					  Note 2:
1 47	 			l	] 	Ancillary Processor PLD
48						Variants
49			İ	İ		101 OTU & LMU
50			[		ļ	102 OTU Only
51					ļ	103 LMU Only
52 53	667/7/25171/000	Current Transformer	!			104 OTU & LMU + Up/Download
54	<u> </u> 					105 OUT Only + Up/DownLoad   NB Controller Has built in LMU
55	  667/1/27002/002	Lamp Switch Kit 8 Phase CLS		i	İ	So LMU on Ancillary Processor
56	667/1/27002/102	Lamp Switch Kit 8 Phase Export CLS	i	i	İ	Not required included for info
57			İ		İ	only.
58	667/1/27000/800	CLS Mod Kit (firmware only)	[		ļ	
59					ļ	
60	 		!			Note 3:
61	667/1/27000/101  667/1/27000/102	Cabinet Export 8				Fit Current Transformer  starting from position
63	667/1/27001/101	Rack Export 8 Phase wired 16 Phase		i	İ	TLB/z/16 on the first phase
64	667/1/27001/102	Rack Export 24 Phase wired 32 Phase	i	i	İ	driver PCB. if more than 3
65	667/1/27002/100	Export Lamp Switch Kit	İ		İ	sensors are called up fit the
66	667/1/27084/001	Dimming Assembly (1.5KVA)(Fit Std UK)	[		ļ	4th sensor to the second
67	667/1/27084/002	Dimming Assembly (2.0KVA)				Phases driver PCB, and so on
68   69	667/1/27084/003  667/1/27130/000	Dimming Assembly (3.0KVA)			 	until all sensors have been  used up.
70	667/1/2/130/000	SUA CONCROTTER KIC				TLB/b/14 - 1st sensor terminal
1	667/1/27001/310	ST800 SE Export Rack up to 8 Phase	i	1	i	TLB/z/16 - 2nd sensor terminal
72	667/1/27223/003	ST800 SE 8 Phase Driver No LMU	i	i	İ	TLB/z/14 - 3rd sensor terminal
73	667/1/27223/403	ST800 SE 4 Phase Driver No LMU	İ	j	İ	TLB/z/12 - 4th sensor terminal
74			[		ļ	2nd Phases driver PCB
75						TLB/b/14 - 5th sensor terminal
76   77		  ST800 P In a Cabinet 4Ph 1 Stream PED			 	TLB/z/16 - 6th sensor terminal
//   78	667/1/27000/301	ST800 P In a Cabinet 4Ph I Stream PED   PED 2nd Stream Kit for ST800 P				
79	667/1/27012/000	ST800 P Rack Only 4Ph 1 Stream PED			] 	
'-	1 , 1, 2, 001, 000	I   I   I   I   I   I   I   I   I   I	1	1	1	

Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

# **Special Instructions**

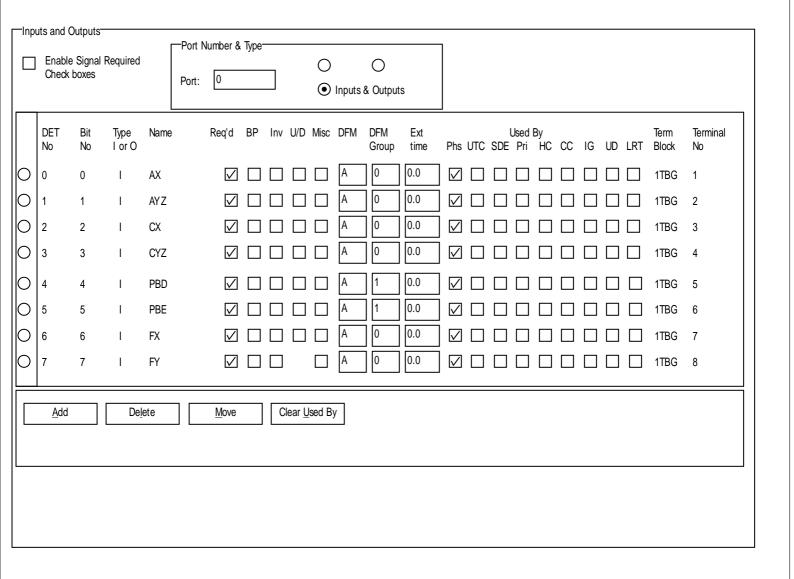
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

## Call Cancel

Call Cancel				
Unit No.	Input Name	Call Delay	Cancel Delay	Phase Demanded (Unlatched Demand)
0	ВР	3	2	В
1		0	0	
2		0	0	
3		0	0	
4		0	0	
5		0	0	
6		0	0	
7		0	0	

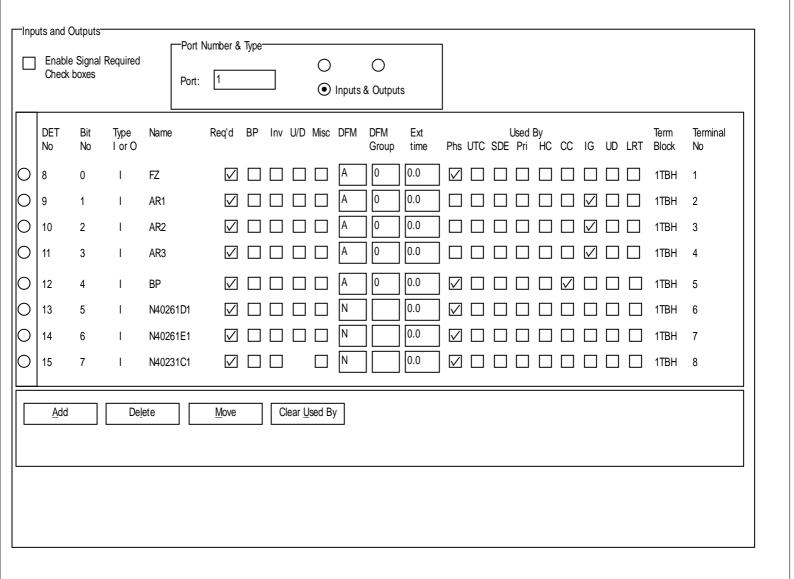
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

### Inputs and Outputs



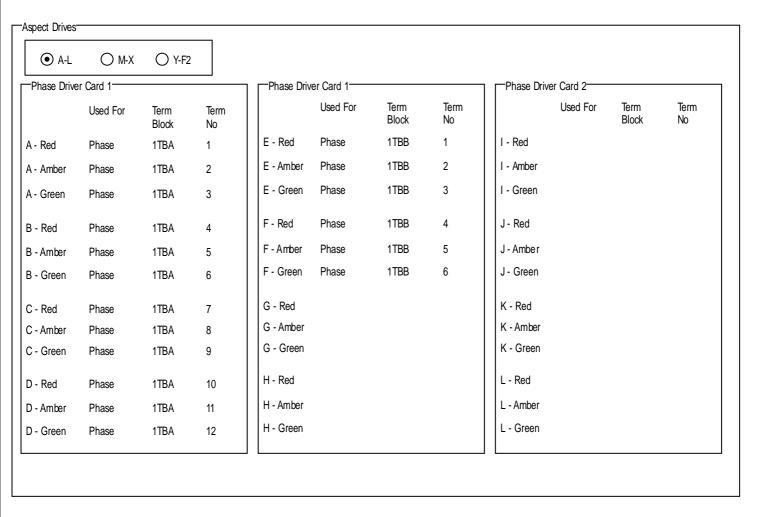
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

### Inputs and Outputs



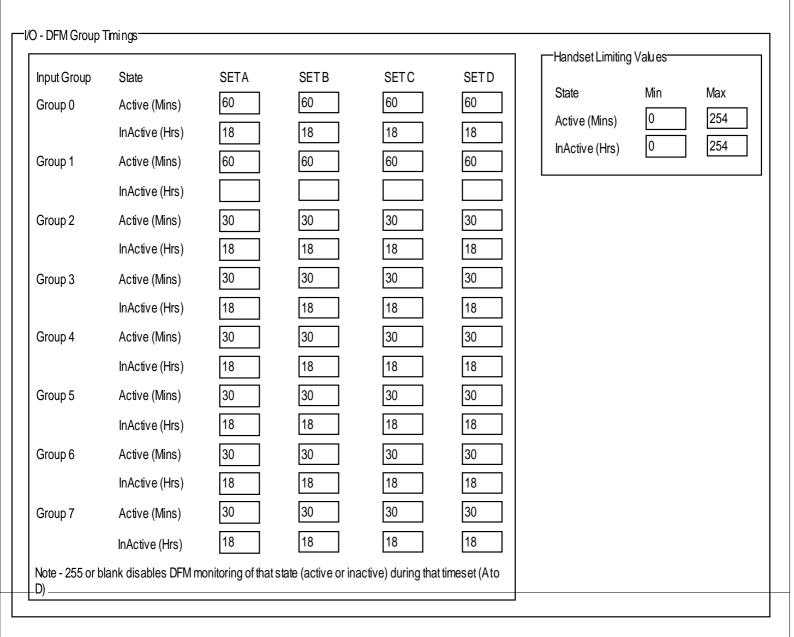
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

### **Aspect Drives**



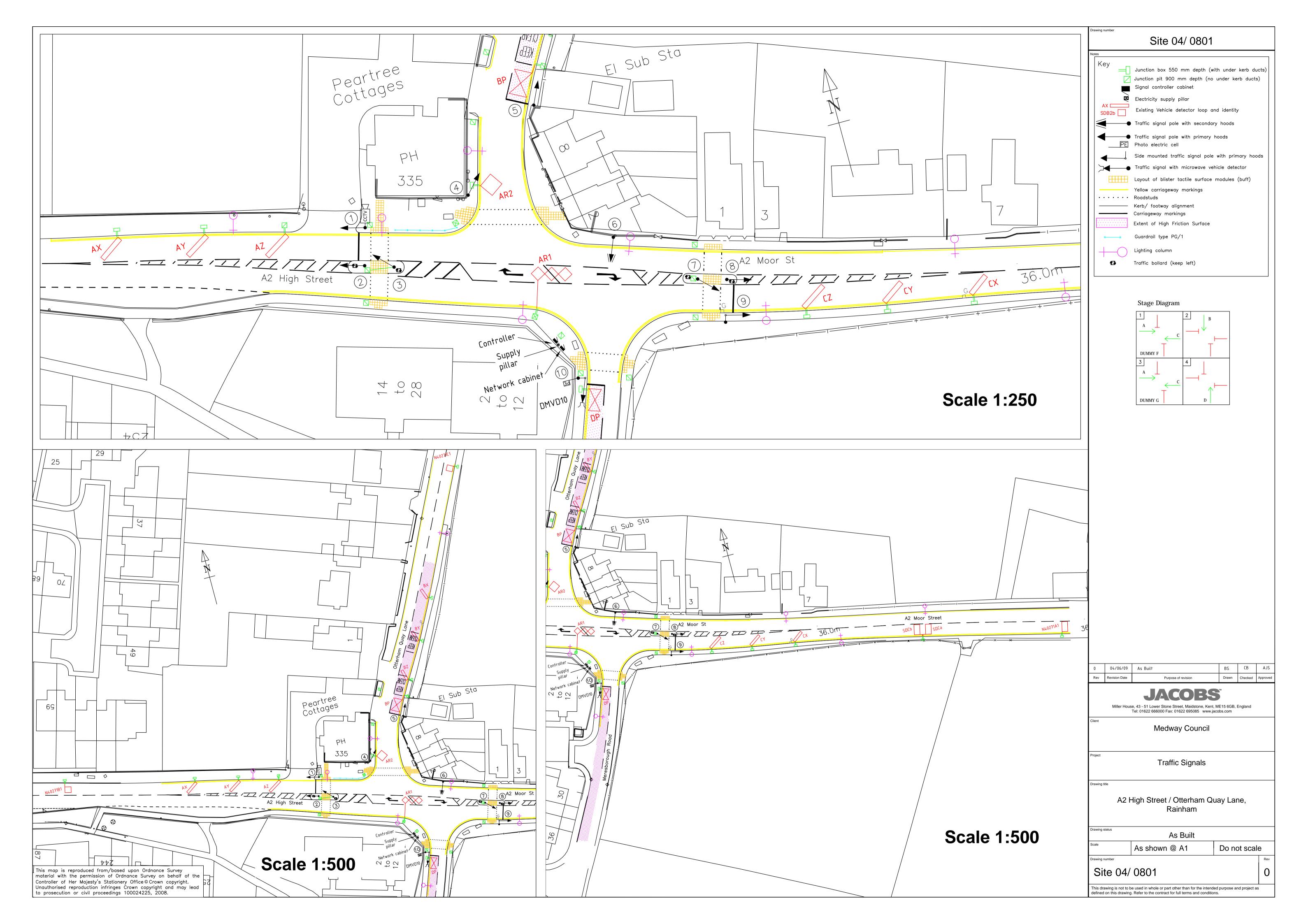
Intersection : A2 High Street / Meirscourt Road, Rainham Site 04/ 0825

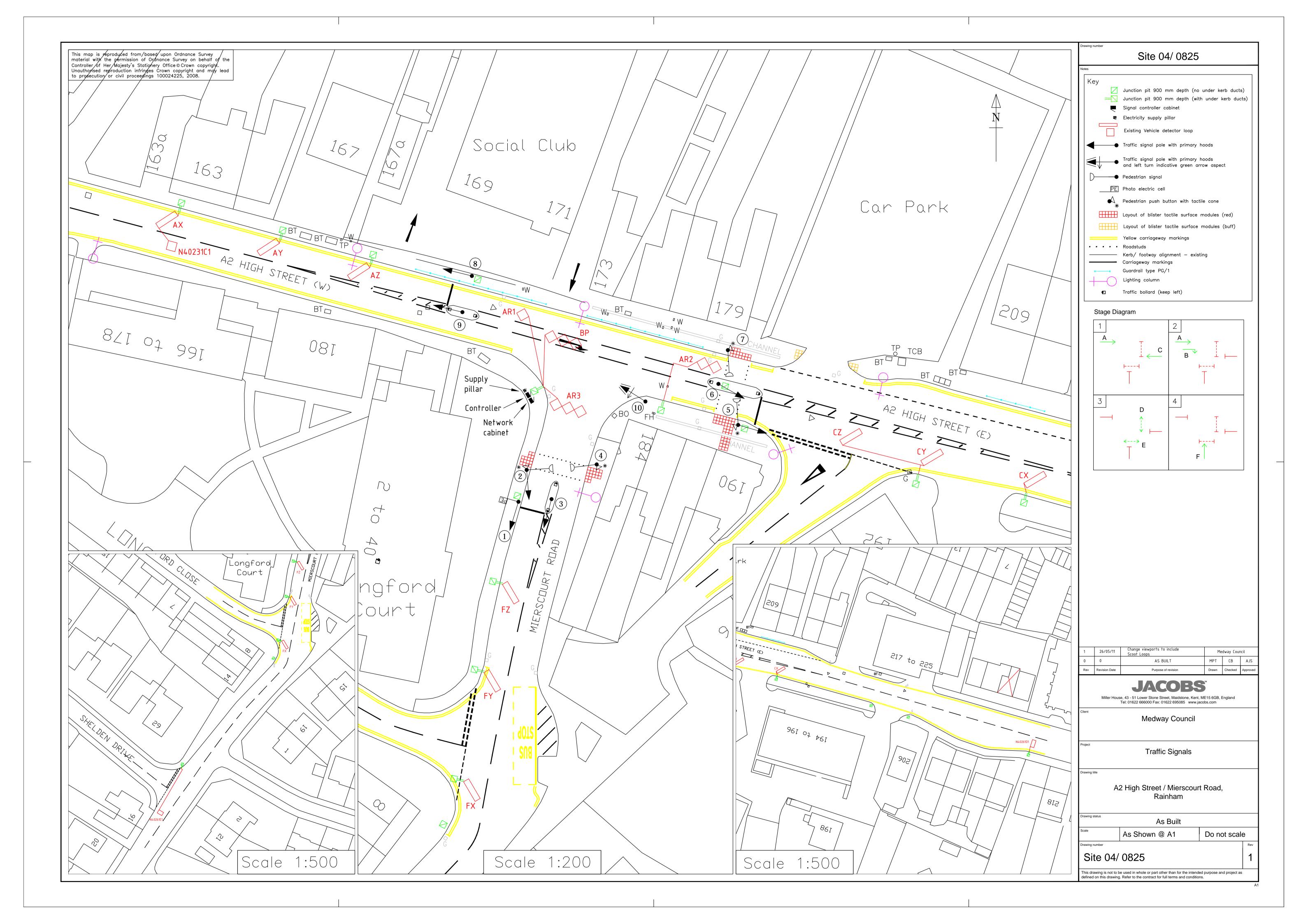
### I/O - DFM Group Timings



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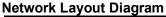


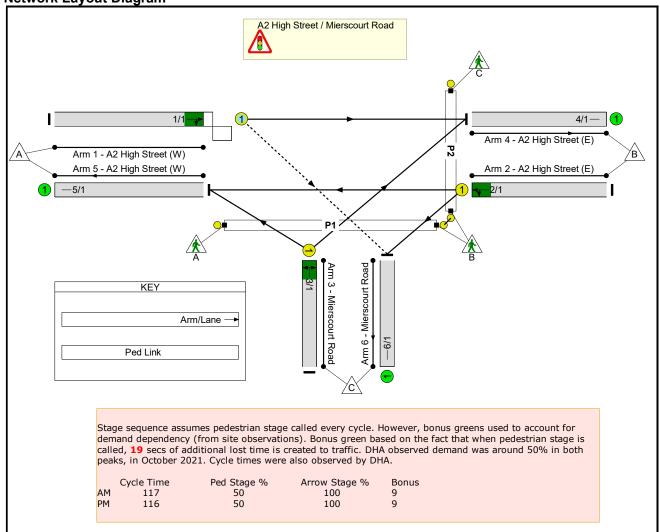


### A2 Mierscourt LinSig Data

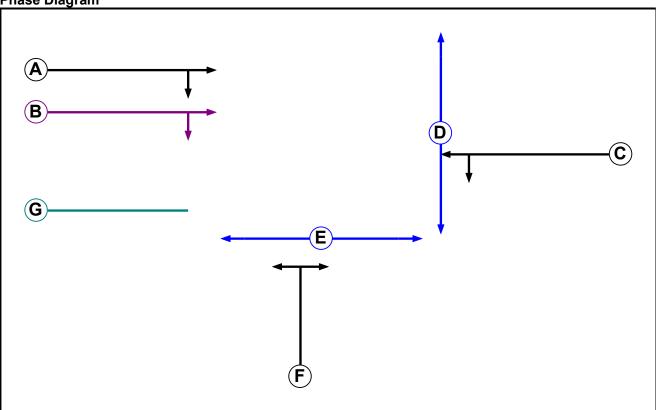
**User and Project Details** 

Project:	23048 A2 High St
Title:	A2 Mierscourt Existing
Location:	Rainham, Kent
Client:	DHA Planning
Date Started:	13/10/23
Checked By:	Simon Swanston
Additional detail:	
File name:	A2 Mierscourt.lsg3x
Author:	Stuart Hanson
Company:	JCT Consultancy
Address:	LinSig House, Deepdale Enterprise Park, LN22LL





Phase Diagram



**Phase Input Data** 

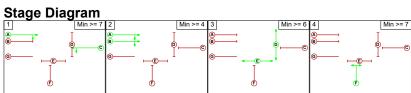
Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
А	Traffic		-9999	7
В	Ind. Arrow	А	-9999	4
С	Traffic		-9999	7
D	Pedestrian		-9999	6
Е	Pedestrian		-9999	6
F	Traffic		-9999	7
G	Dummy		-9999	1

Phase Intergreens Matrix

Phase intergreens matrix									
		Starting Phase							
		Α	В	С	D	Е	F	G	
	Α		-	-	9	8	6	3	
	В	-		5	-	8	6	3	
Terminating	С	-	5		5	8	6 5 10	3	
Phase	D	10	-	10		-	10	5	
	Е	10	10	10	-		10	5	
	F	7	7	7	9	5	5	З	
	G	2	2	2	2	2	2		

Phases in Stage

Stage No.	Phases in Stage
1	AC
2	АВ
3	DE
4	F



**Phase Delays** 

Term. Stage	Start Stage	Phase Type		Value	Cont value
	There are no	Phase D	elays d	efined	

**Prohibited Stage Change** 

Frombited Stage Cit										
		To Stage								
		1	2	3	4					
	1		5	9	6					
From Stage	2	X		9	6					
3	3	10	X		10					
	4	7	X	9						

Page 4

# A2 Mierscourt LinSig Data Give-Way Lane Input Data

Junction: A2 High S	Junction: A2 High Street / Mierscourt Road													
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)			
1/1 (A2 High Street (W))	6/1 (Right)	1439	0	2/1	1.09	All	3.00	2.00	0.50	3	3.00			

Junction: A2 I	Junction: A2 High Street / Mierscourt Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)	
1/1 (A2 High	0	АВ	2	3	60.0	Geom		3.25	0.00	Y	Arm 4 Ahead	Inf	
Street (W))	U	ΑЬ	2	3	60.0	Geom	-	3.25	0.00	T	Arm 6 Right	15.00	
2/1					60.0	0		2.25	0.00	V	Arm 5 Ahead	Inf	
(A2 High Street (E))	U	С	2	3	60.0	Geom	-	3.35	0.00	Y	Arm 6 Left	5.00	
3/1		F			60.0	0		2.05	0.00	V	Arm 4 Right	12.00	
(Mierscourt Road)	U	F	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 5 Left	12.00	
4/1 (A2 High Street (E))	U		2	3	60.0	Inf	-	-	-	-	-	-	
5/1 (A2 High Street (W))	U		2	3	60.0	Inf	-	-	-	-	-	-	
6/1 (Mierscourt Road)	U		2	3	60.0	Inf	-	-	-	-	-	-	

**Traffic Flow Groups** 

Flow Group	Start Time	End Time	Duration	Formula
1: '2023 AM Base'	08:00	09:00	01:00	
2: '2023 PM Base'	17:00	18:00	01:00	
3: '2040 Do Nothing AM'	08:00	09:00	01:00	
4: '2040 Do Nothing PM'	17:00	18:00	01:00	
5: '2040 Do Minimum AM'	08:00	09:00	01:00	
6: '2040 Do Minimum PM'	17:00	18:00	01:00	
7: '2040 Do Nothing Sensitivity AM'	08:00	09:00	01:00	
8: '2040 Do Nothing Sensitivity PM'	17:00	18:00	01:00	
9: '2040 Do Minimum Sensitivity AM'	08:00	09:00	01:00	
10: '2040 Do Minimum Sensitivity PM'	17:00	18:00	01:00	

Scenario 1: '2023 AM' (FG1: '2023 AM Base', Plan 1: 'With Peds')

Traffic Flows, Desired Desired Flow:

	Destination								
		Α	В	С	Tot.				
	Α	0	242	148	390				
Origin	В	276	0	381	657				
	С	79	337	0	416				
	Tot.	355	579	529	1463				

### **Traffic Lane Flows**

Lane	Scenario 1:
Lane	2023 AM
Junction: A2	High Street / Mierscourt Road
1/1	390
2/1	657
3/1	416
4/1	579
5/1	355
6/1	529

Junction: A2 High Street / Mierscourt Road									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	3.25	0.00	Y	Arm 4 Ahead	Inf	62.1 %	1869	1869	
(A2 High Street (W))	3.23	0.00	Y	Arm 6 Right	15.00	37.9 %	1869		
2/1	3.35	0.00	Y	Arm 5 Ahead	Inf	42.0 %	1661	1661	
(A2 High Street (E))	3.35	0.00	Y	Arm 6 Left	5.00	58.0 %	1661		
3/1	3.25	0.00	Y	Arm 4 Right	12.00	81.0 %	1724	1724	
(Mierscourt Road)		0.00		Arm 5 Left	12.00	19.0 %			
4/1 (A2 High Street (E) Lane 1)			Infinite S	aturation Flow			Inf	Inf	
5/1 (A2 High Street (W) Lane 1)			Infinite S		Inf	Inf			
6/1 (Mierscourt Road Lane 1)		Infinite Saturation Flow						Inf	

Scenario 2: '2040 AM DN' (FG3: '2040 Do Nothing AM', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination								
	A B C								
	Α	0	329	175	504				
Origin	В	393	0	433	826				
	С	106	387	0	493				
	Tot.	499	716	608	1823				

### **Traffic Lane Flows**

Lane	Scenario 2: 2040 AM DN					
Junction: A2 High Street / Mierscourt F						
1/1	504					
2/1	826					
3/1	493					
4/1	716					
5/1	499					
6/1	608					

ane Saturation Flows									
Junction: A2 High Street / Mierscourt Road									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	65.3 %	1875	1875	
(A2 High Street (W))	3.23	0.00	Y	Arm 6 Right	15.00	34.7 %	10/5	1875	
2/1	2.25	0.00	Υ	Arm 5 Ahead	Inf	47.6 %	1685	1685	
(A2 High Street (E))	3.35	0.00	Y	Arm 6 Left	5.00	52.4 %	1005		
3/1	2.05	0.00	Υ	Arm 4 Right	12.00	78.5 %	1724	1724	
(Mierscourt Road)	3.25	0.00	Y	Arm 5 Left	12.00	21.5 %			
4/1 (A2 High Street (E) Lane 1)			Infinite S		Inf	Inf			
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow						Inf	
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf	

Scenario 3: '2040 AM DN Sens' (FG7: '2040 Do Nothing Sensitivity AM', Plan 1: 'With Peds') Traffic Flows, Desired Desired Flow:

	Destination									
		Α	В	С	Tot.					
	Α	0	332	175	507					
Origin	В	401	0	454	855					
	С	106	393	0	499					
	Tot.	507	725	629	1861					

### **Traffic Lane Flows**

Lane	Scenario 3: 2040 AM DN Sens						
Junction: A2	High Street / Mierscourt Road						
1/1	507						
2/1	855						
3/1	499						
4/1	725						
5/1	507						
6/1	629						

ane Saturation Flows									
Junction: A2 High Street / Mierscourt Road									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	3.25	0.00	Y	Arm 4 Ahead	Inf	65.5 %	1075	1875	
(A2 High Street (W))	3.25	0.00		Arm 6 Right	15.00	34.5 %	1875		
2/1	3.35	0.00	Υ	Arm 5 Ahead	Inf	46.9 %	1682	1682	
(A2 High Street (E))	3.33	0.00	ı	Arm 6 Left	5.00	53.1 %	1002		
3/1	3.25	0.00	Υ	Arm 4 Right	12.00	78.8 %	1724	1724	
(Mierscourt Road)	3.23	0.00	I	Arm 5 Left	12.00	21.2 %	1724		
4/1 (A2 High Street (E) Lane 1)			Infinite S		Inf	Inf			
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow Inf Inf							
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf	

Scenario 4: '2040AM DM' (FG5: '2040 Do Minimum AM', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination								
		Tot.							
	Α	0	328	195	523				
Origin	В	415	0	73	488				
	С	147	103	0	250				
	Tot.	562	431	268	1261				

### **Traffic Lane Flows**

Lane	ne Scenario 4: 2040AM DM					
Junction: A2 High Street / Mierscourt R						
1/1	523					
2/1	488					
3/1	250					
4/1	431					
5/1	562					
6/1	268					

Lane Saturation 1 lows	Larie Saturation Flows							
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	62.7 %	1970	1970
(A2 High Street (W))	3.25	0.00	Y	Arm 6 Right	15.00	37.3 %	1870	1870
2/1	3.35	0.00	Υ	Arm 5 Ahead	Inf	85.0 %	1866	1866
(A2 High Street (E))	3.33	0.00	T	Arm 6 Left	5.00	15.0 %		
3/1	3.25	0.00	Y	Arm 4 Right	12.00	41.2 %	1724	1724
(Mierscourt Road)	3.23			Arm 5 Left	12.00	58.8 %		
4/1 (A2 High Street (E) Lane 1)		Infinite Saturation Flow					Inf	Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow Inf						Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 5: '2040 AM DM Sens' (FG9: '2040 Do Minimum Sensitivity AM', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
		A B			Tot.			
	Α	0	331	195	526			
Origin	В	424	0	94	518			
	С	147	110	0	257			
	Tot.	571	441	289	1301			

### **Traffic Lane Flows**

Lane	Scenario 5: 2040 AM DM Sens					
Junction: A2 High Street / Mierscourt Roa						
1/1	526					
2/1	518					
3/1	257					
4/1	441					
5/1	571					
6/1	289					

Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	62.9 %	1871	1871
(A2 High Street (W))	3.23	0.00	1	Arm 6 Right	15.00	37.1 %	1071	18/1
2/1	3.35	0.00	Υ	Arm 5 Ahead	Inf	81.9 %	1849	1849
(A2 High Street (E))	3.33	0.00	Y	Arm 6 Left	5.00	18.1 %		
3/1	3.25	0.05	) Y	Arm 4 Right	12.00	42.8 %	1724	1724
(Mierscourt Road)	3.23	0.00		Arm 5 Left	12.00	57.2 %		
4/1 (A2 High Street (E) Lane 1)		Infinite Saturation Flow						Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow					Inf	Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 6: '2023 PM' (FG2: '2023 PM Base', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
		Α	В	С	Tot.			
	Α	0	301	127	428			
Origin	В	324	0	304	628			
	С	107	353	0	460			
	Tot.	431	654	431	1516			

### **Traffic Lane Flows**

Lane	Scenario 6: 2023 PM
Junction: A2	High Street / Mierscourt Road
1/1	428
2/1	628
3/1	460
4/1	654
5/1	431
6/1	431

Lane Saturation Flows	Lane Saturation Flows							
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Y	Arm 4 Ahead	Inf	70.3 %	1884	1004
(A2 High Street (W))	3.23	0.00	T	Arm 6 Right	15.00	29.7 %	1004	1884
2/1	2.25	0.00	Υ	Arm 5 Ahead	Inf	51.6 %	1703	1703
(A2 High Street (E))	3.35	0.00	Y	Arm 6 Left	5.00	48.4 %		
3/1	2.25	0.00	Y	Arm 4 Right	12.00	76.7 %	1724	1724
(Mierscourt Road)	3.25			Arm 5 Left	12.00	23.3 %		
4/1 (A2 High Street (E) Lane 1)		Infinite Saturation Flow					Inf	Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow					Inf	Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 7: '2040 PM DN' (FG4: '2040 Do Nothing PM', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
		Α	В	С	Tot.			
	Α	0	360	156	516			
Origin	В	395	0	330	725			
	С	132	382	0	514			
	Tot.	527	742	486	1755			

### **Traffic Lane Flows**

Lane	Scenario 7: 2040 PM DN					
Junction: A2 High Street / Mierscourt Ro						
1/1	516					
2/1	725					
3/1	514					
4/1	742					
5/1	527					
6/1	486					

Lane Saturation Flows	Lane Saturation Flows							
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	69.8 %	1883	1002
(A2 High Street (W))	3.23	0.00	T	Arm 6 Right	15.00	30.2 %	1003	1883
2/1	2.25	0.00	Υ	Arm 5 Ahead	Inf	54.5 %	1716	1716
(A2 High Street (E))	3.35	0.00	Y	Arm 6 Left	5.00	45.5 %		
3/1	2.05	0.00	Y	Arm 4 Right	12.00	74.3 %	1724	1724
(Mierscourt Road)	3.25			Arm 5 Left	12.00	25.7 %		
4/1 (A2 High Street (E) Lane 1)		Infinite Saturation Flow					Inf	Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow					Inf	Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 8: '2040 PM DN Sens' (FG8: '2040 Do Nothing Sensitivity PM', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination								
		Α	В	С	Tot.				
	Α	0	368	156	524				
Origin	В	398	0	337	735				
	С	132	401	0	533				
	Tot.	530	769	493	1792				

### **Traffic Lane Flows**

	0						
Lane	Scenario 8: 2040 PM DN Sens						
Junction: A2	High Street / Mierscourt Road						
1/1	524						
2/1	735						
3/1	533						
4/1	769						
5/1	530						
6/1	493						

### **Lane Saturation Flows**

Larie Saturation Flows										
Junction: A2 High Street / I	Miersco	urt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)		
1/1	2.25	0.00	Υ	Arm 4 Ahead	Inf	70.2 %	1004	1884		
(A2 High Street (W))	3.25		Ť	Arm 6 Right	15.00	29.8 %	1884	1884		
2/1	3.35	0.00	Y	Arm 5 Ahead	Inf	54.1 %	1714	1714		
(A2 High Street (E))				Arm 6 Left	5.00	45.9 %	1714	1714		
3/1	0.05	0.00	Y	Arm 4 Right	12.00	75.2 %	1704	4704		
(Mierscourt Road)	3.25	0.00		Arm 5 Left	12.00	24.8 %	1724	1724		
4/1 (A2 High Street (E) Lane 1)			Infinite S	aturation Flow			Inf	Inf		
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow Inf Inf								
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf		

Scenario 9: '2040 PM DM' (FG6: '2040 Do Minimum PM', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination								
		Α	В	С	Tot.				
	Α	0	387	180	567				
Origin	В	395	0	153	548				
	С	154	92	0	246				
	Tot.	549	479	333	1361				

### **Traffic Lane Flows**

Lane	Scenario 9: 2040 PM DM						
Junction: A2	High Street / Mierscourt Road						
1/1	567						
2/1	548						
3/1	246						
4/1	479						
5/1	549						
6/1	333						

### Lane Saturation Flows

Lane Saturation Flows										
Junction: A2 High Street / I	Miersco	urt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)		
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	68.3 %	1880	1000		
(A2 High Street (W))	3.23	0.00	T	Arm 6 Right	15.00	31.7 %	1000	1880		
2/1	3.35	0.00	Y	Arm 5 Ahead	Inf	72.1 %	1700	1799		
(A2 High Street (E))	3.33			Arm 6 Left	5.00	27.9 %	1799	1799		
3/1	0.05	0.00	Υ	Arm 4 Right	12.00	37.4 %	1704	1724		
(Mierscourt Road)	3.25			Arm 5 Left	12.00	62.6 %	1724	1724		
4/1 (A2 High Street (E) Lane 1)			Infinite S	aturation Flow			Inf	Inf		
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow Inf Inf								
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf		

# Scenario 10: '2040 PM DM Sens' (FG10: '2040 Do Minimum Sensitivity PM', Plan 1: 'With Peds') Traffic Flows, Desired

### Desired Flow:

	Destination								
		Α	В	С	Tot.				
	Α	0	394	180	574				
Origin	В	398	0	160	558				
	С	154	111	0	265				
	Tot.	552	505	340	1397				

### **Traffic Lane Flows**

Lane	Scenario 10: 2040 PM DM Sens						
Junction: A2	High Street / Mierscourt Road						
1/1	574						
2/1	558						
3/1	265						
4/1	505						
5/1	552						
6/1	340						

### **Lane Saturation Flows**

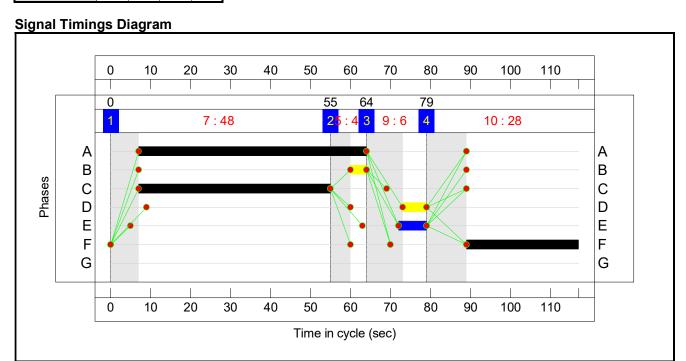
Larie Saturation Flows										
Junction: A2 High Street / I	Miersco	urt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)		
1/1	2.05	0.00	Υ	Arm 4 Ahead	Inf	68.6 %	1001	1881		
(A2 High Street (W))	3.25		Ť	Arm 6 Right	15.00	31.4 %	1881	1861		
2/1	3.35	0.00	Y	Arm 5 Ahead	Inf	71.3 %	1706	1796		
(A2 High Street (E))				Arm 6 Left	5.00	28.7 %	1796	1796		
3/1	0.05	0.00	Y	Arm 4 Right	12.00	41.9 %	1704	1724		
(Mierscourt Road)	3.25			Arm 5 Left	12.00	58.1 %	1724			
4/1 (A2 High Street (E) Lane 1)			Infinite S	aturation Flow			Inf	Inf		
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow Inf Inf								
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf		

# Scenario 1: '2023 AM' (FG1: '2023 AM Base', Plan 1: 'With Peds')

**Stage Sequence Diagram** 



otago i iiiiiii	, -			
Stage	1	2	3	4
Duration	48	4	6	28
Change Point	0	55	64	79



**Network Layout Diagram** Results For Scenario: 2023 AM Cycle Time: 117 PRC: 5.0% Tot Delay (pcuHr): 21.35 A2 High Street / Mierscourt Road PRC: 5.0 % Total Traffic Delay: 21.3 pcuHr Ave. Route Delay Per Ped: 0.0 s/Ped 390 84.0% 14.5 579 0.0% 0.0— Arm 4 - A2 High Street (E) Arm 1 - A2 High Street (W) Arm 5 - A2 High Street (W) Arm 2 - A2 High Street (E) -0.0 0.0% 355 21.8 85.7% 657 Arm 6 - Mierscourt Road Arm 3 - Mierscourt Road 529 15.5 85.6% KEY %0.0 PCU Arr Deg. Sat. MMQ → 416 Stage sequence assumes pedestrian stage called every cycle. However, bonus greens used to account for demand dependency (from site observations). Bonus green based on the fact that when pedestrian stage is called, 19 secs of additional lost time is created to traffic. DHA observed demand was around 50% in both peaks, in October 2021. Cycle times were also observed by DHA. Ped Stage % Cycle Time Arrow Stage % Bonus 50 50 117 116 ΑM 100 9 9 PM 100

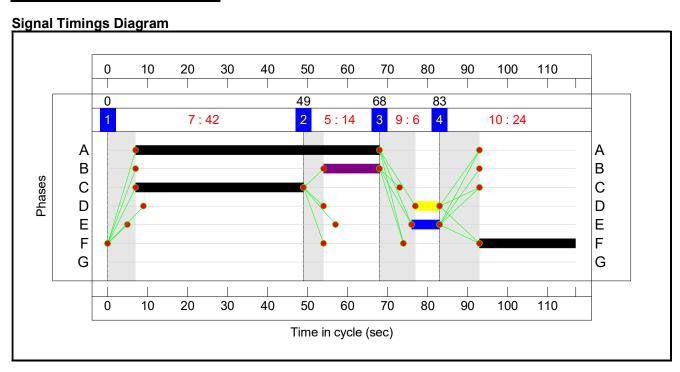
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing	-	-	N/A	-	-		-	-	-	-	-	-	85.7%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	85.7%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	57	4	390	1869	464	84.0%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	48	-	657	1661	767	85.7%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	28	-	416	1724	486	85.6%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	529	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4308	0.0%
Ped Link: P2	A2 High Street	e.	N/A	-	D		1	6	-	0	-	3692	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing	-	-	78	66	4	12.4	8.1	0.9	21.3	-	-	-	-
A2 High Street / Mierscourt Road	-	-	78	66	4	12.4	8.1	0.9	21.3	-	-	-	-
1/1	390	390	78	66	4	2.7	2.5	0.9	6.0	55.8	12.0	2.5	14.5
2/1	657	657	-	-	-	5.1	2.8	-	8.0	43.7	19.0	2.8	21.8
3/1	416	416	-	-	-	4.6	2.7	-	7.3	63.5	12.7	2.7	15.5
4/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	529	529	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	•	-	-	-	0.0	0.0	-	-	0.0
		C1		gnalled Lanes (%): ver All Lanes (%):	5.0 5.0		Signalled Lanes ( y Over All Lanes(			Time (s): 117			

A2 Mierscourt LinSig Data Scenario 2: '2040 AM DN' (FG3: '2040 Do Nothing AM', Plan 1: 'With Peds')



Stage	1	2	3	4
Duration	42	14	6	24
Change Point	0	49	68	83



**Network Layout Diagram** Results For Scenario: 2040 AM DN Cycle Time: 117 PRC: -32.8% Tot Delay (pcuHr): 179.83 A2 High Street / Mierscourt Road PRC: -32.8 % Total Traffic Delay: 179.8 pcuHr Ave. Route Delay Per Ped: 0.0 s/Ped 504 116.6% 57.8 618 0.0% 0.0— Arm 4 - A2 High Street (E) Arm 1 - A2 High Street (W) Arm 5 - A2 High Street (W) Arm 2 - A2 High Street (E) 119.5% -0.0 0.0% 421 826 Arm 6 - Mierscourt Road 513 Arm 3 - Mierscourt Road KEY %0.0 PCU Arr Deg. Sat. MMQ → 493 Stage sequence assumes pedestrian stage called every cycle. However, bonus greens used to account for demand dependency (from site observations). Bonus green based on the fact that when pedestrian stage is called, 19 secs of additional lost time is created to traffic. DHA observed demand was around 50% in both peaks, in October 2021. Cycle times were also observed by DHA. Ped Stage % Cycle Time Arrow Stage % Bonus 50 50 117 116 ΑM 100 9 9 PM 100

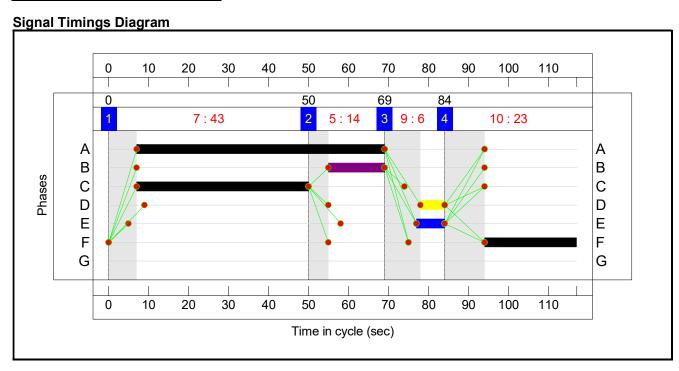
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing	-	-	N/A	-	-		-	-	-	-	-	-	119.5%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	119.5%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	61	14	504	1875	432	116.6%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	42	-	826	1685	691	119.5%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	24	-	493	1724	427	115.4%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	716	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	499	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4308	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3692	0.0%

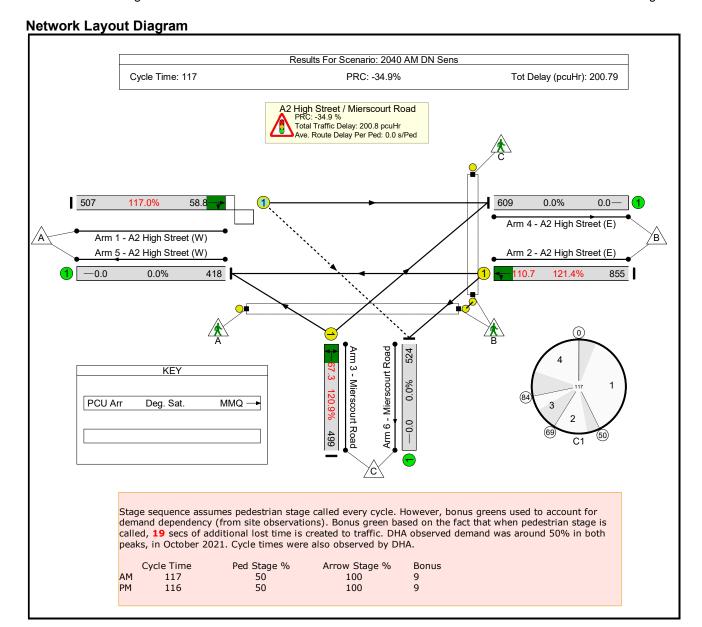
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing	-	-	0	133	17	33.4	145.6	0.9	179.8	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	133	17	33.4	145.6	0.9	179.8	-	-	-	-
1/1	504	432	0	133	17	7.4	39.0	0.9	47.3	338.0	18.7	39.0	57.8
2/1	826	691	-	-	-	15.5	70.3	-	85.8	373.7	31.2	70.3	101.5
3/1	493	427	-	-	-	10.5	36.2	-	46.8	341.4	19.9	36.2	56.1
4/1	618	618	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		signalled Lanes (%): Over All Lanes (%):	-32.8 -32.8		Signalled Lanes ay Over All Lanes			Time (s): 117			

A2 Mierscourt LinSig Data Scenario 3: '2040 AM DN Sens' (FG7: '2040 Do Nothing Sensitivity AM', Plan 1: 'With Peds')



Stage	1	2	3	4
Duration	43	14	6	23
Change Point	0	50	69	84

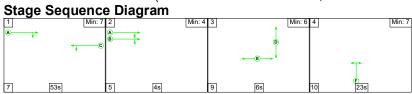




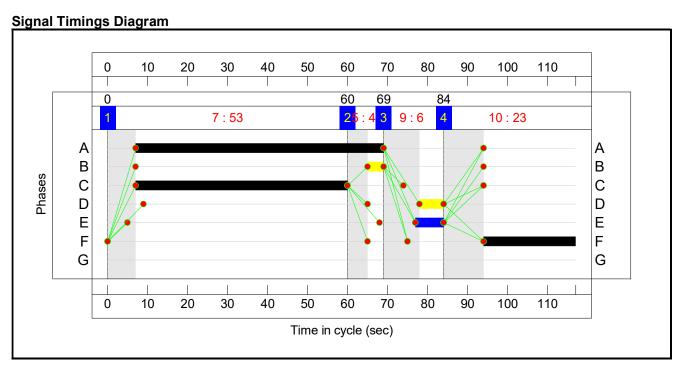
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing	•	-	N/A	-	-		-	-	-	-	-	-	121.4%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	121.4%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	62	14	507	1875	433	117.0%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	43	-	855	1682	704	121.4%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	23	-	499	1724	413	120.9%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	725	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	507	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	629	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4308	0.0%
Ped Link: P2	A2 High Street	=	N/A	-	D		1	6	_	0	-	3692	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing	-	-	0	133	17	36.0	163.9	0.9	200.8	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	133	17	36.0	163.9	0.9	200.8	-	-	-	-
1/1	507	433	0	133	17	7.5	40.0	0.9	48.3	342.9	18.9	40.0	58.8
2/1	855	704	-	-	-	16.5	78.0	-	94.5	397.9	32.7	78.0	110.7
3/1	499	413	-	-	-	12.1	45.9	-	58.0	418.3	21.4	45.9	67.3
4/1	609	609	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	418	418	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	524	524	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		signalled Lanes (%): Over All Lanes (%):	-34.9 -34.9		Signalled Lanes by Over All Lanes			Time (s): 117			

A2 Mierscourt LinSig Data Scenario 4: '2040AM DM' (FG5: '2040 Do Minimum AM', Plan 1: 'With Peds')



Stage	1	2	3	4
Duration	53	4	6	23
Change Point	0	60	69	84

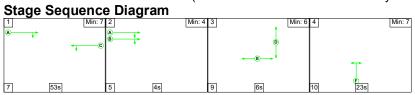


**Network Layout Diagram** Results For Scenario: 2040AM DM Cycle Time: 117 PRC: 48.5% Tot Delay (pcuHr): 10.44 A2 High Street / Mierscourt Road PRC: 48.5 % Total Traffic Delay: 10.4 pcuHr Ave. Route Delay Per Ped: 0.0 s/Ped 523 59.2% 13.1 431 0.0% 0.0— Arm 4 - A2 High Street (E) Arm 1 - A2 High Street (W) Arm 5 - A2 High Street (W) Arm 2 - A2 High Street (E) -0.0 0.0% 562 51.9% 488 11.1 Arm 6 - Mierscourt Road Arm 3 - Mierscourt Road 268 KEY %0.0 60.6% PCU Arr Deg. Sat. MMQ → 250 Stage sequence assumes pedestrian stage called every cycle. However, bonus greens used to account for demand dependency (from site observations). Bonus green based on the fact that when pedestrian stage is called, 19 secs of additional lost time is created to traffic. DHA observed demand was around 50% in both peaks, in October 2021. Cycle times were also observed by DHA. Ped Stage % Cycle Time Arrow Stage % Bonus 50 50 117 116 ΑM 100 9 9 PM 100

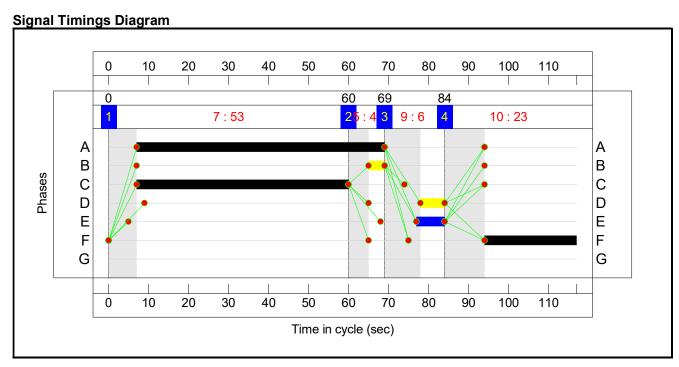
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing	-	-	N/A	-	-		-	-	-	-	-	-	60.6%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	60.6%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	62	4	523	1870	883	59.2%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	53	-	488	1866	941	51.9%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	23	-	250	1724	413	60.6%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	431	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	562	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4308	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3692	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing	-	-	178	12	5	8.0	2.0	0.4	10.4	-	-	-	-
A2 High Street / Mierscourt Road	-	-	178	12	5	8.0	2.0	0.4	10.4	-	-	-	-
1/1	523	523	178	12	5	2.6	0.7	0.4	3.8	25.8	12.3	0.7	13.1
2/1	488	488	-	-	Ī	2.6	0.5	-	3.2	23.4	10.6	0.5	11.1
3/1	250	250	-	-	Ī	2.7	0.8	=	3.5	50.6	7.2	0.8	8.0
4/1	431	431	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	562	562	-	-	1	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0		-	-	-	-	-	0.0	0.0	-	=	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		gnalled Lanes (%): ver All Lanes (%):	48.5 48.5		Signalled Lanes ( y Over All Lanes(		Cycle <sup>-</sup>	Time (s): 117			

A2 Mierscourt LinSig Data Scenario 5: '2040 AM DM Sens' (FG9: '2040 Do Minimum Sensitivity AM', Plan 1: 'With Peds')



Stage	1	2	3	4
Duration	53	4	6	23
Change Point	0	60	69	84

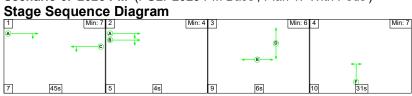


**Network Layout Diagram** Results For Scenario: 2040 AM DM Sens Cycle Time: 117 PRC: 44.5% Tot Delay (pcuHr): 11.17 A2 High Street / Mierscourt Road PRC: 44.5 % Total Traffic Delay: 11.2 pcuHr Ave. Route Delay Per Ped: 0.0 s/Ped 526 61.7% 13.7 441 0.0% 0.0— Arm 4 - A2 High Street (E) Arm 1 - A2 High Street (W) Arm 5 - A2 High Street (W) Arm 2 - A2 High Street (E) -0.0 0.0% 571 55.6% 518 12.1 Arm 6 - Mierscourt Road Arm 3 - Mierscourt Road 289 KEY %0.0 62.3% PCU Arr Deg. Sat. MMQ → 257 Stage sequence assumes pedestrian stage called every cycle. However, bonus greens used to account for demand dependency (from site observations). Bonus green based on the fact that when pedestrian stage is called, 19 secs of additional lost time is created to traffic. DHA observed demand was around 50% in both peaks, in October 2021. Cycle times were also observed by DHA. Ped Stage % Cycle Time Arrow Stage % Bonus 50 50 117 116 ΑM 100 9 9 PM 100

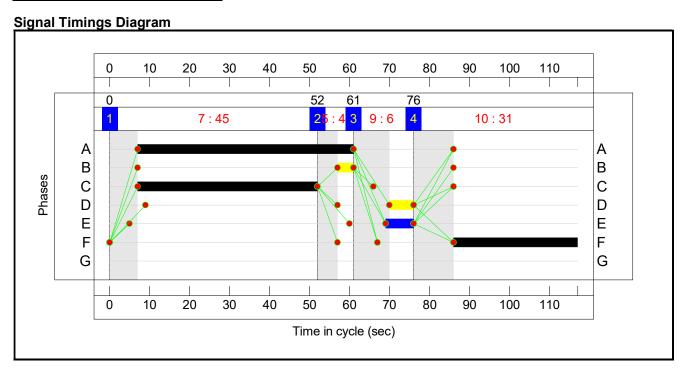
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing	-	-	N/A	-	-		-	-	-	-	-	-	62.3%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	62.3%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	62	4	526	1871	852	61.7%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	53	-	518	1849	932	55.6%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	23	-	257	1724	413	62.3%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	441	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4308	0.0%
Ped Link: P2	A2 High Street	·	N/A	-	D		1	6	-	0	-	3692	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing	-	-	178	12	5	8.4	2.2	0.5	11.2	-	-	-	-
A2 High Street / Mierscourt Road	-	-	178	12	5	8.4	2.2	0.5	11.2	-	-	-	-
1/1	526	526	178	12	5	2.7	0.8	0.5	4.0	27.5	12.9	0.8	13.7
2/1	518	518	-	-	-	2.9	0.6	-	3.5	24.3	11.5	0.6	12.1
3/1	257	257	-	-	-	2.8	0.8	-	3.7	51.2	7.4	0.8	8.2
4/1	441	441	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	571	571	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		ignalled Lanes (%): ver All Lanes (%):	44.5 44.5		Signalled Lanes ( ay Over All Lanes(		Cycle	Time (s): 117			

A2 Mierscourt LinSig Data Scenario 6: '2023 PM' (FG2: '2023 PM Base', Plan 1: 'With Peds')



Stage	1	2	3	4
Duration	45	4	6	31
Change Point	0	52	61	76



**Network Layout Diagram** Results For Scenario: 2023 PM Cycle Time: 117 PRC: 3.8% Tot Delay (pcuHr): 21.73 A2 High Street / Mierscourt Road PRC: 3.8 % Total Traffic Delay: 21.7 pcuHr Ave. Route Delay Per Ped: 0.0 s/Ped 428 83.6% 15.5 654 0.0% 0.0— Arm 4 - A2 High Street (E) Arm 1 - A2 High Street (W) Arm 5 - A2 High Street (W) Arm 2 - A2 High Street (E) -0.0 0.0% 431 20.8 84.6% 628 Arm 6 - Mierscourt Road Arm 3 - Mierscourt Road 431 17.1 86.7% KEY %0.0 PCU Arr Deg. Sat. MMQ → 460 Stage sequence assumes pedestrian stage called every cycle. However, bonus greens used to account for demand dependency (from site observations). Bonus green based on the fact that when pedestrian stage is called, 19 secs of additional lost time is created to traffic. DHA observed demand was around 50% in both peaks, in October 2021. Cycle times were also observed by DHA. Ped Stage % Cycle Time Arrow Stage % Bonus 50 50 117 116 ΑM 100 9 9 PM 100

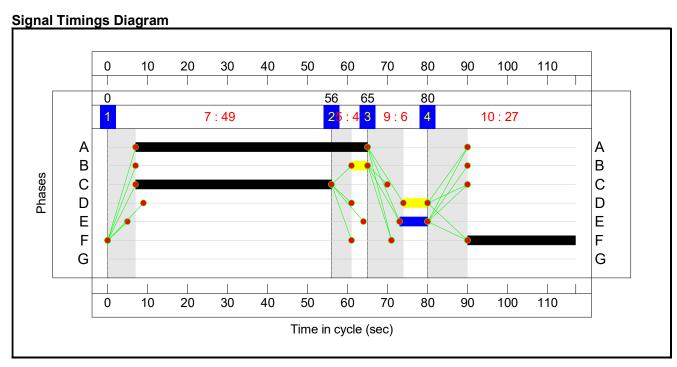
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing	-	-	N/A	-	-		-	-	-	-	-	-	86.7%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	86.7%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	54	4	428	1884	512	83.6%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	45	-	628	1703	742	84.6%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	31	-	460	1724	530	86.7%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	654	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	431	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	431	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4308	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3692	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing	-	-	78	45	3	12.9	8.0	0.7	21.7	-	-	-	-
A2 High Street / Mierscourt Road	-	-	78	45	3	12.9	8.0	0.7	21.7	-	-	-	-
1/1	428	428	78	45	3	2.9	2.4	0.7	6.1	51.0	13.1	2.4	15.5
2/1	628	628	-	-	-	5.1	2.6	-	7.8	44.5	18.1	2.6	20.8
3/1	460	460	-	-	-	4.9	3.0	=	7.9	61.8	14.1	3.0	17.1
4/1	654	654	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	431	431	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	431	431	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0		-	-	-	-	-	0.0	0.0	-	=	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		gnalled Lanes (%): ver All Lanes (%):	3.8 3.8		Signalled Lanes ( y Over All Lanes(		Cycle	Time (s): 117			

A2 Mierscourt LinSig Data Scenario 7: '2040 PM DN' (FG4: '2040 Do Nothing PM', Plan 1: 'With Peds')



Stage	1	1 2		4	
Duration	49	4	6	27	
Change Point	0	56	65	80	



**Network Layout Diagram** Results For Scenario: 2040 PM DN Cycle Time: 117 PRC: -24.7% Tot Delay (pcuHr): 84.77 A2 High Street / Mierscourt Road PRC: -24.7 % Total Traffic Delay: 84.8 pcuHr Ave. Route Delay Per Ped: 0.0 s/Ped 516 112.3% 50.8 671 0.0% 0.0— Arm 4 - A2 High Street (E) Arm 1 - A2 High Street (W) Arm 5 - A2 High Street (W) Arm 2 - A2 High Street (E) -0.0 0.0% 516 25.6 89.9% 725 Arm 6 - Mierscourt Road Arm 3 - Mierscourt Road 469 45.2 109.0% KEY %0.0 PCU Arr Deg. Sat. MMQ → Stage sequence assumes pedestrian stage called every cycle. However, bonus greens used to account for demand dependency (from site observations). Bonus green based on the fact that when pedestrian stage is called, 19 secs of additional lost time is created to traffic. DHA observed demand was around 50% in both peaks, in October 2021. Cycle times were also observed by DHA. Ped Stage % Cycle Time Arrow Stage % Bonus 50 50 117 116 ΑM 100 9 9 PM 100

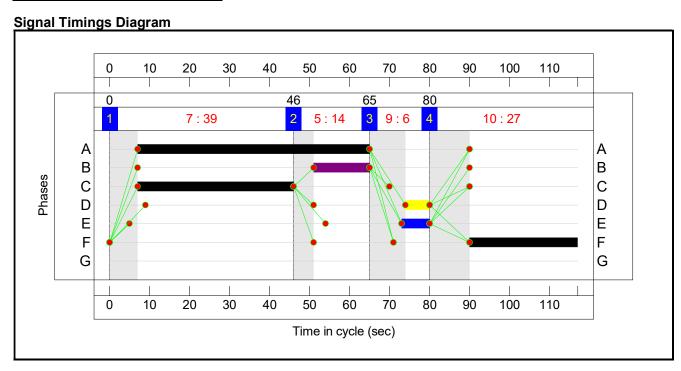
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing	-	-	N/A	-	-		-	-	-	-	-	-	112.3%
A2 High Street / Mierscourt Road	-	-	N/A	-	-			-	-	-	-	-	112.3%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	58	4	516	1883	460	112.3%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	49	-	725	1716	807	89.9%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	27	-	514	1724	472	109.0%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	742	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	527	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	486	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4308	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3692	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing	-	-	52	72	15	21.5	62.4	0.9	84.8	-	-	-	-
A2 High Street / Mierscourt Road	-	-	52	72	15	21.5	62.4	0.9	84.8	-	-	-	-
1/1	516	460	52	72	15	6.8	32.2	0.9	39.9	278.1	18.6	32.2	50.8
2/1	725	725	-	-	-	5.7	4.0	-	9.8	48.5	21.5	4.0	25.6
3/1	514	472	-	-	-	9.0	26.2	-	35.1	246.1	19.0	26.2	45.2
4/1	671	671	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	516	516	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	469	469	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		gnalled Lanes (%): ver All Lanes (%):	-24.7 -24.7		Signalled Lanes y Over All Lanes			Time (s): 117			

A2 Mierscourt LinSig Data Scenario 8: '2040 PM DN Sens' (FG8: '2040 Do Nothing Sensitivity PM', Plan 1: 'With Peds')



Stage	1	2	3	4
Duration	39	14	6	27
Change Point	0	46	65	80

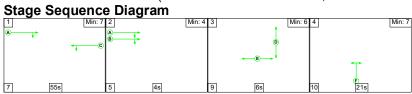


**Network Layout Diagram** Results For Scenario: 2040 PM DN Sens Cycle Time: 117 PRC: -25.8% Tot Delay (pcuHr): 141.17 A2 High Street / Mierscourt Road PRC: -25.8 % Total Traffic Delay: 141.2 pcuHr Ave. Route Delay Per Ped: 0.0 s/Ped 524 113.2% 53.4 680 0.0% 0.0— Arm 4 - A2 High Street (E) Arm 1 - A2 High Street (W) Arm 5 - A2 High Street (W) Arm 2 - A2 High Street (E) -0.0 0.0% 474 735 111.5% Arm 6 - Mierscourt Road Arm 3 - Mierscourt Road 440 KEY %0.0 PCU Arr Deg. Sat. MMQ → 533 Stage sequence assumes pedestrian stage called every cycle. However, bonus greens used to account for demand dependency (from site observations). Bonus green based on the fact that when pedestrian stage is called, 19 secs of additional lost time is created to traffic. DHA observed demand was around 50% in both peaks, in October 2021. Cycle times were also observed by DHA. Ped Stage % Cycle Time Arrow Stage % Bonus 50 50 117 116 ΑM 100 9 9 PM 100

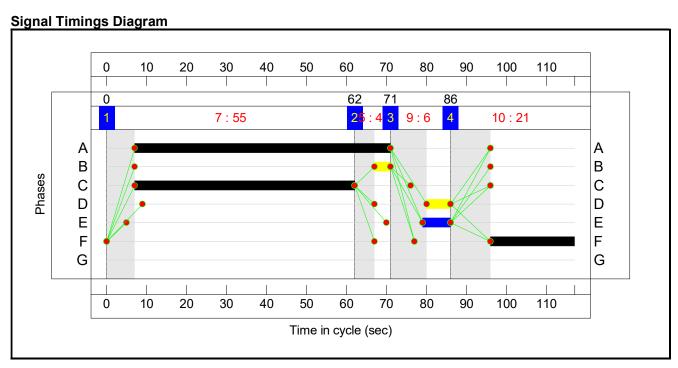
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing	-	-	N/A	-	-		-	-	-	-	-	-	113.2%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	113.2%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	58	14	524	1884	463	113.2%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	39	-	735	1714	659	111.5%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	27	-	533	1724	472	113.0%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	769	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	530	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	493	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4308	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3692	0.0%

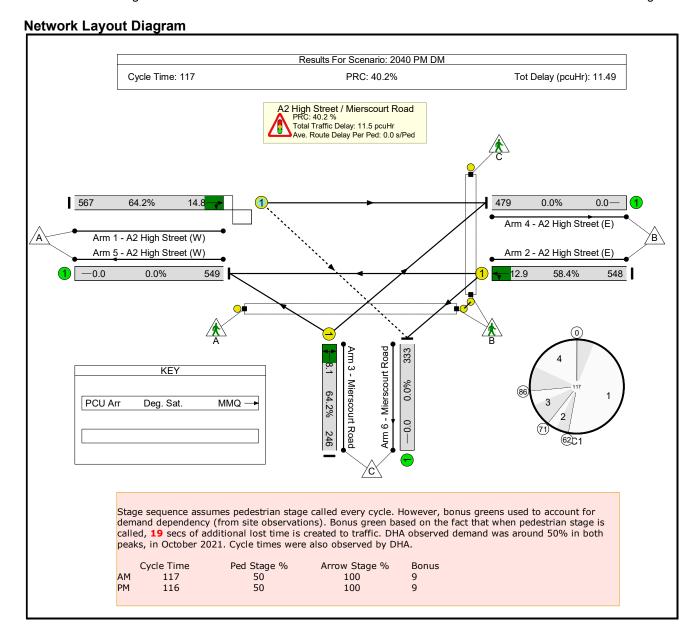
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing	-	-	0	123	14	29.2	111.2	0.8	141.2	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	123	14	29.2	111.2	0.8	141.2	-	-	-	•
1/1	524	463	0	123	14	7.1	34.4	0.8	42.2	290.0	19.0	34.4	53.4
2/1	735	659	Ī	Ī	-	11.6	42.2	-	53.9	263.8	26.4	42.2	68.6
3/1	533	472	-	-	-	10.5	34.6	-	45.1	304.7	20.9	34.6	55.5
4/1	680	680	-	1	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	474	474	-	T.	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	440	440	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	=	i i	-	-	-	-	0.0	0.0	-	=	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
	C1 PRC for Signalled Lanes (%): -25.8 Total Delay for Signalled Lanes (pcuHr): 141.17 Cycle Time (s): 117 PRC Over All Lanes (%): -25.8 Total Delay Over All Lanes(pcuHr): 141.17												

A2 Mierscourt LinSig Data Scenario 9: '2040 PM DM' (FG6: '2040 Do Minimum PM', Plan 1: 'With Peds')



Stage	1	2	3	4
Duration	55	4	6	21
Change Point	0	62	71	86





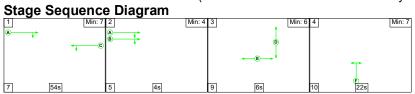
# A2 Mierscourt LinSig Data Network Results Page 50

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing	•	-	N/A	-	-		-	-	-	-	-	-	64.2%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	64.2%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	64	4	567	1880	883	64.2%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	55	-	548	1799	938	58.4%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	21	-	246	1724	383	64.2%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	479	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	549	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	333	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4308	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3692	0.0%

A2 Mierscourt LinSig Data Page 51

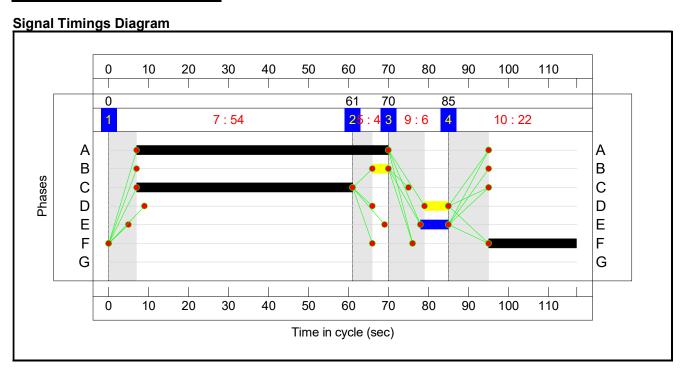
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing	-	-	165	11	5	8.5	2.5	0.5	11.5	-	-	-	-
A2 High Street / Mierscourt Road	-	-	165	11	5	8.5	2.5	0.5	11.5	-	-	-	-
1/1	567	567	165	11	5	2.8	0.9	0.5	4.1	26.3	13.9	0.9	14.8
2/1	548	548	-	-	Ī	2.9	0.7	-	3.6	23.9	12.2	0.7	12.9
3/1	246	246	-	-	Ī	2.8	0.9	-	3.7	54.2	7.2	0.9	8.1
4/1	479	479	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	549	549	-	-	1	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	333	333	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0		-	-	-	-	-	0.0	0.0	-	=	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		gnalled Lanes (%): ver All Lanes (%):	40.2 40.2		Signalled Lanes ( y Over All Lanes(			Time (s): 117			

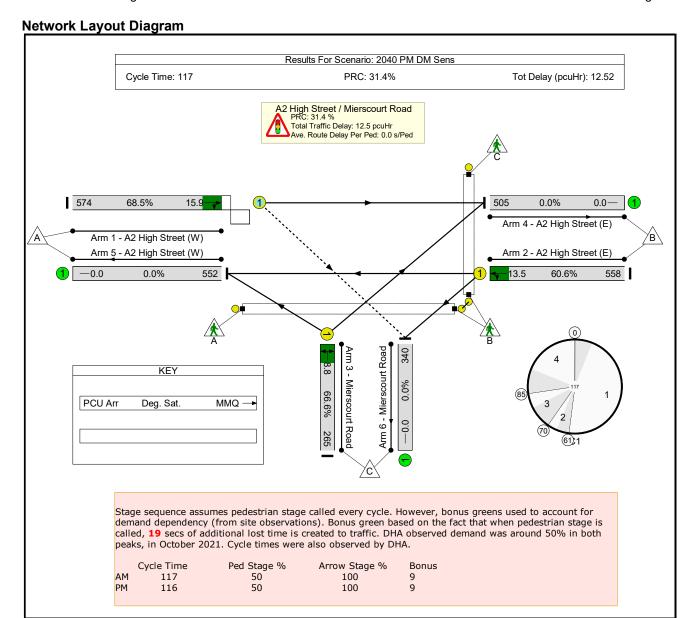
A2 Mierscourt LinSig Data Scenario 10: '2040 PM DM Sens' (FG10: '2040 Do Minimum Sensitivity PM', Plan 1: 'With Peds')



**Stage Timings** 

Stage	1	2	3	4
Duration	54	4	6	22
Change Point	0	61	70	85





# A2 Mierscourt LinSig Data Network Results Page 54

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing	-	-	N/A	-	-		-	-	-	-	-	-	68.5%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	68.5%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	63	4	574	1881	838	68.5%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	54	-	558	1796	921	60.6%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	22	-	265	1724	398	66.6%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	505	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	552	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4308	0.0%
Ped Link: P2	A2 High Street	=	N/A	-	D		1	6	-	0	-	3692	0.0%

A2 Mierscourt LinSig Data Page 55

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing	-	-	165	11	5	9.2	2.8	0.5	12.5	-	-	-	-
A2 High Street / Mierscourt Road	-	-	165	11	5	9.2	2.8	0.5	12.5	-	-	-	-
1/1	574	574	165	11	5	3.1	1.1	0.5	4.6	29.1	14.8	1.1	15.9
2/1	558	558	-	-	Ī	3.1	0.8	-	3.9	25.1	12.7	0.8	13.5
3/1	265	265	-	-	Ī	3.0	1.0	=	4.0	54.3	7.8	1.0	8.8
4/1	505	505	-	-	1	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	552	552	-	-	1	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0		-	-	-	-	-	0.0	0.0	-	=	0.0
Ped Link: P2	0	0	-	-	ı	-	-	-	0.0	0.0	-	-	0.0
		C1		gnalled Lanes (%): ver All Lanes (%):	31.4 31.4		Signalled Lanes ( y Over All Lanes(		Cycle <sup>-</sup>	Time (s): 117			

# APPENDIX G

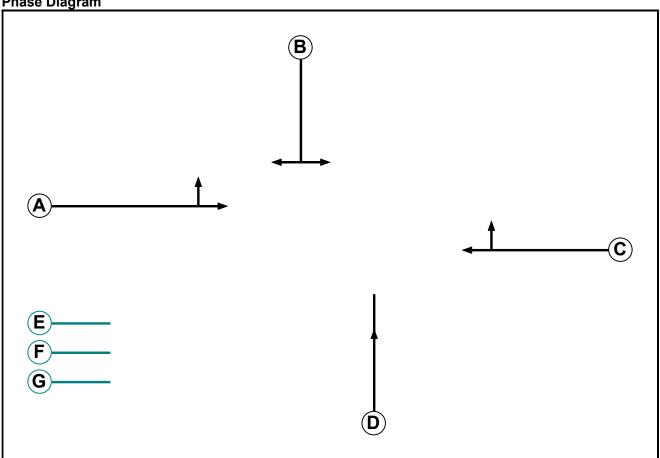
### A2 Otterham Quay Ln Proposed LinSig Data

**User and Project Details** 

Project:	23048 A2 High St
Title:	A2 Otterham Quay Ln Proposed
Location:	Rainham, Kent
Client:	DHA Planning
Date Started:	13/10/23
Checked By:	Simon Swanston
Additional detail:	
File name:	A2 Otterham Quay Ln Proposed.lsg3x
Author:	Stuart Hanson
Company:	JCT Consultancy
Address:	LinSig House, Deepdale Enterprise Park, LN22LL

**Network Layout Diagram** A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals rm 6 - Otterham Quay Lane Arm 2 - Otterham Quay Lan KEY Arm/Lane → Ped Link 4/1-Arm 1 - A2 High Street Arm 4 - A2 Moor Street Arm 3 - A2 Moor Street Arm 5 - A2 High Street **—**5/1 **→** 3/1 Proposal: The proposal removed Meresborough Rd from the junction. Therefore, this arm was removed in the model. Phase D was left in the model simply so references tie up with the existing model, although Phase D is no longer used. The stage sequence changed to simply run the main road in Stage 1, side road in stage 2. Cycle time reduced to 80 seconds (long cycle time in existing was because the main road ran twice during the cycle. Intergreens were left as per the existing. However, once a layout is formalised, it is likely these will change due to different stopline positions. Several intergreens are likely to decrease, as stoplines are brought closer together.

Phase Diagram



Phase Input Data

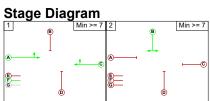
Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
А	Traffic		-9999	7
В	Traffic		-9999	7
С	Traffic		-9999	7
D	Traffic		-9999	7
Е	Dummy		-9999	3
F	Dummy		-9999	7
G	Dummy		-9999	7

**Phase Intergreens Matrix** 

	<u>. g.</u>	greens matrix								
		5	Star	ting	<b>P</b> h	ase	9			
		Α	В	С	D	Е	F	G		
	Α		8	-	9	3	-	-		
	В	8		8	9	3	5	5		
Terminating	С	-	8		9	3	-	-		
Phase	D	5	6	5		3	5	5		
	Е	2	2	2	2		-	-		
	F	-	2	-	2	-		-		
	G	-	2	-	2	-	-			

Phases in Stage

Stage No.	Phases in Stage
1	ACF
2	В



**Phase Delays** 

Term. Stage	Start Stage	Phase	Туре	Value	Cont value
	There are no	Phase D	elays d	efined	

**Prohibited Stage Change** 

	To Stage						
		1	2				
From Stage	1		8				
0	2	8					

Junction: A2 Hig	gh Street / Of	tterham Quay	Lane / A2 Mo	or Street / N	/leresboroug	h Road Si	gnals				
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	DTE	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
3/1 (A2 Moor Street)	6/1 (Right)	1439	0	1/1	1.09	All	3.00	3.00	0.50	3	3.00

Junction: A2	Junction: A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals															
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)				
1/1 (A2 High	U	А	2	3	60.0	Geom		4.25	0.00	Y	Arm 4 Ahead	Inf				
Street)		A	2	3	00.0	Geom	-	4.23	0.00	1	Arm 6 Left	6.00				
2/1	U	В	2	3	60.0 Geom -	Geom - 3.25 0	O Coom	3.25	eom - 3.25	2.05	2.25	2.25	0.00		Arm 4 Left	9.00
(Otterham Quay Lane)	U	В	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 5 Right	14.00				
3/1					60.0	0		4.45	0.00	V	Arm 5 Ahead	Inf				
(A2 Moor Street)	0	С	2	3	60.0	Geom	-	4.45	0.00	Y	Arm 6 Right	10.00				
4/1 (A2 Moor Street)	U		2	3	60.0	Inf	-	-	-	-	-	-				
5/1 (A2 High Street)	U		2	3	60.0	Inf	-	-	-	-	-	-				
6/1 (Otterham Quay Lane)	U		2	3	60.0	Inf	-	-	-	-	-	-				

**Traffic Flow Groups** 

Flow Group	Start Time	End Time	Duration	Formula
1: '2040 AM Do Minimum'	08:00	09:00	01:00	
2: '2040 AM Do Minimum Sensitivity'	08:00	09:00	01:00	
3: '2040 PM Do Minimum'	17:00	18:00	01:00	
4: '2040 PM Do Minimum Sensitivity'	17:00	18:00	01:00	

Scenario 1: '2040 AM DM' (FG1: '2040 AM Do Minimum', Plan 1: 'Network Control Plan 1') **Traffic Flows, Desired** 

Desired Flow:

2001104 1 1041 1										
	Destination									
		Α	В	С	Tot.					
	Α	0	245	167	412					
Origin	В	239	0	135	374					
	С	126	140	0	266					
	Tot.	365	385	302	1052					

Lane	Scenario 1: 2040 AM DM
Junction: A2 High Street / Otto	erham Quay Lane / A2 Moor Street / Meresborough Road Signals
1/1	412
2/1	374
3/1	266
4/1	302
5/1	365
6/1	385

### **Lane Saturation Flows**

Junction: A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.25	0.00	Υ	Arm 4 Ahead	Inf	40.5 %	1776	1776
(A2 High Street)	4.23	0.00	T	Arm 6 Left	6.00	59.5 %	1770	1776
2/1	3.25	0.00	Υ	Arm 4 Left	9.00	36.1 %	1719	1719
(Otterham Quay Lane)	3.23	0.00	T	Arm 5 Right	14.00	63.9 %	1719	
3/1	4.45	0.00	Y	Arm 5 Ahead	Inf	47.4 %	1909	1909
(A2 Moor Street)	4.45	0.00		Arm 6 Right	10.00	52.6 %		
4/1 (A2 Moor Street Lane 1)			Infinite S	aturation Flow			Inf	Inf
5/1 (A2 High Street Lane 1)		Infinite Saturation Flow						Inf
6/1 (Otterham Quay Lane Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 2: '2040 AM DM Sens' (FG2: '2040 AM Do Minimum Sensitivity', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

Desired	1 10W .										
		Destination									
		Α	В	С	Tot.						
	Α	0	251	170	421						
Origin	В	258	0	141	399						
	С	137	145	0	282						
	Tot.	395	396	311	1102						

Lane	Scenario 2: 2040 AM DM Sens					
Junction: A2 High Street / Otto	erham Quay Lane / A2 Moor Street / Meresborough Road Signals					
1/1	421					
2/1	399					
3/1	282					
4/1	311					
5/1	395					
6/1	396					

### **Lane Saturation Flows**

Latie Saturation Flows									
Junction: A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	4.25	0.00	Υ	Arm 4 Ahead	Inf	40.4 %	1775	1775	
(A2 High Street)	4.23	0.00	T	Arm 6 Left	6.00	59.6 %	1775	1775	
2/1	2.05	0.00	Υ	Arm 4 Left	9.00	35.3 %	1700	1720	
(Otterham Quay Lane)	3.25	0.00	Y	Arm 5 Right	14.00	64.7 %	1720	1720	
3/1	4.45	0.00	.,	Arm 5 Ahead	Inf	48.6 %	4040	1912	
(A2 Moor Street)	4.45	0.00	Y	Arm 6 Right	10.00	51.4 %	1912		
4/1 (A2 Moor Street Lane 1)			Infinite S	aturation Flow			Inf	Inf	
5/1 (A2 High Street Lane 1)		Infinite Saturation Flow						Inf	
6/1 (Otterham Quay Lane Lane 1)			Infinite S	aturation Flow			Inf	Inf	

Scenario 3: '2040 PM DM' (FG3: '2040 PM Do Minimum', Plan 1: 'Network Control Plan 1') Traffic Flows, Desired Desired Flow:

	Destination									
		Α	В	С	Tot.					
	Α	0	163	220	383					
Origin	В	161	0	170	331					
	С	391	177	0	568					
	Tot.	552	340	390	1282					

Lane	Scenario 3: 2040 PM DM
Junction: A2 High Street / Otto	erham Quay Lane / A2 Moor Street / Meresborough Road Signals
1/1	383
2/1	331
3/1	568
4/1	390
5/1	552
6/1	340

#### Lane Saturation Flows

Lane Saturation Flows									
Junction: A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	4.25	0.00	Υ	Arm 4 Ahead	Inf	57.4 %	1844	1844	
(A2 High Street)	4.23	0.00	T	Arm 6 Left	6.00	42.6 %	1844	1844	
2/1	3.25	0.00	Υ	Arm 4 Left	9.00	51.4 %	1705	1705	
(Otterham Quay Lane)	3.23	0.00	T	Arm 5 Right	14.00	48.6 %	1705	1703	
3/1	4.45	0.00	Υ	Arm 5 Ahead	Inf	68.8 %	1000	1060	
(A2 Moor Street)	4.45	0.00	Y	Arm 6 Right	10.00	31.2 %	1968	1968	
4/1 (A2 Moor Street Lane 1)			Infinite S	aturation Flow			Inf	Inf	
5/1 (A2 High Street Lane 1)	Infinite Saturation Flow Inf Inf						Inf		
6/1 (Otterham Quay Lane Lane 1)			Infinite S	aturation Flow			Inf	Inf	

Scenario 4: '2040 PM DM Sens' (FG4: '2040 PM Do Minimum Sensitivity', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

Desired											
		Destination									
		Α	В	С	Tot.						
	Α	0	180	230	410						
Origin	В	168	0	175	343						
	С	395	183	0	578						
	Tot.	563	363	405	1331						

Lane	Scenario 4: 2040 PM DM Sens					
Junction: A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road						
1/1	410					
2/1	343					
3/1	578					
4/1	405					
5/1	563					
6/1	363					

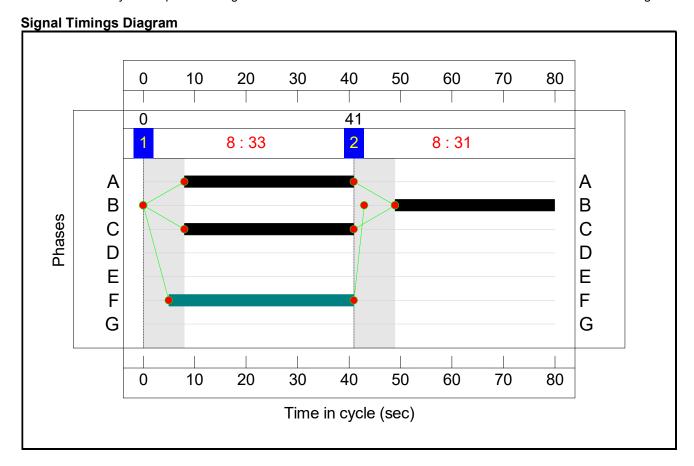
#### **Lane Saturation Flows**

Latie Saturation Flows									
Junction: A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals									
Lane	Lane Width (m)	Width Gradient Lane Turns Radius Prop. (F		Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)				
1/1	4.25	0.00	Υ	Arm 4 Ahead	Inf	56.1 %	1838	1838	
(A2 High Street)	4.23	0.00	T	Arm 6 Left	6.00	43.9 %	1030	1030	
2/1	3.25	0.00	Υ	Arm 4 Left	9.00	51.0 %	1705	1705	
(Otterham Quay Lane)	3.23	0.00	T	Arm 5 Right	14.00	49.0 %	1705		
3/1	4 45	0.00	Υ	Arm 5 Ahead	Inf	68.3 %	1067	1067	
(A2 Moor Street)	4.45	0.00	Y	Arm 6 Right	10.00	31.7 %	1967	1967	
4/1 (A2 Moor Street Lane 1)			Infinite S		Inf	Inf			
5/1 (A2 High Street Lane 1)			Infinite S		Inf	Inf			
6/1 (Otterham Quay Lane Lane 1)			Infinite S	aturation Flow			Inf	Inf	

Scenario 1: '2040 AM DM' (FG1: '2040 AM Do Minimum', Plan 1: 'Network Control Plan 1')

**Stage Timings** 

otage rillings									
Stage	1	2							
Duration	33	31							
Change Point	0	41							



## **Network Layout Diagram** Results For Scenario: 2040 AM DM PRC: 64.9% Tot Delay (pcuHr): 6.98 Cycle Time: 80 A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals PRC: 64.9 % Total Traffic Delay: 7.0 pcuHr Arm 6 - Otterham Quay Lane Arm 2 - Otterham Quay Lane KEY $-\ln f$ 0.09 Phys Length (PCU) Cust. Occup Sat Flow Used → 60.0 60.0 1776-60.0 Inf-Arm 1 - A2 High Street Arm 4 - A2 Moor Street Arm 3 - A2 Moor Street Arm 5 - A2 High Street 60.0 -Inf **♣** 1909 60.0 Proposal: The proposal removed Meresborough Rd from the junction. Therefore, this arm was removed in the model. Phase D was left in the model simply so references tie up with the existing model, although Phase D is no longer used. The stage sequence changed to simply run the main road in Stage 1, side road in stage 2. Cycle time reduced to 80 seconds (long cycle time in existing was because the main road ran twice during the cycle. Intergreens were left as per the existing. However, once a layout is formalised, it is likely these will change due to different stopline positions. Several intergreens are likely to decrease, as stoplines are brought closer together.

# A2 Otterham Quay Ln Proposed LinSig Data **Network Results**

Network Results	_		-			-	i e						_
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Otterham Quay Ln Proposed	-	-	N/A	-	-		-	-	-	-	-	-	54.6%
A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals	-	-	N/A	-	-		-	-	-	-	-	-	54.6%
1/1	A2 High Street Ahead Left	U	N/A	N/A	Α		1	33	-	412	1776	755	54.6%
2/1	Otterham Quay Lane Left Right	U	N/A	N/A	В		1	31	-	374	1719	688	54.4%
3/1	A2 Moor Street Ahead Right	0	N/A	N/A	С		1	33	-	266	1909	614	43.3%
4/1	A2 Moor Street	U	N/A	N/A	-		-	-	-	302	Inf	Inf	0.0%
5/1	A2 High Street	U	N/A	N/A	-		-	-	-	365	Inf	Inf	0.0%
6/1	Otterham Quay Lane	U	N/A	N/A	-		-	-	-	385	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Otterham Quay Ln Proposed	-	-	138	0	2	5.0	1.6	0.4	7.0	-	-	-	-
A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals	-	-	138	0	2	5.0	1.6	0.4	7.0	•	-	-	-
1/1	412	412	-	-	-	2.0	0.6	-	2.6	22.5	6.8	0.6	7.4
2/1	374	374	-	-	-	1.9	0.6	-	2.5	24.1	6.3	0.6	6.9
3/1	266	266	138	0	2	1.1	0.4	0.4	1.9	25.8	3.9	0.4	4.3
4/1	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	365	365	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

tterham Quay Ln Proposed LinSig Data

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C1 PRC for Signalled Lanes (%): 64.9 Total Delay for Signalled Lanes (pcuHr): 6.98 Cycle Time (s): 80 PRC Over All Lanes (%): 64.9 Total Delay Over All Lanes (pcuHr): 6.98

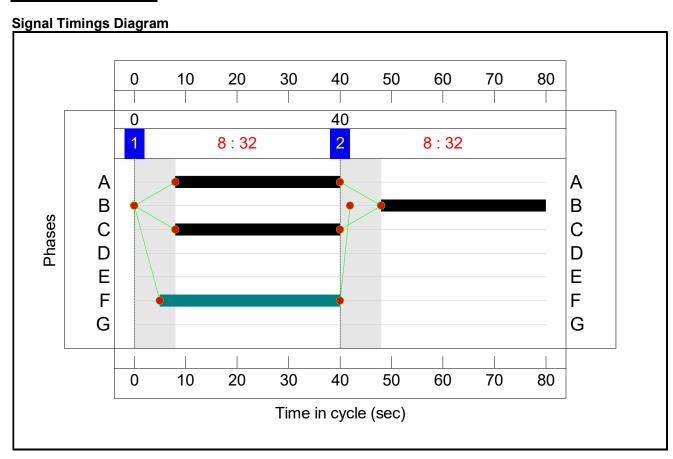
A2 Otterham Quay Ln Proposed LinSig Data Scenario 2: '2040 AM DM Sens' (FG2: '2040 AM Do Minimum Sensitivity', Plan 1: 'Network Control Plan 1')

**Stage Sequence Diagram** 



**Stage Timings** 

Stage	1	2
Duration	32	32
Change Point	0	40



**Network Layout Diagram** Results For Scenario: 2040 AM DM Sens PRC: 56.5% Cycle Time: 80 Tot Delay (pcuHr): 7.58 A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals PRC: 56.5 % Total Traffic Delay: 7.6 pcuHr Arm 6 - Otterham Quay Lane Arm 2 - Otterham Quay Lane KEY  $-\ln f$ 0.09 Phys Length (PCU) Cust. Occup Sat Flow Used → 60.0 60.0 1775-60.0 Inf-Arm 1 - A2 High Street Arm 4 - A2 Moor Street Arm 3 - A2 Moor Street Arm 5 - A2 High Street 60.0 -Inf 1912 60.0 Proposal: The proposal removed Meresborough Rd from the junction. Therefore, this arm was removed in the model. Phase D was left in the model simply so references tie up with the existing model, although Phase D is no longer used. The stage sequence changed to simply run the main road in Stage 1, side road in stage 2. Cycle time reduced to 80 seconds (long cycle time in existing was because the main road ran twice during the cycle. Intergreens were left as per the existing. However, once a layout is formalised, it is likely these will change due to different stopline positions. Several intergreens are likely to decrease, as stoplines are brought closer together.

# A2 Otterham Quay Ln Proposed LinSig Data Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Otterham Quay Ln Proposed	-	-	N/A	-	-		-	-	-	-	-	-	57.5%
A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals	-	-	N/A	-	-		-	-	-	-	-	-	57.5%
1/1	A2 High Street Ahead Left	U	N/A	N/A	А		1	32	-	421	1775	732	57.5%
2/1	Otterham Quay Lane Left Right	U	N/A	N/A	В		1	32	-	399	1720	709	56.2%
3/1	A2 Moor Street Ahead Right	0	N/A	N/A	С		1	32	-	282	1912	597	47.2%
4/1	A2 Moor Street	U	N/A	N/A	-		-	-	-	311	Inf	Inf	0.0%
5/1	A2 High Street	U	N/A	N/A	-		-	-	-	395	Inf	Inf	0.0%
6/1	Otterham Quay Lane	U	N/A	N/A	-		-	-	-	396	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Otterham Quay Ln Proposed	-	-	143	0	2	5.4	1.8	0.4	7.6	-	-	-	-
A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals	-	-	143	0	2	5.4	1.8	0.4	7.6	-	-	-	-
1/1	421	421	-	-	-	2.1	0.7	-	2.8	23.9	7.1	0.7	7.8
2/1	399	399	-	-	-	2.0	0.6	-	2.6	23.8	6.8	0.6	7.4
3/1	282	282	143	0	2	1.3	0.4	0.4	2.2	27.6	4.3	0.4	4.8
4/1	311	311	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	395	395	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	396	396	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

A2 Otterham Quay Ln Proposed LinSig	Data					Page 17
C1	PRC for Signalled Lanes (%): PRC Over All Lanes (%):	56.5 56.5	Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):	7.58 7.58	Cycle Time (s): 80	

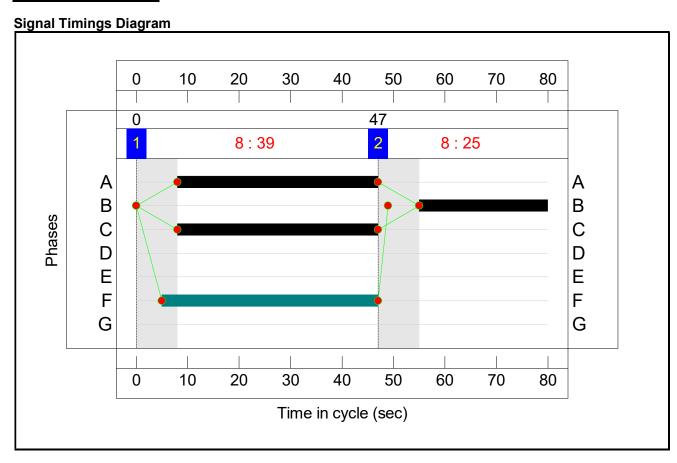
A2 Otterham Quay Ln Proposed LinSig Data Scenario 3: '2040 PM DM' (FG3: '2040 PM Do Minimum', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



**Stage Timings** 

Stage	1	2
Duration	39	25
Change Point	0	47



**Network Layout Diagram** Results For Scenario: 2040 PM DM PRC: 50.7% Cycle Time: 80 Tot Delay (pcuHr): 7.71 A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals PRC: 50.7 % Total Traffic Delay: 7.7 pcuHr Arm 6 - Otterham Quay Lane Arm 2 - Otterham Quay Lane KEY  $-\ln f$ 0.09 Phys Length (PCU) Cust. Occup Sat Flow Used → 60.0 60.0 1844-60.0 Inf-Arm 1 - A2 High Street Arm 4 - A2 Moor Street Arm 3 - A2 Moor Street Arm 5 - A2 High Street 60.0 -Inf **♣** 1968 60.0

#### Proposal:

The proposal removed Meresborough Rd from the junction. Therefore, this arm was removed in the model. Phase D was left in the model simply so references tie up with the existing model, although Phase D is no longer used.

The stage sequence changed to simply run the main road in Stage 1, side road in stage 2. Cycle time reduced to 80 seconds (long cycle time in existing was because the main road ran twice during the cycle.

Intergreens were left as per the existing. However, once a layout is formalised, it is likely these will change due to different stopline positions. Several intergreens are likely to decrease, as stoplines are brought closer together.

# A2 Otterham Quay Ln Proposed LinSig Data Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Otterham Quay Ln Proposed	-	-	N/A	-	-		-	-	-	-	-	-	59.7%
A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals	-	-	N/A	-	-		-	-	-	-	-	-	59.7%
1/1	A2 High Street Ahead Left	U	N/A	N/A	А		1	39	-	383	1844	922	41.5%
2/1	Otterham Quay Lane Left Right	U	N/A	N/A	В		1	25	-	331	1705	554	59.7%
3/1	A2 Moor Street Ahead Right	0	N/A	N/A	С		1	39	-	568	1968	953	59.6%
4/1	A2 Moor Street	U	N/A	N/A	-		-	-	-	390	Inf	Inf	0.0%
5/1	A2 High Street	U	N/A	N/A	-		-	-	-	552	Inf	Inf	0.0%
6/1	Otterham Quay Lane	U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Otterham Quay Ln Proposed	-	-	175	0	2	5.7	1.8	0.2	7.7	-	-	-	-
A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals	-	-	175	0	2	5.7	1.8	0.2	7.7	•	-	-	
1/1	383	383	-	-	-	1.3	0.4	-	1.7	16.0	5.3	0.4	5.7
2/1	331	331	-	-	-	2.1	0.7	-	2.8	30.6	6.2	0.7	6.9
3/1	568	568	175	0	2	2.2	0.7	0.2	3.2	20.3	9.0	0.7	9.7
4/1	390	390	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	552	552	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

A2 Otterham Quay Ln Proposed LinSig	Data					Page 21
C1	PRC for Signalled Lanes (%): PRC Over All Lanes (%):	50.7 50.7	Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):	7.71 7.71	Cycle Time (s): 80	

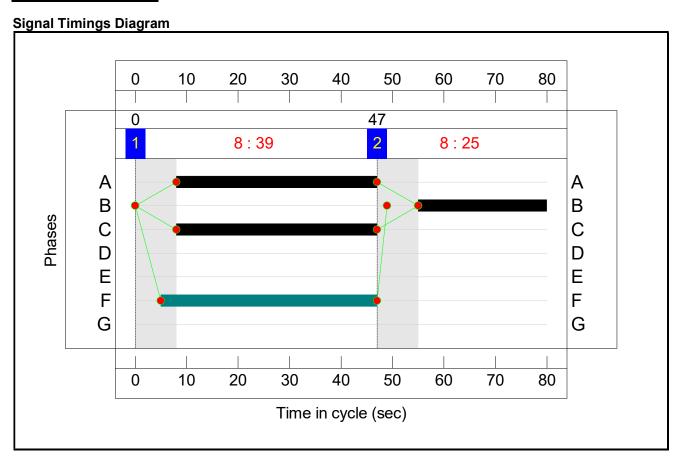
A2 Otterham Quay Ln Proposed LinSig Data **Scenario 4: '2040 PM DM Sens'** (FG4: '2040 PM Do Minimum Sensitivity', Plan 1: 'Network Control Plan 1')

**Stage Sequence Diagram** 

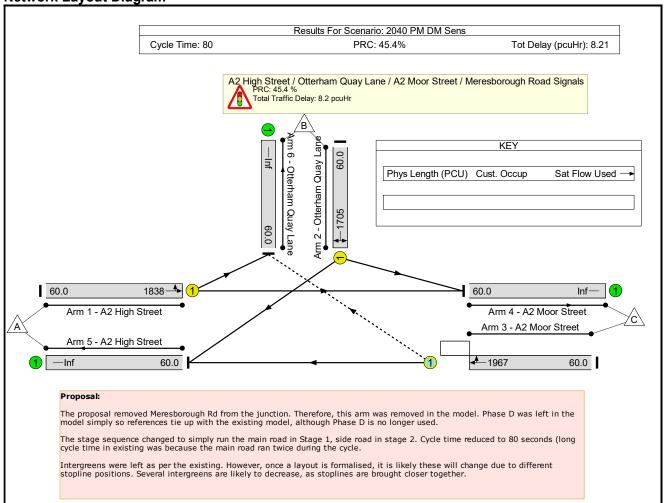


**Stage Timings** 

Stage	1	2
Duration	39	25
Change Point	0	47



**Network Layout Diagram** 



# A2 Otterham Quay Ln Proposed LinSig Data Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Otterham Quay Ln Proposed	-	-	N/A	-	-		-	-	-	-	-	-	61.9%
A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals	-	-	N/A	-	-		-	-	-	-	-	-	61.9%
1/1	A2 High Street Ahead Left	U	N/A	N/A	Α		1	39	-	410	1838	919	44.6%
2/1	Otterham Quay Lane Left Right	U	N/A	N/A	В		1	25	-	343	1705	554	61.9%
3/1	A2 Moor Street Ahead Right	0	N/A	N/A	С		1	39	-	578	1967	944	61.3%
4/1	A2 Moor Street	U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
5/1	A2 High Street	U	N/A	N/A	-		-	-	-	563	Inf	Inf	0.0%
6/1	Otterham Quay Lane	U	N/A	N/A	-		-	-	-	363	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Otterham Quay Ln Proposed	-	-	181	0	2	5.9	2.0	0.3	8.2	-	-	-	-
A2 High Street / Otterham Quay Lane / A2 Moor Street / Meresborough Road Signals	-	-	181	0	2	5.9	2.0	0.3	8.2	-	-	-	-
1/1	410	410	-	-	-	1.5	0.4	-	1.9	16.4	5.8	0.4	6.2
2/1	343	343	-	-	-	2.2	0.8	-	3.0	31.3	6.4	0.8	7.2
3/1	578	578	181	0	2	2.3	0.8	0.3	3.4	20.9	9.3	0.8	10.1
4/1	405	405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	563	563	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	363	363	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

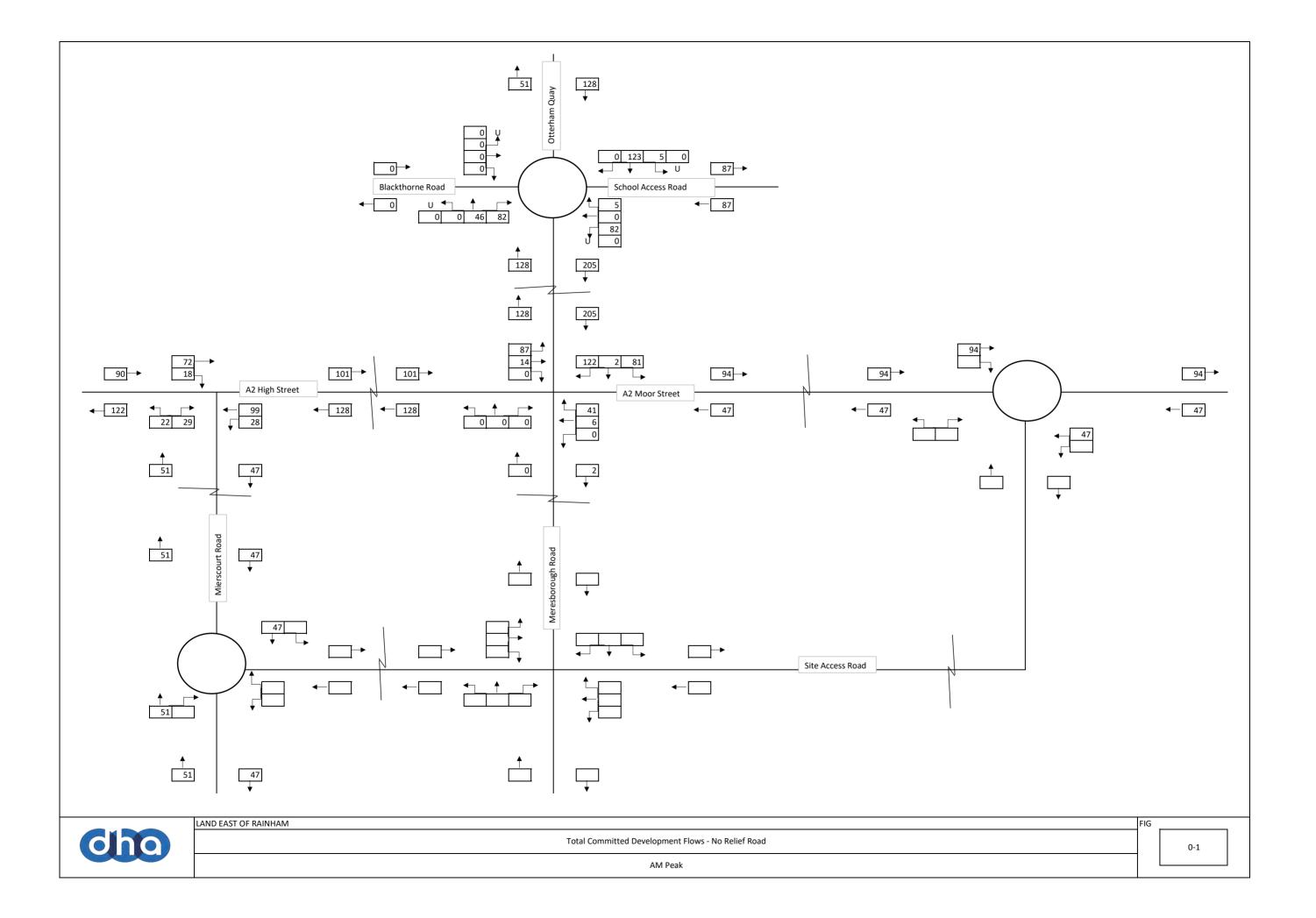
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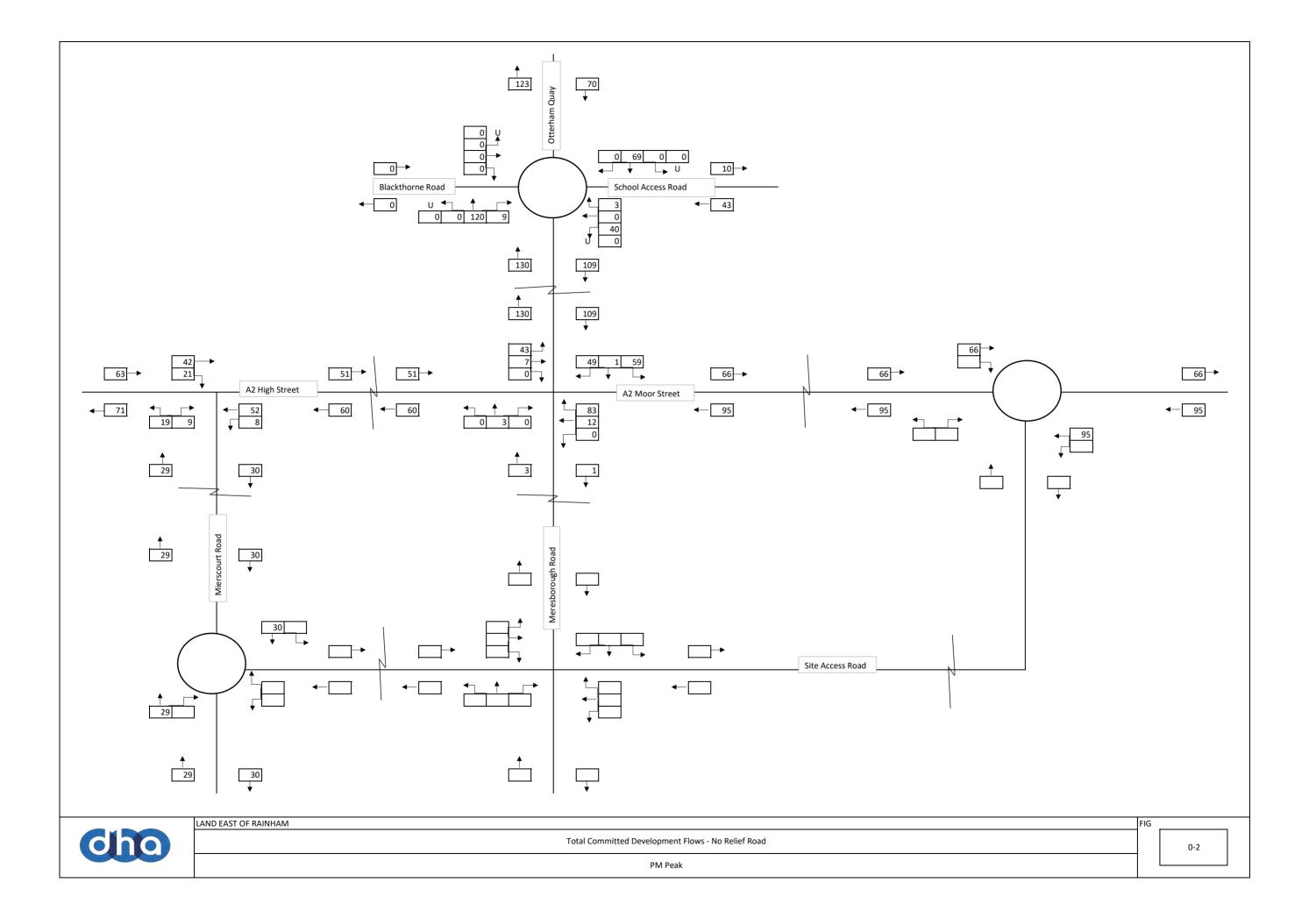
C1 PRC for Signalled Lanes (%): PRC Over All Lanes (%): 45.4 45.4 Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr): 8.21 8.21 Cycle Time (s): 80

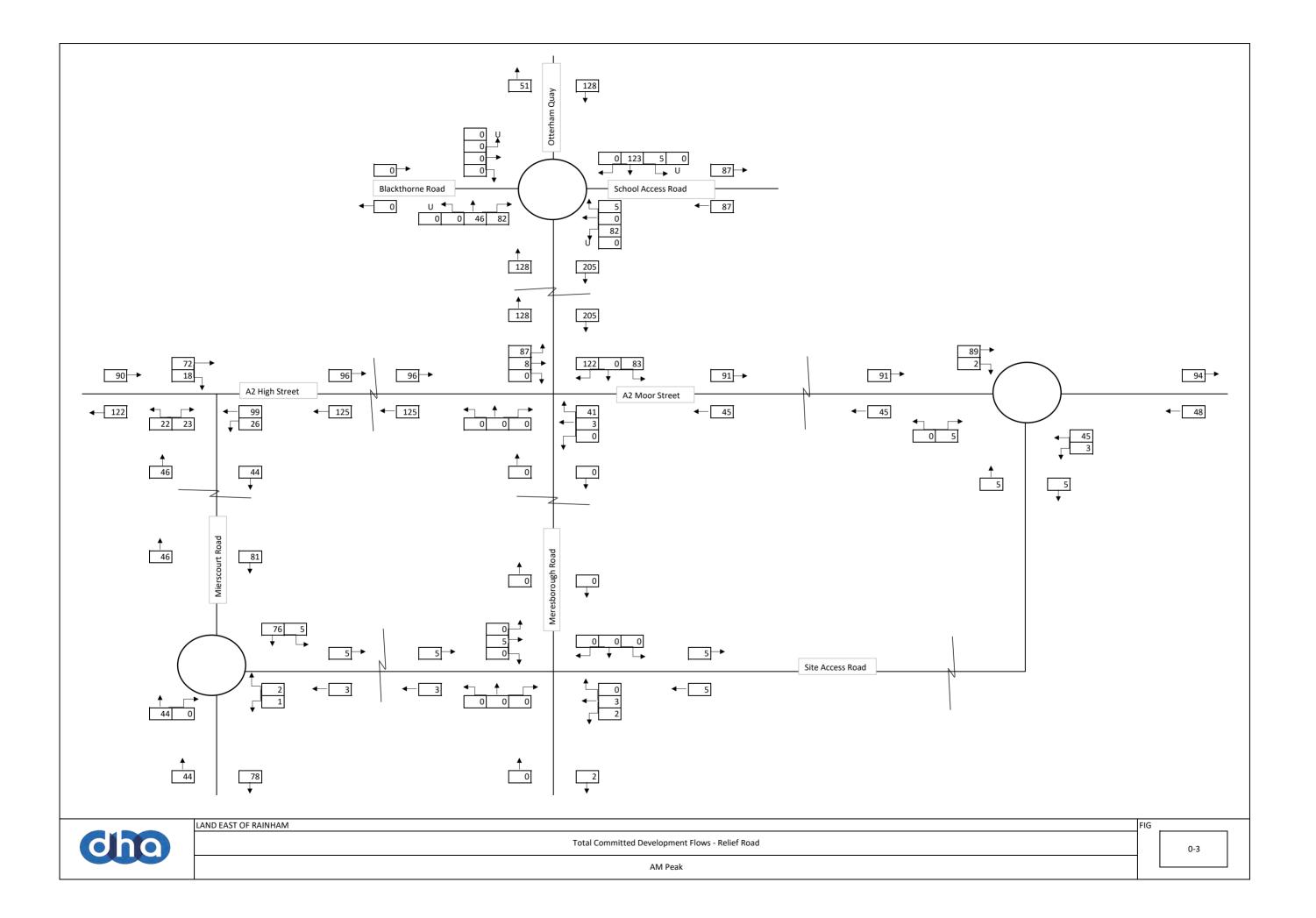
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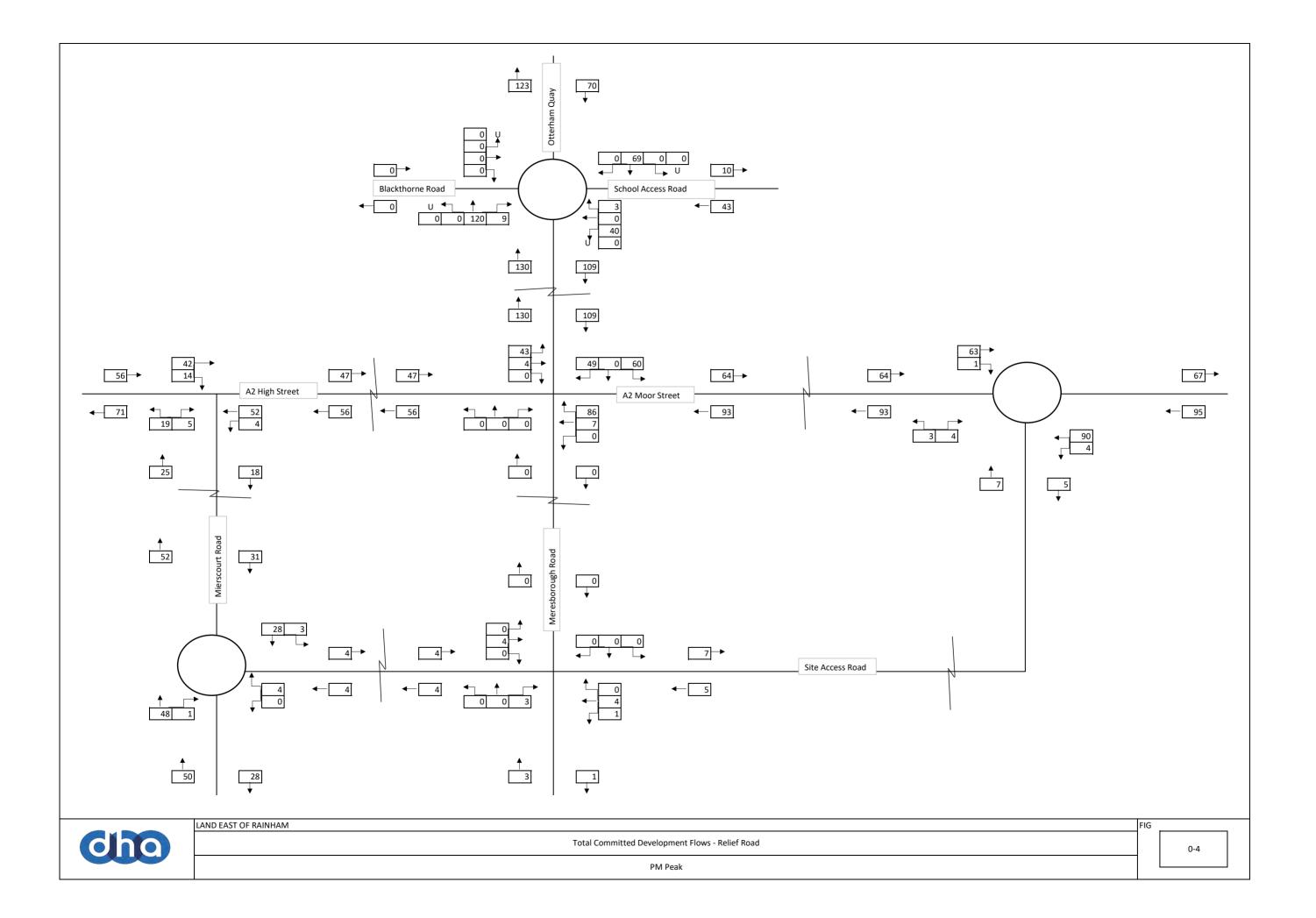
# FIGURES

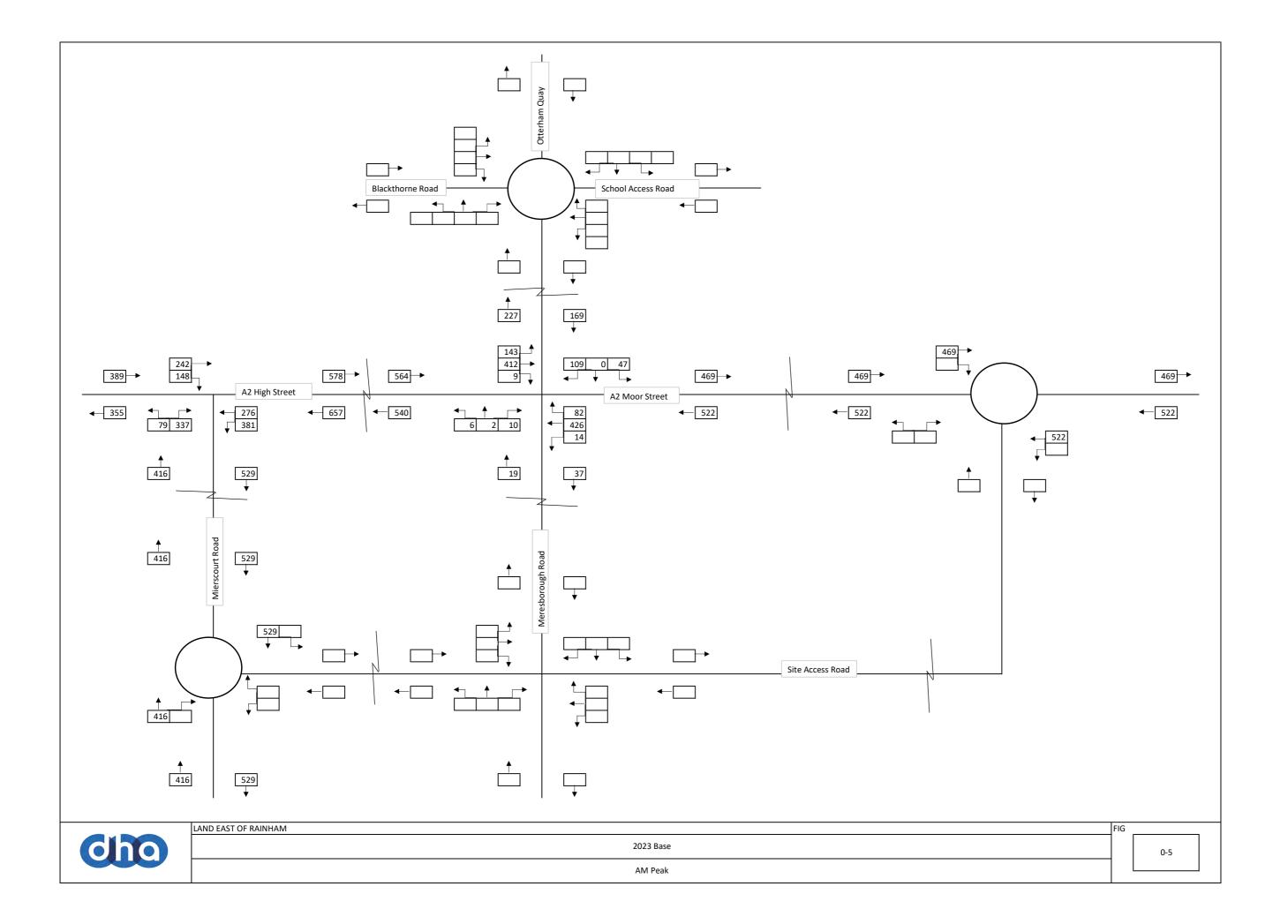


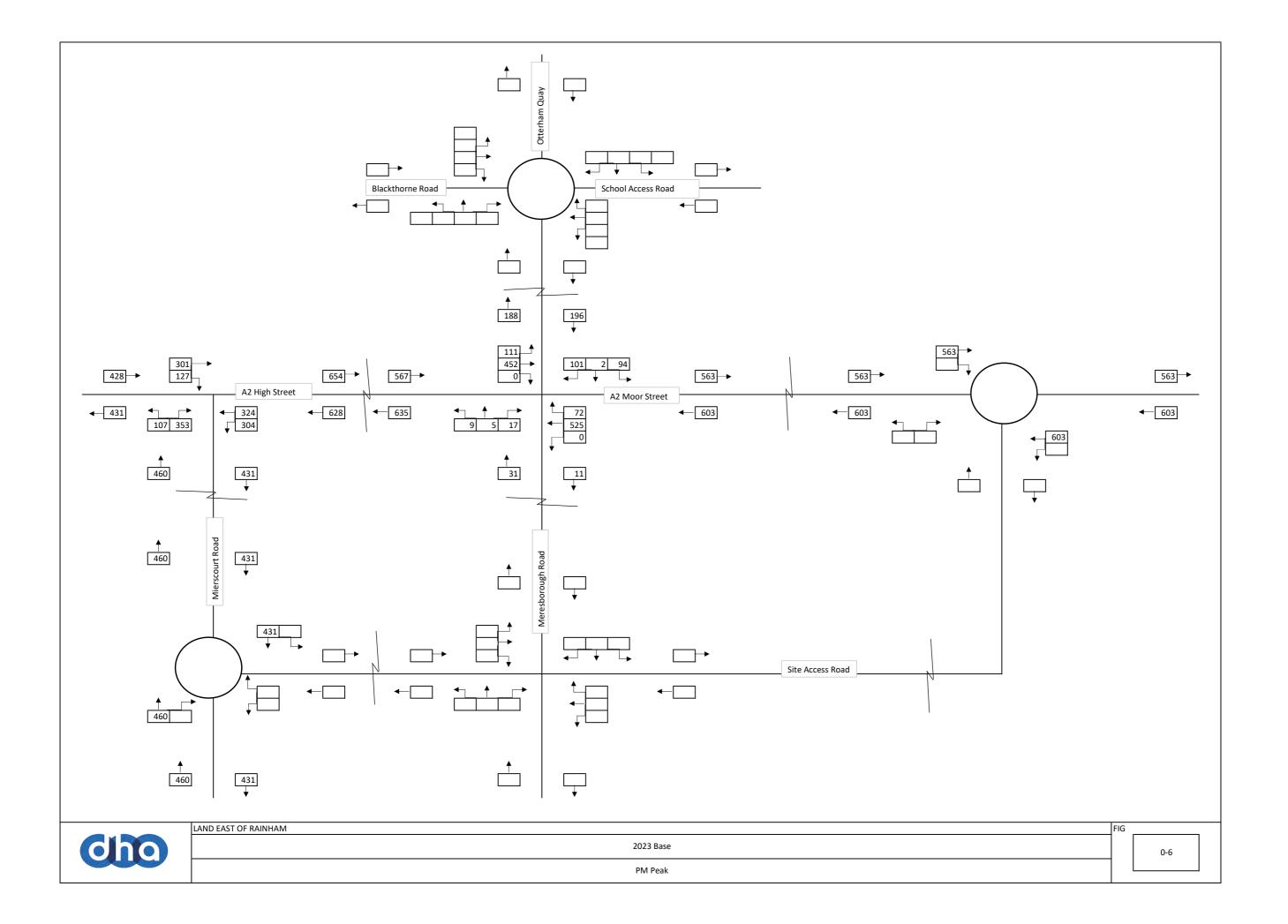


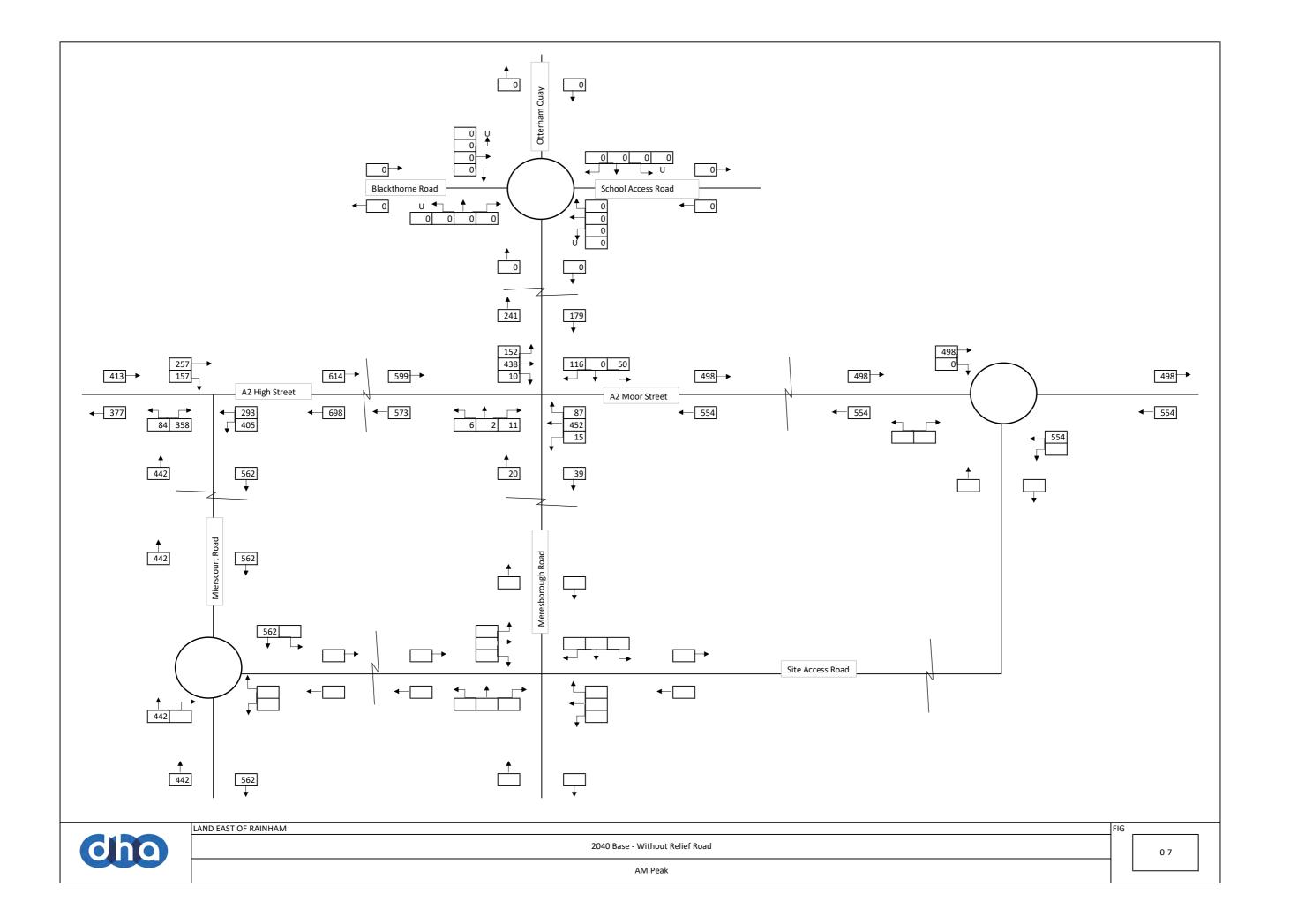


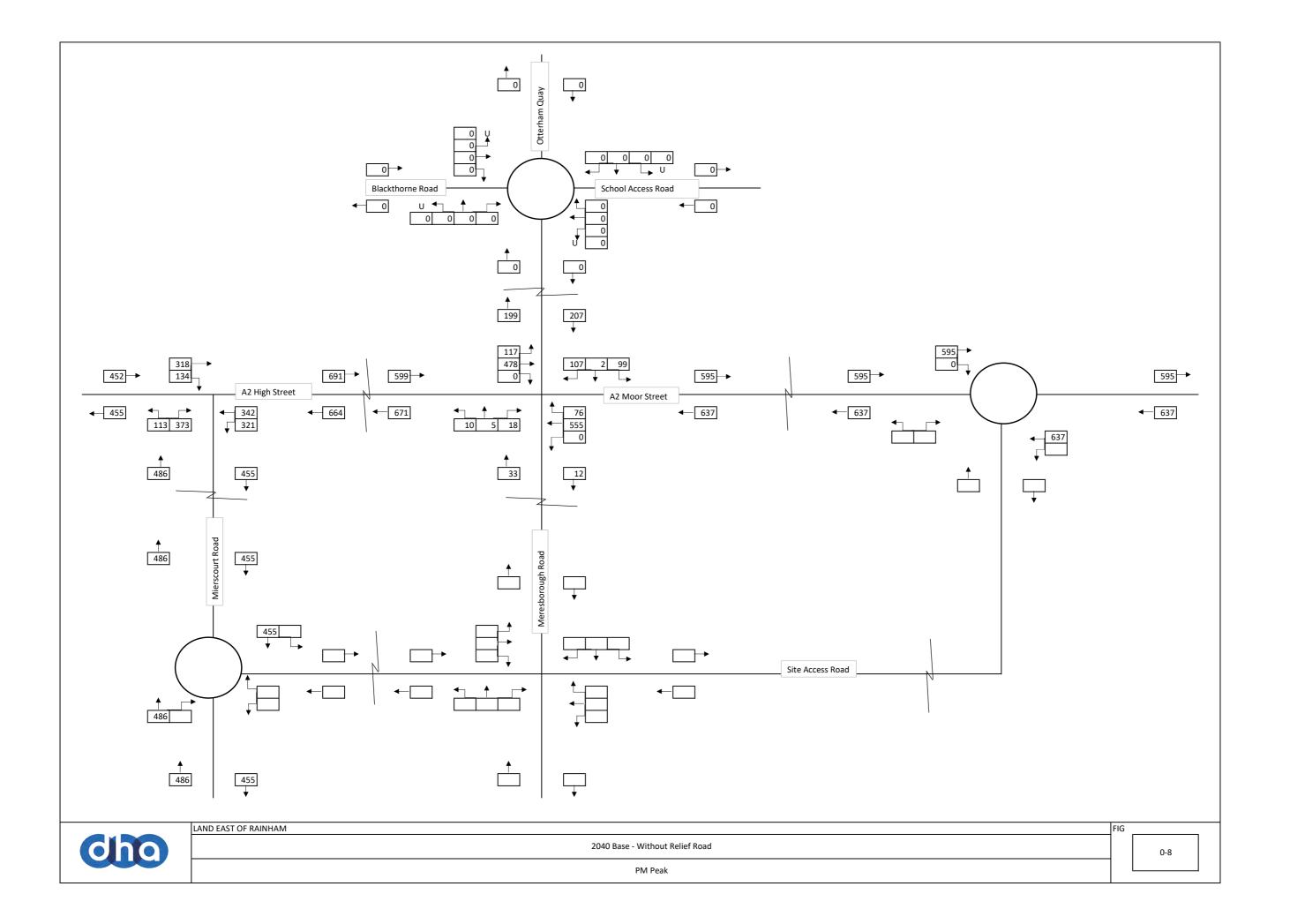


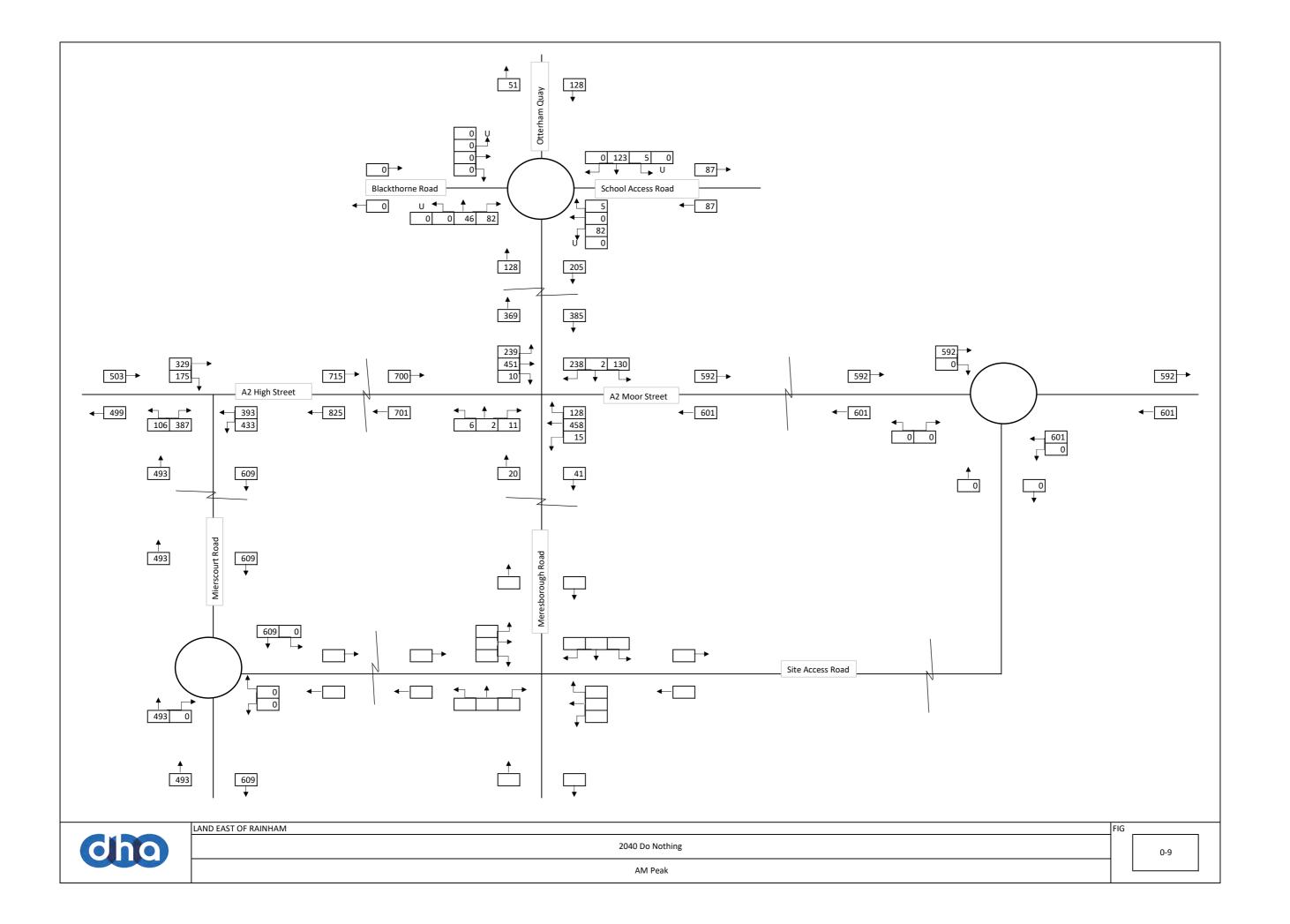


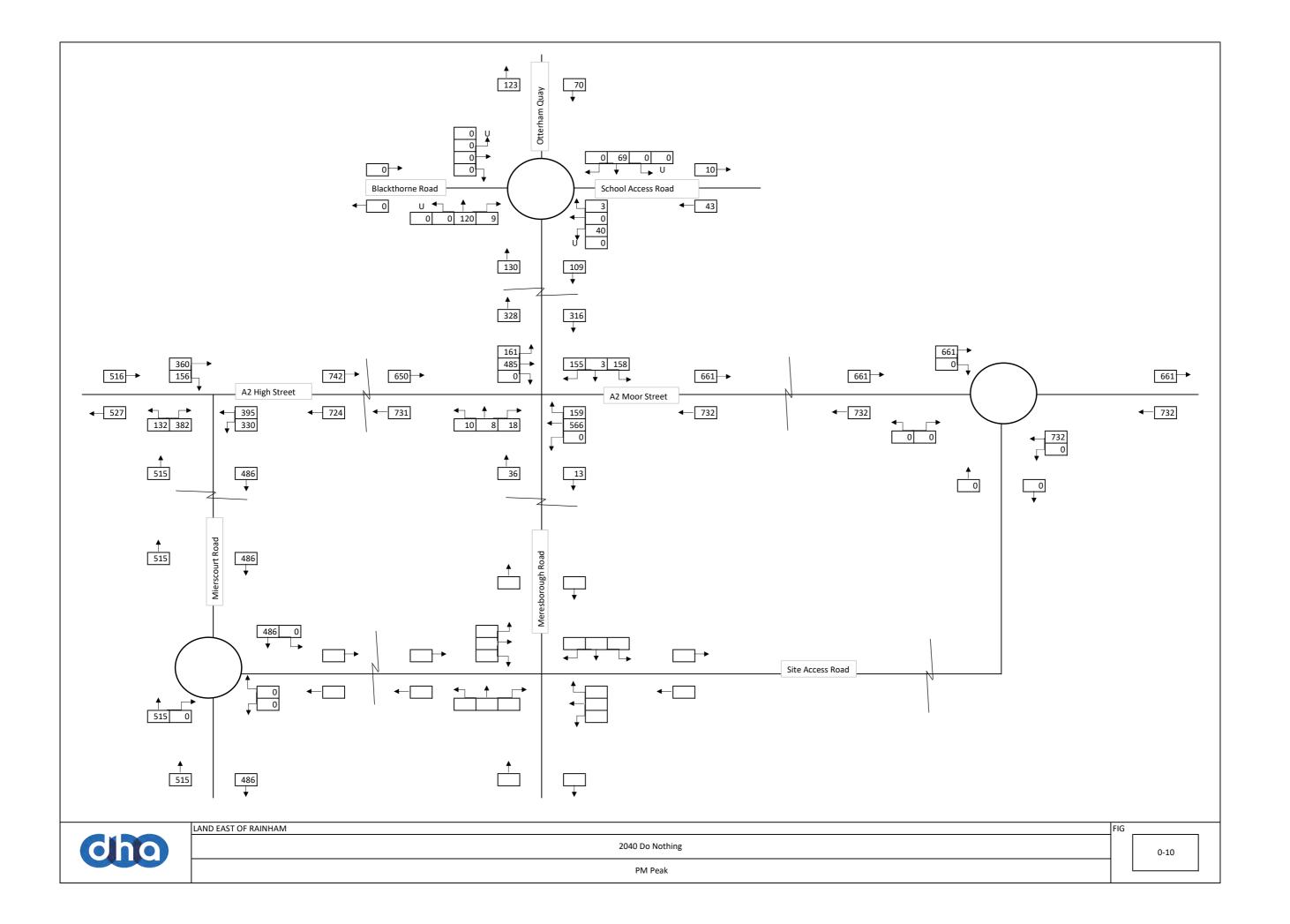


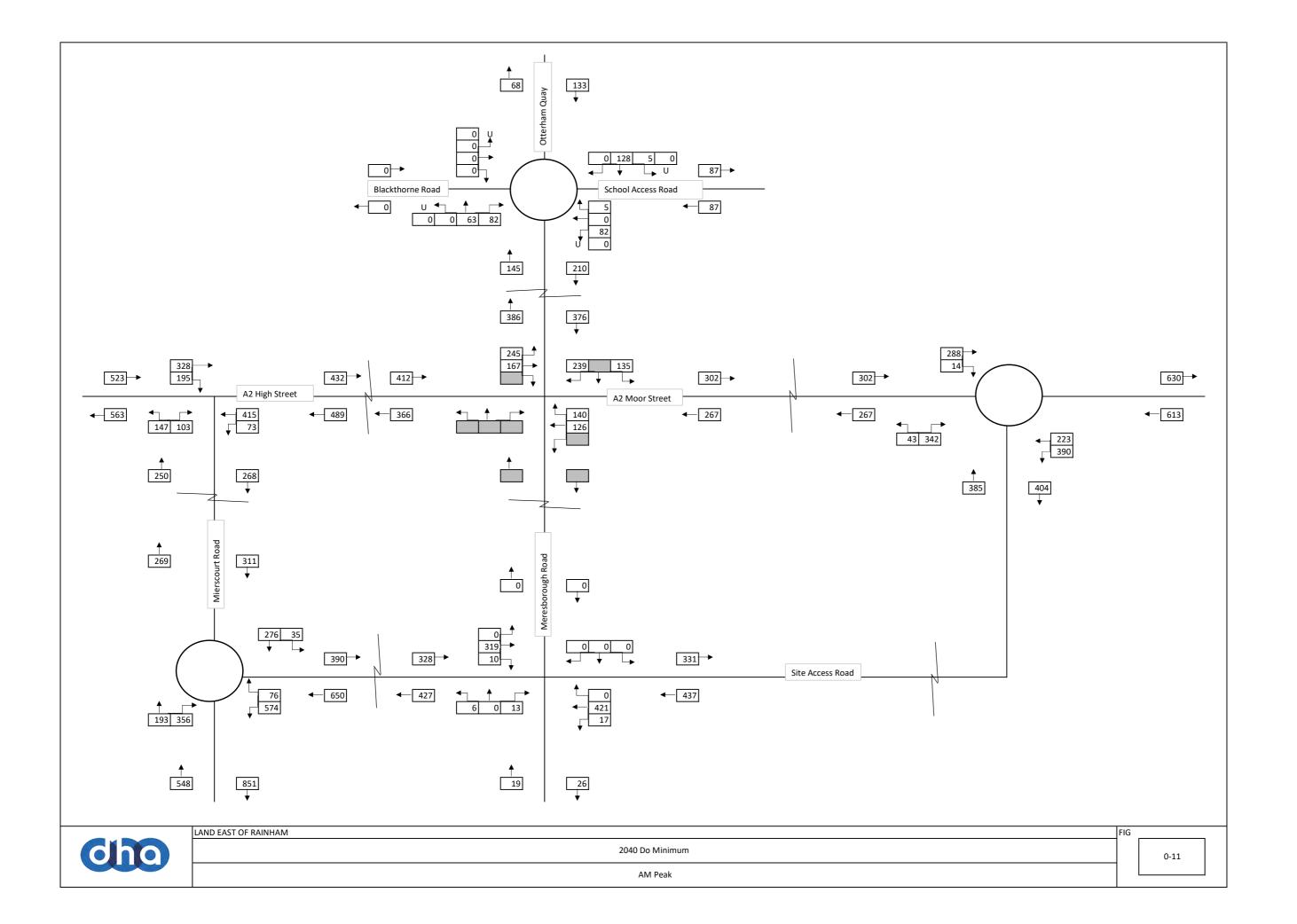


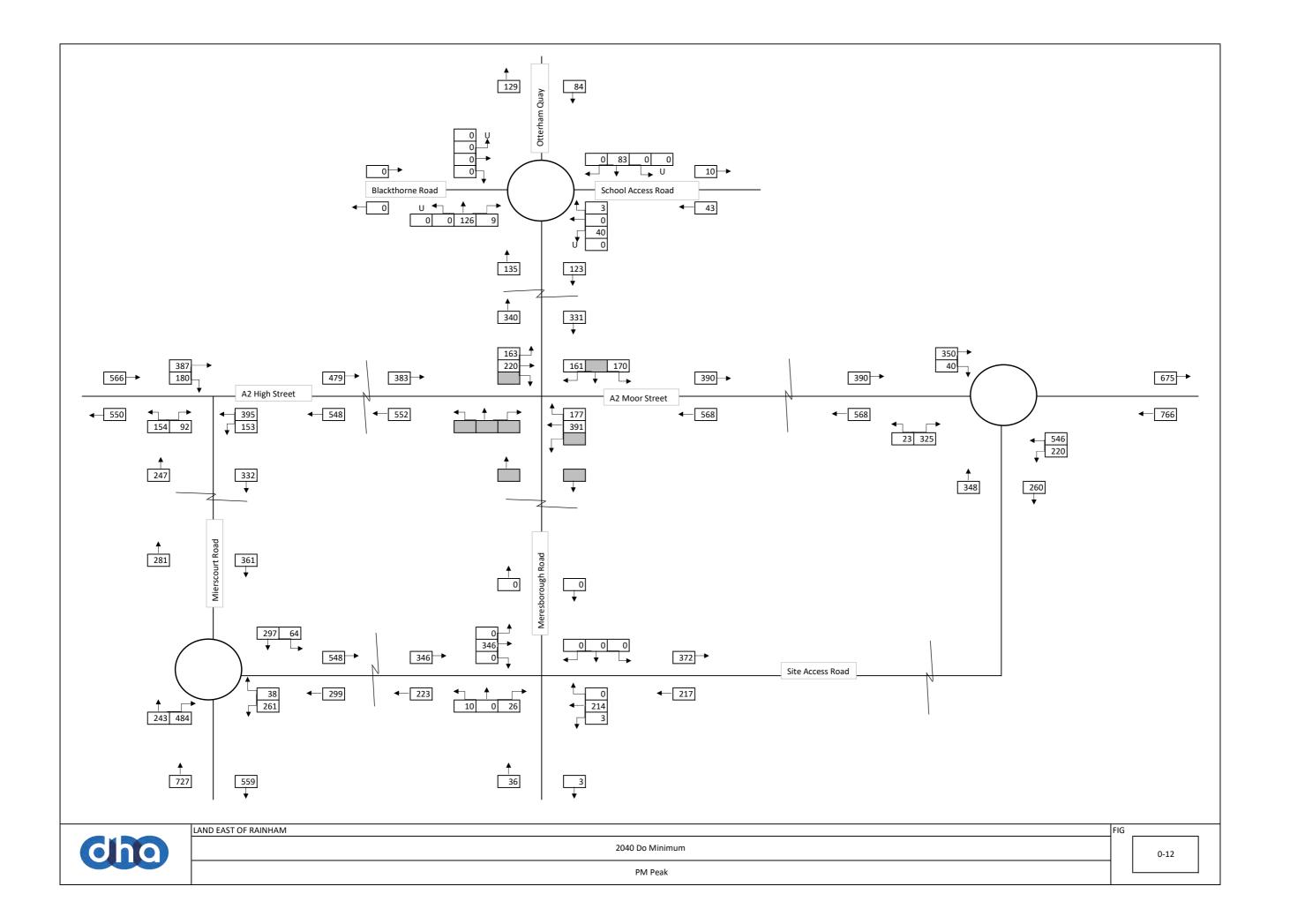




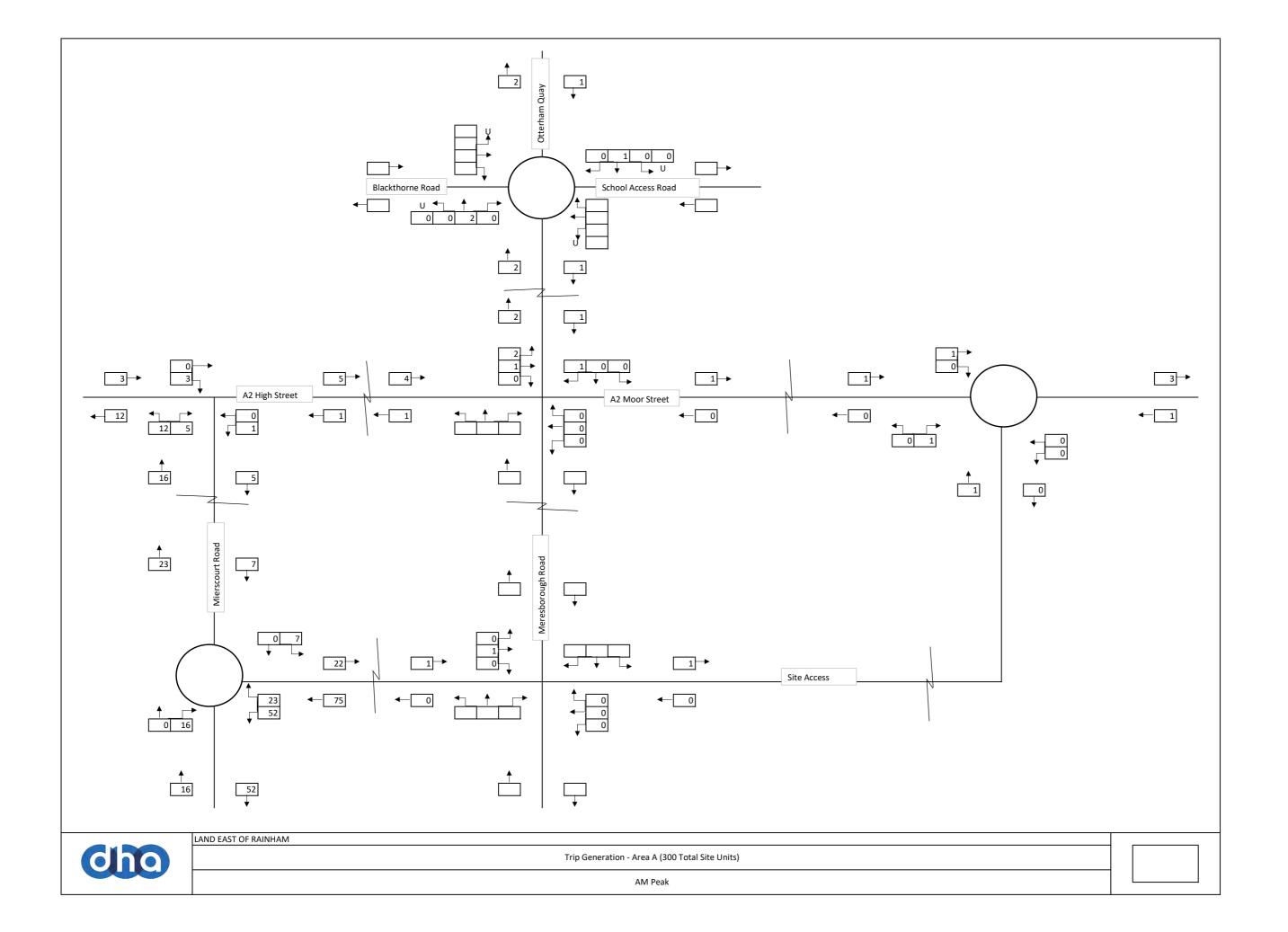


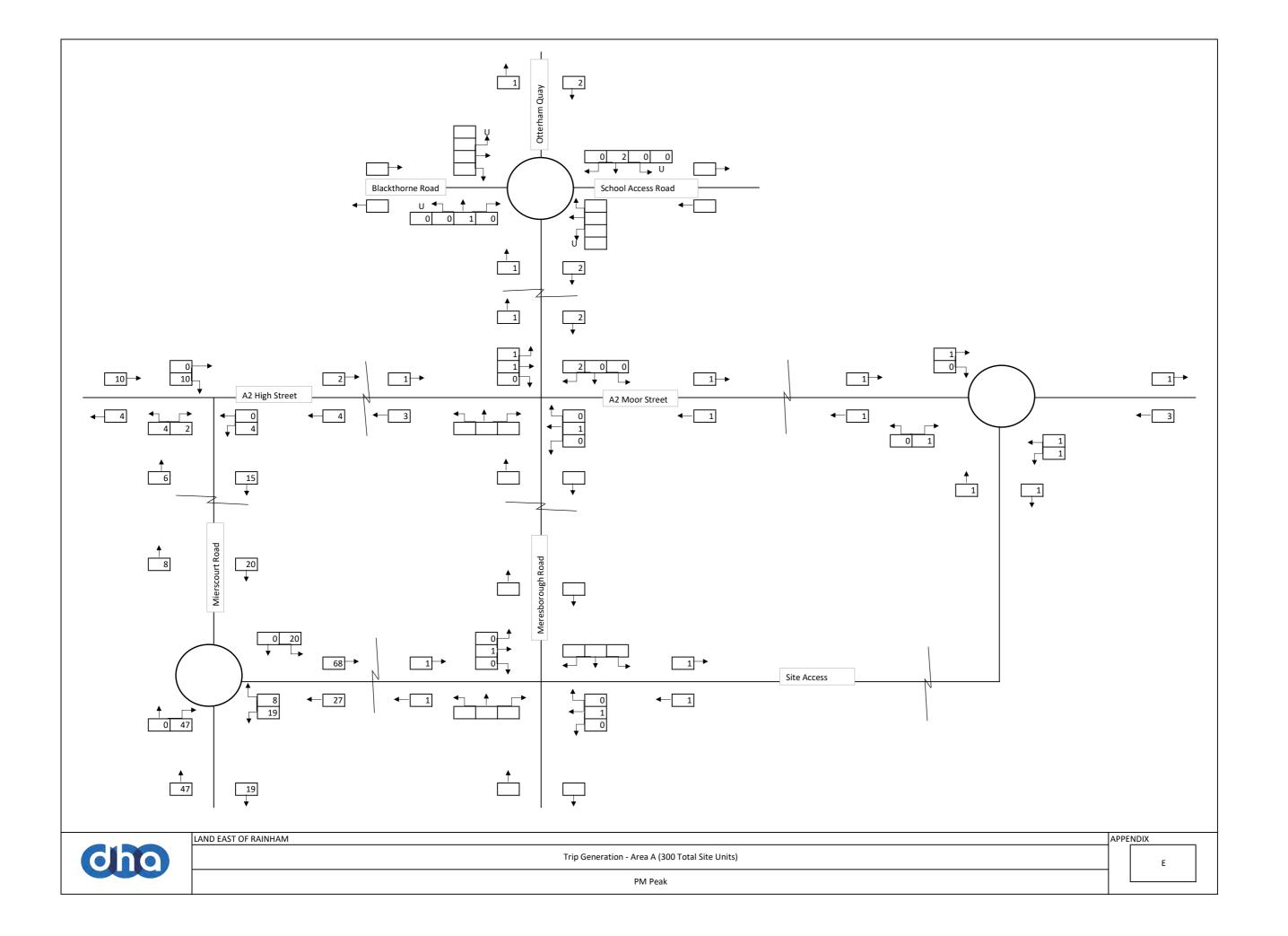


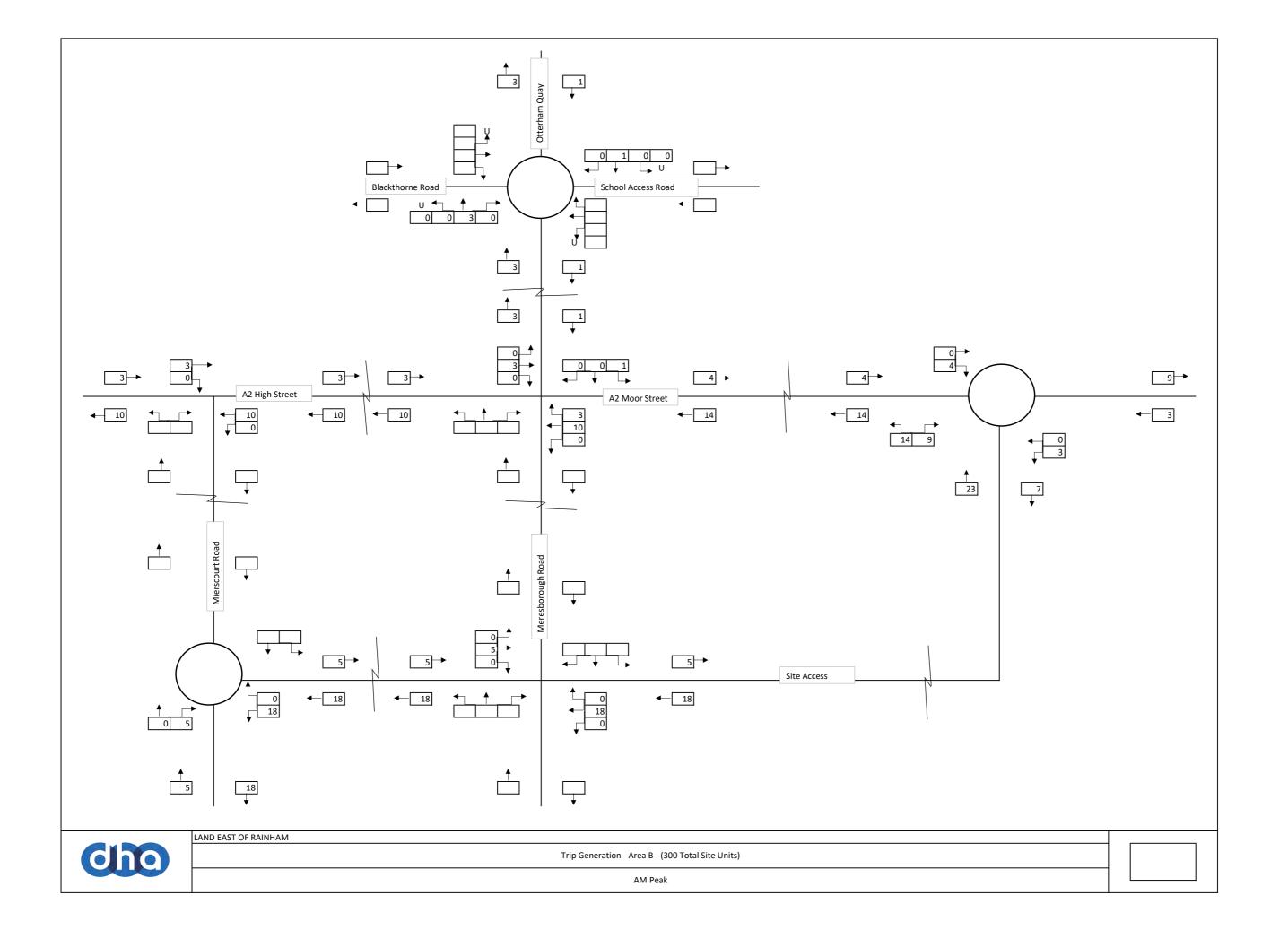


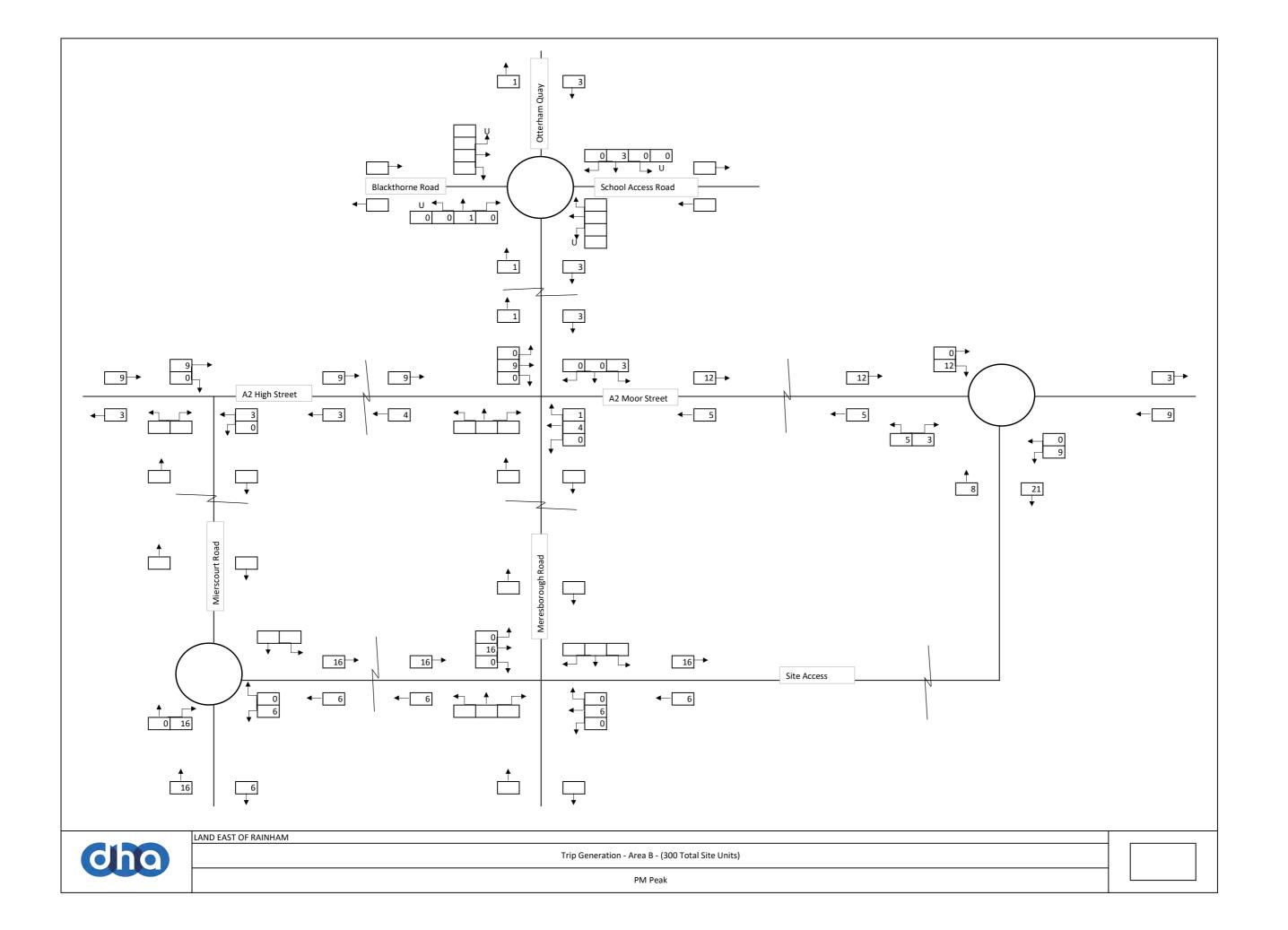


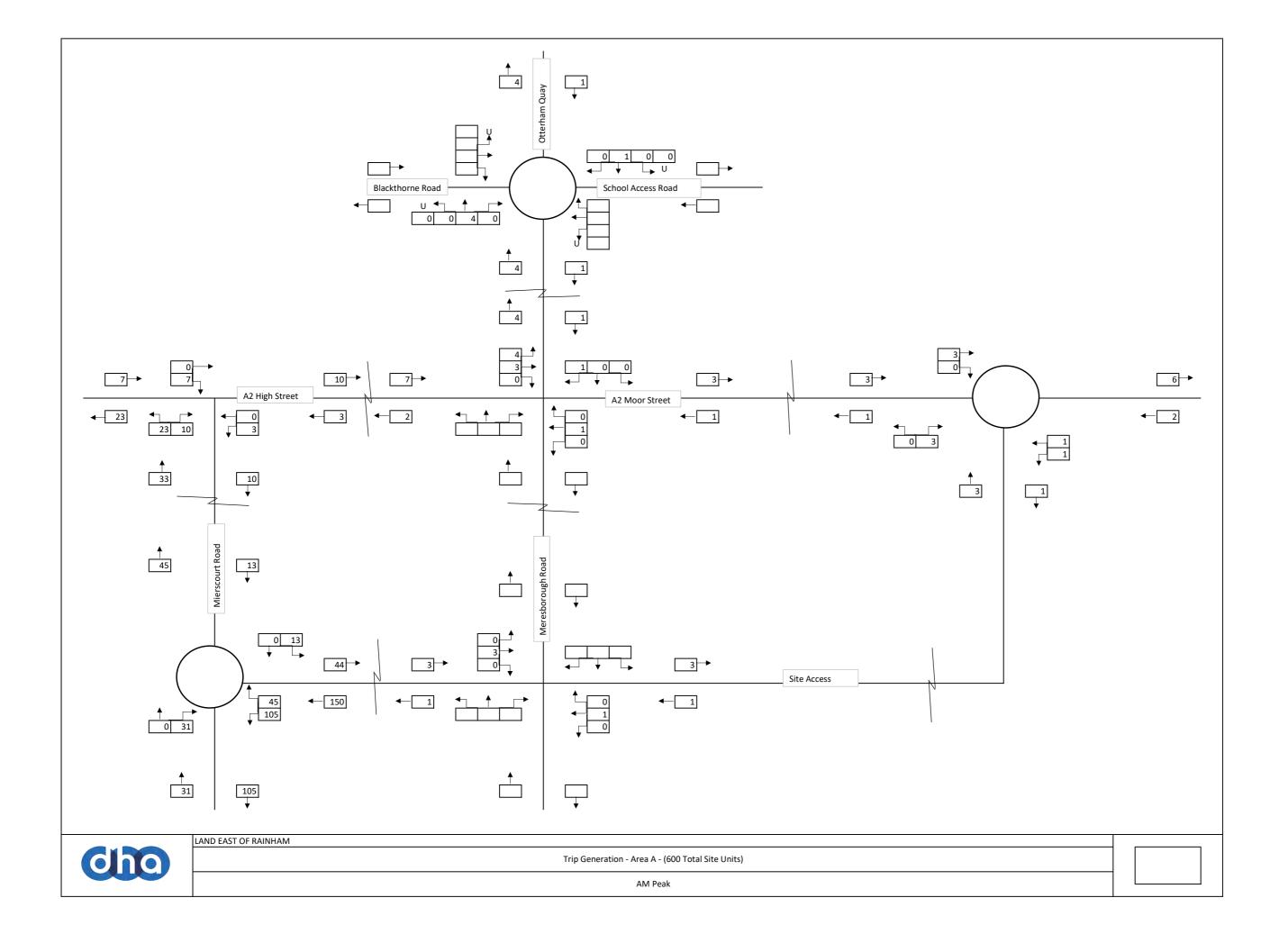


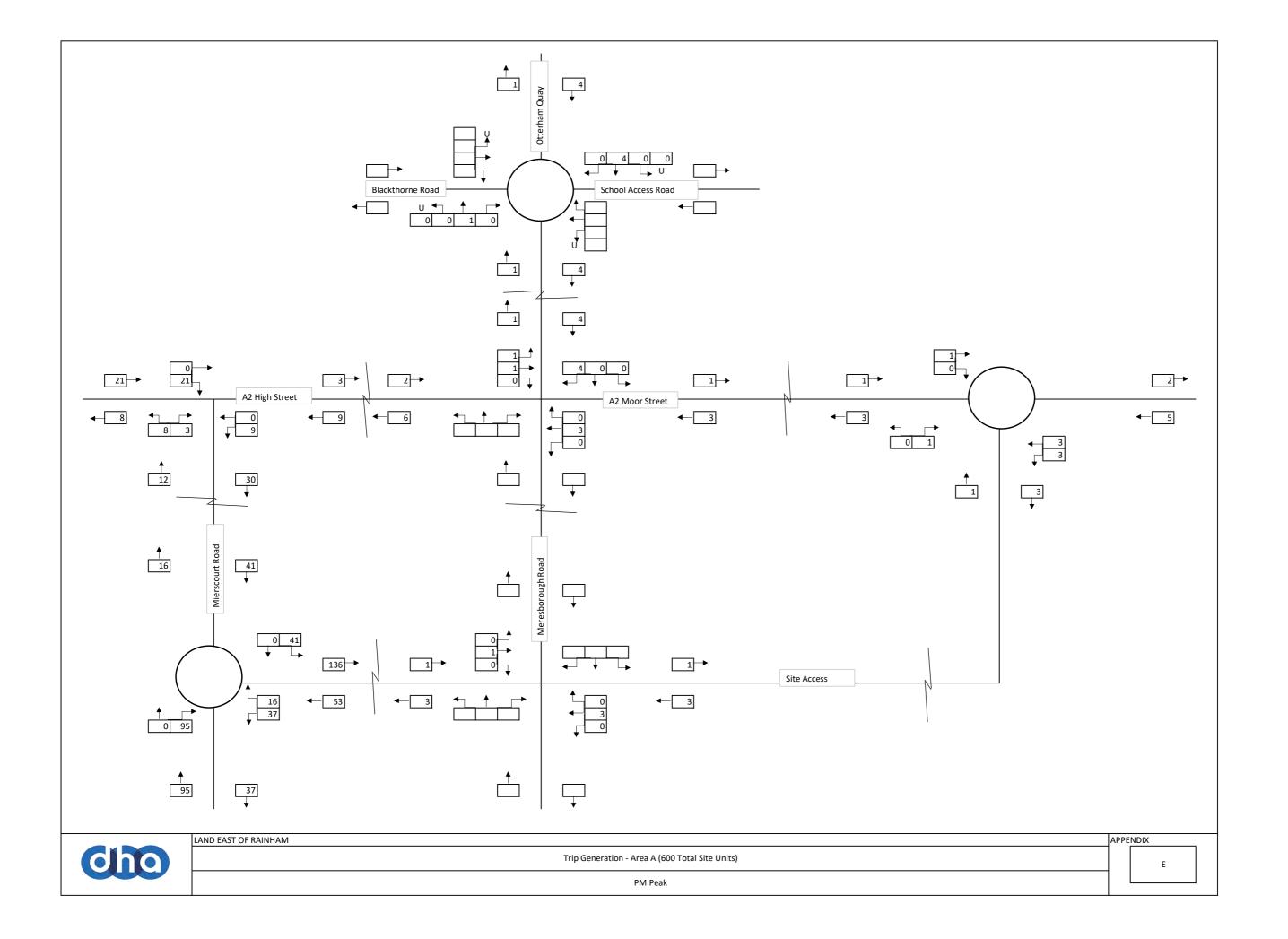


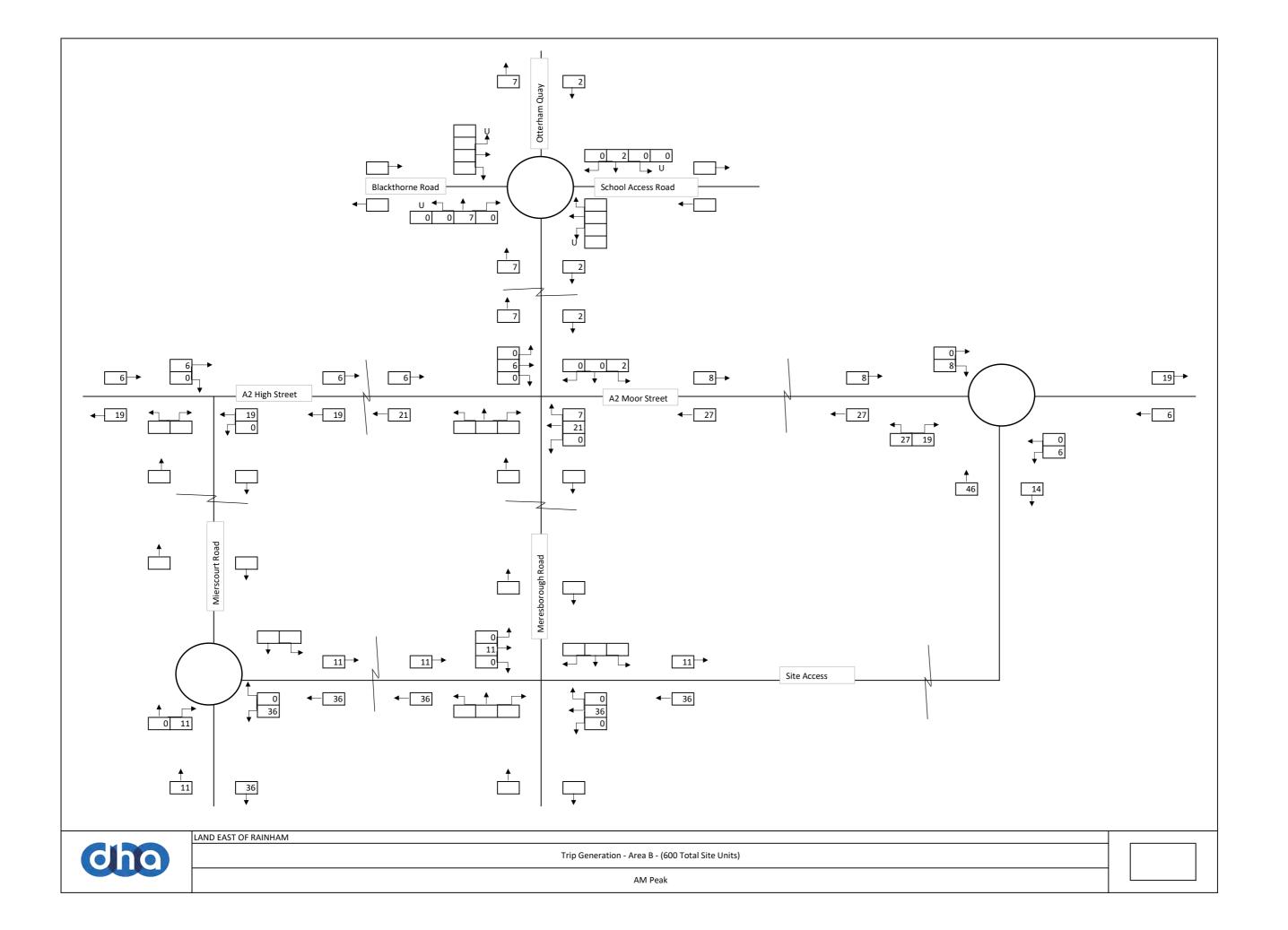


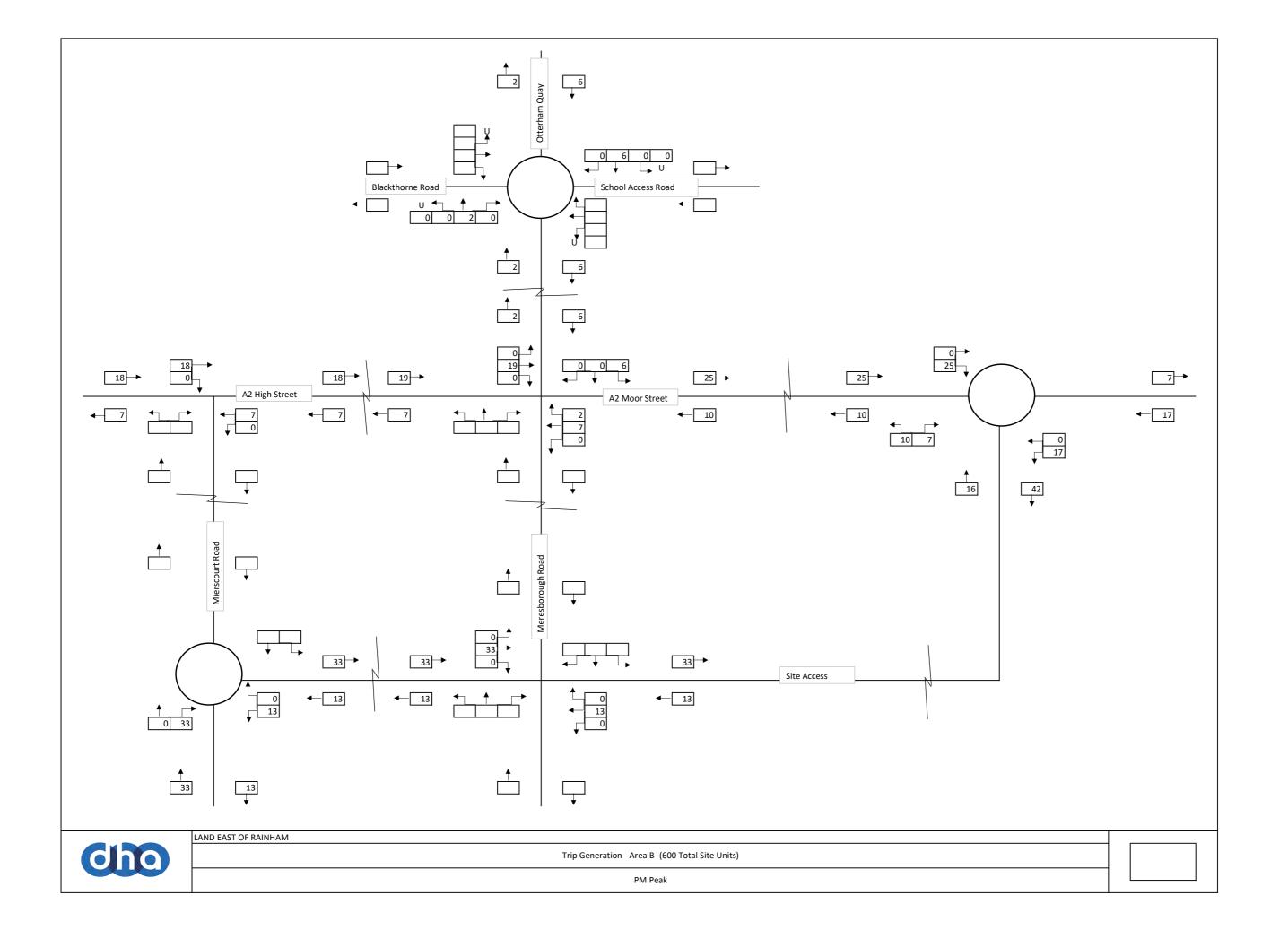


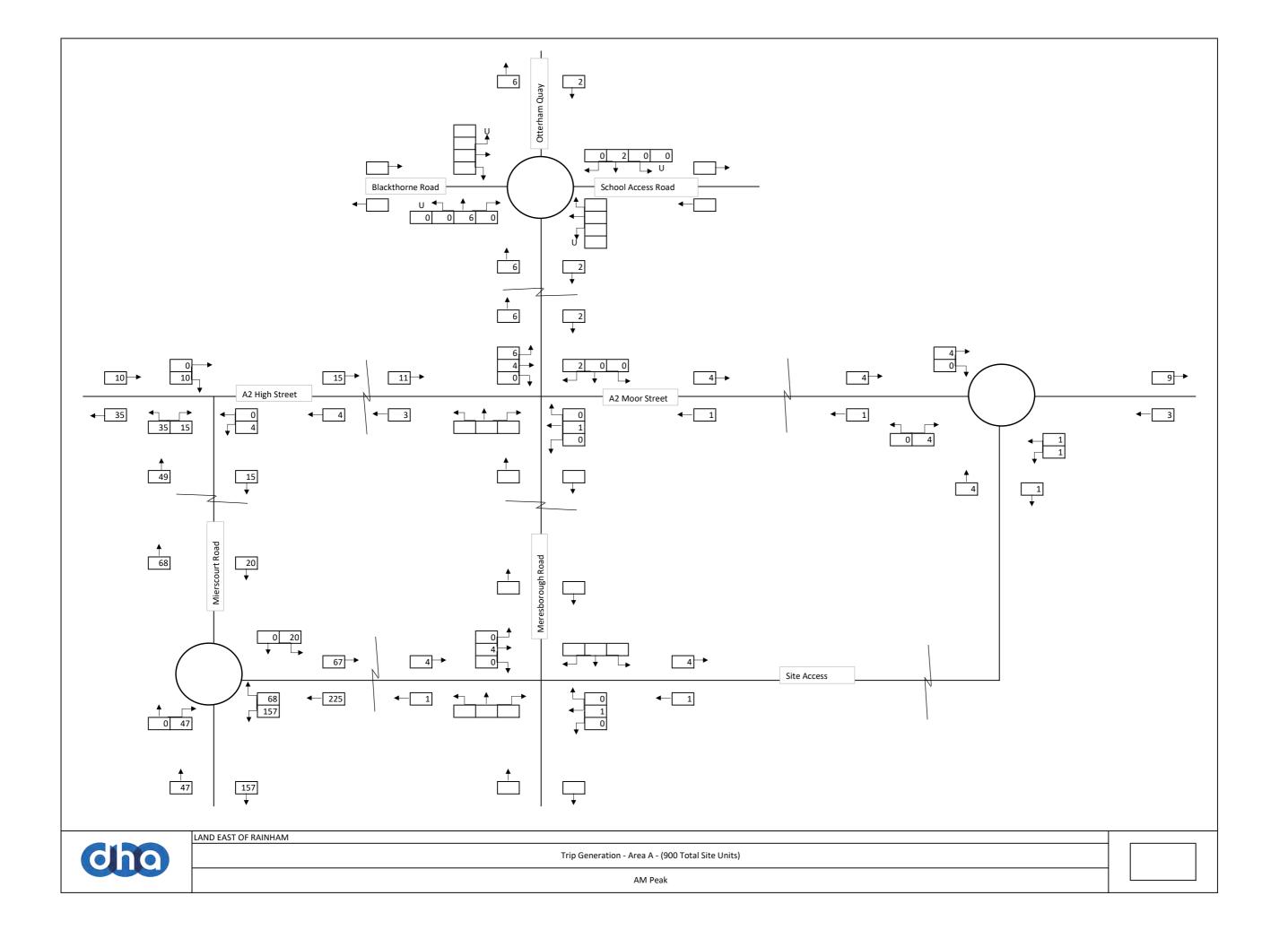


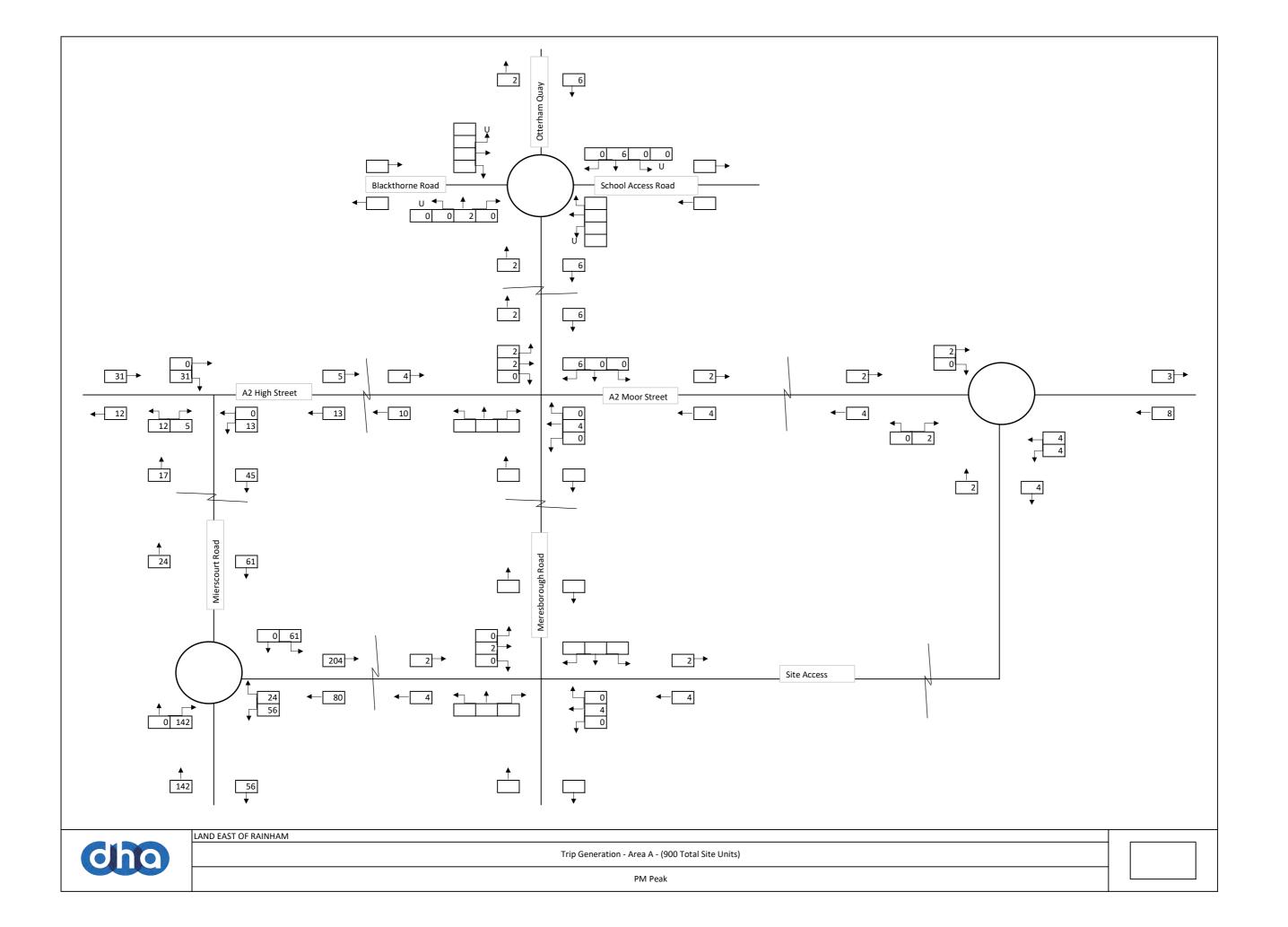


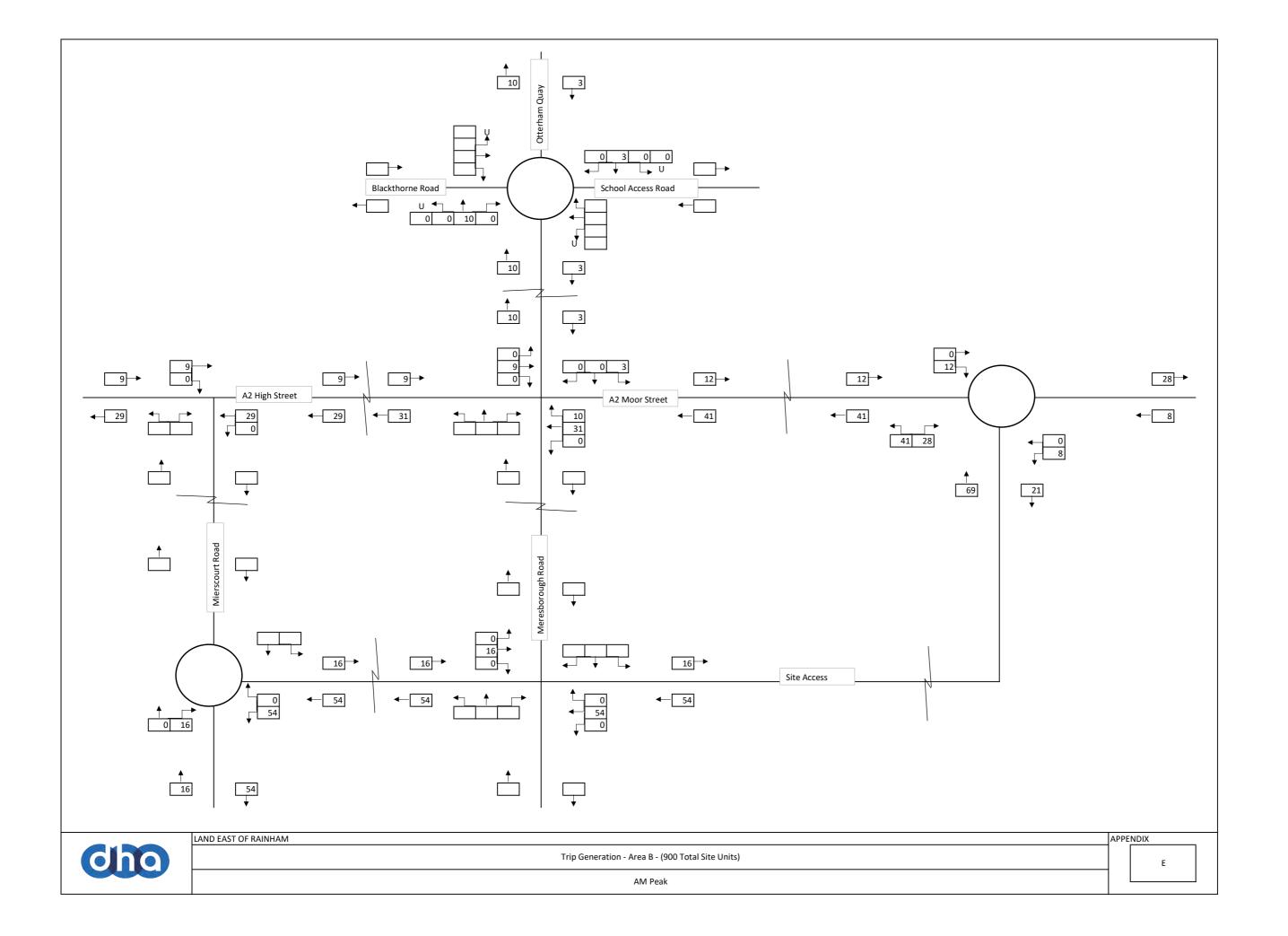


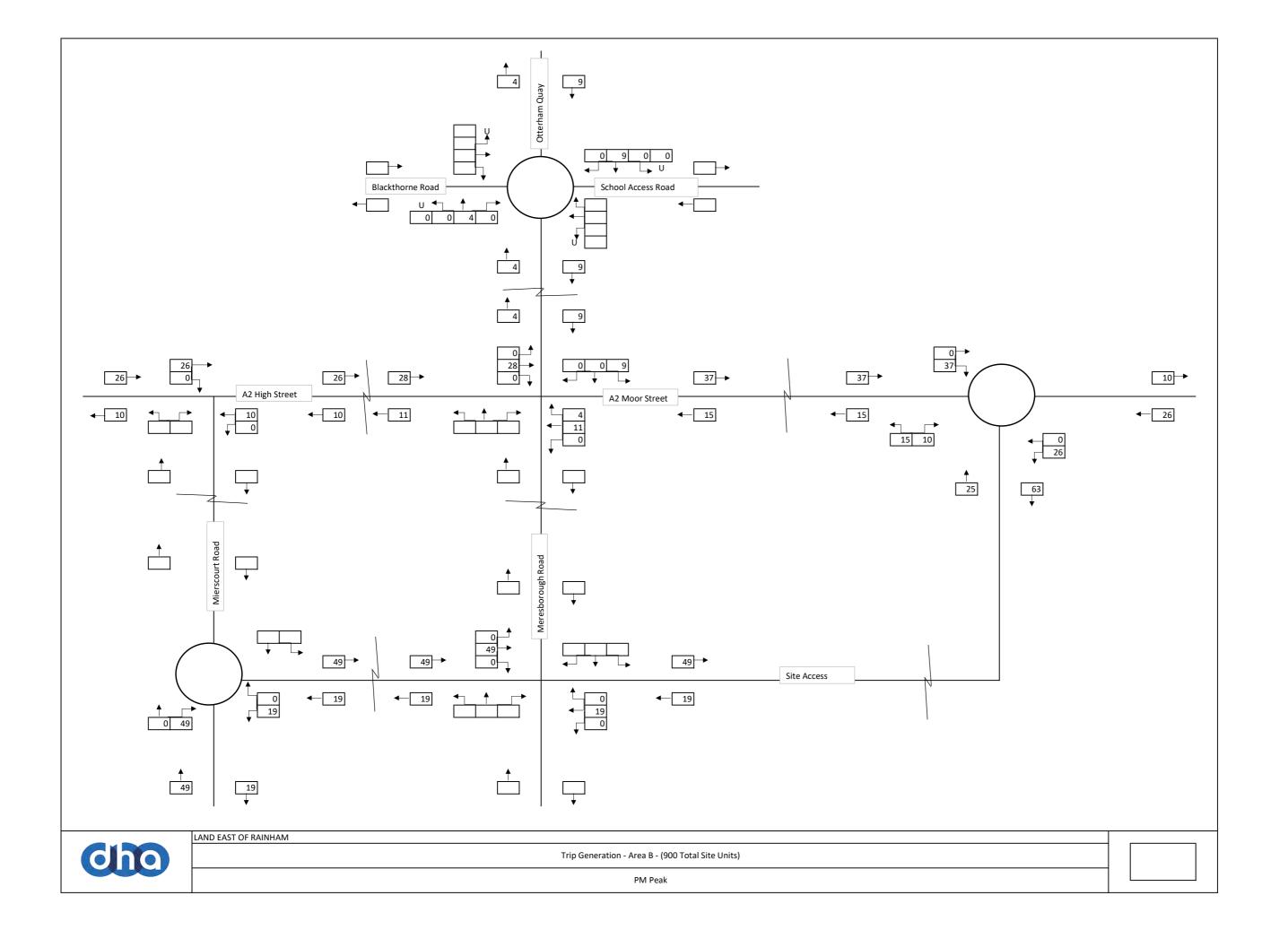


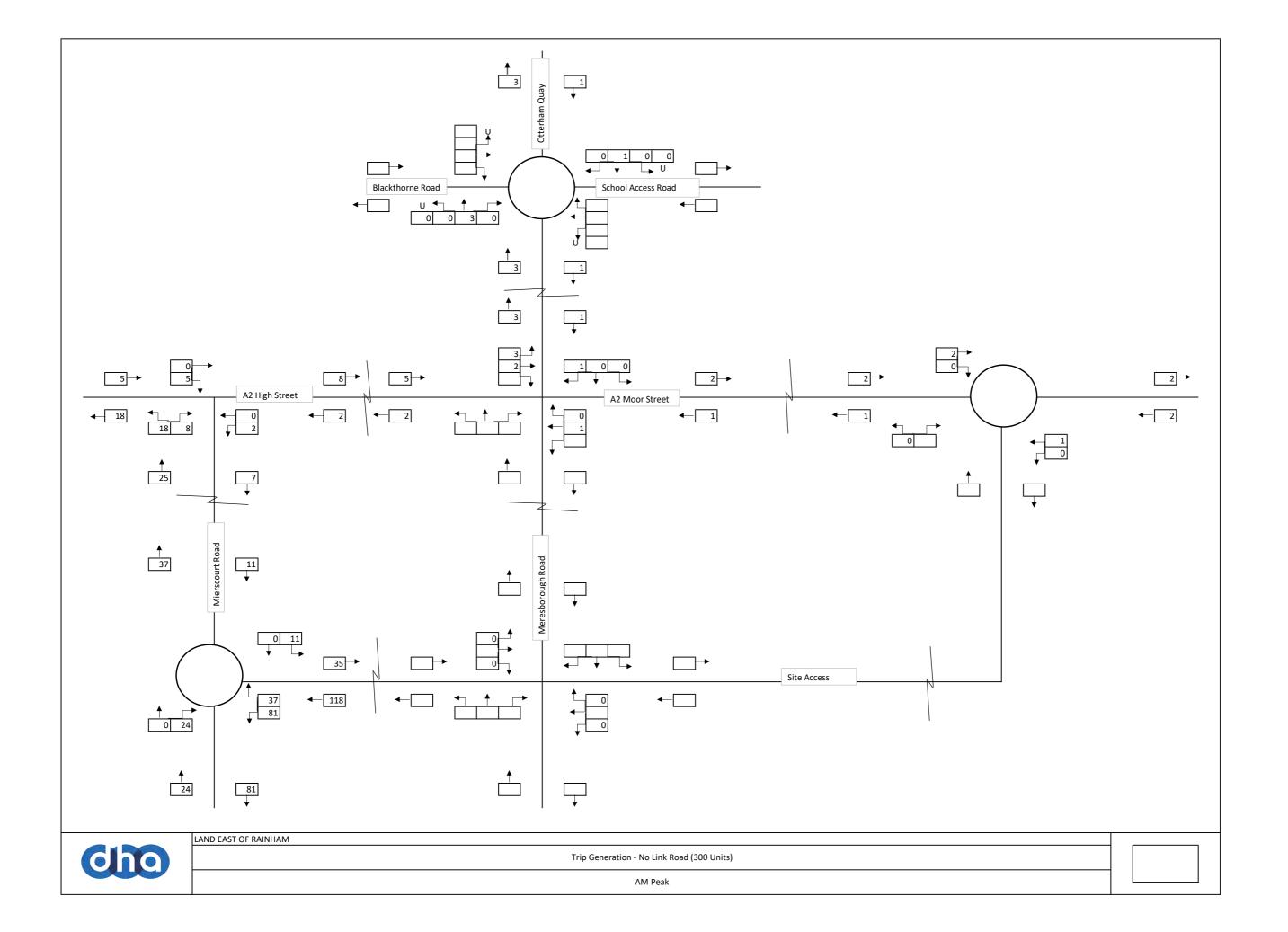


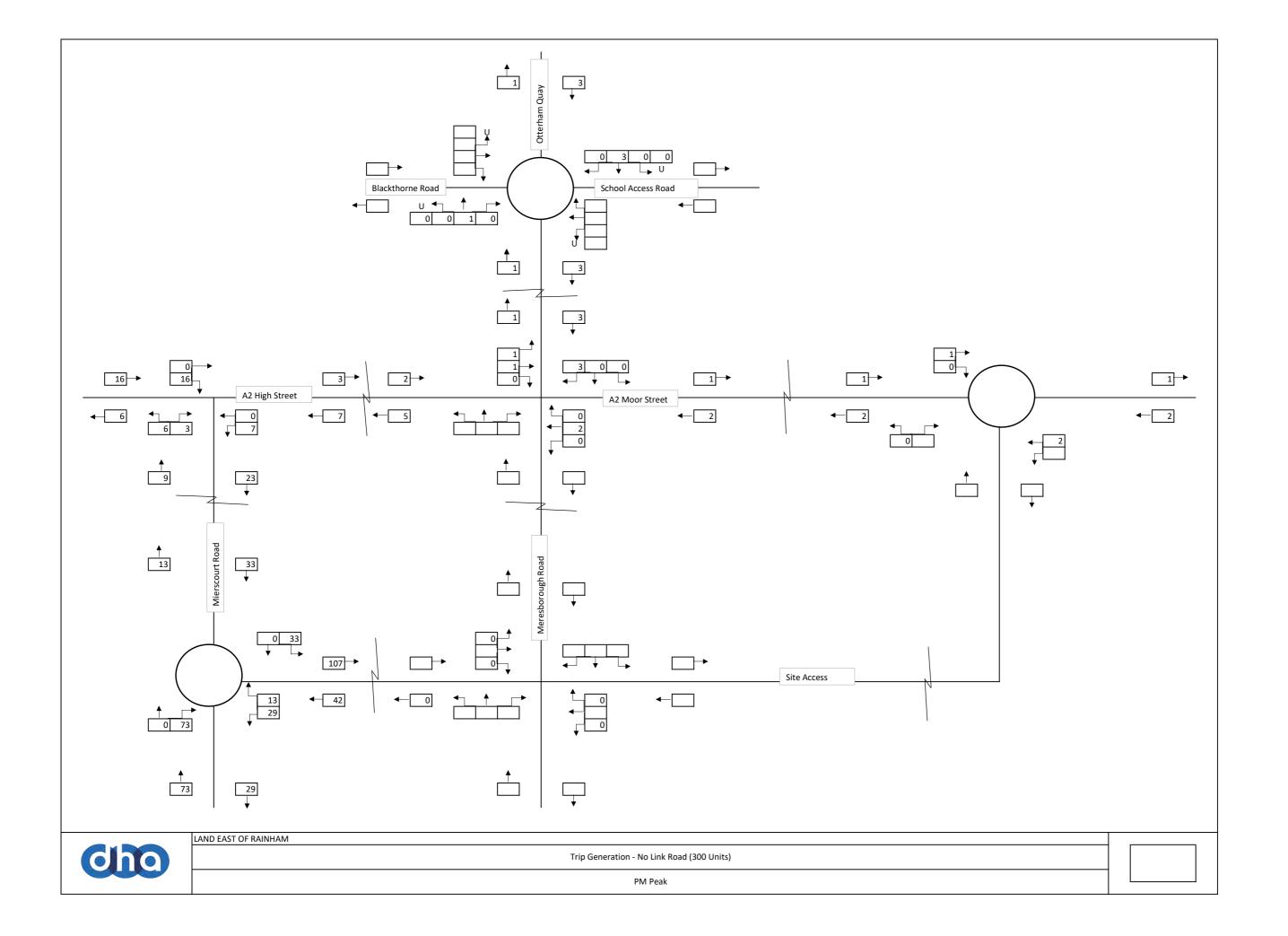


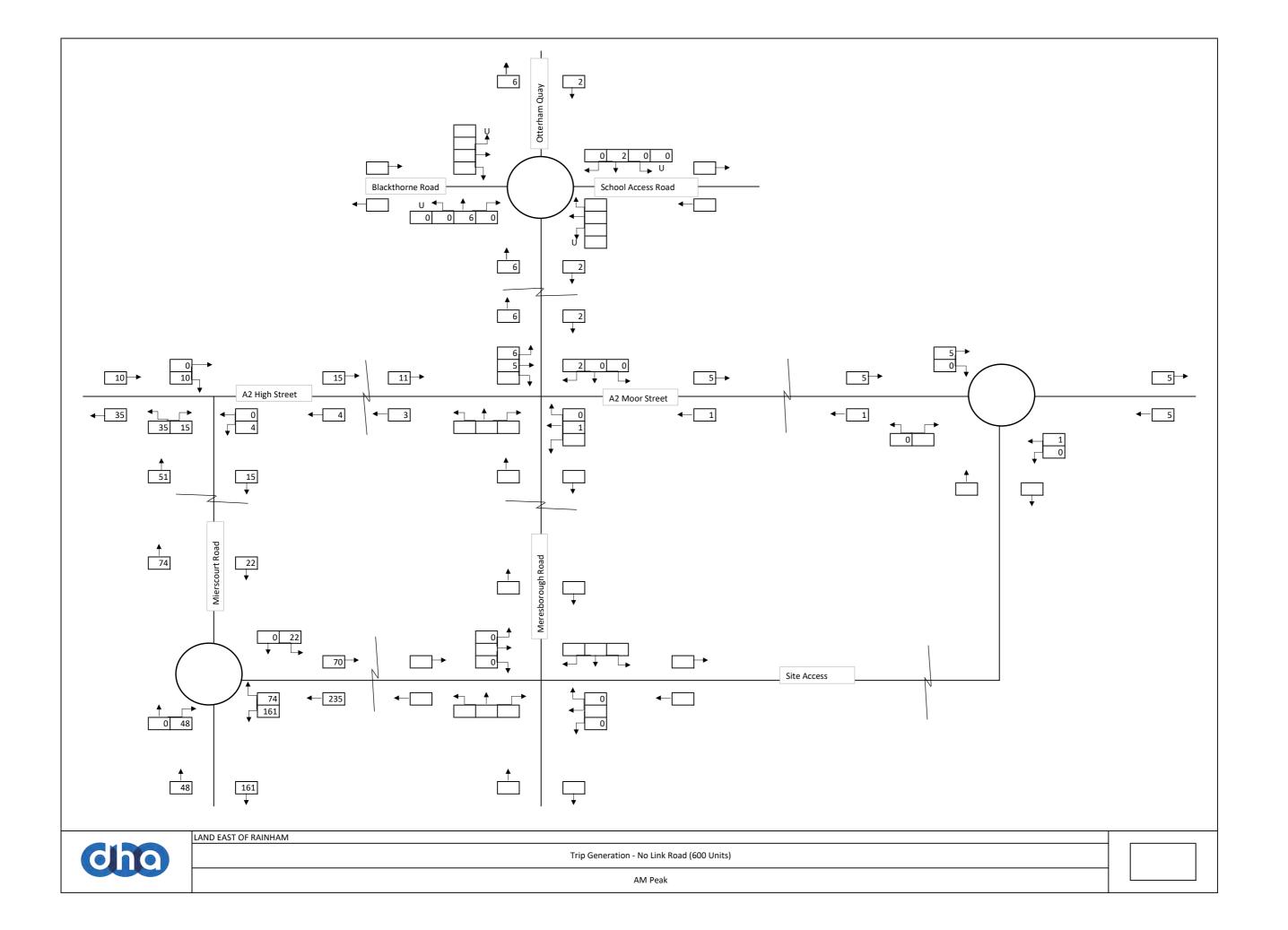


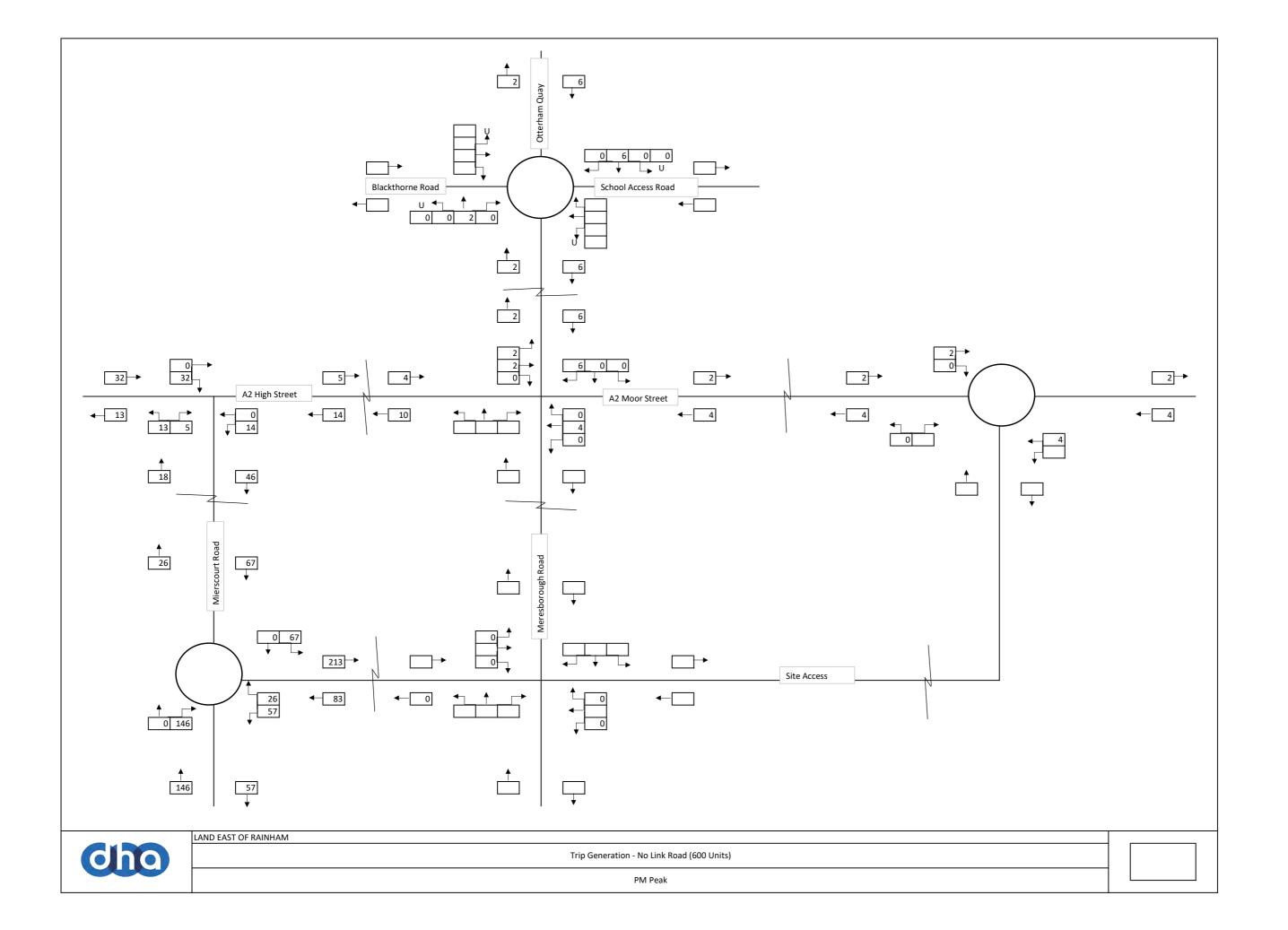


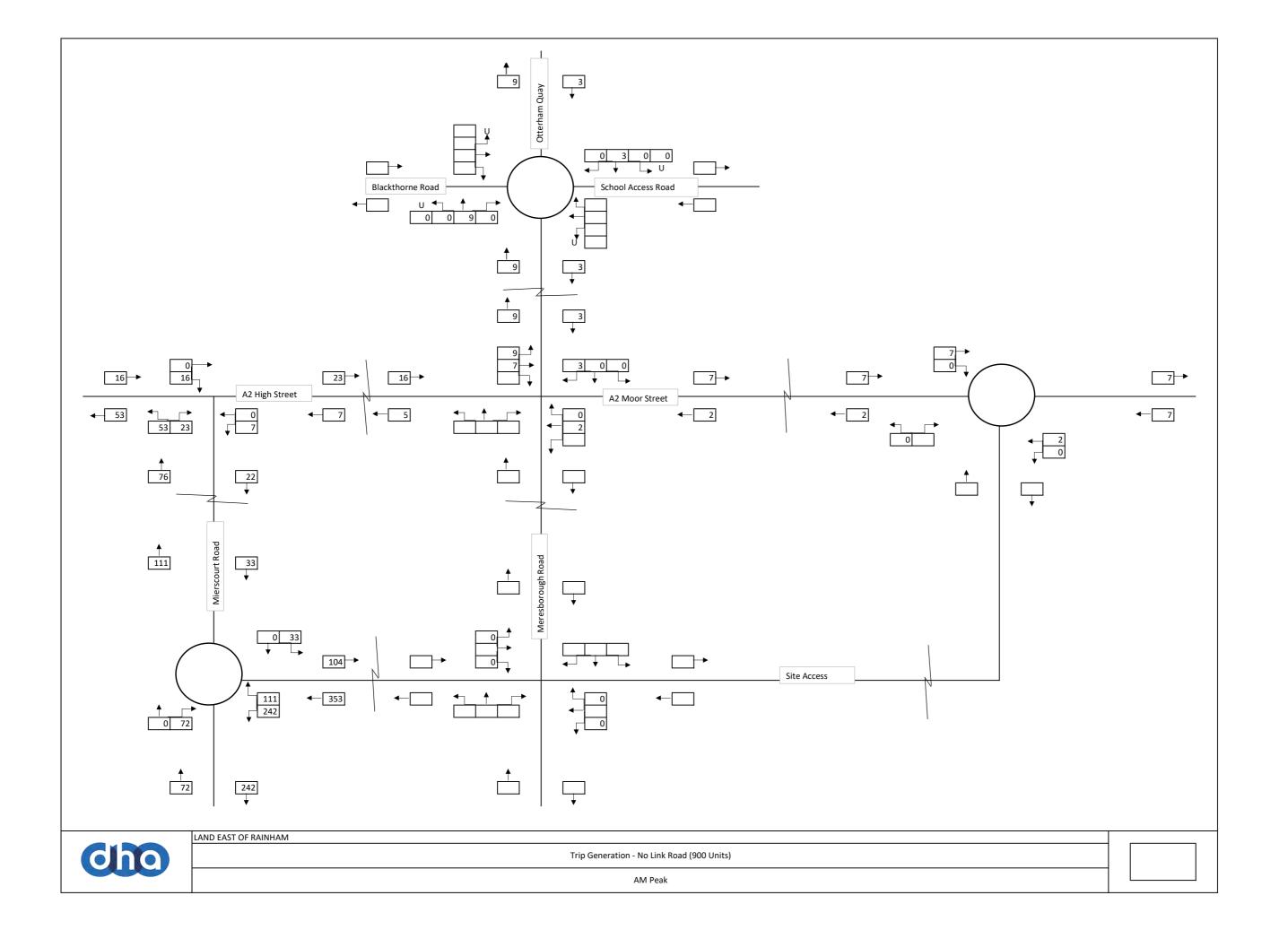


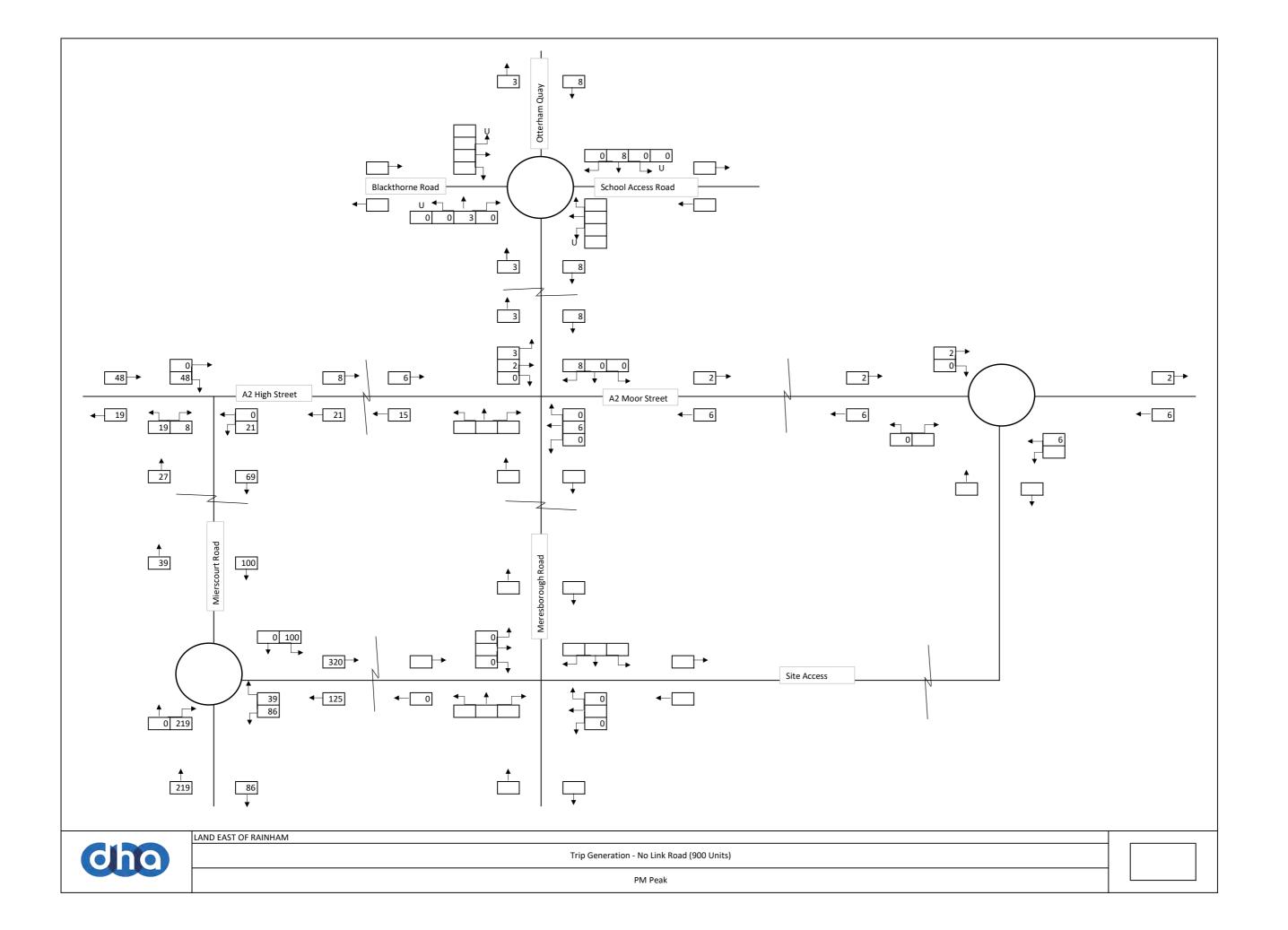




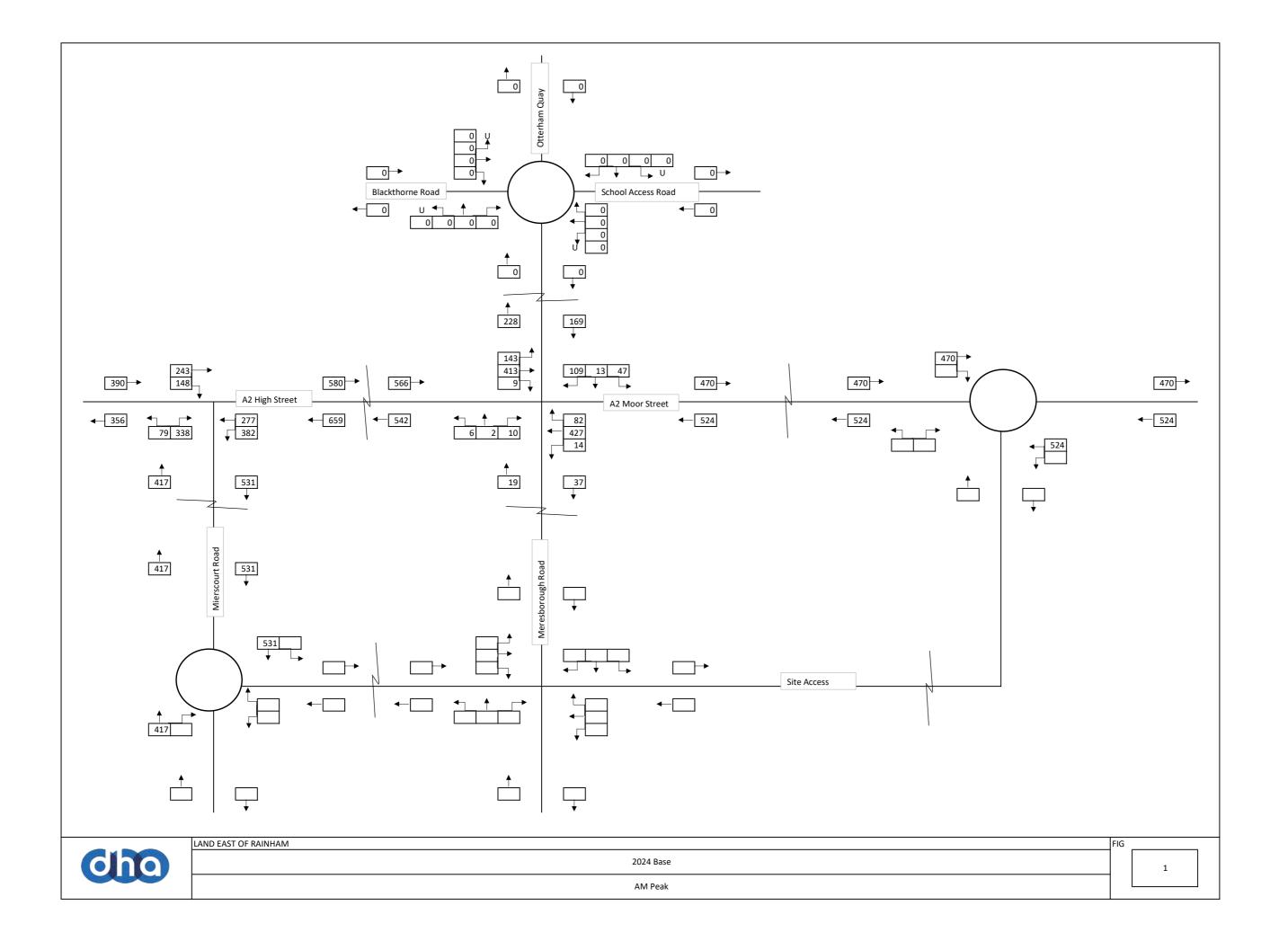


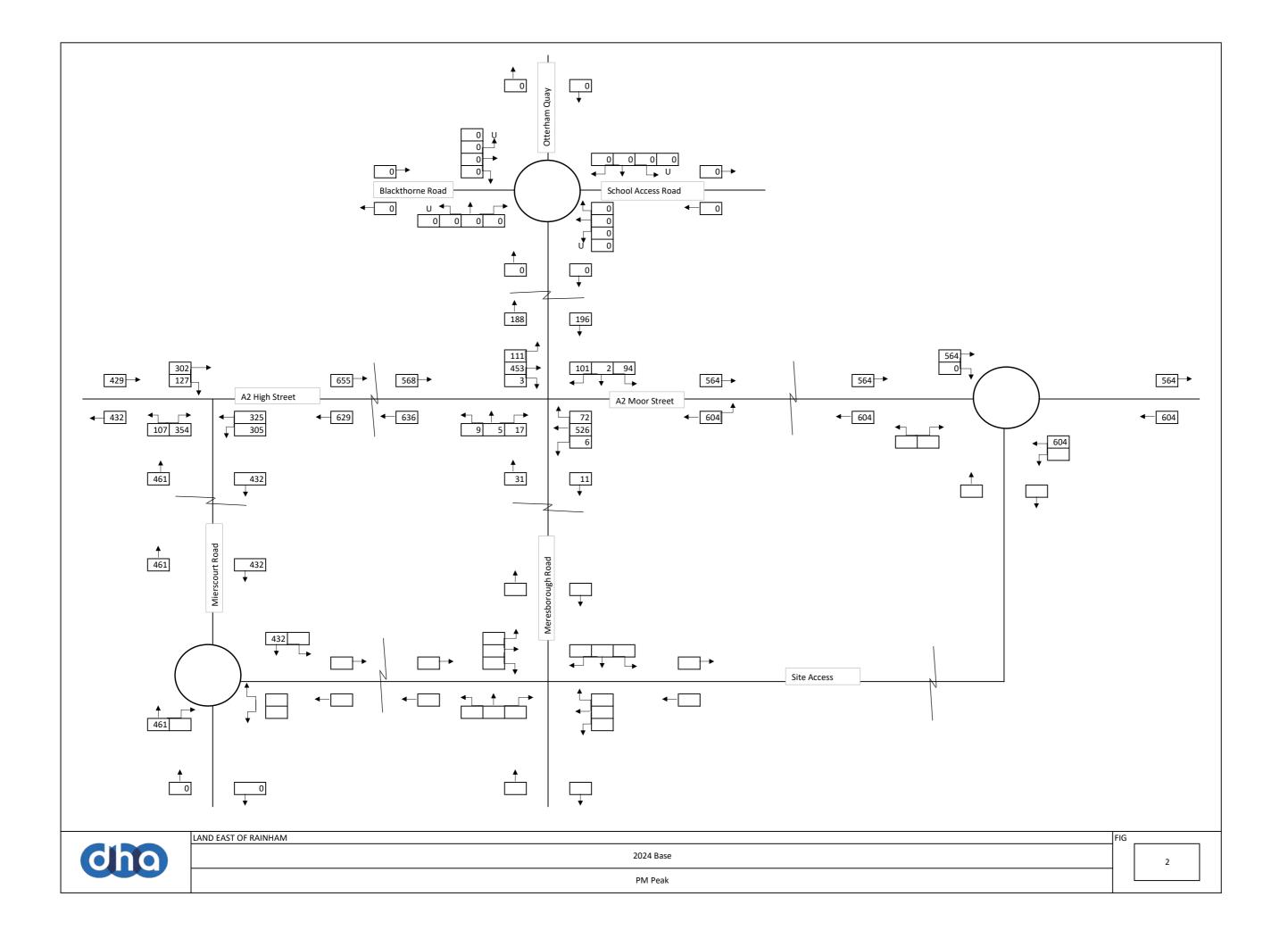


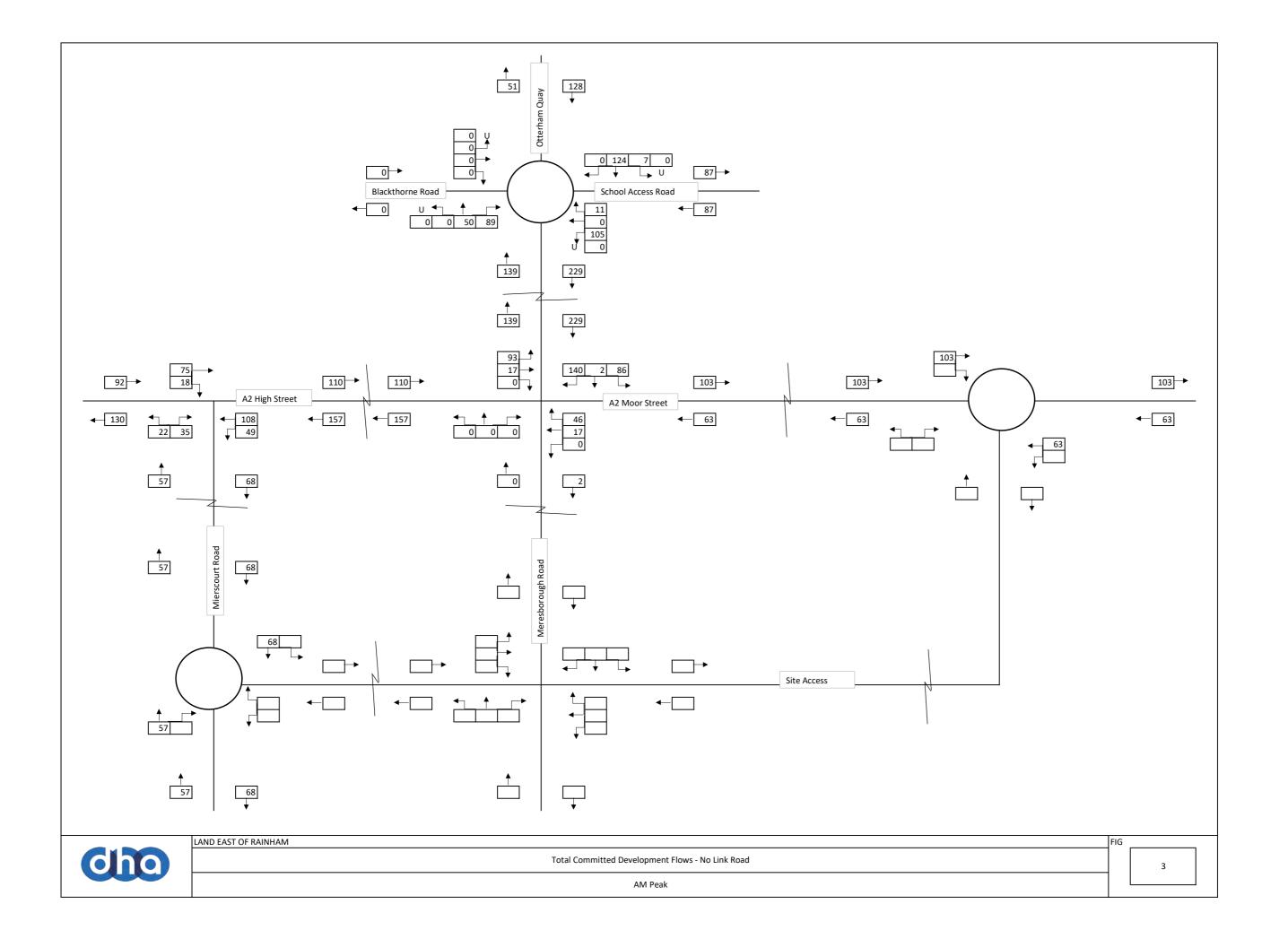


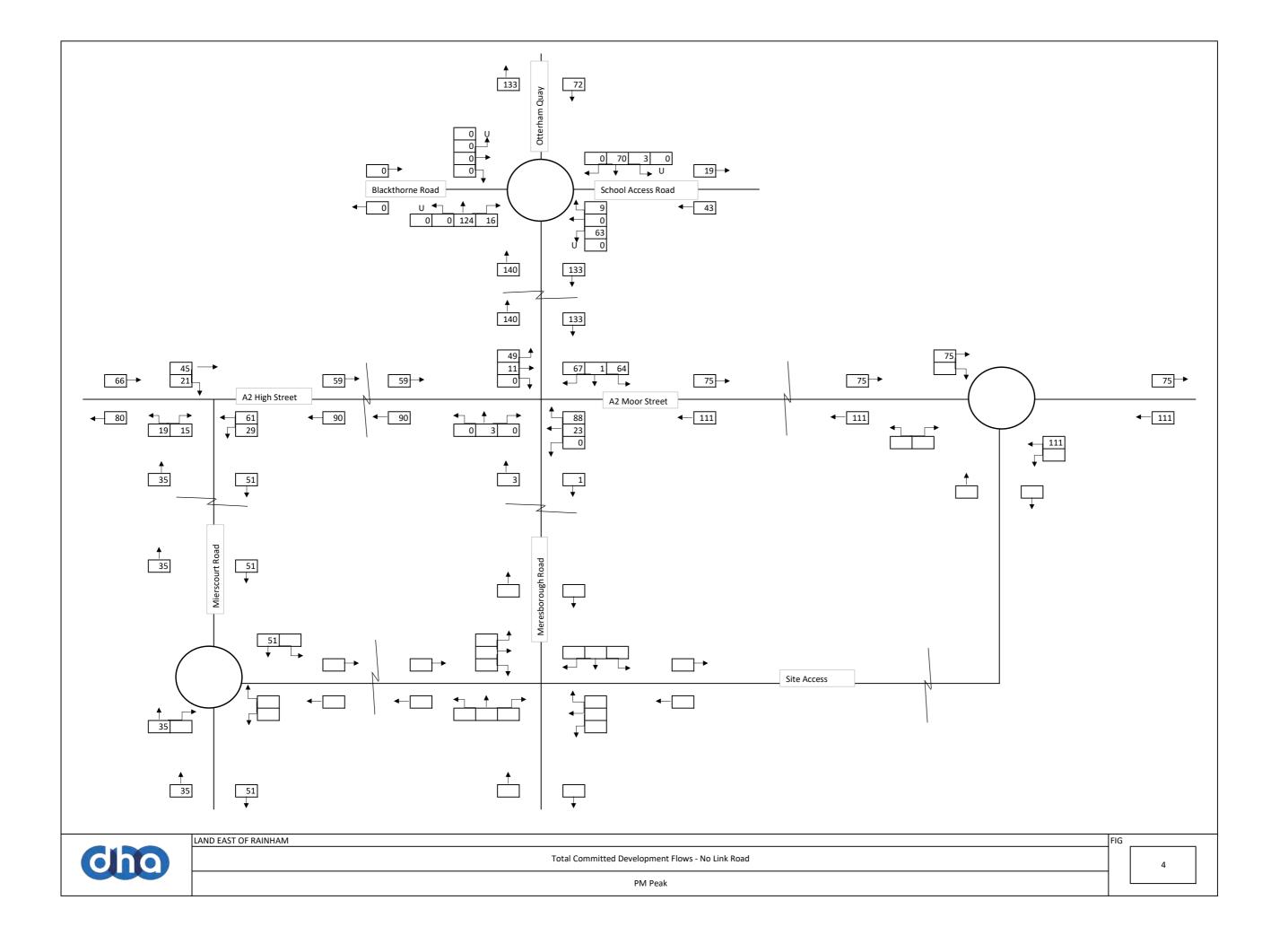


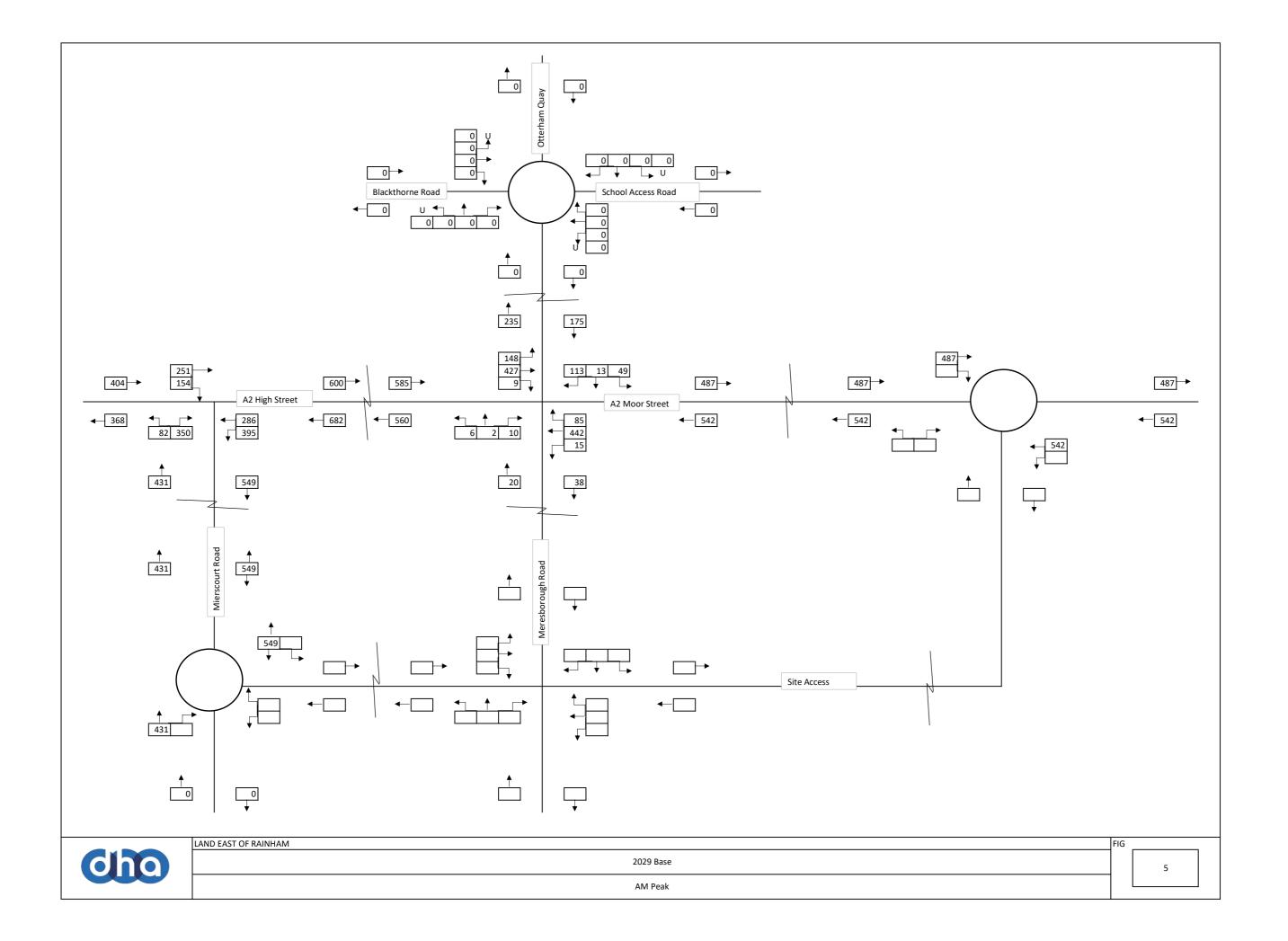


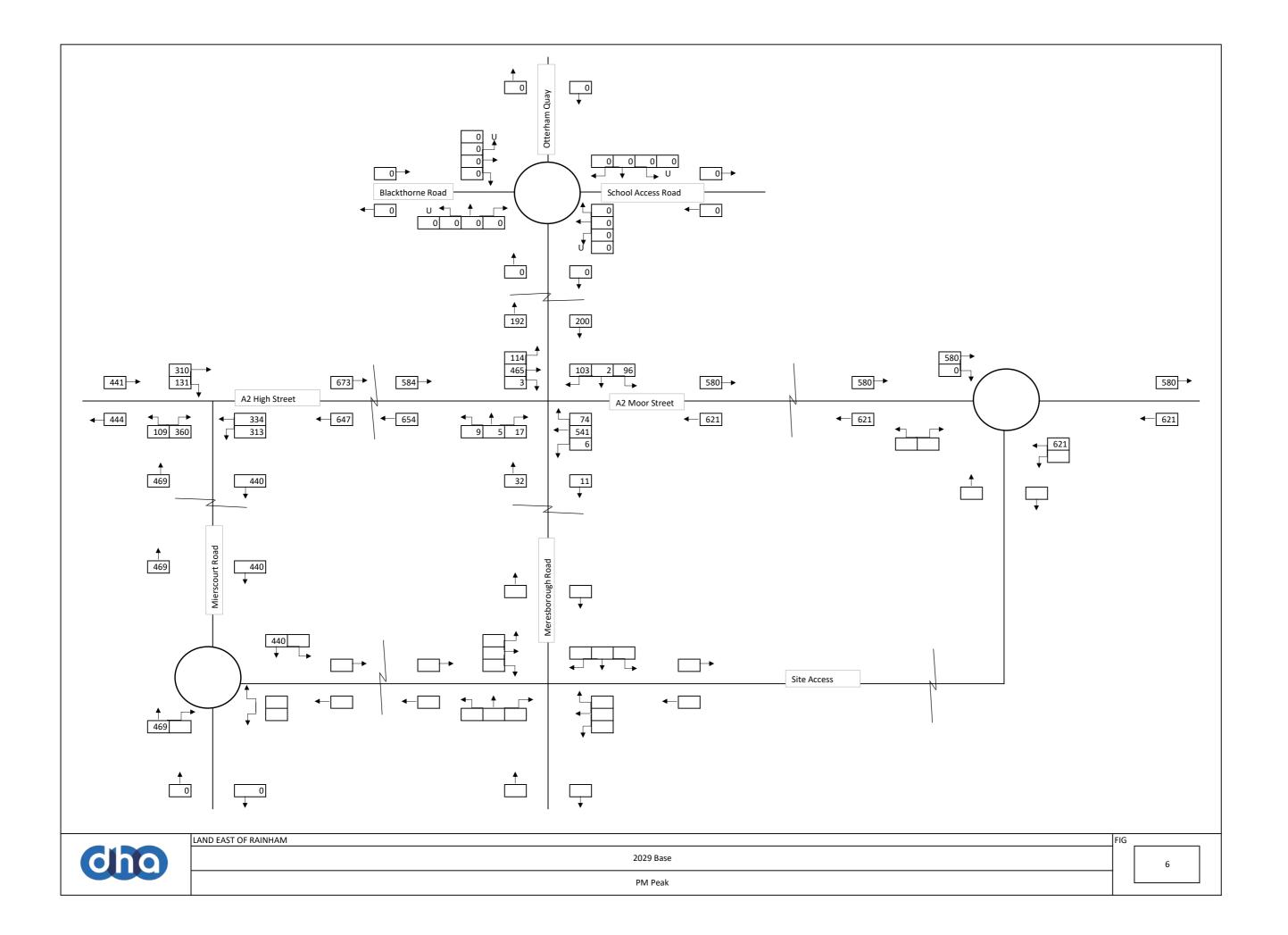


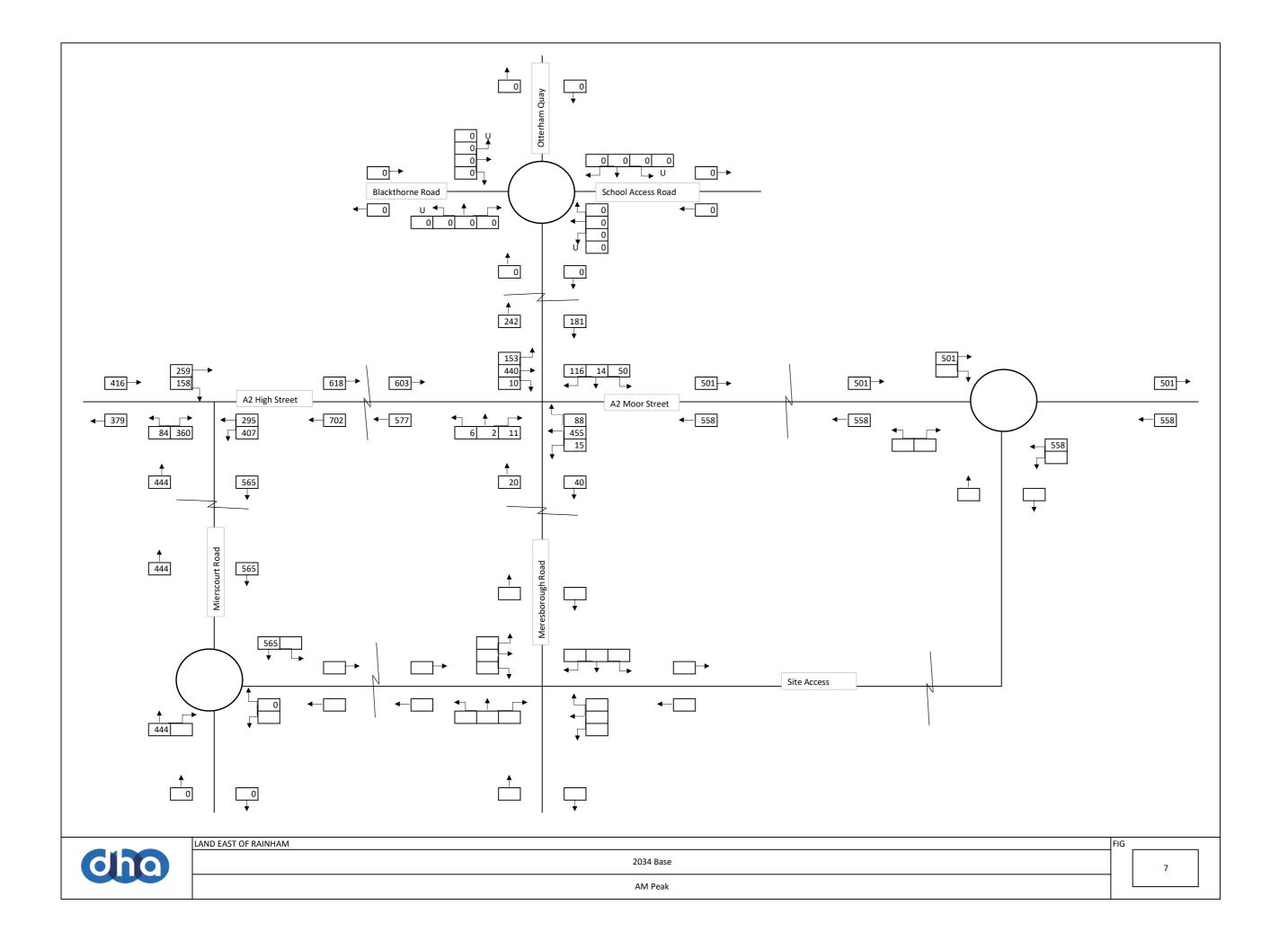


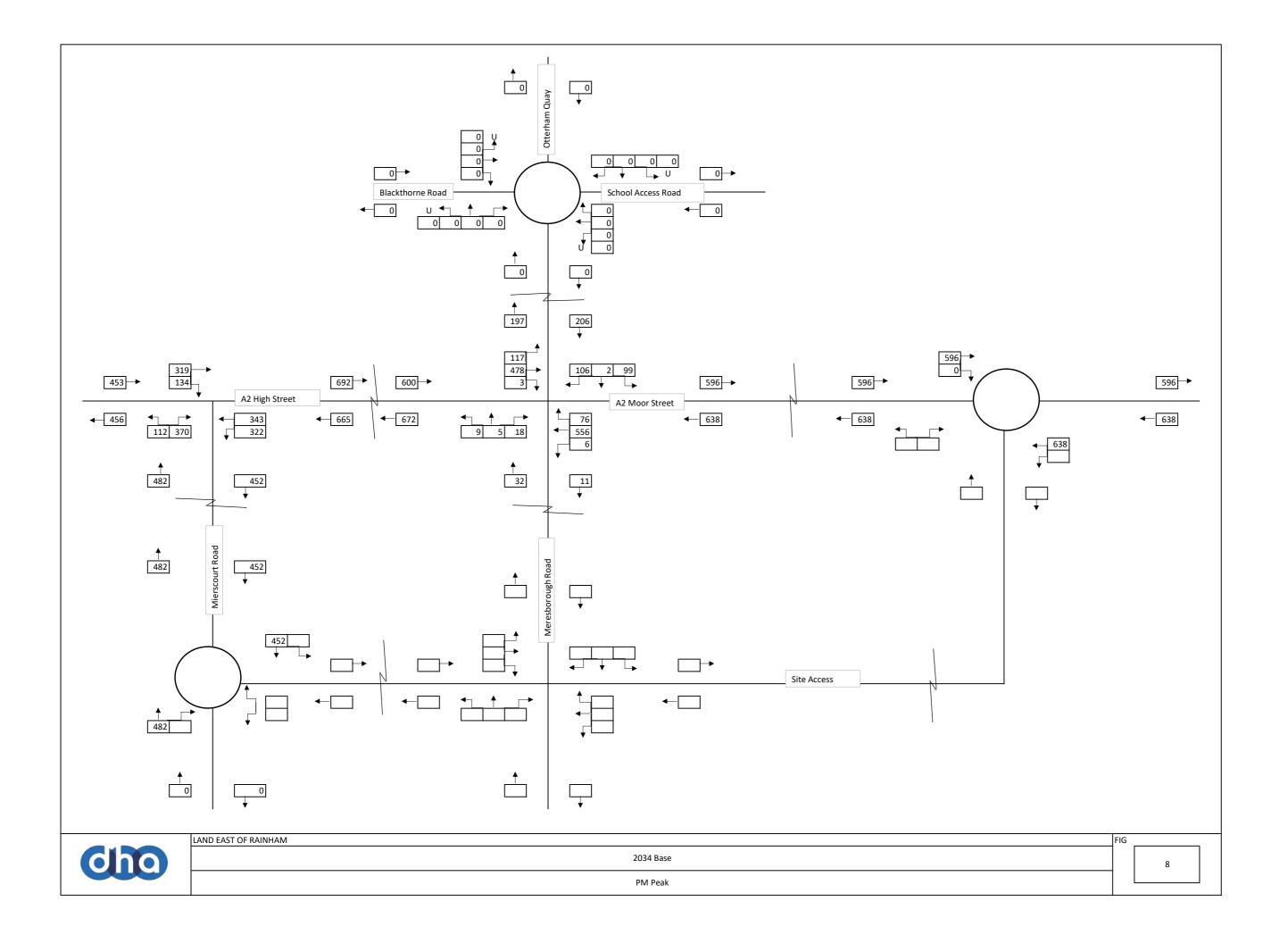


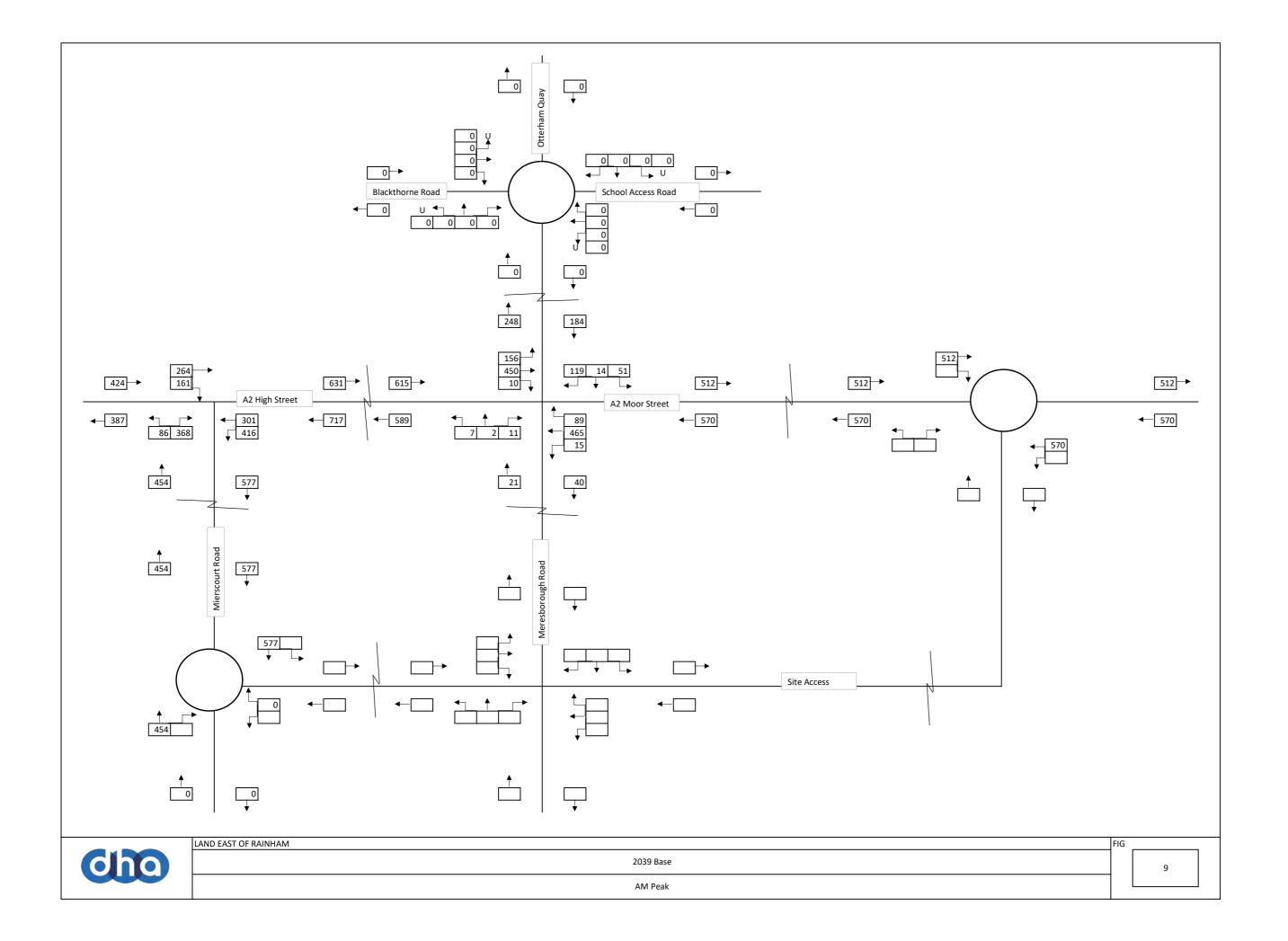


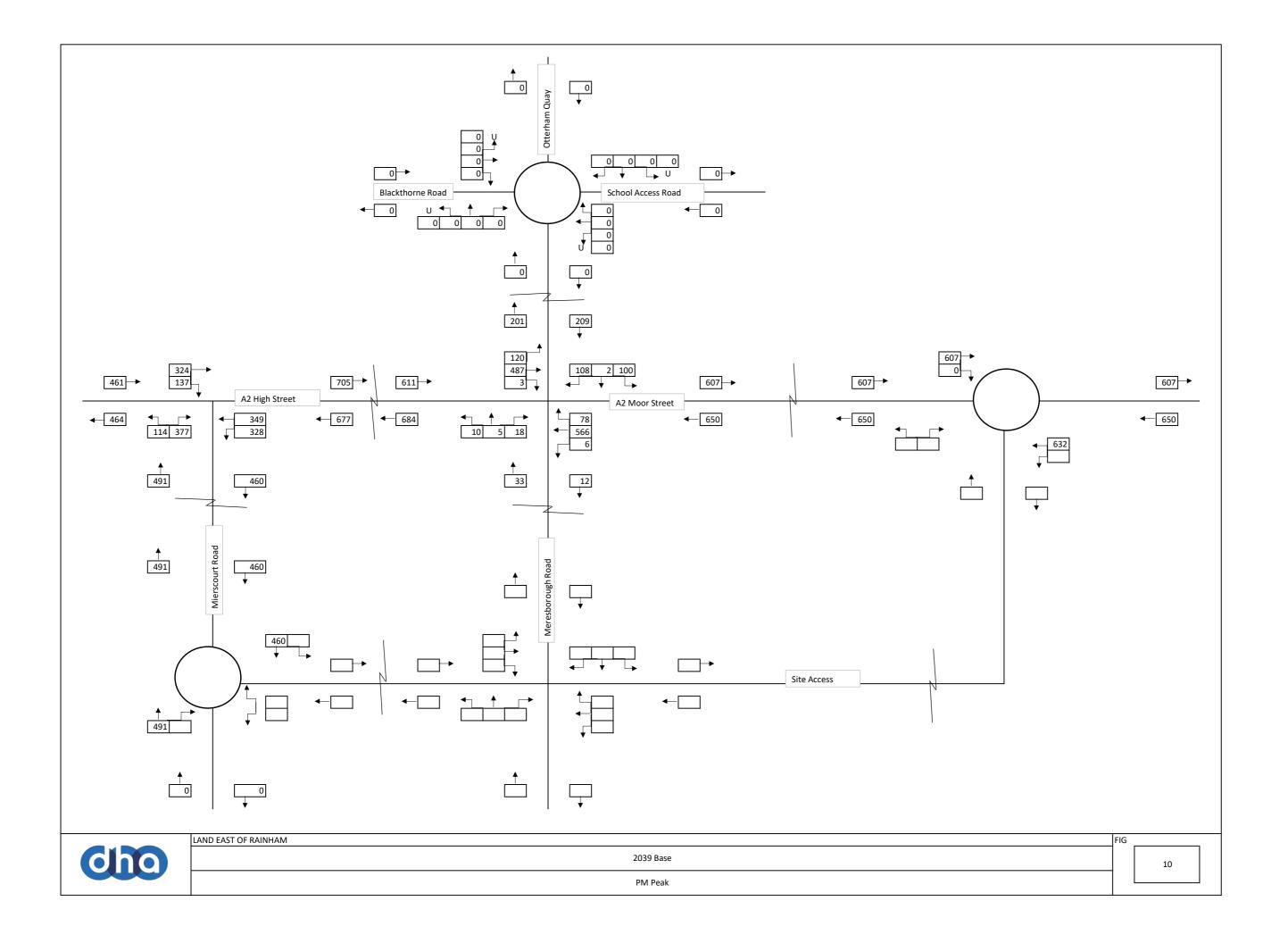


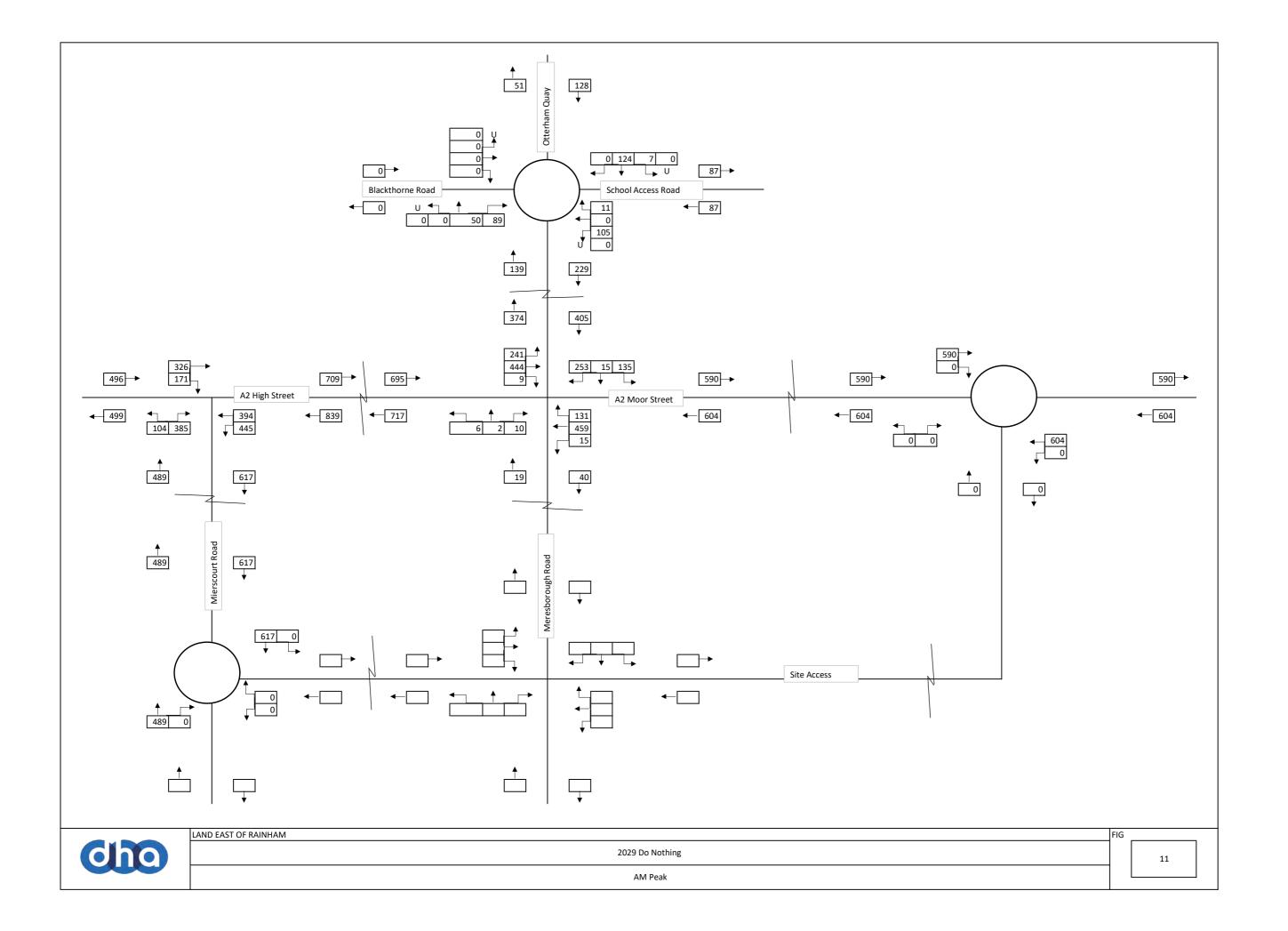


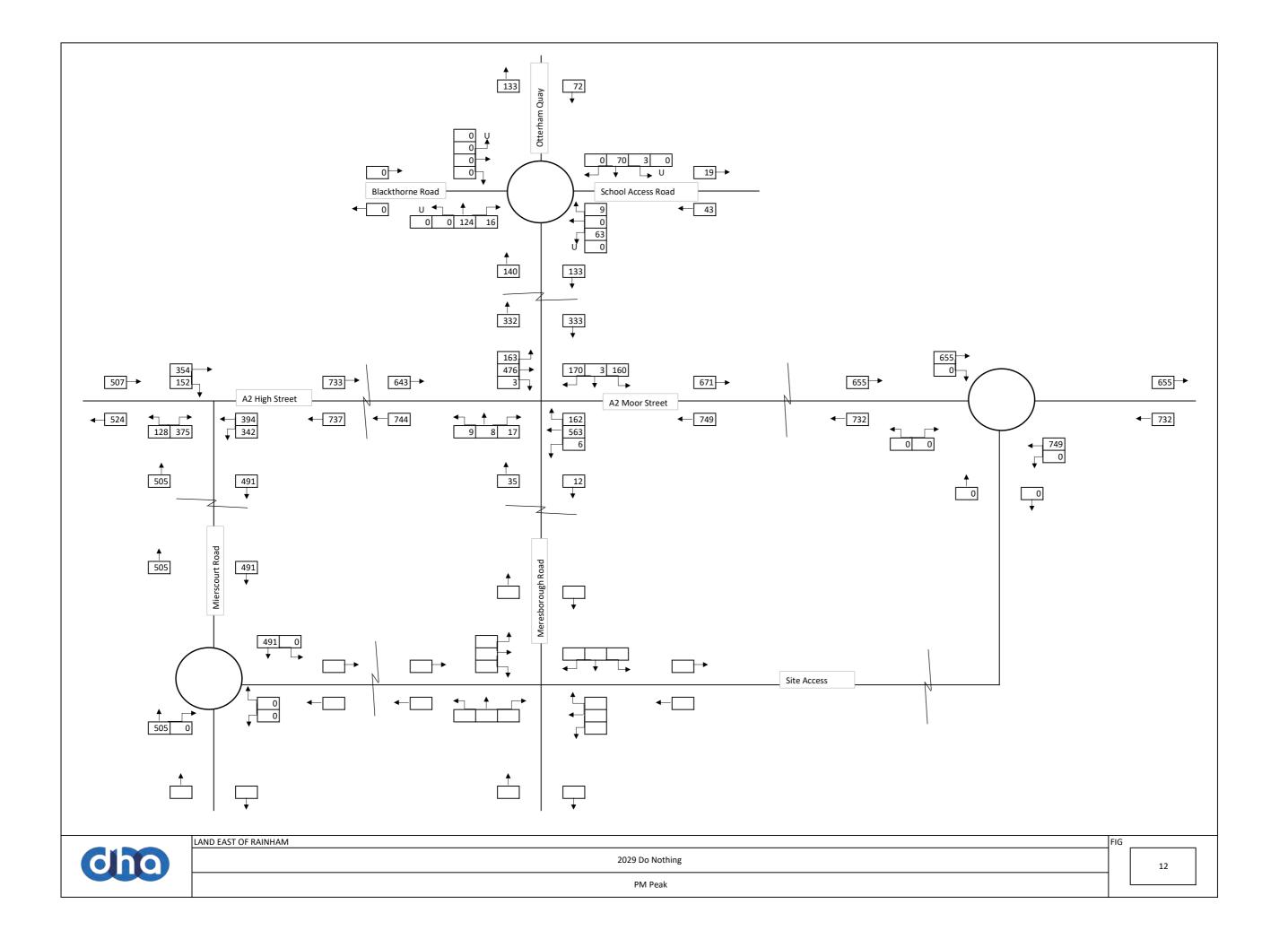


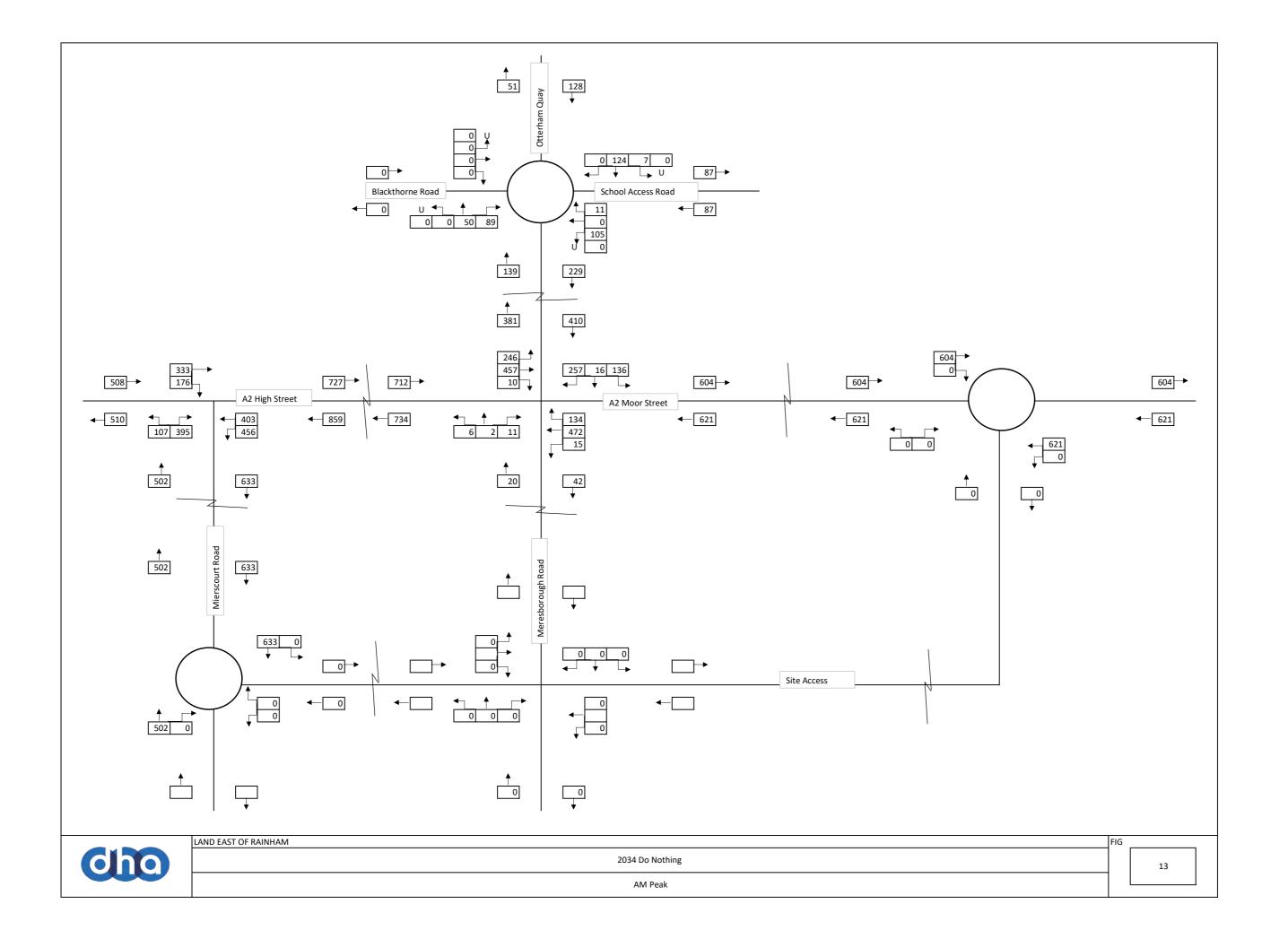


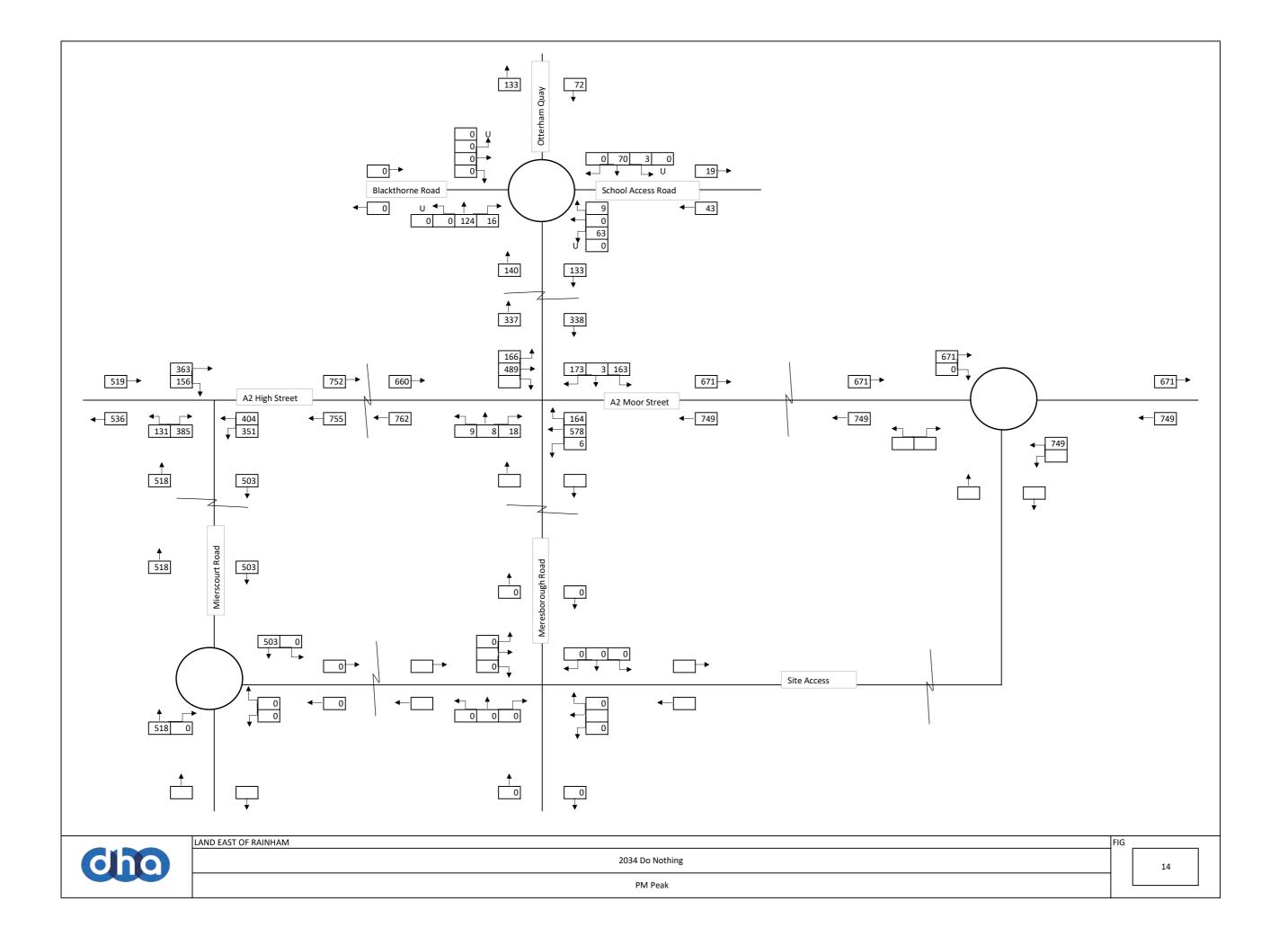


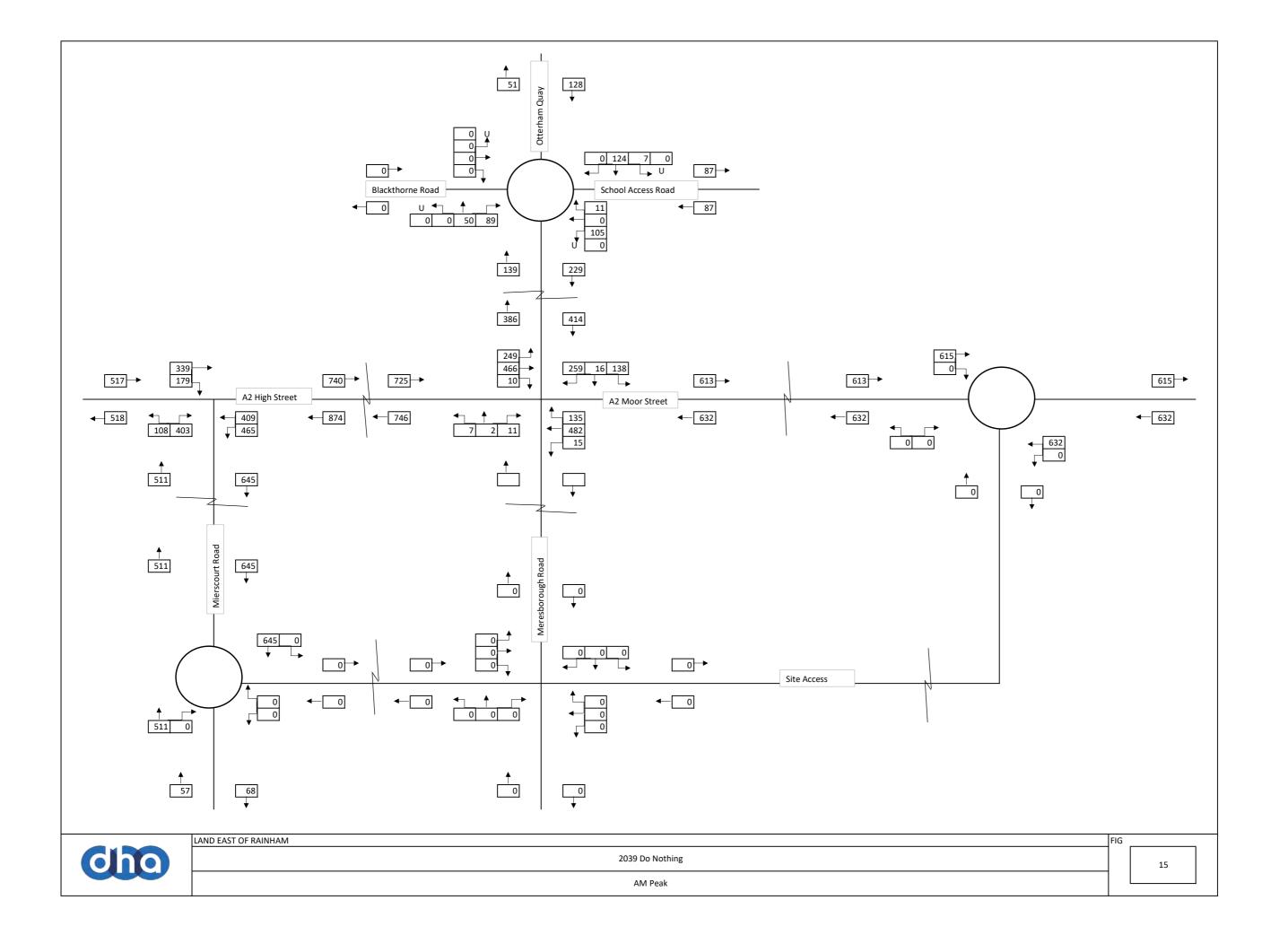


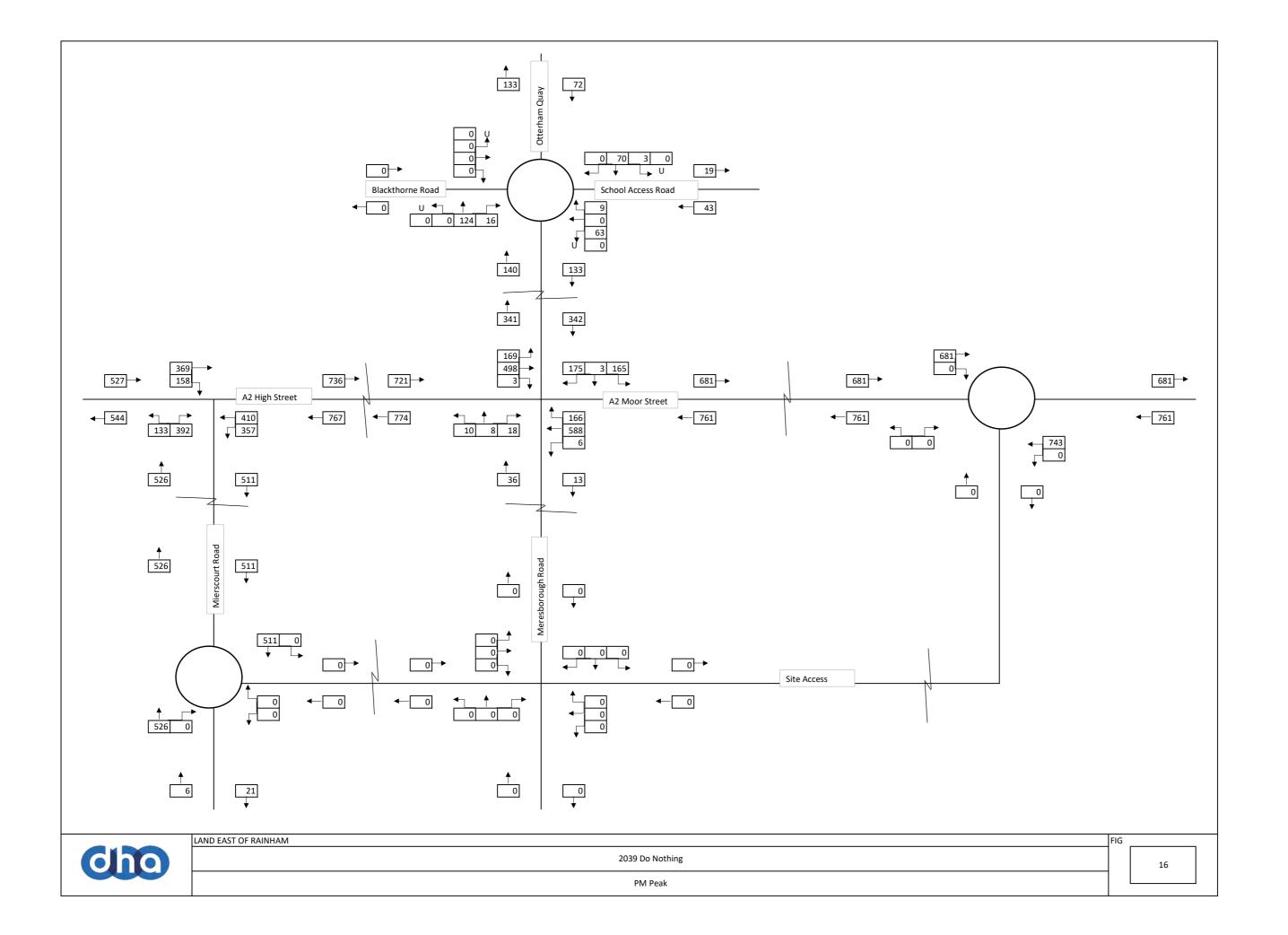


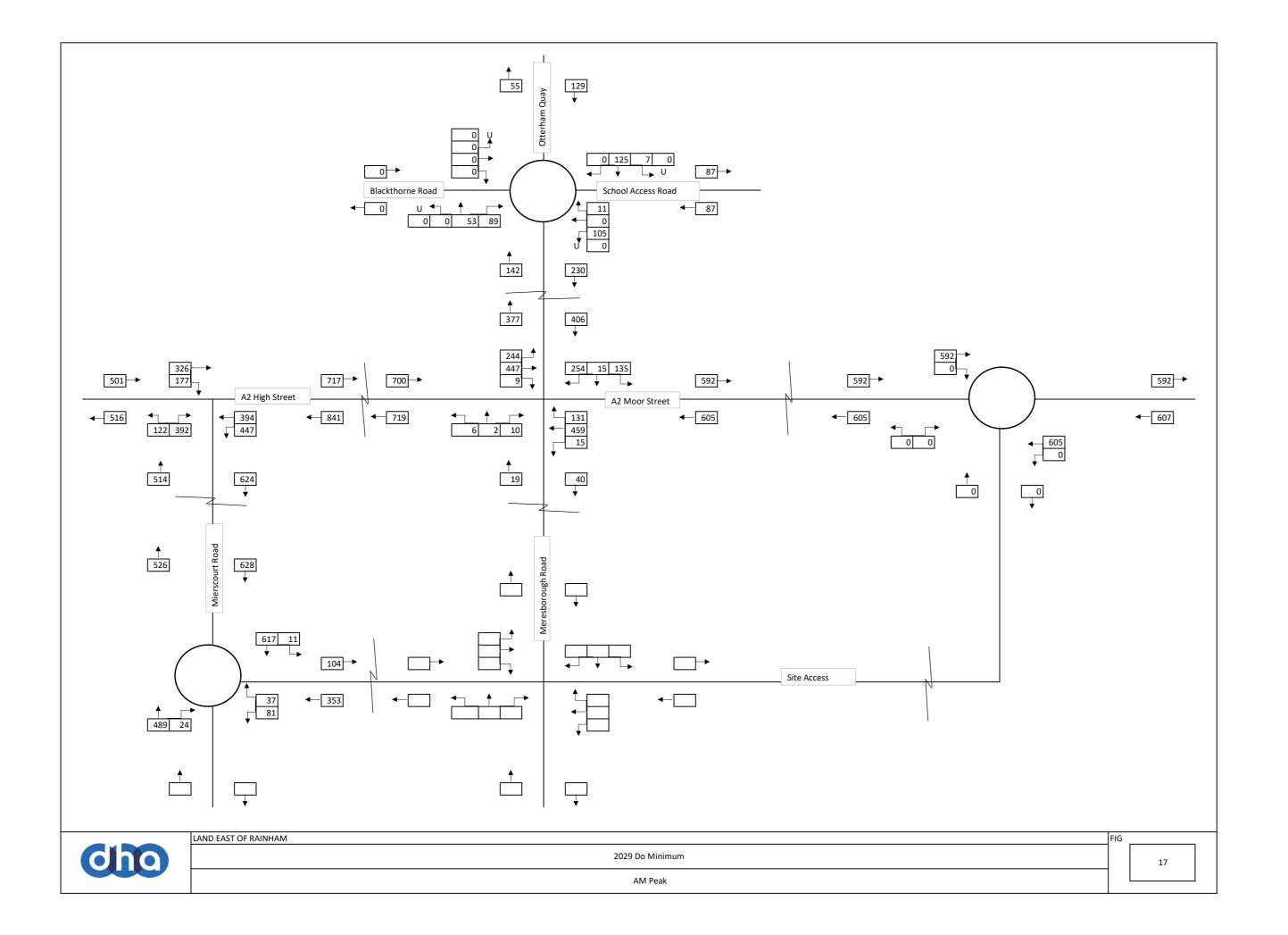


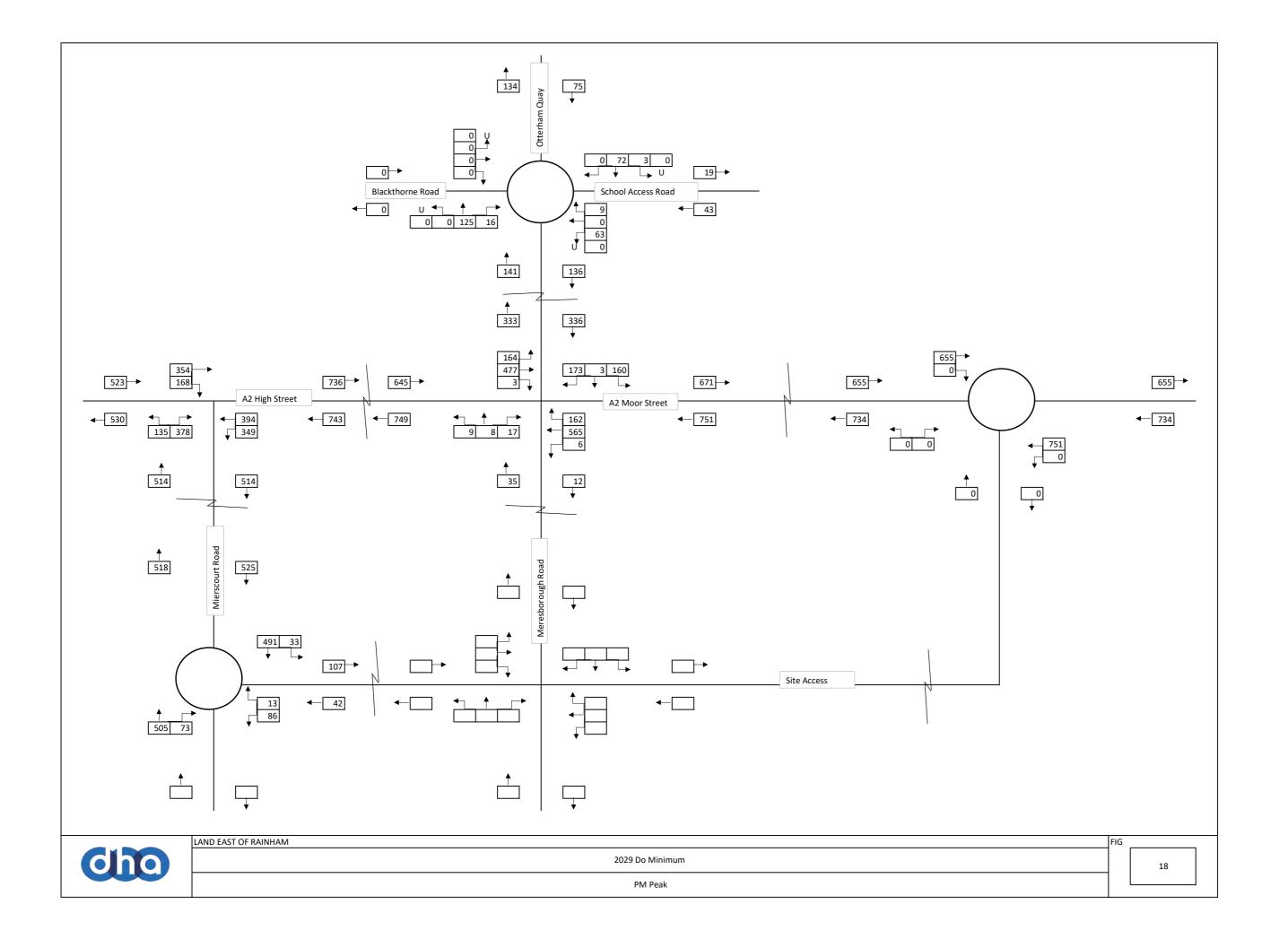


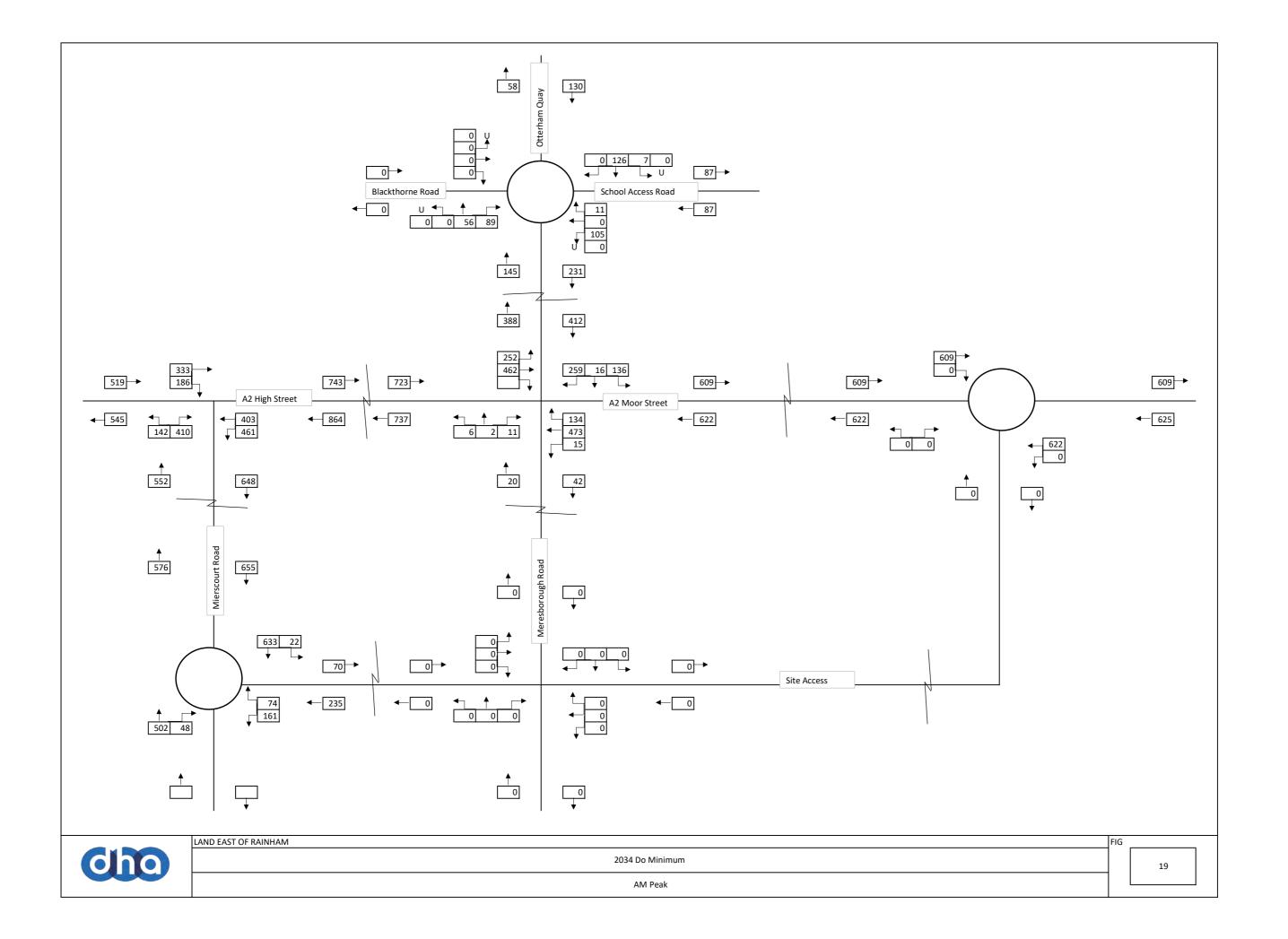


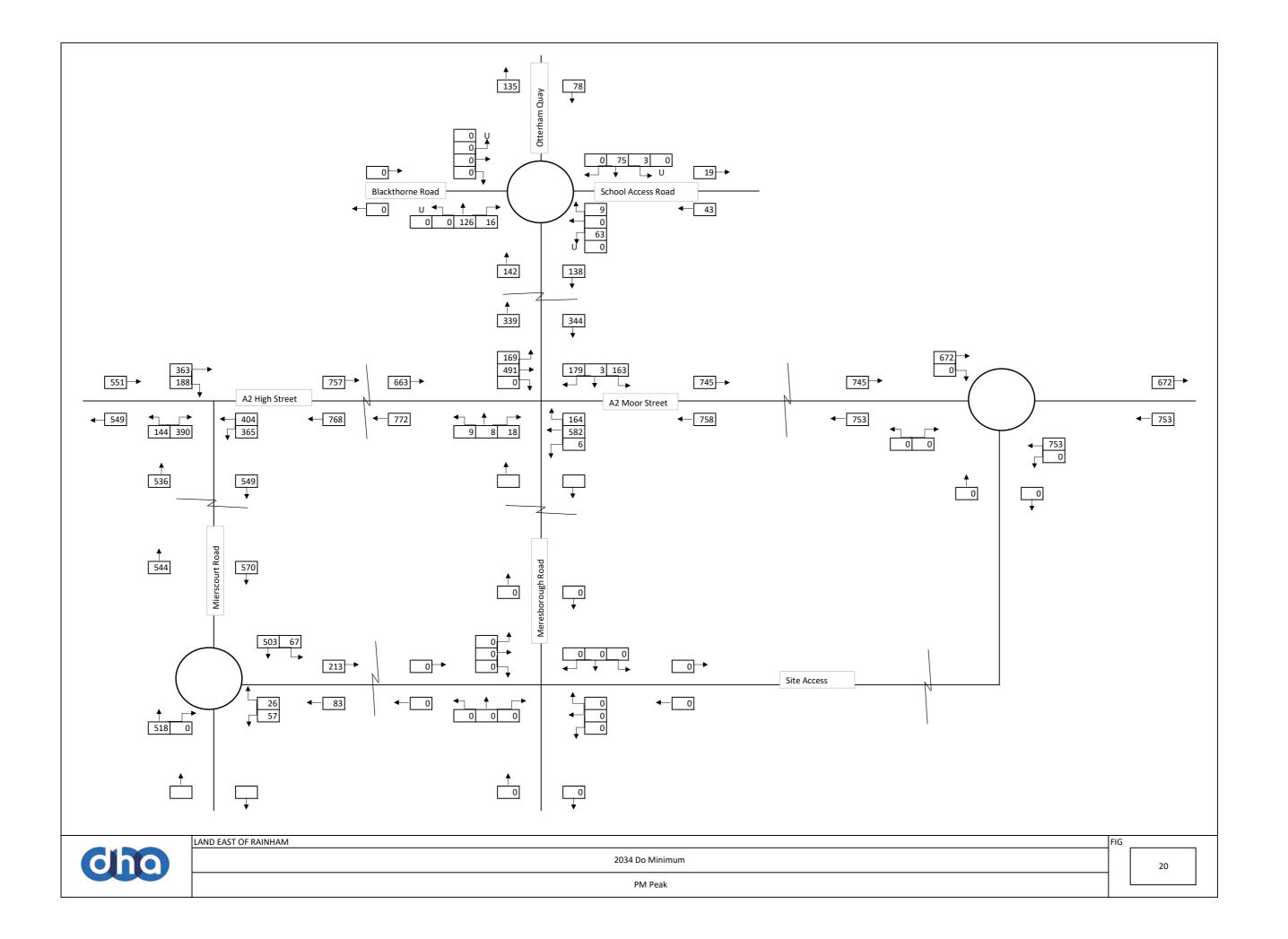


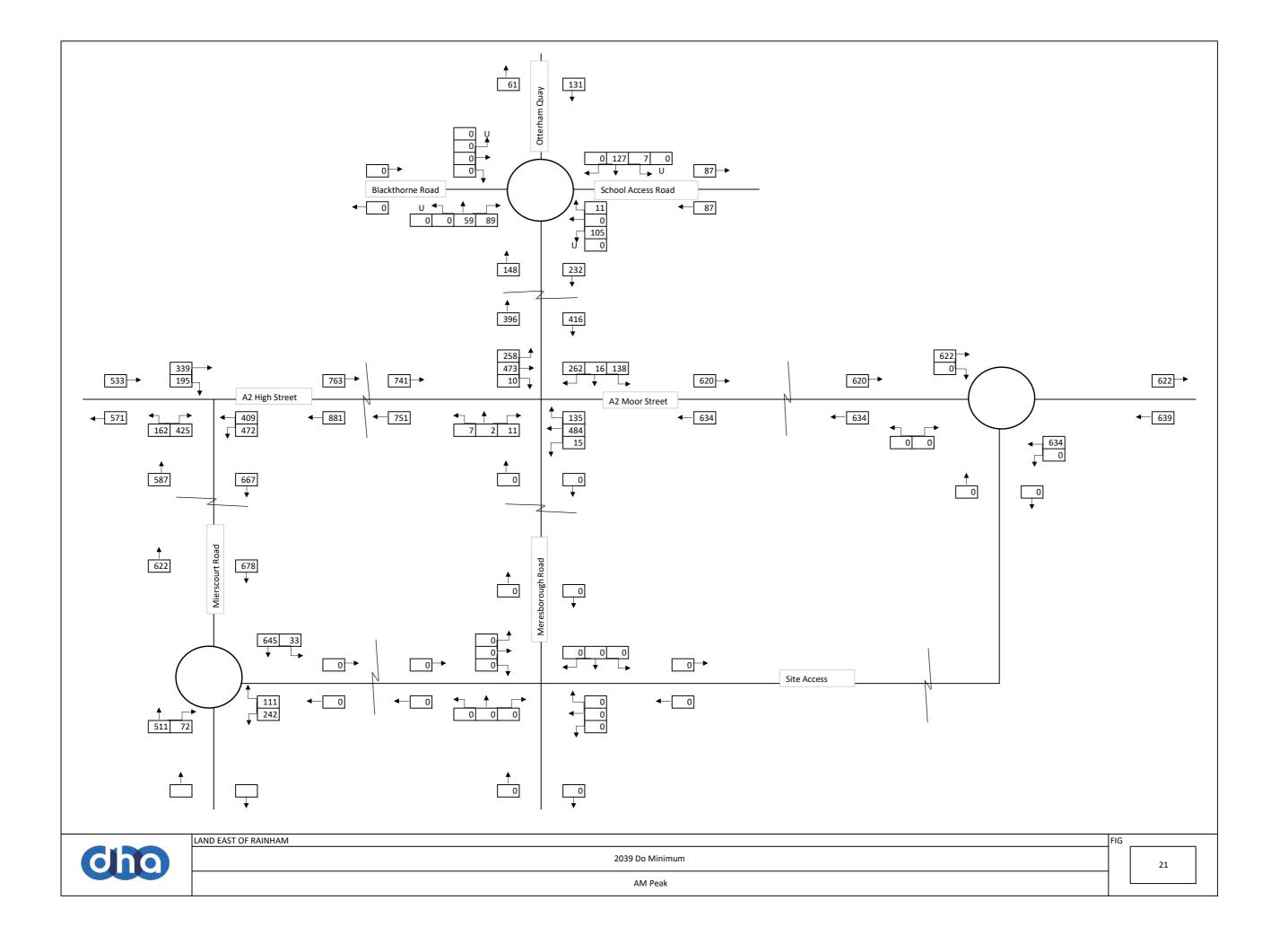


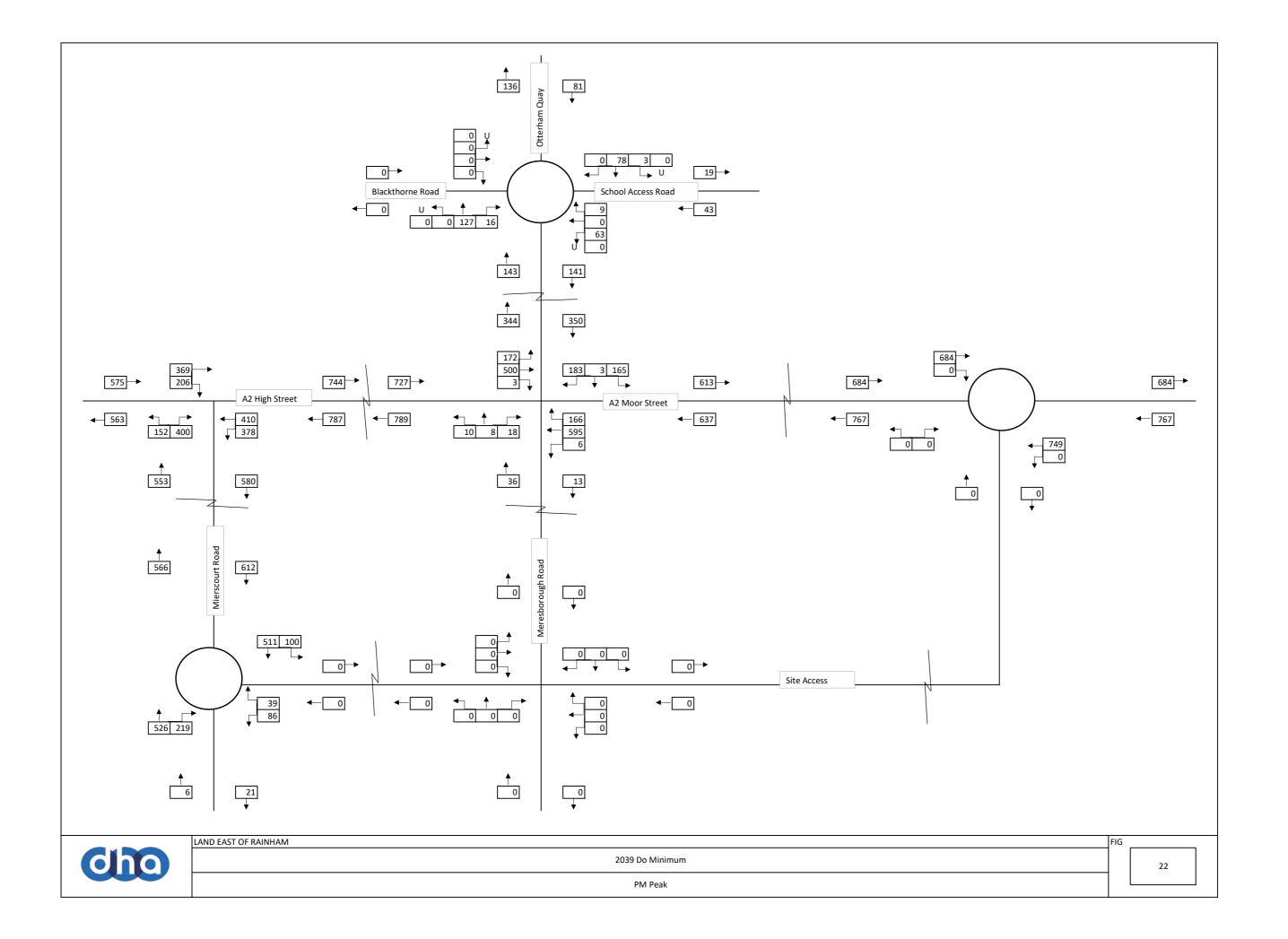


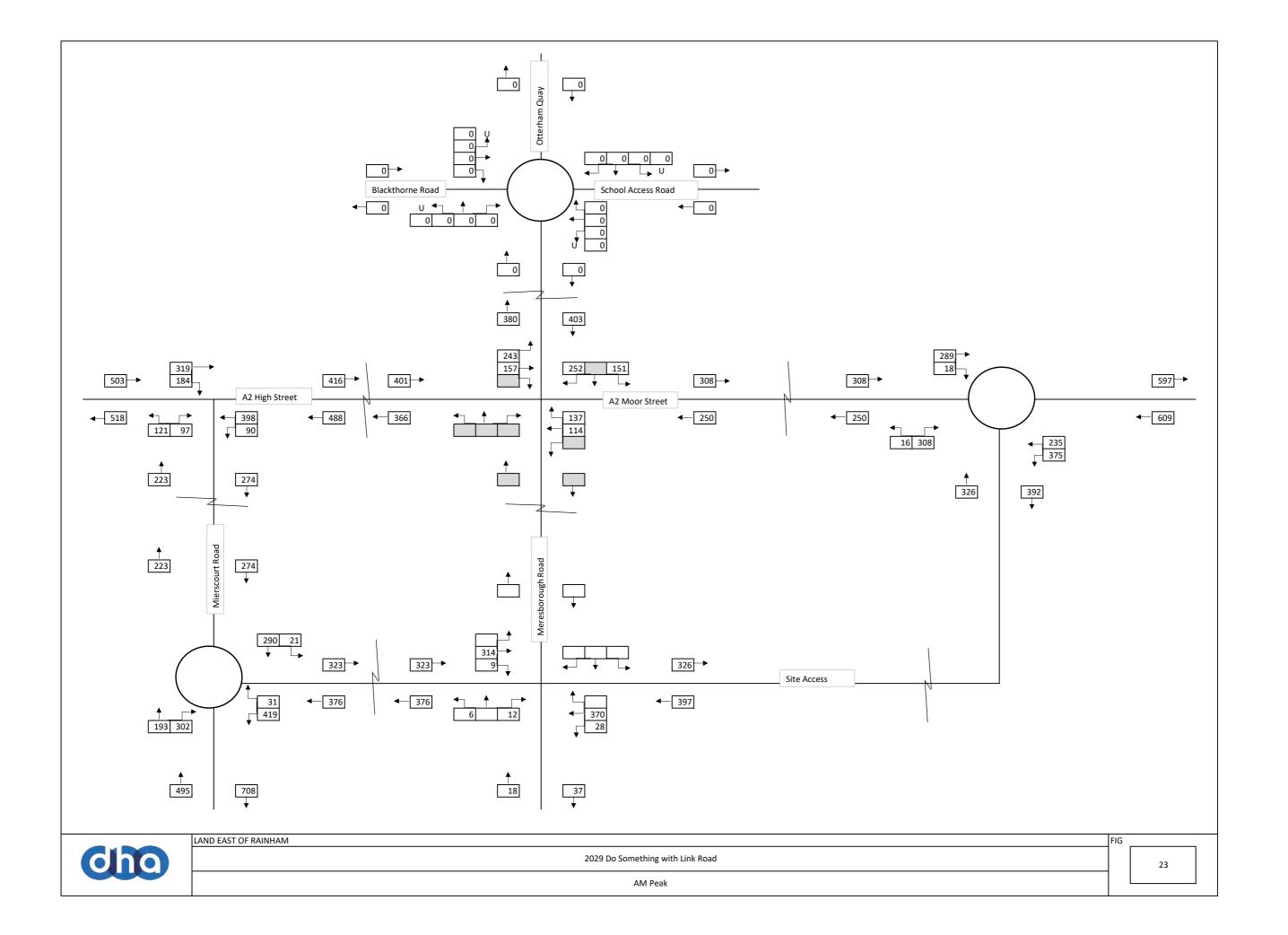


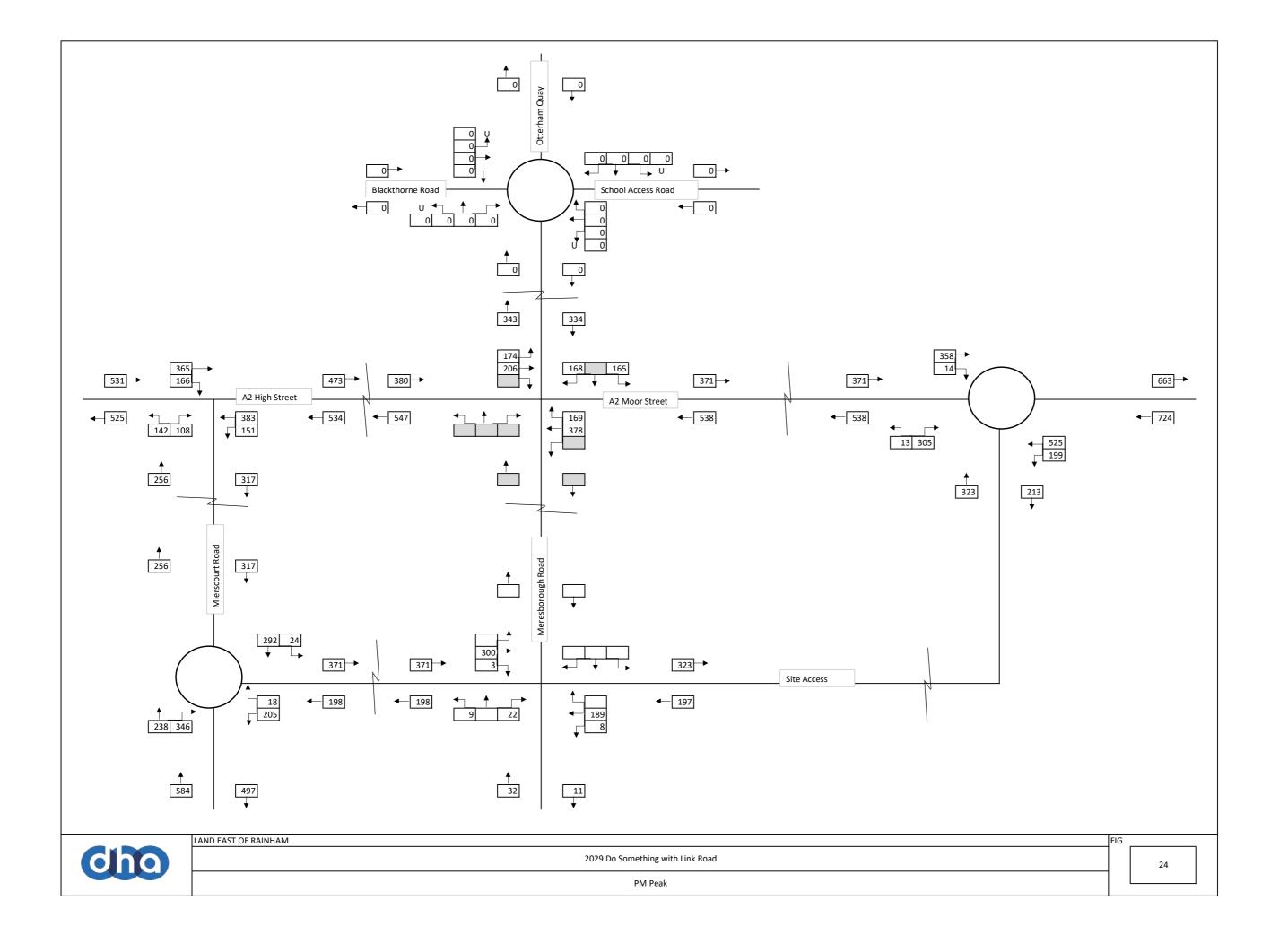


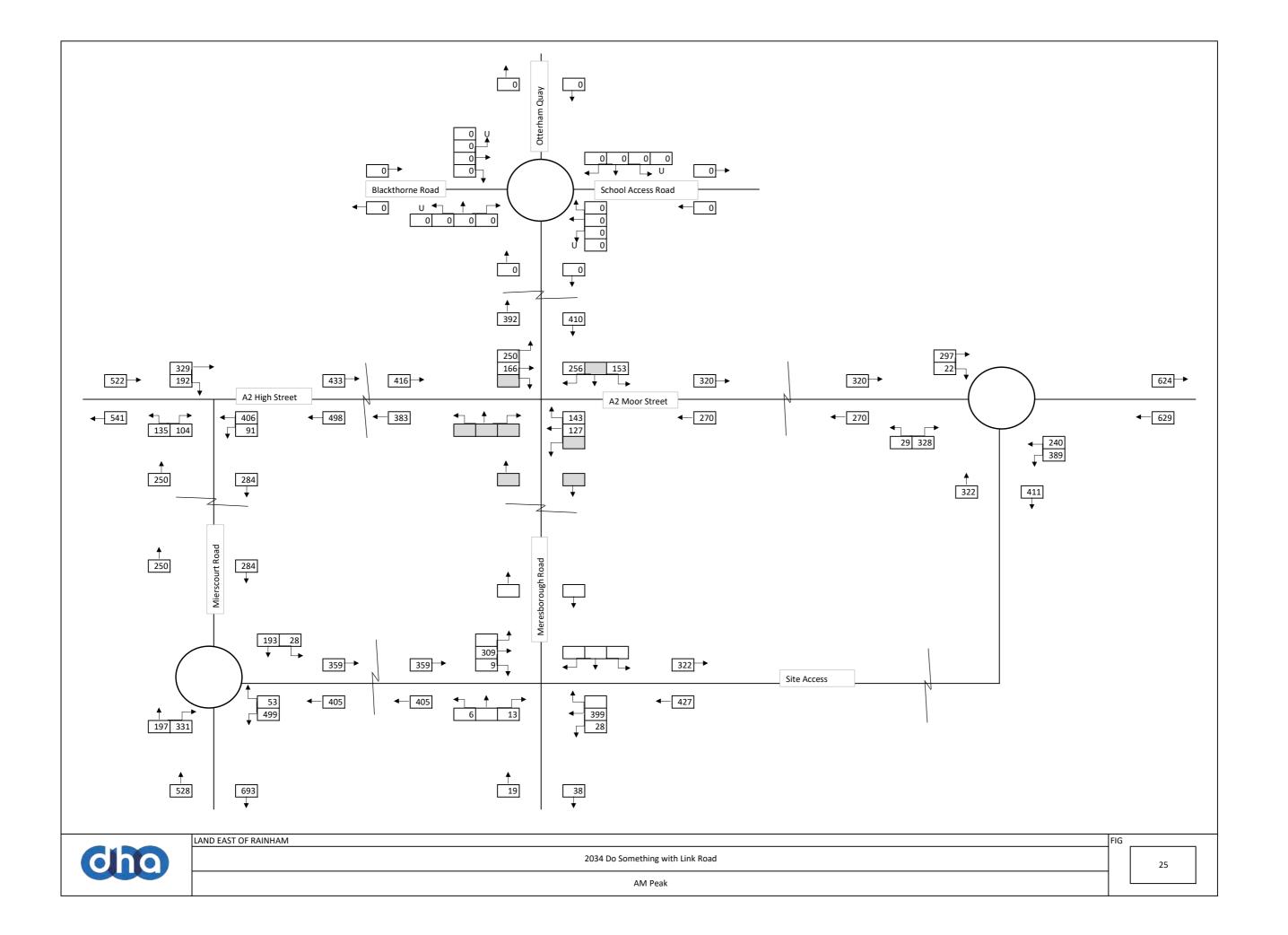


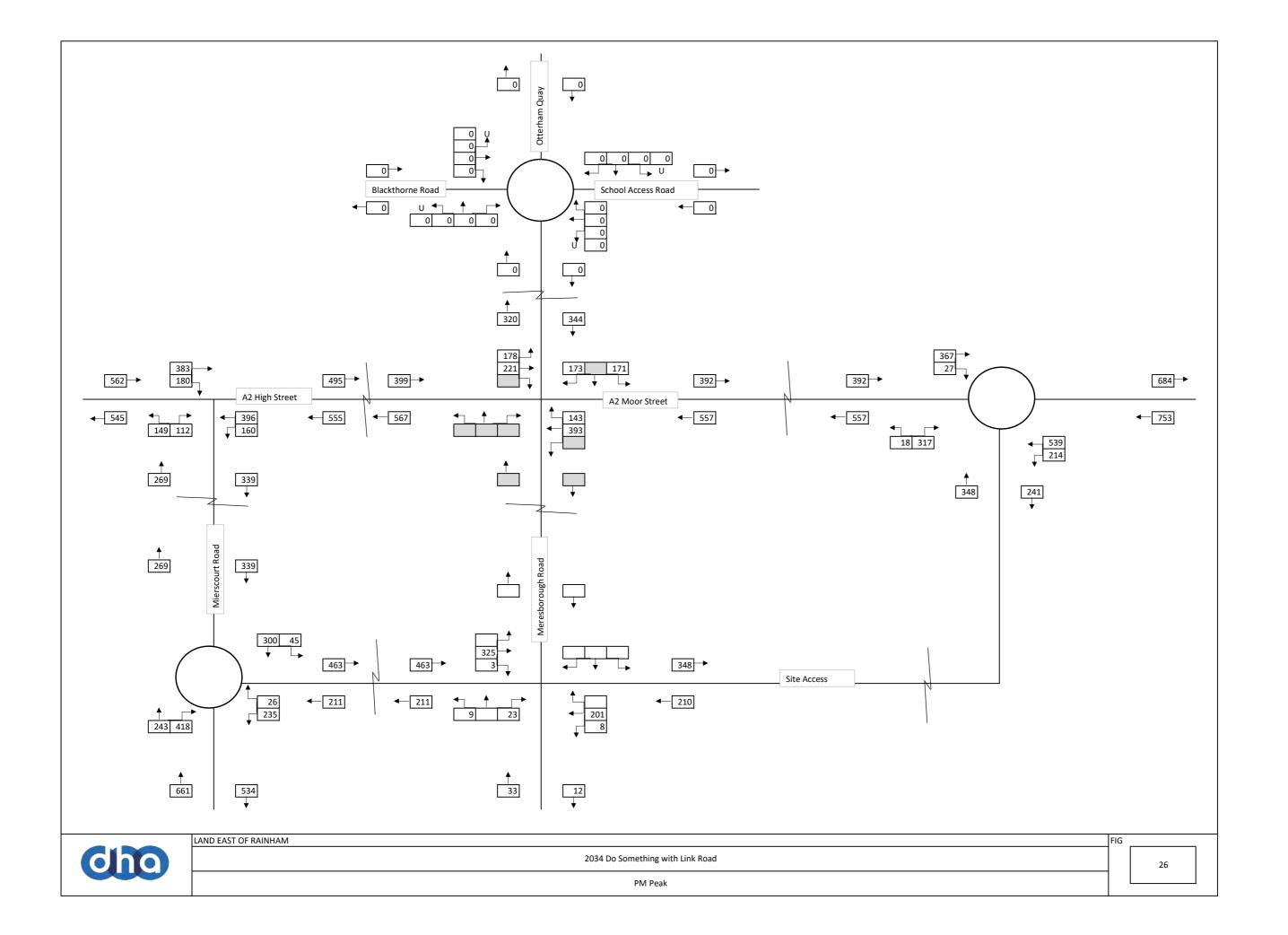


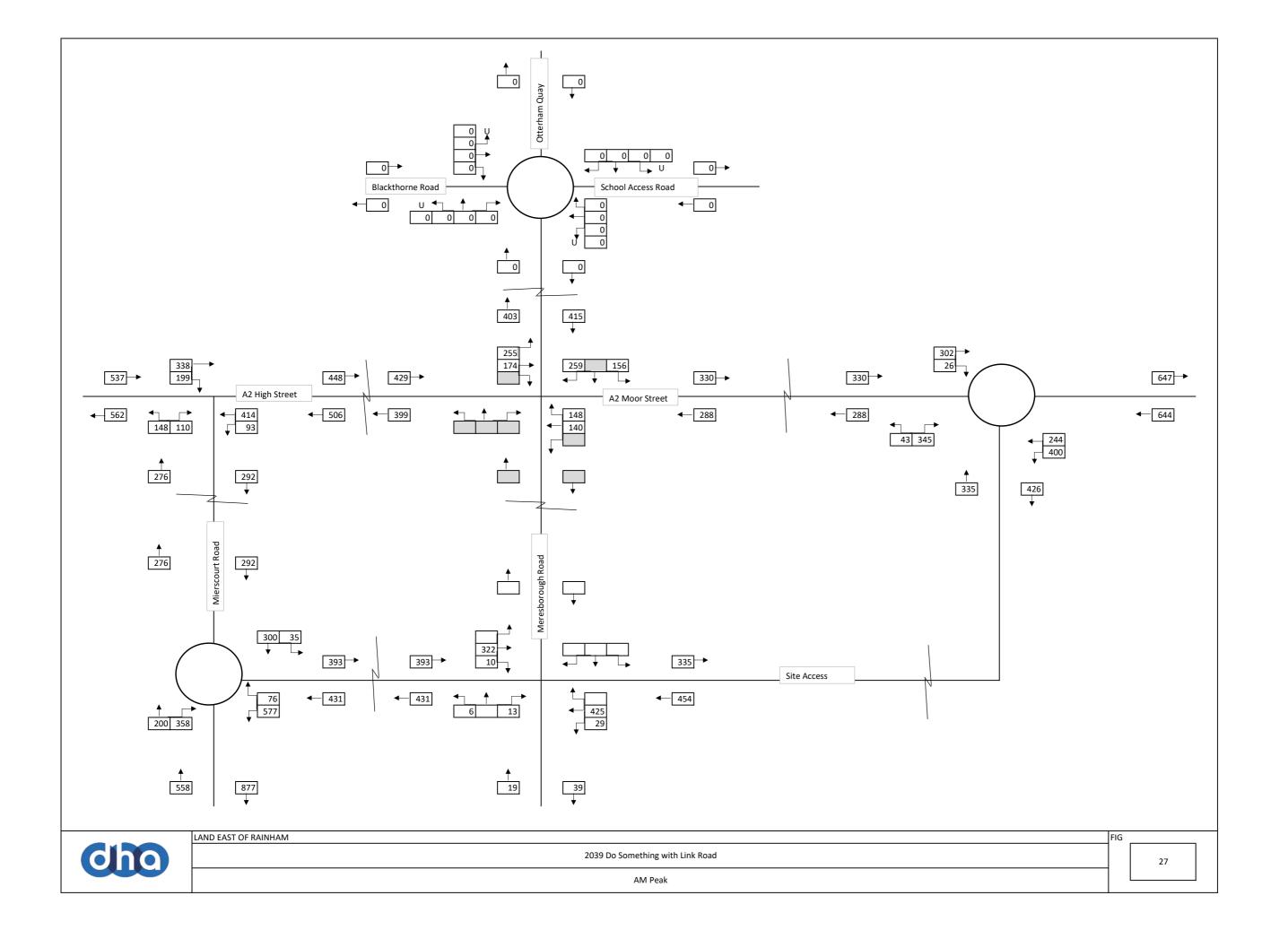


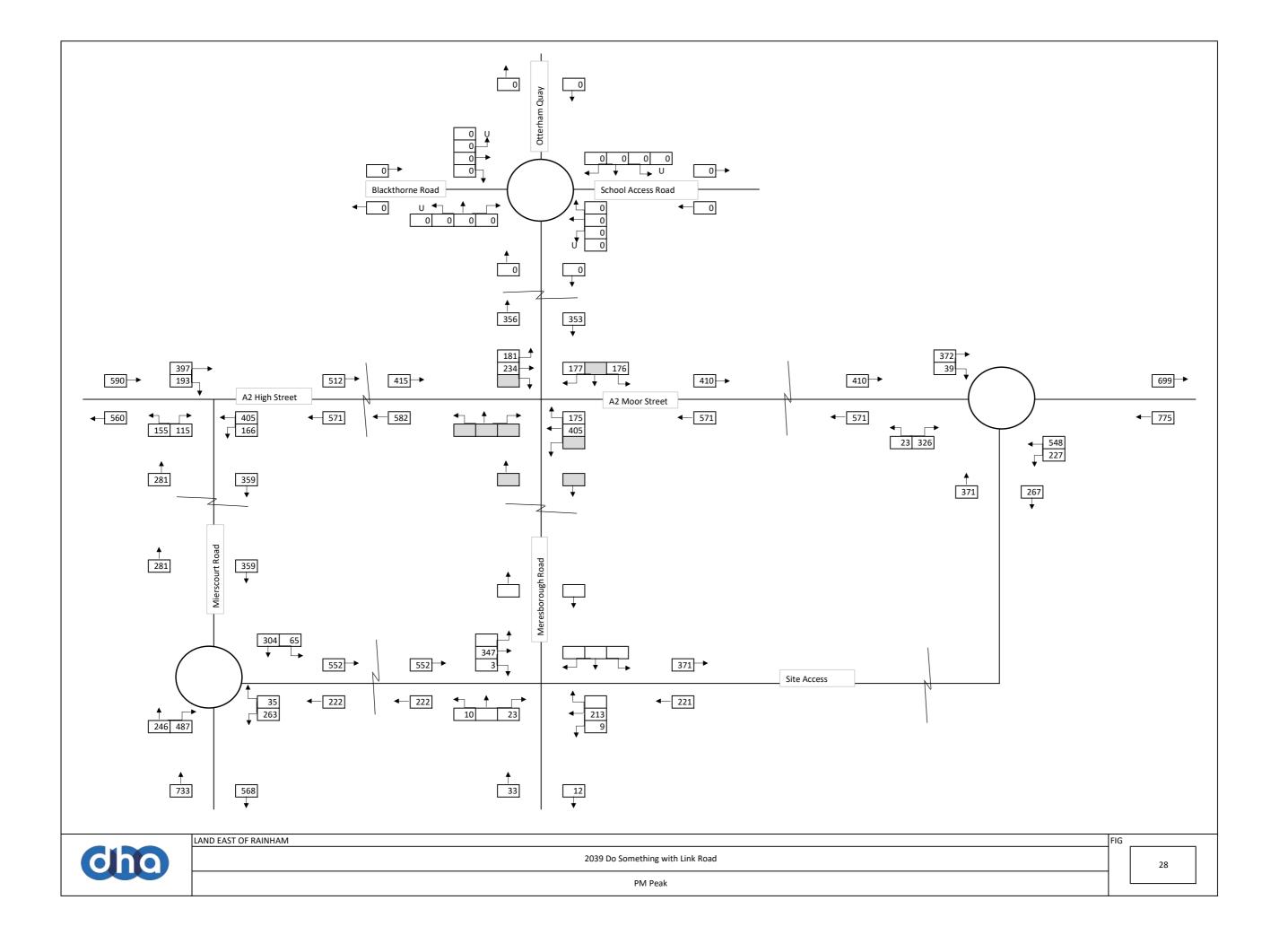












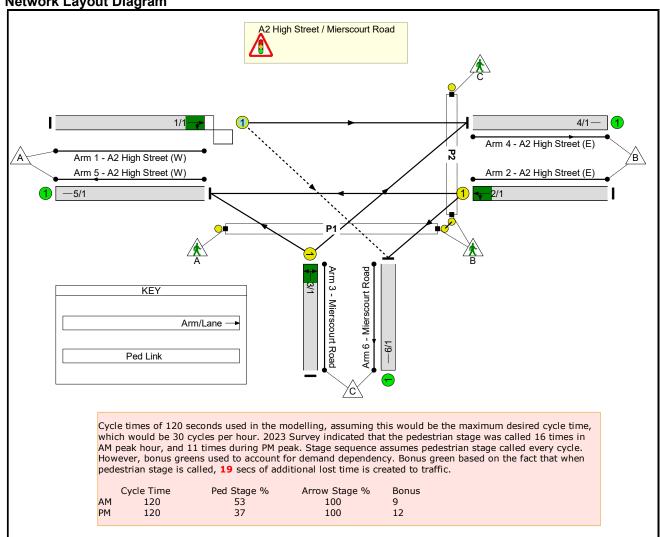


# A2 Mierscourt LinSig Data

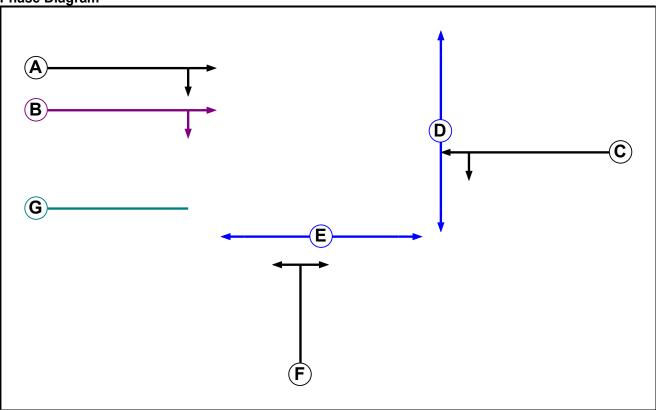
**User and Project Details** 

Project:	24028 Rainham Modelling
Title:	A2 Mierscourt Existing Layout
Location:	Rainham, Kent
Client:	DHA Planning
Date Started:	13/08/24
Checked By:	Stuart Hanson
Checked By Date:	13/08/24
Additional detail:	
File name:	A2 Mierscourt Existing.lsg3x
Author:	Stuart Hanson
Company:	JCT Consultancy
Address:	LinSig House, Deepdale Enterprise Park, Nettlehm, LN22LL

**Network Layout Diagram** 



Phase Diagram



**Phase Input Data** 

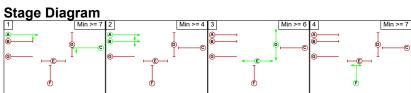
Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
А	Traffic		-9999	7
В	Ind. Arrow	А	-9999	4
С	Traffic		-9999	7
D	Pedestrian		-9999	6
Е	Pedestrian		-9999	6
F	Traffic		-9999	7
G	Dummy		-9999	1

Phase Intergreens Matrix

Phase intergreens matrix									
		Starting Phase							
		Α	В	С	D	Е	F	G	
	Α		-	-	9	8	6	3	
	В	-		5	-	8	6	3	
Terminating	С	-	5		5	8	5	3	
Phase	D	10	-	10		-	10	5	
	Е	10	10	10	-		10	5	
	F	7	7	7	9	5		З	
	G	2	2	2	2	2	2		

Phases in Stage

Stage No.	Phases in Stage
1	AC
2	АВ
3	DE
4	F



**Phase Delays** 

Term. Stage	Start Stage	Phase	Туре	Value	Cont value
	There are no	Phase D	elays d	efined	

**Prohibited Stage Change** 

Frombited Stage Cit								
	To Stage							
		1	2	3	4			
	1		5	9	6			
From Stage	2	X		9	6			
Ü	3	10	X		10			
	4	7	X	9				

# A2 Mierscourt LinSig Data Give-Way Lane Input Data

Junction: A2 High S	Junction: A2 High Street / Mierscourt Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)	
1/1 (A2 High Street (W))	6/1 (Right)	1439	0	2/1	1.09	All	3.00	2.00	0.50	3	3.00	

Junction: A2	High St	treet / Mie	rscour	t Road								
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A2 High	0	АВ	2	3	60.0	Geom		3.25	0.00	Y	Arm 4 Ahead	Inf
Street (W))	U	AB	2	3	00.0	Geom	-	3.23	0.00	ī	Arm 6 Right	15.00
2/1 (A2 High	U	С	2	3	60.0	Geom		3.35	0.00	Y	Arm 5 Ahead	Inf
(A2 High Street (E))		C	2	3	60.0	Geom	-	3.35	0.00		Arm 6 Left	5.00
3/1	U	F	2	3	60.0	Geom		3.25	0.00	Y	Arm 4 Right	12.00
(Mierscourt Road)	U	F	2	3	60.0	Geom	-	3.25	0.00	Ť	Arm 5 Left	12.00
4/1 (A2 High Street (E))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (A2 High Street (W))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Mierscourt Road)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM 2024'	08:00	09:00	01:00	
2: 'AM 2029 Do Nothing'	08:00	09:00	01:00	
3: 'AM 2029 Do Minimum'	08:00	09:00	01:00	
4: 'AM 2034 Do Nothing'	08:00	09:00	01:00	
5: 'AM 2034 Do Minimum'	08:00	09:00	01:00	
6: 'AM 2039 Do Nothing'	08:00	09:00	01:00	
7: 'AM 2039 Do Minimum'	08:00	09:00	01:00	
8: 'PM 2024'	17:00	18:00	01:00	
9: 'PM 2029 Do Nothing'	17:00	18:00	01:00	
10: 'PM 2029 Do Minimum'	17:00	18:00	01:00	
11: 'PM 2034 Do Nothing'	17:00	18:00	01:00	
12: 'PM 2034 Do Minimum'	17:00	18:00	01:00	
13: 'PM 2039 Do Nothing'	17:00	18:00	01:00	
14: 'PM 2039 Do Minimum'	17:00	18:00	01:00	

Scenario 1: 'AM24' (FG1: 'AM 2024', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination								
		Α	В	С	Tot.				
	Α	0	243	148	391				
Origin	В	277	0	382	659				
	С	79	338	0	417				
	Tot.	356	581	530	1467				

# **Traffic Lane Flows**

Lane	Scenario 1:
Lane	AM24
Junction: A2	High Street / Mierscourt Road
1/1	391
2/1	659
3/1	417
4/1	581
5/1	356
6/1	530

ane Saturation Flows									
Junction: A2 High Street / Mierscourt Road									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	3.25	0.00	Y	Arm 4 Ahead	Inf	62.1 %	1000	1869	
(A2 High Street (W))	3.23	0.00		Arm 6 Right	15.00	37.9 %	1869	1009	
2/1	3.35	0.00	Y	Arm 5 Ahead	Inf	42.0 %	1661	1661	
(A2 High Street (E))	3.33	0.00	Y	Arm 6 Left	5.00	58.0 %	1001	1001	
3/1	2.25	0.00	Υ	Arm 4 Right	12.00	81.1 %	1724	1724	
(Mierscourt Road)	3.25		T	Arm 5 Left	12.00	18.9 %	1724		
4/1 (A2 High Street (E) Lane 1)			Infinite S	aturation Flow			Inf	Inf	
5/1 (A2 High Street (W) Lane 1)	Infinite Saturation Flow Inf Inf								
6/1 (Mierscourt Road Lane 1)		Infinite Saturation Flow Inf Inf							

Scenario 2: 'AM29 DN' (FG2: 'AM 2029 Do Nothing', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
		Α	В	С	Tot.			
	Α	0	326	171	497			
Origin	В	394	0	445	839			
	С	104	385	0	489			
	Tot.	498	711	616	1825			

# **Traffic Lane Flows**

Lane	Scenario 2: AM29 DN						
Junction: A2 High Street / Mierscourt Ro							
1/1	497						
2/1	839						
3/1	489						
4/1	711						
5/1	498						
6/1	616						

Lane Saturation Flows								
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	65.6 %	1075	1075
(A2 High Street (W))	3.25	0.00	Y	Arm 6 Right	15.00	34.4 %	1875	1875
2/1	3.35	0.00	Υ	Arm 5 Ahead	Inf	47.0 %	1682	1682
(A2 High Street (E))	3.33	0.00		Arm 6 Left	5.00	53.0 %		1002
3/1	3.25	3.25 0.00	Y	Arm 4 Right	12.00	78.7 %	1724	1724
(Mierscourt Road)	3.25	0.00		Arm 5 Left	12.00	21.3 %		
4/1 (A2 High Street (E) Lane 1)		Infinite Saturation Flow					Inf	Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow					Inf	Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 3: 'AM29 DM' (FG3: 'AM 2029 Do Minimum', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
		A B		С	Tot.			
	Α	0	326	177	503			
Origin	В	394	0	447	841			
	С	122	392	0	514			
	Tot.	516	718	624	1858			

# **Traffic Lane Flows**

Lane	Scenario 3: AM29 DM				
Junction: A2 High Street / Mierscourt F					
1/1	503				
2/1	841				
3/1	514				
4/1	718				
5/1	516				
6/1	624				

Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	64.8 %	1874	1074
(A2 High Street (W))	3.23	0.00	1	Arm 6 Right	15.00	35.2 %	1074	1874
2/1	3.35	0.00	Υ	Arm 5 Ahead	Inf	46.8 %	- 1682	1682
(A2 High Street (E))	3.33	0.00	Y	Arm 6 Left	5.00	53.2 %		1002
3/1	2.05	0.00	Y	Arm 4 Right	12.00	76.3 %	1724	1724
(Mierscourt Road)	3.25			Arm 5 Left	12.00	23.7 %		
4/1 (A2 High Street (E) Lane 1)			Infinite S	aturation Flow			Inf	Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow						Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 4: 'AM34 DN' (FG4: 'AM 2034 Do Nothing', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
		A B		С	Tot.			
	Α	0	333	176	509			
Origin	В	403	0	456	859			
	С	107	395	0	502			
	Tot.	510	728	632	1870			

# **Traffic Lane Flows**

Lane	Scenario 4: AM34 DN						
Junction: A2 High Street / Mierscourt R							
1/1	509						
2/1	859						
3/1	502						
4/1	728						
5/1	510						
6/1	632						

Lane Saturation Flows								
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	65.4 %	1875	1075
(A2 High Street (W))	3.23	0.00	T	Arm 6 Right	15.00	34.6 %	10/5	1875
2/1	3.35	0.00	Υ	Arm 5 Ahead	Inf	46.9 %	1682	1682
(A2 High Street (E))	3.33	0.00	Y	Arm 6 Left	5.00	53.1 %		1002
3/1	3.25	0.00	Y	Arm 4 Right	12.00	78.7 %	1704	1724
(Mierscourt Road)		0.00		Arm 5 Left	12.00	21.3 %	1724	
4/1 (A2 High Street (E) Lane 1)		Infinite Saturation Flow					Inf	Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow					Inf	Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 5: 'AM34 DM' (FG5: 'AM 2034 Do Minimum', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
		Α	В	С	Tot.			
	Α	0	333	186	519			
Origin	В	403	0	461	864			
	С	142	410	0	552			
	Tot.	545	743	647	1935			

# **Traffic Lane Flows**

Lane	Scenario 5: AM34 DM				
Junction: A2 High Street / Mierscourt R					
1/1	519				
2/1	864				
3/1	552				
4/1	743				
5/1	545				
6/1	647				

ane Saturation Flows								
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	64.2 %	1072	1072
(A2 High Street (W))	3.25	0.00	Y	Arm 6 Right	15.00	35.8 %	1873	1873
2/1	3.35	0.00	Υ	Arm 5 Ahead	Inf	46.6 %	1681	1681
(A2 High Street (E))	3.33	0.00		Arm 6 Left	5.00	53.4 %		1001
3/1	3.25	3.25 0.00	Y	Arm 4 Right	12.00	74.3 %	1724	1724
(Mierscourt Road)	3.25	0.00		Arm 5 Left	12.00	25.7 %		
4/1 (A2 High Street (E) Lane 1)			Infinite S	aturation Flow			Inf	Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow					Inf	Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 6: 'AM39 DN' (FG6: 'AM 2039 Do Nothing', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
		Α	В	С	Tot.			
Origin	Α	0	339	179	518			
	В	409	0	465	874			
	С	108	403	0	511			
	Tot.	517	742	644	1903			

# **Traffic Lane Flows**

Lane	Scenario 6: AM39 DN
Junction: A2	High Street / Mierscourt Road
1/1	518
2/1	874
3/1	511
4/1	742
5/1	517
6/1	644

Lane Saturation Flows								
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	65.4 %	1075	1875
(A2 High Street (W))	3.23	0.00	Y	Arm 6 Right	15.00	34.6 %	1875	1875
2/1	2.25	0.00	Υ	Arm 5 Ahead	Inf	46.8 %	1600	1682
(A2 High Street (E))	3.35	0.00	Y	Arm 6 Left	5.00	53.2 %	1682	
3/1	0.05	0.00	Y	Arm 4 Right	12.00	78.9 %	1724	1724
(Mierscourt Road)	3.25	0.00		Arm 5 Left	12.00	21.1 %		
4/1 (A2 High Street (E) Lane 1)  Infinite Saturation Flow					Inf	Inf		
5/1 (A2 High Street (W) Lane 1)	Infinite Saturation Flow					Inf	Inf	
6/1 (Mierscourt Road Lane 1)		Infinite Saturation Flow						Inf

Scenario 7: 'AM39 DM' (FG7: 'AM 2039 Do Minimum', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination								
		Α	В	С	Tot.				
Origin	Α	0	339	195	534				
	В	409	0	472	881				
	С	162	425	0	587				
	Tot.	571	764	667	2002				

# **Traffic Lane Flows**

Lane	Scenario 7: AM39 DM						
Junction: A2	High Street / Mierscourt Road						
1/1	534						
2/1	881						
3/1	587						
4/1	764						
5/1	571						
6/1	667						

Lane Saturation Flows								
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	63.5 %	1070	1872
(A2 High Street (W))	3.23	0.00	Y	Arm 6 Right	15.00	36.5 %	1872	1872
2/1	2.25	0.00	Υ	Arm 5 Ahead	Inf	46.4 %	1600	1680
(A2 High Street (E))	3.35	0.00	Y	Arm 6 Left	5.00	53.6 %	1680	
3/1	3.25 0.	0.00	Y	Arm 4 Right	12.00	72.4 %	1724	1724
(Mierscourt Road)		0.00		Arm 5 Left	12.00	27.6 %		
4/1 (A2 High Street (E) Lane 1)	Intinite Seturation Flow					Inf	Inf	
5/1 (A2 High Street (W) Lane 1)	Infinite Saturation Flow					Inf	Inf	
6/1 (Mierscourt Road Lane 1)		Infinite Saturation Flow						Inf

Scenario 8: 'PM24' (FG8: 'PM 2024', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination								
		Α	В	С	Tot.				
	Α	0	302	127	429				
Origin	В	325	0	305	630				
	С	107	354	0	461				
	Tot.	432	656	432	1520				

# **Traffic Lane Flows**

Lane	Scenario 8: PM24				
Junction: A2	High Street / Mierscourt Road				
1/1	429				
2/1	630				
3/1	461				
4/1	656				
5/1	432				
6/1	432				

ane Saturation Flows								
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	2.05	0.00	Y	Arm 4 Ahead	Inf	70.4 %	1004	4004
(A2 High Street (W))	3.25	0.00		Arm 6 Right	15.00	29.6 %	1884	1884
2/1	3.35	0.00	Υ	Arm 5 Ahead	Inf	51.6 %	1703	1703
(A2 High Street (E))	3.33	0.00	Y	Arm 6 Left	5.00	48.4 %		
3/1	3.25	0.00	Y	Arm 4 Right	12.00	76.8 %	1724	1724
(Mierscourt Road)		0.00		Arm 5 Left	12.00	23.2 %		
4/1 (A2 High Street (E) Lane 1)	ne 1) Infinite Saturation Flow					Inf	Inf	
5/1 (A2 High Street (W) Lane 1)	Infinite Saturation Flow					Inf	Inf	
6/1 (Mierscourt Road Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 9: 'PM29 DN' (FG9: 'PM 2029 Do Nothing', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
	A B C T							
	Α	0	354	152	506			
Origin	В	394	0	342	736			
	С	128	375	0	503			
	Tot.	522	729	494	1745			

## **Traffic Lane Flows**

Lane	Scenario 9: PM29 DN				
Junction: A2 High Street / Mierscourt Ro					
1/1	506				
2/1	736				
3/1	503				
4/1	729				
5/1	522				
6/1	494				

Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Y	Arm 4 Ahead	Inf	70.0 %	1883	1002
(A2 High Street (W))	3.23	0.00	1	Arm 6 Right	15.00	30.0 %	1003	1883
2/1	3.35	0.00	Y	Arm 5 Ahead	Inf	53.5 %	1711	1711
(A2 High Street (E))	3.33	0.00	Y	Arm 6 Left	5.00	46.5 %	1711	1711
3/1	2.05	0.00	.00 Y	Arm 4 Right	12.00	74.6 %	1724	4704
(Mierscourt Road)	3.25	0.00		Arm 5 Left	12.00	25.4 %		1724
4/1 (A2 High Street (E) Lane 1)		Infinite Saturation Flow						Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow						Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 10: 'PM29 DM' (FG10: 'PM 2029 Do Minimum', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
		A B			Tot.			
	Α	0	354	168	522			
Origin	В	394	0	349	743			
	С	135	378	0	513			
	Tot.	529	732	517	1778			

## **Traffic Lane Flows**

Lane	Scenario 10: PM29 DM						
Junction: A2 High Street / Mierscourt Roa							
1/1	522						
2/1	743						
3/1	513						
4/1	732						
5/1	529						
6/1	517						

ane Saturation Flows								
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	67.8 %	1880	1000
(A2 High Street (W))	3.23	0.00	T	Arm 6 Right	15.00	32.2 %	1000	1880
2/1	3.35	0.00	Υ	Arm 5 Ahead	Inf	53.0 %	1709	1709
(A2 High Street (E))	3.33	0.00	Y	Arm 6 Left	5.00	47.0 %		1709
3/1		0.00	0.00 Y	Arm 4 Right	12.00	73.7 %	1724	1724
(Mierscourt Road)	3.25	0.00		Arm 5 Left	12.00	26.3 %		
4/1 (A2 High Street (E) Lane 1)		Infinite Saturation Flow						Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow					Inf	Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 11: 'PM34 DN' (FG11: 'PM 2034 Do Nothing', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
	A B			С	Tot.			
	Α	0	363	156	519			
Origin	В	404	0	351	755			
	С	131	385	0	516			
	Tot.	535	748	507	1790			

## **Traffic Lane Flows**

Lane	Scenario 11: PM34 DN				
Junction: A2 High Street / Mierscourt Ro					
1/1	519				
2/1	755				
3/1	516				
4/1	748				
5/1	535				
6/1	507				

ane Saturation Flows								
Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	2.25	0.00	Υ	Arm 4 Ahead	Inf	69.9 %	1002	1002
(A2 High Street (W))	3.25	0.00	Y	Arm 6 Right	15.00	30.1 %	1883	1883
2/1	3.35	0.00	Y	Arm 5 Ahead	Inf	53.5 %	1711	1711
(A2 High Street (E))	3.33	0.00	Y	Arm 6 Left	5.00	46.5 %		1711
3/1	2.05	0.05		Arm 4 Right	12.00	74.6 %	1724	1724
(Mierscourt Road)	3.25 0.0	0.00	Y	Arm 5 Left	12.00	25.4 %		
4/1 (A2 High Street (E) Lane 1)		Infinite Saturation Flow						Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow					Inf	Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 12: 'PM34 DM' (FG12: 'PM 2034 Do Minimum', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

	Destination							
		A B			Tot.			
	Α	0	363	188	551			
Origin	В	404	0	365	769			
	С	144	390	0	534			
	Tot.	548	753	553	1854			

## **Traffic Lane Flows**

Lane	Scenario 12: PM34 DM						
Junction: A2 High Street / Mierscourt Roa							
1/1	551						
2/1	769						
3/1	534						
4/1	753						
5/1	548						
6/1	553						

Junction: A2 High Street / Mierscourt Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.25	0.00	Y	Arm 4 Ahead	Inf	65.9 %	1876	1876
(A2 High Street (W))	3.23	0.00	1	Arm 6 Right	15.00	34.1 %	1676	18/6
2/1	3.35	0.00	Y	Arm 5 Ahead	Inf	52.5 %	1707	1707
(A2 High Street (E))	3.33	0.00	Y	Arm 6 Left	5.00	47.5 %		1707
3/1	2.05	0.00	Y	Arm 4 Right	12.00	73.0 %	1724	4704
(Mierscourt Road)	3.25	0.00		Arm 5 Left	12.00	27.0 %		1724
4/1 (A2 High Street (E) Lane 1)		Infinite Saturation Flow						Inf
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow						Inf
6/1 (Mierscourt Road Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 13: 'PM39 DN' (FG13: 'PM 2039 Do Nothing', Plan 1: 'With Peds') Traffic Flows, Desired

Desired Flow:

		[	Destination	า	
		Α	В	С	Tot.
	Α	0	369	158	527
Origin	В	410	0	357	767
	С	133	392	0	525
	Tot.	543	761	515	1819

## **Traffic Lane Flows**

Lane	Scenario 13: PM39 DN
Junction: A2	High Street / Mierscourt Road
1/1	527
2/1	767
3/1	525
4/1	761
5/1	543
6/1	515

ane Saturation Flows												
Junction: A2 High Street / Mierscourt Road												
Lane	Lane Width (m)	Width Gradient		Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)				
1/1	3.25 0.00		Υ	Arm 4 Ahead	Inf	70.0 %	1004	4004				
(A2 High Street (W))	3.25	0.00	Y	Arm 6 Right	15.00	30.0 %	1884	1884				
2/1	3.35	0.00	Υ	Arm 5 Ahead	Inf	53.5 %	1711	4744				
(A2 High Street (E))	3.33	0.00	Y	Arm 6 Left	5.00	46.5 %	1/11	1711				
3/1	2.05	0.00	Υ	Arm 4 Right	12.00	74.7 %	1704	4704				
(Mierscourt Road)	3.25	0.00	Y	Arm 5 Left	12.00	25.3 %	1724	1724				
4/1 (A2 High Street (E) Lane 1)			Infinite S	aturation Flow			Inf	Inf				
5/1 (A2 High Street (W) Lane 1)			aturation Flow			Inf	Inf					
6/1 Infinite Saturation Flow Inf Inf												

Scenario 14: 'PM39 DM' (FG14: 'PM 2039 Do Minimum', Plan 1: 'With Peds')

Traffic Flows, Desired

Desired Flow:

		Destination										
		Α	В	С	Tot.							
	Α	0	369	206	575							
Origin	В	410	0	378	788							
	С	152	400	0	552							
	Tot.	562	769	584	1915							

### **Traffic Lane Flows**

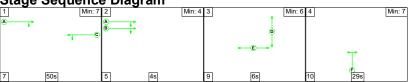
Lane	Scenario 14: PM39 DM
Junction: A2	High Street / Mierscourt Road
1/1	575
2/1	788
3/1	552
4/1	769
5/1	562
6/1	584

### **Lane Saturation Flows**

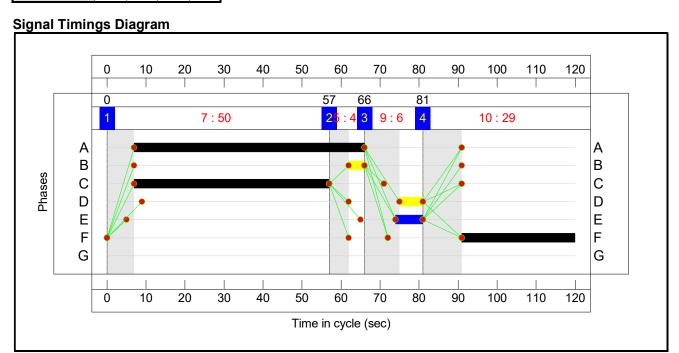
Land Saturation Flows											
Junction: A2 High Street / Mierscourt Road											
Lane	Lane Width (m)	Width Gradient		Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)			
1/1	3.25	0.00	Υ	Arm 4 Ahead	Inf	64.2 %	1873	1873			
(A2 High Street (W))	3.23	0.00	T	Arm 6 Right	15.00	35.8 %	10/3	1073			
2/1	2.25	0.00	Y	Arm 5 Ahead	Inf	52.0 %	1705	1705			
(A2 High Street (E))	3.35	0.00	Y	Arm 6 Left	5.00	48.0 %	1705	1705			
3/1	2.05	0.00	Υ	Arm 4 Right	12.00	72.5 %	1704	1704			
(Mierscourt Road)	3.25	0.00	Y	Arm 5 Left	12.00	27.5 %	1724	1724			
4/1 (A2 High Street (E) Lane 1)	Infinite Saturation Flow						Inf	Inf			
5/1 (A2 High Street (W) Lane 1)		Infinite Saturation Flow						Inf			
6/1 (Mierscourt Road Lane 1)	Intinite Saturation Flow										

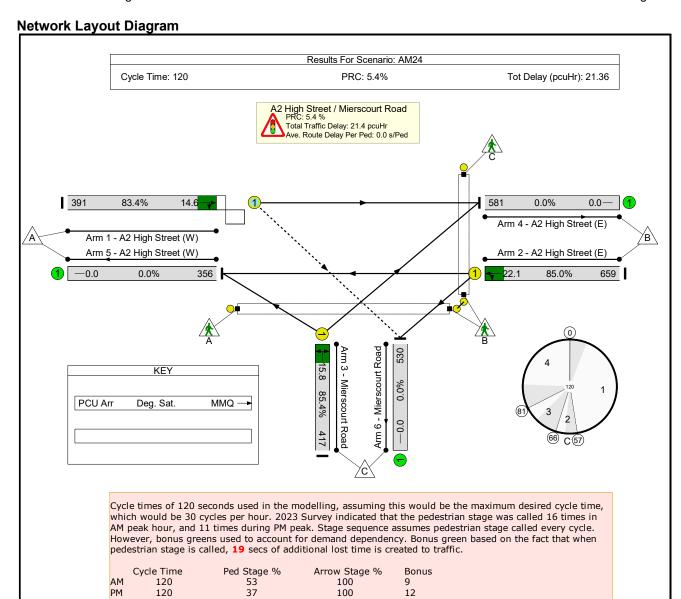
Scenario 1: 'AM24' (FG1: 'AM 2024', Plan 1: 'With Peds')

Stage Sequence Diagram



<u> </u>	,-			
Stage	1	2	3	4
Duration	50	4	6	29
Change Point	0	57	66	81





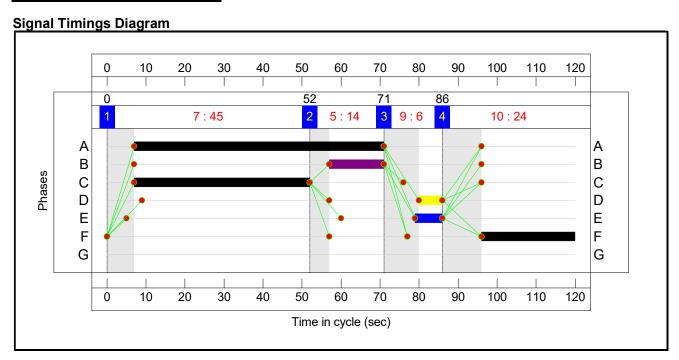
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	85.4%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	85.4%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	59	4	391	1869	469	83.4%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	50	-	659	1661	775	85.0%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	29	-	417	1724	488	85.4%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	581	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	356	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	530	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

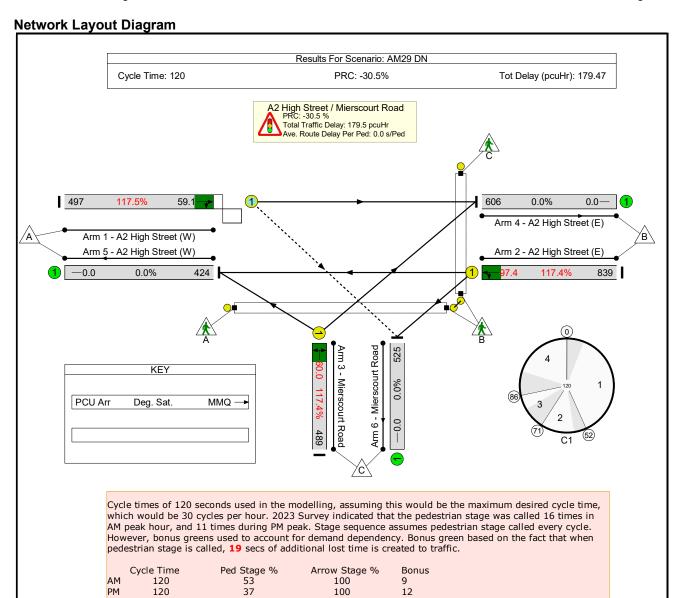
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	83	61	4	12.7	7.8	0.9	21.4	-	-	-	-
A2 High Street / Mierscourt Road	-	-	83	61	4	12.7	7.8	0.9	21.4	-	-	-	-
1/1	391	391	83	61	4	2.8	2.4	0.9	6.0	55.7	12.3	2.4	14.6
2/1	659	659	-	-	-	5.2	2.7	-	7.9	43.1	19.4	2.7	22.1
3/1	417	417	-	-	-	4.7	2.7	-	7.4	64.1	13.1	2.7	15.8
4/1	581	581	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	356	356	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	530	530	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	5.4 5.4		Signalled Lanes (p y Over All Lanes(p		Cycle	Γime (s): 120			

A2 Mierscourt LinSig Data Scenario 2: 'AM29 DN' (FG2: 'AM 2029 Do Nothing', Plan 1: 'With Peds')



Stage	1	2	3	4
Duration	45	14	6	24
Change Point	0	52	71	86





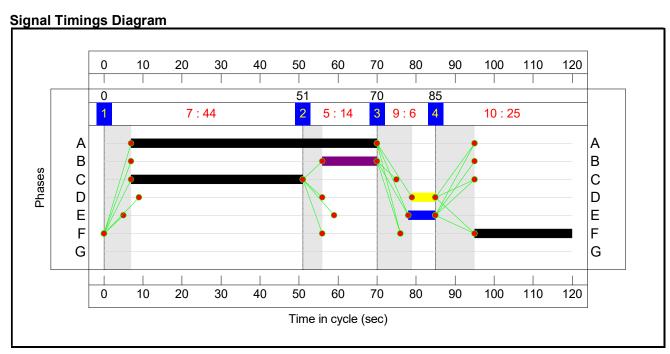
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	117.5%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	117.5%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	64	14	497	1875	423	117.5%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	45	-	839	1682	715	117.4%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	24	-	489	1724	417	117.4%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	711	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	498	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	616	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

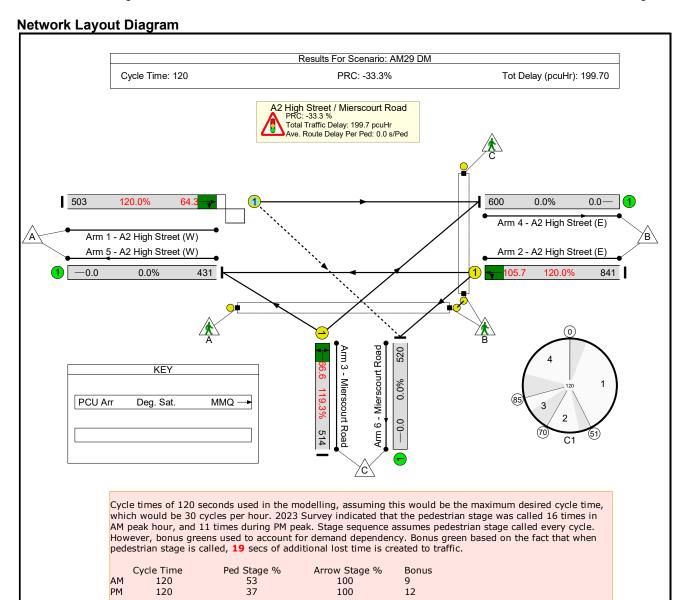
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	0	129	16	34.0	144.6	0.9	179.5	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	129	16	34.0	144.6	0.9	179.5	-	-	-	
1/1	497	423	0	129	16	7.6	40.0	0.9	48.5	351.3	19.0	40.0	59.1
2/1	839	715	-	-	-	15.1	65.3	-	80.4	345.1	32.1	65.3	97.4
3/1	489	417	-	-	-	11.2	39.3	-	50.5	372.1	20.7	39.3	60.0
4/1	606	606	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	424	424	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	525	525	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	=	=	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-30.5 -30.5		Signalled Lanes (p Over All Lanes(p		Cycle	Time (s): 120			

A2 Mierscourt LinSig Data Scenario 3: 'AM29 DM' (FG3: 'AM 2029 Do Minimum', Plan 1: 'With Peds')



Stage	1	2	3	4
Duration	44	14	6	25
Change Point	0	51	70	85

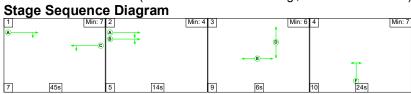




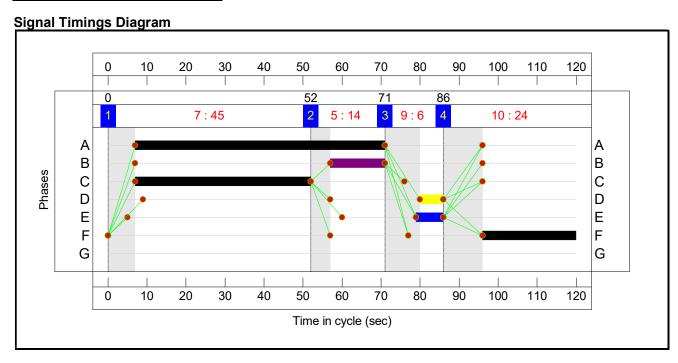
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	120.0%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	120.0%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	63	14	503	1874	419	120.0%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	44	-	841	1682	701	120.0%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	25	-	514	1724	431	119.3%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	718	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	516	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	624	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	0	131	16	36.7	162.1	0.9	199.7	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	131	16	36.7	162.1	0.9	199.7	-	-	-	-
1/1	503	419	0	131	16	8.3	44.7	0.9	53.9	385.6	19.6	44.7	64.3
2/1	841	701	-	-	-	16.2	73.0	-	89.2	381.8	32.7	73.0	105.7
3/1	514	431	-	-	-	12.2	44.4	-	56.6	396.7	22.2	44.4	66.6
4/1	600	600	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	431	431	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	520	520	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-33.3 -33.3		Signalled Lanes ( Over All Lanes(		Cycle	Γime (s): 120			

A2 Mierscourt LinSig Data Scenario 4: 'AM34 DN' (FG4: 'AM 2034 Do Nothing', Plan 1: 'With Peds')

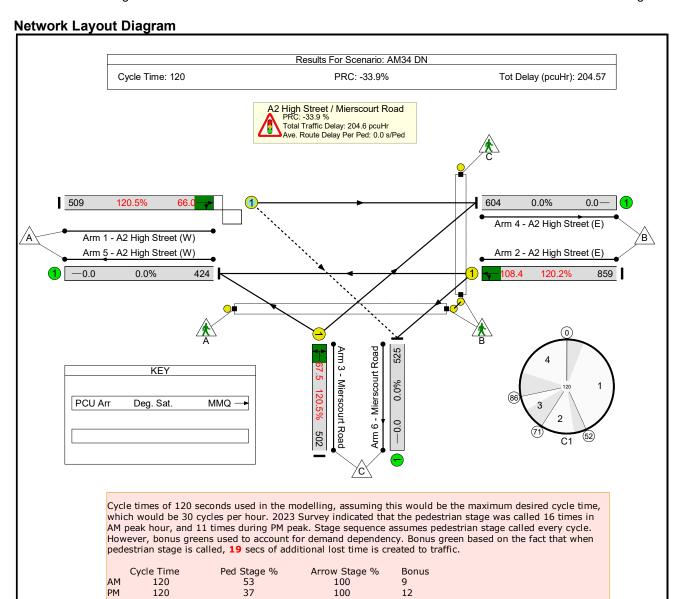


Stage	1	2	3	4
Duration	45	14	6	24
Change Point	0	52	71	86



PM

120



100

12

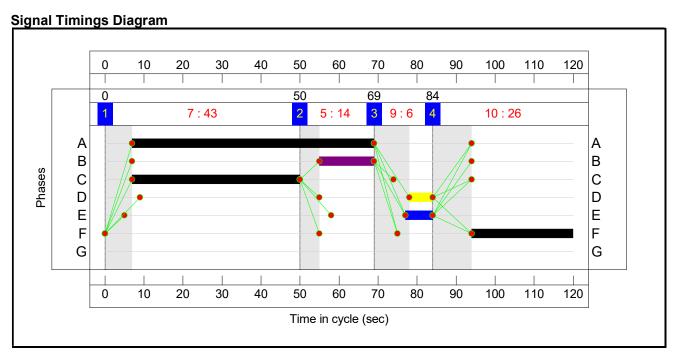
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	120.5%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	120.5%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	64	14	509	1875	422	120.5%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	45	-	859	1682	715	120.2%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	24	-	502	1724	417	120.5%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	728	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	510	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	632	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	0	130	16	37.2	166.5	0.9	204.6	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	130	16	37.2	166.5	0.9	204.6	-	-	-	-
1/1	509	422	0	130	16	8.4	46.1	0.9	55.4	391.7	19.9	46.1	66.0
2/1	859	715	-	-	-	16.5	74.9	-	91.4	383.1	33.4	74.9	108.4
3/1	502	417	-	-	-	12.3	45.4	-	57.8	414.3	22.0	45.4	67.5
4/1	604	604	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	424	424	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	525	525	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-33.9 -33.9		Signalled Lanes (բ o Over All Lanes(բ		Cycle <sup>-</sup>	Γime (s): 120			

Scenario 5: 'AM34 DM' (FG5: 'AM 2034 Do Minimum', Plan 1: 'With Peds')



Stage	1	2	3	4
Duration	43	14	6	26
Change Point	0	50	69	84



Cycle Time

120

120

ΑM

PM

**Network Layout Diagram** Results For Scenario: AM34 DM Cycle Time: 120 PRC: -39.9% Tot Delay (pcuHr): 244.33 A2 High Street / Mierscourt Road PRC: -39.9 % Total Traffic Delay: 244.3 pcuHr Ave. Route Delay Per Ped: 0.0 s/Ped 519 124.8% 598 0.0% 0.0— Arm 4 - A2 High Street (E) Arm 1 - A2 High Street (W) Arm 5 - A2 High Street (W) Arm 2 - A2 High Street (E) 435 -0.0 0.0% 864 125.9% Arm 6 - Mierscourt Road 515 Arm 3 - Mierscourt Road KEY %0.0 123.9% PCU Arr Deg. Sat. MMQ → 552 Cycle times of 120 seconds used in the modelling, assuming this would be the maximum desired cycle time, which would be 30 cycles per hour. 2023 Survey indicated that the pedestrian stage was called 16 times in AM peak hour, and 11 times during PM peak. Stage sequence assumes pedestrian stage called every cycle. However, bonus greens used to account for demand dependency. Bonus green based on the fact that when pedestrian stage is called, 19 secs of additional lost time is created to traffic. Ped Stage % 53 37

Arrow Stage %

100

100

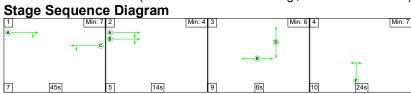
Bonus

12

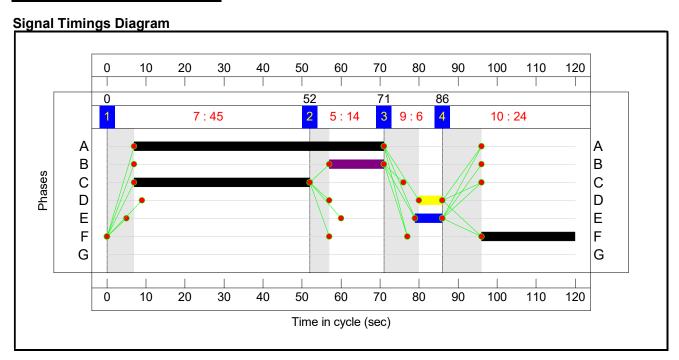
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	125.9%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	125.9%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	62	14	519	1873	416	124.8%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	43	-	864	1681	686	125.9%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	26	-	552	1724	445	123.9%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	743	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	545	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	647	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	0	132	17	42.6	200.9	0.9	244.3	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	132	17	42.6	200.9	0.9	244.3	-	-	-	-
1/1	519	416	0	132	17	9.5	53.9	0.9	64.3	446.2	20.7	53.9	74.7
2/1	864	686	-	-	-	18.7	91.2	-	109.9	457.9	34.7	91.2	125.9
3/1	552	445	-	-	-	14.3	55.8	-	70.1	457.2	25.0	55.8	80.8
4/1	598	598	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	435	435	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	515	515	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-39.9 -39.9		Signalled Lanes ( y Over All Lanes(		Cycle	Γime (s): 120			

A2 Mierscourt LinSig Data Scenario 6: 'AM39 DN' (FG6: 'AM 2039 Do Nothing', Plan 1: 'With Peds')

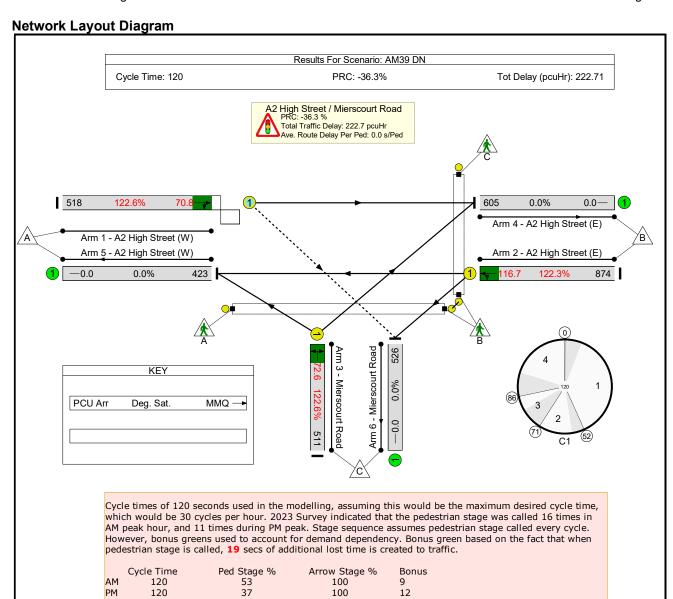


Stage	1	2	3	4
Duration	45	14	6	24
Change Point	0	52	71	86



PM

120



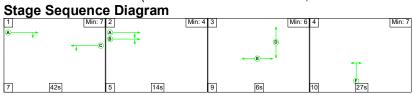
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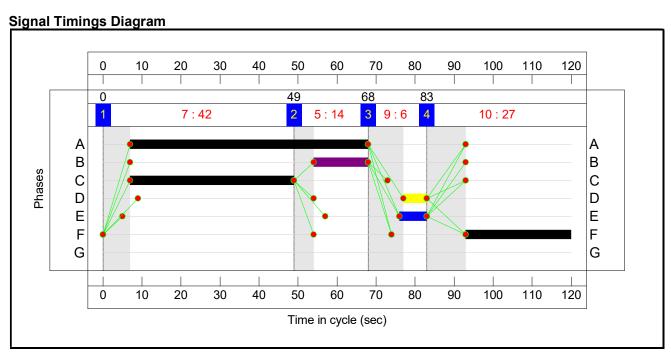
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	122.6%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	122.6%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	64	14	518	1875	422	122.6%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	45	-	874	1682	715	122.3%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	24	-	511	1724	417	122.6%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	742	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	644	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

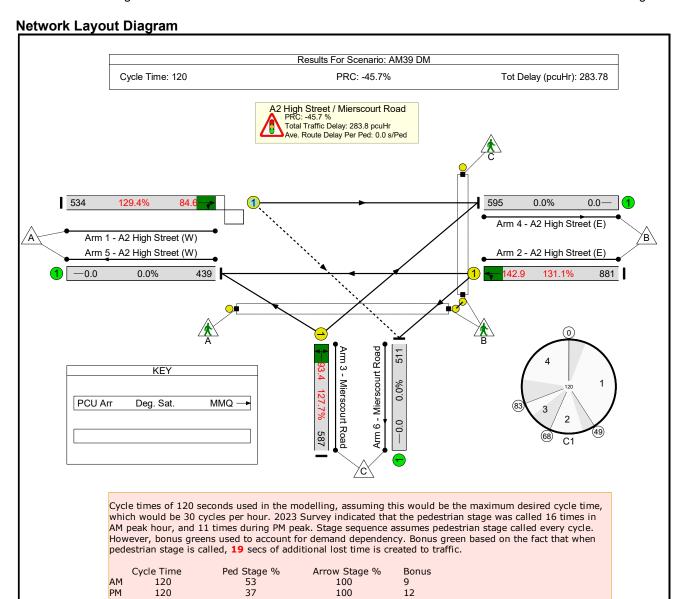
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	0	130	16	39.5	182.4	0.9	222.7	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	130	16	39.5	182.4	0.9	222.7	-	-	-	
1/1	518	422	0	130	16	8.9	50.4	0.9	60.2	418.3	20.5	50.4	70.8
2/1	874	715	-	-	-	17.5	82.2	-	99.7	410.7	34.4	82.2	116.7
3/1	511	417	=	=	-	13.1	49.8	-	62.8	442.5	22.9	49.8	72.6
4/1	605	605	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	423	423	-	=	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	=	-	-	-	=	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-36.3 -36.3		Signalled Lanes (p Over All Lanes(p		Cycle	Γime (s): 120			

A2 Mierscourt LinSig Data Scenario 7: 'AM39 DM' (FG7: 'AM 2039 Do Minimum', Plan 1: 'With Peds')



Stage	1	2	3	4	
Duration	42	14	6	27	
Change Point	0	49	68	83	

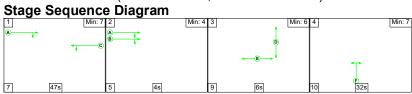




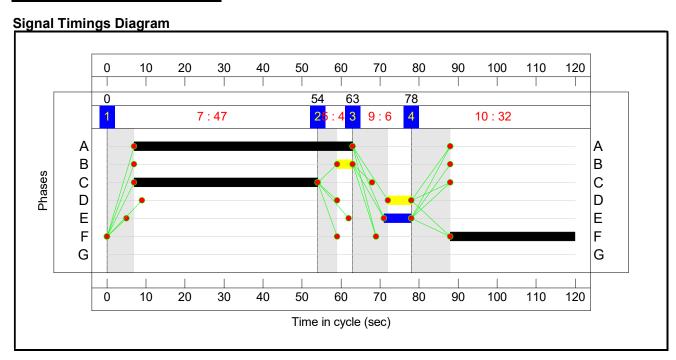
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	131.1%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	131.1%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	61	14	534	1872	413	129.4%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	42	-	881	1680	672	131.1%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	27	-	587	1724	460	127.7%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	764	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	667	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	0	134	17	47.7	235.2	0.8	283.8	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	134	17	47.7	235.2	0.8	283.8	-	-	-	-
1/1	534	413	0	134	17	10.7	62.8	0.8	74.4	501.3	21.8	62.8	84.6
2/1	881	672	-	-	-	20.9	106.6	-	127.4	520.7	36.3	106.6	142.9
3/1	587	460	-	-	-	16.1	65.9	-	82.0	502.9	27.6	65.9	93.4
4/1	595	595	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	439	439	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	511	511	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1 PRC for Signalled Lanes (%): -45.7 Total Delay for Signalled Lanes (pcuHr): 283.78 Cycle Time (s): 120 PRC Over All Lanes (%): -45.7 Total Delay Over All Lanes(pcuHr): 283.78											

A2 Mierscourt LinSig Data Scenario 8: 'PM24' (FG8: 'PM 2024', Plan 1: 'With Peds')



Stage	1	2	3	4	
Duration	47	4	6	32	
Change Point	0	54	63	78	



ΑM

PM

120

120

**Network Layout Diagram** Results For Scenario: PM24 Cycle Time: 120 PRC: 9.4% Tot Delay (pcuHr): 19.93 A2 High Street / Mierscourt Road PRC: 9.4 % Total Traffic Delay: 19.9 pcuHr Ave. Route Delay Per Ped: 0.0 s/Ped 429 80.8% 15.3 656 0.0% 0.0— Arm 4 - A2 High Street (E) Arm 1 - A2 High Street (W) Arm 5 - A2 High Street (W) Arm 2 - A2 High Street (E) -0.0 0.0% 432 20.4 82.2% 630 Arm 6 - Mierscourt Road Arm 3 - Mierscourt Road 432 16.3 82.3% KEY %0.0 PCU Arr Deg. Sat. MMQ → 461 Cycle times of 120 seconds used in the modelling, assuming this would be the maximum desired cycle time, which would be 30 cycles per hour. 2023 Survey indicated that the pedestrian stage was called 16 times in AM peak hour, and 11 times during PM peak. Stage sequence assumes pedestrian stage called every cycle. However, bonus greens used to account for demand dependency. Bonus green based on the fact that when pedestrian stage is called a contract that is called a contract that when several the traffic. pedestrian stage is called, **19** secs of additional lost time is created to traffic. Ped Stage % 53 37 Cycle Time Arrow Stage % Bonus

100

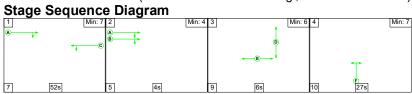
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Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	82.3%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	82.3%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	56	4	429	1884	531	80.8%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	47	-	630	1703	766	82.2%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	32	-	461	1724	560	82.3%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	656	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	432	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	432	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

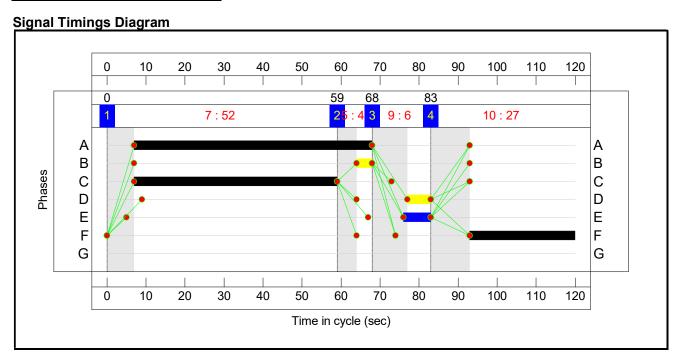
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	94	30	3	12.7	6.5	0.7	19.9	-	-	-	-
A2 High Street / Mierscourt Road	-	-	94	30	3	12.7	6.5	0.7	19.9	-	-	-	-
1/1	429	429	94	30	3	2.9	2.0	0.7	5.6	47.4	13.2	2.0	15.3
2/1	630	630	-	-	-	5.0	2.2	-	7.3	41.6	18.2	2.2	20.4
3/1	461	461	-	-	-	4.8	2.2	-	7.0	54.7	14.1	2.2	16.3
4/1	656	656	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	432	432	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	432	432	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	9.4 9.4		Signalled Lanes (p Over All Lanes(p		Cycle T	ime (s): 120			

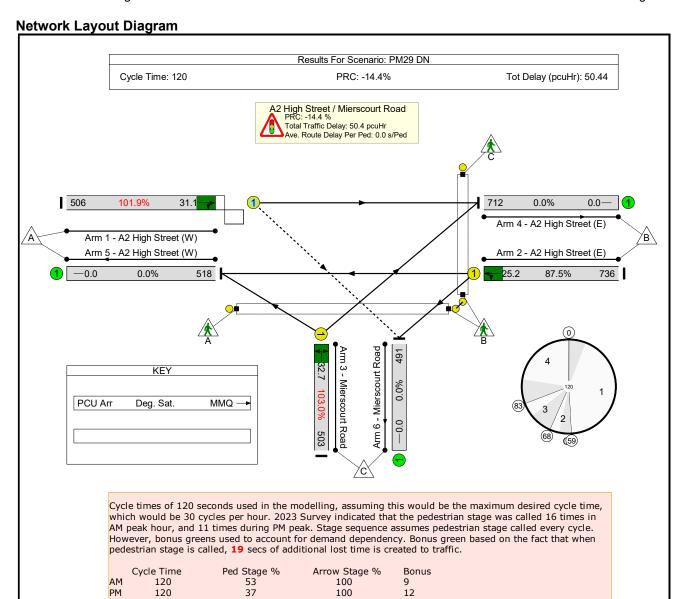
A2 Mierscourt LinSig Data Scenario 9: 'PM29 DN' (FG9: 'PM 2029 Do Nothing', Plan 1: 'With Peds')



**Stage Timings** 

Stage	1	2	3	4
Duration	52	4	6	27
Change Point	0	59	68	83

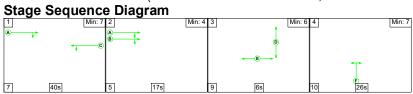




Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	103.0%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	103.0%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	61	4	506	1883	496	101.9%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	52	-	736	1711	841	87.5%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	27	-	503	1724	488	103.0%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	729	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	522	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	494	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

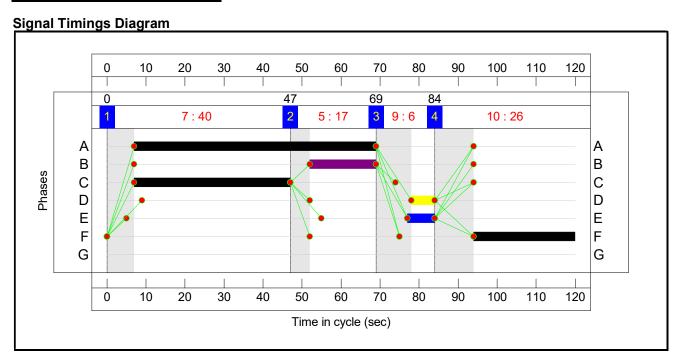
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	69	66	14	17.0	32.6	0.9	50.4	-	-	-	-
A2 High Street / Mierscourt Road	-	-	69	66	14	17.0	32.6	0.9	50.4	-	-	-	-
1/1	506	496	69	66	14	4.4	13.9	0.9	19.1	136.1	17.2	13.9	31.1
2/1	736	736	-	-	-	5.6	3.3	-	8.9	43.3	21.9	3.3	25.2
3/1	503	488	-	-	-	7.0	15.4	-	22.5	160.7	17.3	15.4	32.7
4/1	712	712	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	518	518	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	491	491	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-		-	0.0	0.0		-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-14.4 -14.4		Signalled Lanes ( Over All Lanes(		Cycle <sup>-</sup>	Гіте (s): 120			-

A2 Mierscourt LinSig Data Scenario 10: 'PM29 DM' (FG10: 'PM 2029 Do Minimum', Plan 1: 'With Peds')



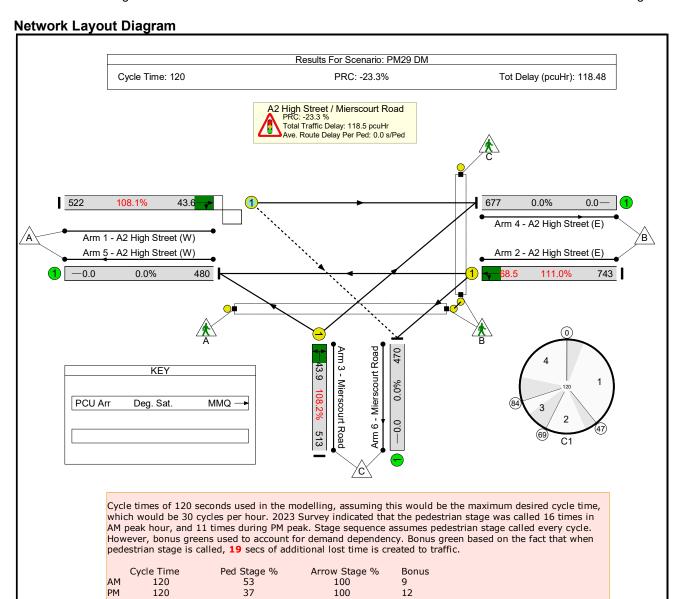
**Stage Timings** 

Stage	1	2	3	4
Duration	40	17	6	26
Change Point	0	47	69	84



PM

120



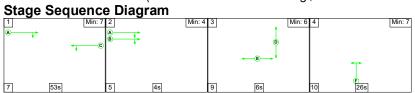
100

12

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	111.0%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	111.0%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	62	17	522	1880	483	108.1%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	40	-	743	1709	669	111.0%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	26	-	513	1724	474	108.2%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	732	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	529	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

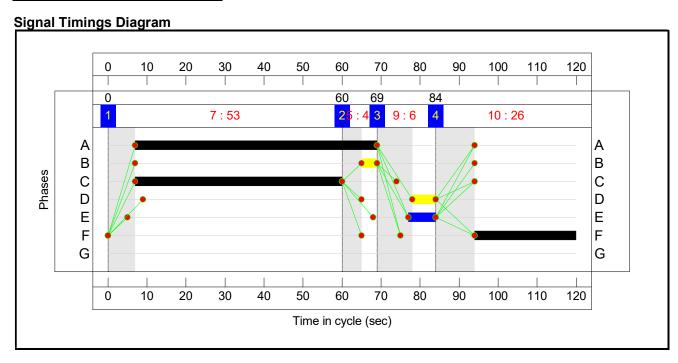
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	0	140	15	26.8	90.8	0.8	118.5	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	140	15	26.8	90.8	0.8	118.5	-	-	-	-
1/1	522	483	0	140	15	6.1	24.9	0.8	31.8	219.2	18.7	24.9	43.6
2/1	743	669	-	-	-	11.8	41.3	-	53.1	257.3	27.2	41.3	68.5
3/1	513	474	-	-	-	8.9	24.7	-	33.6	235.8	19.3	24.7	43.9
4/1	677	677	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	480	480	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	470	470	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-		-	0.0	0.0		-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-23.3 -23.3		Signalled Lanes ( Over All Lanes(		Cycle <sup>-</sup>	Гіте (s): 120			

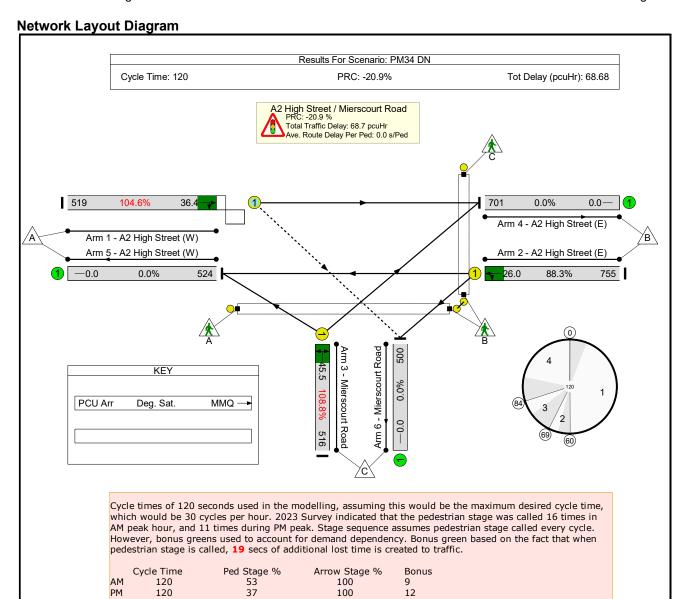
A2 Mierscourt LinSig Data Scenario 11: 'PM34 DN' (FG11: 'PM 2034 Do Nothing', Plan 1: 'With Peds')



**Stage Timings** 

Stage	1	2	3	4
Duration	53	4	6	26
Change Point	0	60	69	84

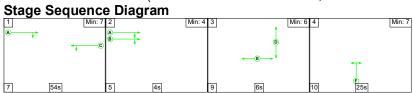




Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	108.8%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	108.8%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	62	4	519	1883	496	104.6%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	53	-	755	1711	856	88.3%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	26	-	516	1724	474	108.8%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	748	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	535	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	507	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

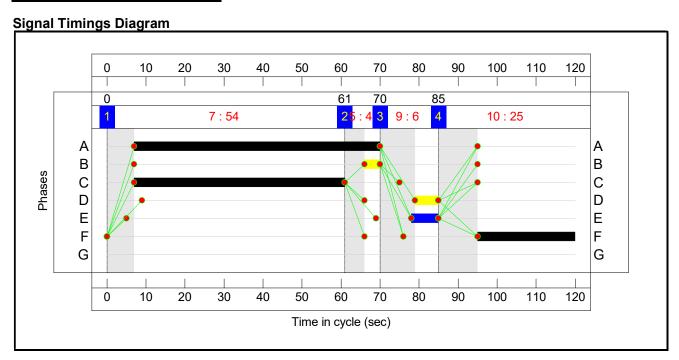
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	63	71	15	19.9	47.8	0.9	68.7	-	-	-	-
A2 High Street / Mierscourt Road	-	-	63	71	15	19.9	47.8	0.9	68.7	-	-	-	-
1/1	519	496	63	71	15	5.1	18.4	0.9	24.4	169.4	18.1	18.4	36.4
2/1	755	755	-	-	-	5.6	3.5	-	9.1	43.6	22.4	3.5	26.0
3/1	516	474	-	-	-	9.2	25.9	-	35.1	245.0	19.6	25.9	45.5
4/1	701	701	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	524	524	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	=	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-20.9 -20.9		Signalled Lanes ( y Over All Lanes(		Cycle	Γime (s): 120			

A2 Mierscourt LinSig Data Scenario 12: 'PM34 DM' (FG12: 'PM 2034 Do Minimum', Plan 1: 'With Peds')



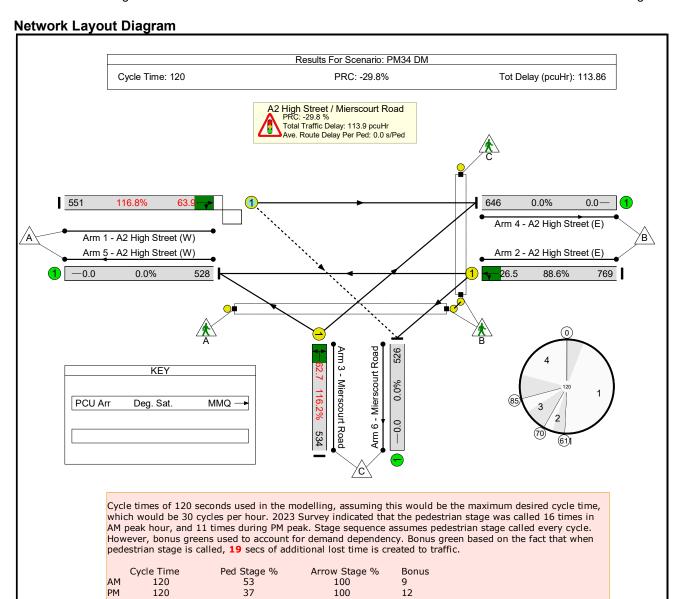
**Stage Timings** 

Stage	1	2	3	4
Duration	54	4	6	25
Change Point	0	61	70	85



PM

120



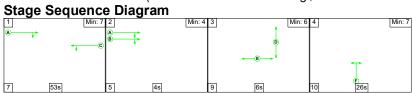
100

12

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	116.8%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	116.8%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	63	4	551	1876	472	116.8%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	54	-	769	1707	868	88.6%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	25	-	534	1724	460	116.2%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	753	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	553	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	_	0	-	3600	0.0%

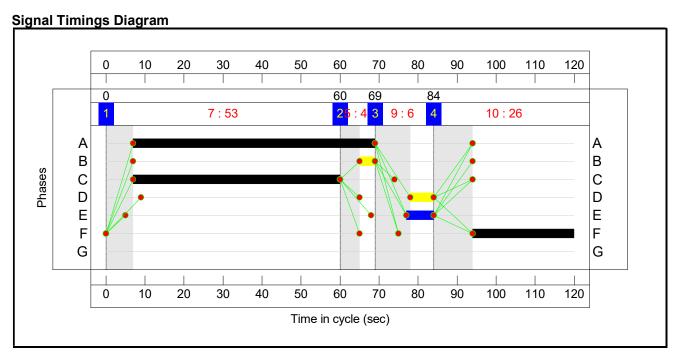
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	62	79	20	25.9	87.0	1.0	113.9	-	-	-	-
A2 High Street / Mierscourt Road	-	-	62	79	20	25.9	87.0	1.0	113.9	-	-	-	-
1/1	551	472	62	79	20	8.5	42.9	1.0	52.4	342.4	21.0	42.9	63.9
2/1	769	769	-	-	-	5.6	3.6	-	9.3	43.4	22.9	3.6	26.5
3/1	534	460	-	-	-	11.8	40.4	-	52.2	351.9	22.3	40.4	62.7
4/1	646	646	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	528	528	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-29.8 -29.8		Signalled Lanes ( Over All Lanes(		Cycle	Time (s): 120			

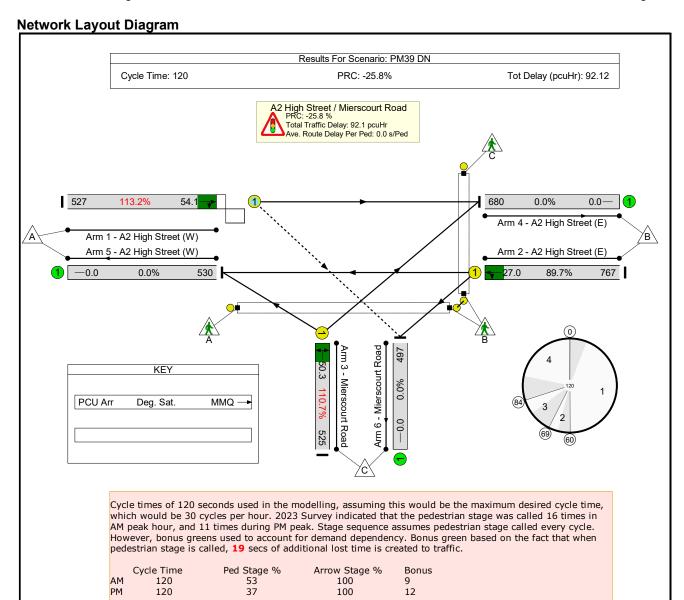
A2 Mierscourt LinSig Data Scenario 13: 'PM39 DN' (FG13: 'PM 2039 Do Nothing', Plan 1: 'With Peds')



**Stage Timings** 

Stage	1	2	3	4
Duration	53	4	6	26
Change Point	0	60	69	84





Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	113.2%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	113.2%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	А	В	1	62	4	527	1884	466	113.2%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	53	-	767	1711	856	89.7%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	26	-	525	1724	474	110.7%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	761	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	543	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	515	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

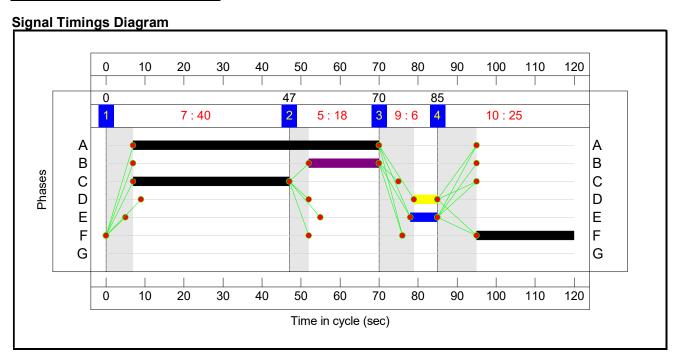
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	55	70	14	22.9	68.3	0.9	92.1	-	-	-	-
A2 High Street / Mierscourt Road	-	-	55	70	14	22.9	68.3	0.9	92.1	-	-	-	-
1/1	527	466	55	70	14	7.1	34.5	0.9	42.6	290.8	19.6	34.5	54.1
2/1	767	767	-	-	-	5.8	4.0	-	9.8	45.9	23.0	4.0	27.0
3/1	525	474	-	-	-	9.9	29.8	-	39.8	272.8	20.5	29.8	50.3
4/1	680	680	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	530	530	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	497	497	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-25.8 -25.8		Signalled Lanes ( Over All Lanes(		Cycle	Γime (s): 120			

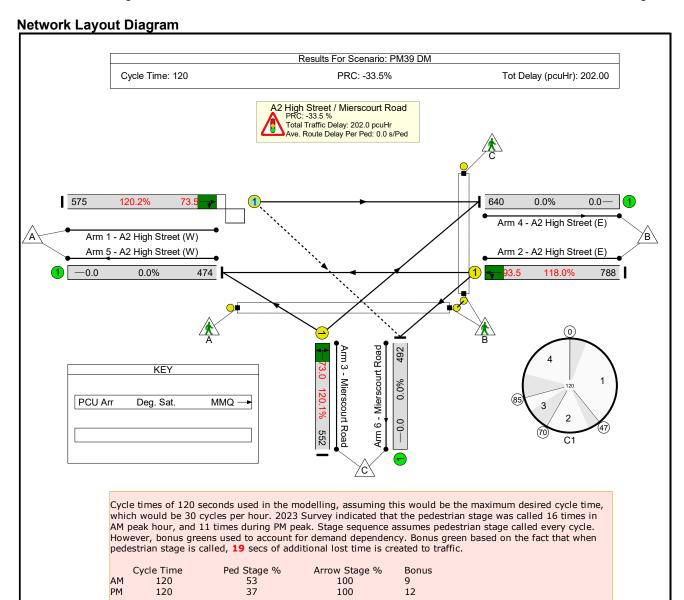
A2 Mierscourt LinSig Data Scenario 14: 'PM39 DM' (FG14: 'PM 2039 Do Minimum', Plan 1: 'With Peds')



**Stage Timings** 

Stage	1	2	3	4
Duration	40	18	6	25
Change Point	0	47	70	85





Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2 Mierscourt Existing Layout	-	-	N/A	-	-		-	-	-	-	-	-	120.2%
A2 High Street / Mierscourt Road	-	-	N/A	-	-		-	-	-	-	-	-	120.2%
1/1	A2 High Street (W) Ahead Right	0	N/A	N/A	A	В	1	63	18	575	1873	478	120.2%
2/1	A2 High Street (E) Ahead Left	U	N/A	N/A	С		1	40	-	788	1705	668	118.0%
3/1	Mierscourt Road Right Left	U	N/A	N/A	F		1	25	-	552	1724	460	120.1%
4/1	A2 High Street (E)	U	N/A	N/A	-		-	-	-	769	Inf	Inf	0.0%
5/1	A2 High Street (W)	U	N/A	N/A	-		-	-	-	562	Inf	Inf	0.0%
6/1	Mierscourt Road	U	N/A	N/A	-		-	-	-	584	Inf	Inf	0.0%
Ped Link: P1	Mierscourt Road	-	N/A	-	E		1	7	-	0	-	4200	0.0%
Ped Link: P2	A2 High Street	-	N/A	-	D		1	6	-	0	-	3600	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A2 Mierscourt Existing Layout	-	-	0	155	17	37.9	163.3	0.8	202.0	-	-	-	-
A2 High Street / Mierscourt Road	-	-	0	155	17	37.9	163.3	0.8	202.0	-	-	-	-
1/1	575	478	0	155	17	9.7	51.1	0.8	61.6	386.0	22.4	51.1	73.5
2/1	788	668	-	-	-	14.9	63.2	-	78.2	357.1	30.3	63.2	93.5
3/1	552	460	=	-	-	13.2	49.0	-	62.2	405.6	24.1	49.0	73.0
4/1	640	640	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	474	474	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	=	-	-	-		-	0.0	0.0		-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
		C1		nalled Lanes (%): er All Lanes (%):	-33.5 -33.5		Signalled Lanes ( Over All Lanes(		Cycle <sup>-</sup>	Гіте (s): 120			



Invicta Planning Ltd.
Chart House
10 Western Road
Borough Green
Kent
TN15 8AG

Tel: 01732 885563

# REPRESENTATIONS TO REGULATION 18 DRAFT LOCAL PLAN CONSULTATION Medway Council

On Behalf of Hutchison Ports

September 2024

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# 1.0 INTRODUCTION

- 1.1 These representations have been prepared on behalf of Hutchison Ports in response to Regulation 18 Draft Local Plan Consultation being undertaken by Medway Council. These Representations in particular concern the existing site at London Thamesport.
- 1.2 Hutchison Ports have operated the site at London Thamesport since 1999. The port itself directly employs 80no. members of staff, with the current occupiers employing approximately a further 750no. staff. This offers a significant direct benefit together with a substantial secondary benefit to the local economy.
- 1.3 The Site extends to approximately 99ha and provides reliable short sea container services and low carbon general cargo solutions. It hosts deep water berths with a 650m quay, together with rail and barge unloading facilities. The port offers short sea connections to Spain, Portugal, the Netherlands and France and has space for the storage of up to 3,600no. 20-foot containers.
- 1.4 In addition to the quayside facilities, London Thamesport has 4no. rail tracks providing low-carbon intermodal freight and transport solutions. The Site already offers on-port manufacturing for major UK infrastructure projects with flexible storage solutions for occupants to grow and meet their expansion plans and needs.
- 1.5 A plan of the port detailing the existing uses in operation is included below and a presentation document setting out details about the port operations is included as an Appendix to these Representations:



- Notwithstanding our Client's specific land interests, these Representations have been prepared in objective terms and assessed against the prevailing planning policy framework, in particular the Government's guidance set out in the National Planning Policy Framework (NPPF) (December 2023) and the National Planning Practice Guidance (NPPG) (March 2014 as updated).
- 1.7 The purpose of the Planning System is to contribute to the achievement of sustainable development. As such, NPPF para 11 requires plans to apply a presumption in favour of sustainable development which for plan making means that:
  - (a) all plans should promote a sustainable pattern of development that seeks to meet the development needs of their area, align growth and infrastructure, improve the environment, mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects.
- 1.8 More specifically, the Draft Local Plan has been reviewed in the context of para 35 of the NPPF, which requires that, Local plans and spatial development strategies are examined to assess whether they have been prepared in accordance with legal and procedural requirements, and whether they are sound. Plans are 'sound' if they are:
  - Positively Prepared the plan should be prepared based on a strategy which as a
    minimum seeks to meet objectively assessed needs, is informed by agreements with
    other authorities, so that the unmet need of neighbouring authorities is met where
    practical to do so, and consistent with achieving sustainable development;
  - Justified an appropriate strategy taking into account the reasonable alternatives,
     and based on proportionate evidence;
  - Effective the plan should be deliverable over its period and based on effective joint working on cross-boundary strategic matters; and
  - Consistent with National Policy the plan should enable the delivery of sustainable development in accordance with the policies in the NPPF and other statements of national planning policy, where relevant.
- 1.9 Paragraph 20 requires strategic policies to set out an overall strategy for the pattern, scale and quality of places to make provision for housing, employment, retail, leisure and other commercial development, together with infrastructure for transport....and the provision of minerals and energy.

# 2.0 EMPLOYMENT ALLOCATIONS AND LONDON THAMESPORT

- 2.1 The adopted Medway Local Plan (2003) includes Policy S13: Isle of Grain which specifically allocates the Isle of Grain and London Thamesport for port activities and related development, and permits uses falling into Class B1 (Business) B2 (General Industry) and B8 (Storage and Distribution). The Policy recognises the importance of London Thamesport as an international shipping hub and as a strategic site for inward investment. The preamble to the policy states that the site is capable of accommodating port activities and large land users associated with these, in addition to uses within use classes B1, B2 and B8.
- 2.2 In complement to Policy S13, adopted Policy ED1 identifies London Thamesport as an existing employment area and states that proposals for development on the site resulting in a loss of existing industrial, business or storage and distribution uses will not be permitted.
- 2.3 The River Medway Economic Frontage Evidence, published in support of the Regulation 18 Consultation, states that there is existing capacity at London Thamesport, and priority should be given to redevelopment and intensification of land at London Thamesport.
- As detailed in the Introductory section to these Representations, London Thamesport continues to play a fundamental role for employment purposes and generates significant economic benefits to Medway and the wider south east region.
- 2.5 Since the time of adoption of the previous Local Plan, London Thamesport has developed as a low carbon construction hub. Partners include aggregate imports and handling, steel rebar and off-site fabrication, precast concrete manufacturing. Materials arrive across the quay and manufacturing of components occurs within the port to support major UK infrastructure projects including, Thames Tideway, High Speed 2, Thames Valley Viaduct.
- 2.6 There are undeveloped areas within London Thamesport which provide future development opportunities. There is a 40 acre of land to the north of the Site which is an area of previously developed land which is currently unoccupied. There are also other smaller pockets of land closer to the quay measuring a total area of 18 acres with development potential. There are plans for a cementitious import terminal to be provided on part of the land which will positively contribute to the on-port construction hub.
- 2.7 The despite the River Medway Economic Frontage evidence, the emerging Local Plan does not make any specific allocation for London Thamesport which either recognises and specifically safeguards the Site as a significant employment site, or positively provides for the future growth or development of London Thamesport over the Plan Period. This is

significantly different to the recognition that London Thamesport receives in the adopted Local Plan.

- 2.8 London Thamesport provides the opportunity to deliver employment and economic growth in the short to medium term, on land which is previously developed. The re-opening of the railhead has provided the opportunity to reduce road-based haulage and provides an intermodal connection between the port operations and the wider south east region. To support the continued growth and expansion of London Thamesport, to positively plan for economic development, and provide certainty in respect of the type of development that would be acceptable, it is considered that London Thamesport should benefit from a specific allocation reflective of the current Local Plan policy.
- 2.9 Hutchinson Ports are willing to work with the Council to provide further information in relation to the specific quantum of land available and proposed end uses of the available land to help inform the evidence base in relation to Employment Land Needs.

# 3 REPRESENTATIONS TO OTHER DEVELOPMENT MANAGEMENT POLICIES

# S11- Existing Employment Sites

- 3.1 Policy S11 seeks to retain and protect existing employment sites from redevelopment and only support redevelopment to non-employment uses in a limited set of circumstances. There are no definitions included within the Plan relating to 'non-employment' or 'employment' uses; however, in relation to London Thamesport there is no intention to redevelop the Site to non-employment uses.
- 3.2 There is policy support elsewhere within the draft Plan (Policy S25) for the provision of renewable and low carbon energy development on the Isle of Grain. There may be potential for such development to be provided at London Thamesport and therefore providing clarity that these uses could be acceptable at London Thamesport should either be included within Policy S11, a Glossary to the Local Plan or a specific site allocation for London Thamesport.

# S12- New Employment Sites

- 3.3 The draft Local Plan indicates that the evidence base in relation to the need for employment land is still being developed and that the evidence relating to employment land needs will be available at the time of the next consultation. The preamble to the policy identifies that the Local Plan will need to provide a range of sites to meet the employment needs identified over the plan period. This will involve the retention of existing employment sites; supporting the enhancement and consolidation of current employment sites to better meet the market's requirements and make better use of land; and identifying additional locations that can provide attractive accessible sites for business growth.
- 3.4 Without being able to review the full evidence base it is not possible to make detailed comment in relation to Policy S12; however, as set out above, London Thamesport is an existing large employment site which offers significant potential to accommodate additional employment generating uses. It should therefore be specifically recognised and allocated as part of the Local Plan. Hutchison Ports are happy to help feed into the evidence base to the Local Plan to provide further detail in relation to existing employment generation, available land and potential development opportunities.

# S25- Energy Supply

Policy S25 identifies the role of the Isle of Grain as part of the national energy supply network, including the two-way electrical inter-connector linking the Isle of Grain to the Netherlands

and the NeuConnect interconnector linking Grain to northern Germany. Due to the strategic position of Grain in the energy supply network there is opportunity to provide both renewable and low carbon energy storage (e.g. through battery storage).

- 3.6 Policy S25 is therefore supportive of the provision of renewable and low carbon energy storage on the Isle of Grain subject to meeting specific policy criteria particularly relating to cumulative landscape and visual impacts.
- 3.7 It is not clear whether any land on the Isle of Grain is intended to be specifically allocated for such uses. It is understood that land at Grain Business Park (to the north of London Thamesport) has been promoted through the Call for Sites process for these uses. We are supportive of the identification of the Isle of Grain as a location which could accommodate energy related uses and this should include the site at London Thamesport.
- 3.8 As detailed above, there should be no conflict between policy S12 and Policy S25 as to whether energy supply uses could fall within the definition of employment uses and would therefore be acceptable within employment sites such as London Thamesport.

## T21- Riverside Infrastructure

- 3.9 Policy T21 recognises the regional importance of London Thamesport in facilitating bulk transport, handling and processing of minerals, waste and other defined materials. The Policy therefore seeks to safeguard and protect the existing network of piers, jetties, slipways, steps and stairs. It also positively supports the provision of new facilities.
- 3.10 London Thamesport will continue to operate as an international shipping hub with complementary uses accommodated within the port area. We are therefore supportive of this policy.

# T31- Safeguarding Mineral Supply Infrastructure

- 3.11 As identified in Policy T21, London Thamesport is a key facility for the transport, handling and processing of minerals. In complement, Policy T31 seeks to further protect mineral supply infrastructure from redevelopment.
- 3.12 London Thamesport will continue to operate and expand the use of its existing port facilities for the import of minerals and other materials used in the construction process over the Plan Period. There are areas of London Thamesport which are currently vacant albeit they have been previously developed. It is the intention to use these areas of land for complementary

on-port manufacturing, flexible storage solutions for occupants to grow and meet their expansion plans and needs and energy related uses.

3.13 It is not considered that this would undermine the use of the mineral supply infrastructure at London Thamesport.

# 4 CONCLUSIONS

- 4.1 The role of London Thamesport as a deep water port with frequent short sea connections to Europe and its function as a low carbon construction hub supplying major infrastructure projects is of major significance in employment opportunities and economic benefits to both the Medway Towns and wider South East region. This role has been previously recognised in the specific allocation of the Site for employment purposes.
- 4.1 There are areas of previously developed land within London Thamesport which are currently vacant and offer further development opportunities to allow the expansion and growth of the existing employment site. The role of London Thamesport and the potential to redevelop land within the port should therefore be reflected in a specific site allocation for London Thamesport. Hutchinson Ports are willing to work with Medway Council to provide up to date evidence and information in relation to the development potential of the Site including available development areas and potential uses of the land.
- 4.2 These Representations are supportive of Policies which seek to safeguard existing employment sites, minerals and riverside infrastructure as these are reflective of the long term aspirations and growth potential of London Thamesport.



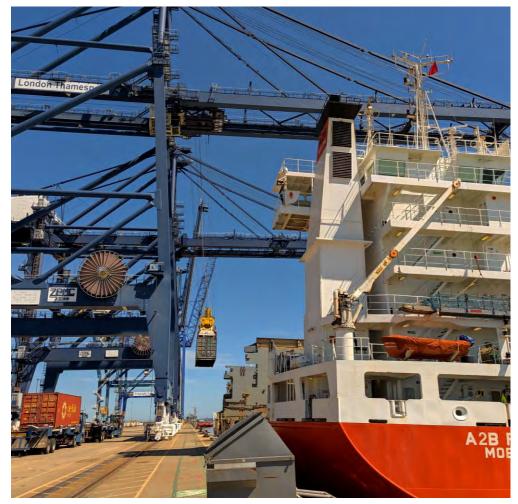
## WELCOME TO OUR PORT

# LONDON THAMESPORT

London Thamesport is a flexible port providing reliable short sea container services and low-carbon general cargo solutions for our long-term partners



- Deep water -12.5m with 650m quay, 99 hectares plus rail and barge loading
- Excellent location in Kent to serve
   London and South of England
- Reliable short sea container services between UK and Europe
- Low-carbon general cargo solutions for UK construction sector
- Experienced and multi-skilled team
- Flexible long-term partnership approach







## RELIABLE SAILINGS

We offer the choice of x6 reliable short sea container sailings per week between UK and Europe.

- Netherlands and Northern Europe
- Spain, Portugal and France



### Spain

- Bilbao
- Agoncillo
- Zaragoza
- Madrid
- Valencia
- Barcelona

### **Portugal**

- Lisbon
- Vigo
- Leixoes
- Setubal

### France

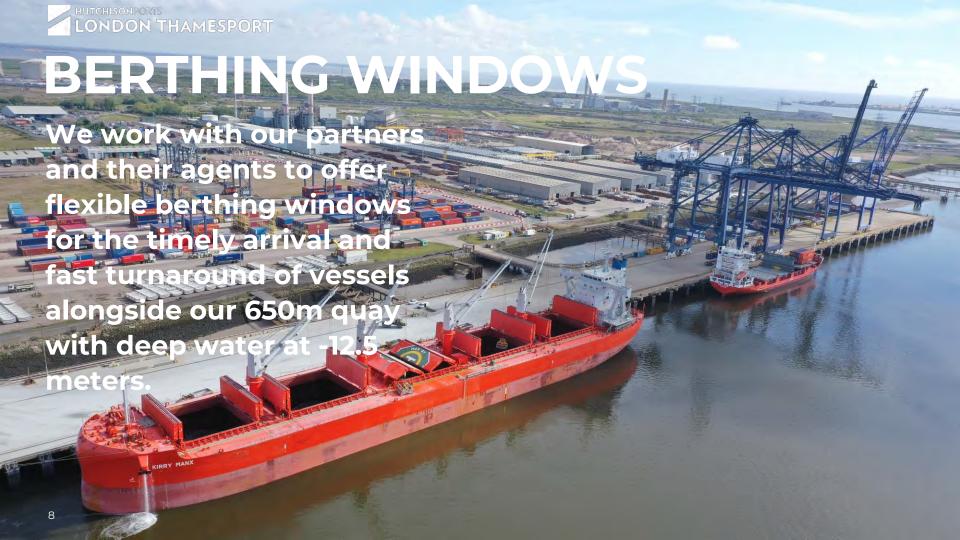
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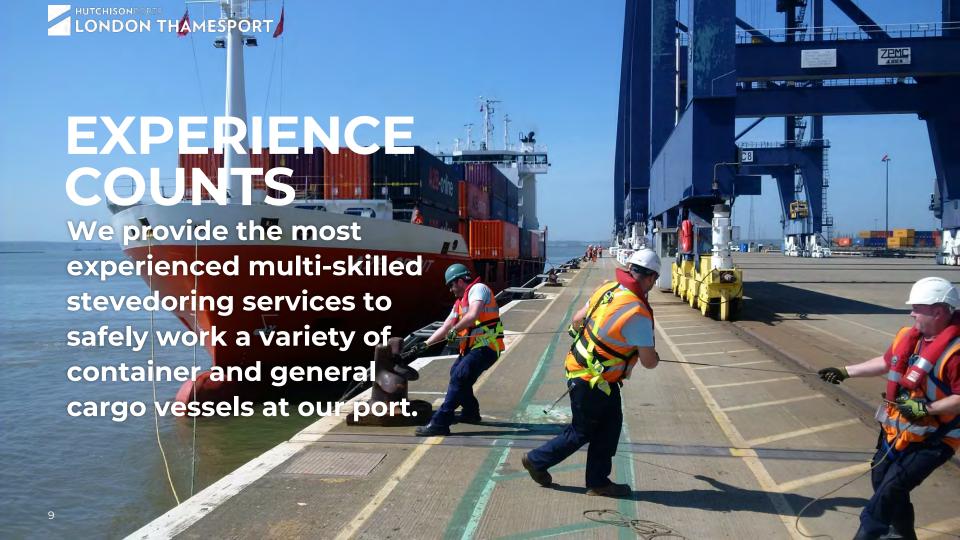
### Netherlands

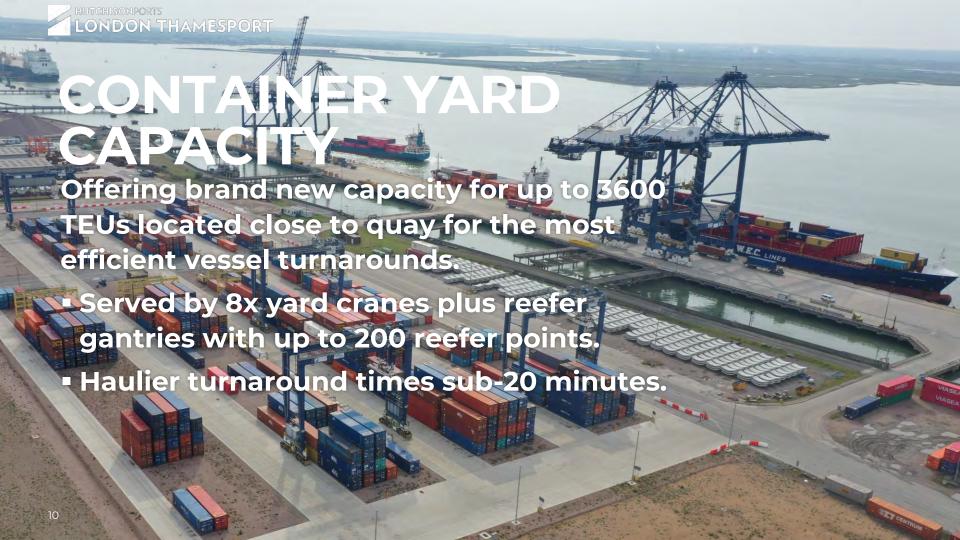
- Moerdijk
- Rotterdam
- + intermodal connections to Northern Europe











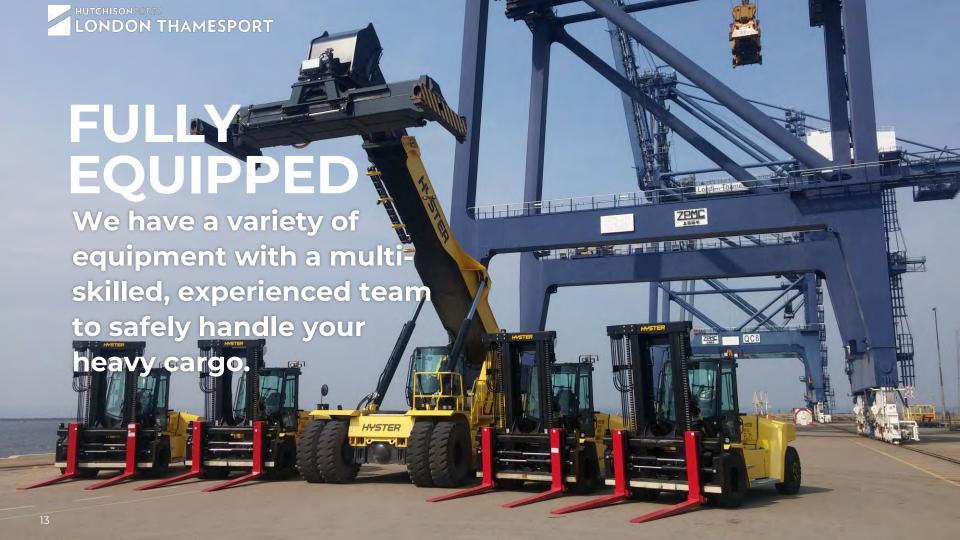




## PIONEERING RAILFREIGHT

With our railhead, we can offer low-carbon transport solutions:

- 4x rail tracks, 450 metres in length
- On-port manufacturing for major UK infrastructure projects
- Loading and unloading of construction materials
- Intermodal freight opportunities





## FLEXIBLE STORAGE SOLUTIONS

With a total site of 99 hectares, we can offer flexible storage solutions for our long-term partners to grow and meet their

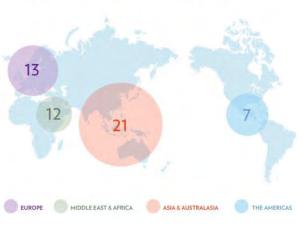




London Thamesport is owned and operated by Hutchison Ports, with a global network of 53 ports spanning 24 countries.



### THE WORLD OF **HUTCHISON PORTS**



### 53 PORTS IN 24 COUNTRIES



MIDDLEBAST SAN

st. Port of Khasab SAUDI ARARIA 9. Hutchison Ports Jazan

BELGIUM

GERMANY

SPAIN

SWEDEN

THE NETHERLANDS

7. Grote Hout Terminal (Arnsterdam)

8. Moerdijk Container Terminals

10. Hutchison Parts Verla

EGYPT

OMAN

I. Ain Solfma Port z Bigg 5. Hutchison Parts Abu Qir

UNITED KINGDOM 11. Hutchison Ports Port of Felixstowe 12. Hutchison Ports Harwich International 15. Hutchson Ports London Thamesport

9. Hutchison Ports ECT Rotterdam (ECT Delta Delta II & Euromax)

UNITED ARAB EMIRATES

Ports

HONG KONG

2. River Trade Terminal

MAINLAND CHINA

4. Husehou Pores (HICT & HPIC)

7. Ningbo Bolon International Container Terminal

INDONESIA

11. Hutchison Ports Indonesia (JICT & Koja)

MALAYSIA 12. Westports Malaysia MYANMAR

PAKISTAN

15. Hutchson Ports Pakistan

SOUTH KOREA

THAILAND 18 Hutchison Ports Thailand

VIETNAM

AUSTRALIA

#### MEXICO

#### PANAMA

#### THE BAHAMAS



## 13 Ports

### BELGIUM

1. Hutchison Ports Belgium

#### **GERMANY**

2. Hutchison Ports Duisburg

#### POLAND

3. Hutchison Ports Gdynia

#### SPAIN

4. Hutchison Ports BEST

### **SWEDEN**

5. Hutchison Ports Stockholm

### THE NETHERLANDS

- 6. Hutchison Ports Amsterdam
- 7. Grote Hout Terminal (Amsterdam)
- 8. Moerdijk Container Terminals
- 9. Hutchison Ports ECT Rotterdam (ECT Delta, Delta II & Euromax)
- 10. Hutchison Ports Venlo

### UNITED KINGDOM

- 11. Hutchison Ports Port of Felixstowe
- 12. Hutchison Ports Harwich International
- 13. Hutchison Ports London Thamesport





## VALUE PROPOSITION

- Deep water -12.5m with 650m quay, 99 hectares plus rail and barge loading
- Excellent location in Kent to serve London & South of England
- Reliable short sea container services between UK and Europe
- Low-carbon general cargo solutions for UK construction sector
- Experienced and multi-skilled team
- Flexible long-term partnership approach.



# THANK YOU

Mike Hallows
General Manager





13-14 Sydney Street, Brighton, BN1 4EN

### RBX/1031/K839905/GSM

Medway Council, The Planning Service, Gun Wharf, Dock Road, Chatham, Kent, ME4 4TR

Correspondence by email and site submission form online: planning.policy@medway.gov.uk

Dear Sir/ Madam,

### 6 September 2024

### MEDWAY LOCAL PLAN (REGULATION 18, 2024) LAND NORTH OF MERRYBOYS ROAD CLIFFE WOODS KENT ME3 7TP

Rubix Estates Ltd and the Landowner are working together to promote the above land for sustainable Self/ Custom Build Homes.

Enclosed is our representation in response to Medway's Councils consultation for the Medway Local Plan 2041.

The site is being promoted for Self/ Custom Build Homes and extends to circa five acres. It will be designed to ensure all on-site open space and biodiversity improvements will be accessible for the new and existing community of this development in Cliffe Woods. We support that Cliffe Woods is identified as a Rural Centre in Medway's New Local Plan under Policy DM12: Local and Rural Centres.

In due course, we will present and promote an exemplary sustainable Self/ Custom Build scheme that garners local support from existing residents and businesses. A high-quality Self/ Custom Build scheme that boasts attractive design and community benefits will be at the heart of our design for the land.

The land is owned by a private Landowner who lives local to the site and has identified a need for the aforementioned new homes. The Landowner has and will personally invest their capital, time and resource in seeking to secure an allocation as part of the New Local Plan process. The Landowner with the assistance of their partners will follow up with servicing the individual plots with the necessary infrastructure to enable the onward sale of plots to the local community.

An important part of the delivery of this scheme will be utilising local materials and trades and therefore contributing to the local economy and inward investment into Cliffe Wood.



The Landowner prides themselves on delivering a locally led exemplar Self/ Custom Build community.

We fully support the sentiment with respect to providing and the delivery Medway's vision for 2041 which includes an aspiration that all sectors and ages of the community can find decent places to live and as part of this custom and self-building will provide new living opportunities for residents.

This is supported by Rubix Estates and the Landowner and we recognise that one of the Local Plan objectives of supporting people to lead healthy lives and strengthening communities by providing high quality, energy efficient homes that meet the needs of Cliffe Woods community, reflecting the range of sizes, types and affordability the area needs, including provision for specialist housing, such as custom and self-build; and driving reductions in the carbon impacts of housing by securing opportunities for retro-fitting older properties.

We further support the policy in the draft Local Plan that identifies self-build and custom build as an important source of delivering a mix of homes. Our self-build proposals will be brought forward in a sustainable manner and this is a suitable location which should be positively considered. The contribution of small and windfall sites like this can make providing Self-build and Custom Housebuilding plots welcomed and encouraged.

Rubix Estates works with the country's leading self-build package company – Potton Homes. Potton Homes will provide their expertise as part of the architectural design and planning services through our emerging proposals. When planning permission has been obtained, we may utilise their services to manufacture the insulated closed panel timber frame and SIP build systems.

Potton Homes has recent and local experience with their involvement with eight Self/ Custom Build Homes in the village of Smarden. All eight plots come with pre-approved outline planning permission in a selection of styles for prospective buyers to design a home to suit their lifestyle and aspirations of owning their dream new home. The plots also come with connected services and we will seek to replicate the above model on this excellent site in Cliffe Woods.

Early engagement with the community, ward councillors, and other key stakeholders is vital to our strategy. We understand how local communities can feel threatened by housing development forced upon them and we will work hard to actively and meaningfully engage with the community to make them part of the process.

Higham Train Station and Strood Train Station lie nearby to this site. They provide services to Luton via London and Rainham via Southeastern. They also include high-speed links to King's Cross railway station and London St Pancras International.

Several services and facilities are located near the site, including but not limited to: Cliffe Woods Parkside Parade convenience store, The Woods Nursery, Hall, Highparks Medical Practice, Cliffe Woods Community Centre, Cliffe Woods Pharmacy, and Cliffe Spice Indian Restaurant.

We look forward to onward participation in the production of the Medway's Local Plan 2041 and towards the progression of our promotion of this land for sustainable Self/ Custom Build Homes.

Yours faithfully,

Gurdev S. Moore Director





For Medway	Council use:
Reference Received Acknowledged	

## Medway Local Plan Strategic Land Availability Assessment

### Request for further information 2018

Medway Council has published an updated Strategic Land Availability Assessment (SLAA) report in July 2018, as part of its background work in preparing a new Local Plan for Medway. The council is contacting site promoters for further details on sites. This information will be used to assess and identify potential development sites for the draft plan later in 2018.

Please note that the council is **not seeking new sites** for assessment at this stage. Details about the SLAA are available on the council's website at: <a href="https://www.medway.gov.uk/slaa">www.medway.gov.uk/slaa</a>

The Council asks that developers and land promoters respond with any additional information on sites by **5pm on Friday 17**<sup>th</sup> **August 2018.** The information provided will form part of the published evidence base for the consultation on the draft Medway Local Plan in late 2018.

### How to submit further information

Please use this form to provide details of your site(s). The form has been designed as an interactive PDF document for ease of use. In completing your form, please:

- Use a separate form for each site
- Please provide as much detail as possible, where possible please provide any background planning and marketing work for sites. This can be submitted as supporting evidence to this form
- Please submit a site location plan to confirm the boundaries of the site. The plan should be
  of a scale of 1:1250 and include red line site boundary and blue line drawn around any other
  land owned by the applicant. This can be submitted in PDF or GIS file format
- Once complete please either click the submit form button in the top right hand corner and fill in your details or save the PDF and then send it back to the email address below

Please return this form by email to: futuremedway@medway.gov.uk

Printed copies can be sent to:

Planning Policy team, Medway Council, Gun Wharf, Dock Road, Chatham, Kent ME4 4TR

If you have any queries please contact the Planning Policy team on email: <a href="mailto:futuremedway@medway.gov.uk">futuremedway@medway.gov.uk</a> or telephone: 01634 331629.

### Medway Strategic Land Availability Assessment 2018

### Request for further information

### DATA PROTECTION STATEMENT

The information collected in this form will be used by Medway Council as part of the evidence base for the preparation of the Medway Local Plan. Therefore site information will be publicly available. The council will not publish personal contact details given in Sections 1 and 2 below.

Medway Council will record the information provided on its SLAA database and Local Plan contact lists. Your information will only be used for this purpose, and personal information will be held securely. The council will retain this information until the after the adoption of the Medway Local Plan, and subsequent time period for legal challenges to the plan.

By signing and dating below you are accepting this statement and giving permission for Medway Council to hold your details on our database for the purpose of preparing the Local Plan.

Please address any questions or requests regarding our data processing and protection practices to <a href="mailto:futuremedway@medway.gov.uk">futuremedway@medway.gov.uk</a>. Please note that forms that are not signed and dated will not be accepted.

### **DETAILS**

1. Your details											
Title and name											
	☐ Agent	☐ Applicant	☐ Develope	er 🗆 Landlord							
I am a:	☐ Occupier	☐ Tenant	☐ Full Landowner	☐ Partial Landowner							
	☐ Other (ple	☐ Other (please specify)									
Company/Organisation											
Contact address											
Contact telephone number											
E-mail address											
Representing (if applicable)											
By signing the form you ag Plan. Please complete the											
Signed:			Dated:								

2. Site details								
SLAA reference number								
Site address & name								
Site postcode (Insert Grid ref if not available)	Postcode		Easting	Northing				
What is the site area? (hectares)								
	Yes							
Are you the sole owner or representing that owner?	No – please list all land owners							
Have you had discussions with neighbouring landowners to consider wider developments?	☐ Yes ☐ No If yes please give details:							

### **CURRENT AND POTENTIAL USE**

3. What is the current use of the site?														
Please tick all uses that apply to site:														
Use class														
A1		A2		A3		A4		A5		B1		B2		B8
C1		C2		C2a		C3		C4		D1		D2		Sui
Generis												Generis		
□ Other (please state)														
Please	e tick th	e deve	lopmer	nt categ	ory tha	at the s	site falls	s withir	1:					
□Mixe	ed use													
□ Vac	ant or o	derelict	(pleas	se state	histori	ic use)								
☐ Gre	enfield											.area c	of site o	overage (ha)
□ Pre	eviously	develo	oped la	ınd										
□ Wa	ste or n	ninerals	s site											
4. Wo	uld the	existi	ng use	wholly	or pa	artially	cease	if dev	elopme	ent oc	curs ar	nd if so	, whe	1?
5. Do	you ag	ree wit	th the	use ide	ntified	d for y	our site	e in th	e SLA	A 2018	?			
	. 🗆 N.													
⊔ Ye	s 🗆 No	)												
If no, v	what is	your pr	eferre	d use?										
							Use	e class						
A1		A2		A3		A4		A5		B1		B2		B8
C1		C2		C2a		C3		C4		D1		D2		Sui Generis
							1				1			
□Mixe	ed use -	– pleas	e spec	ify										
☐ Oth	er (plea	ase sta	te)											

If different to the use identified in the 2018 SLAA please explain the reasons for this choice:												
Co Formula and maid anti-department												
6a. For proposed residential uses:,  How many dwellings do you think could be provided on this site? (taking account of site constraints and the surrounding uses and character)					dwe	ellings						
	No of bedrooms	1	2	3	4	5	5+					
	Houses											
	Flats & maisonettes											
	Sheltered											
What housing mix is proposed? (Please specify the number of units under	accommodation Self-build &											
each bedroom number). If you are at an	custom build											
early stage of considering potential	Specialist											
development of the site, please provide an indicative breakdown.	housing (please specify)											
	Other (please specify)											
	- F J /											
Please outline the reasoning for the mix and selection of housing types shown above.												
	☐ Yes ☐ No	)										
Would the site provide affordable housing												
on site in line with the requirements set out in the Medway Guide to Developer Contributions and Obligations 2018?	If no please specify why?											
Could the site provide for affordable housing at the level specified in the Medway Local Plan Development Strategy	□ Yes □ No	)										

Consultation Document (Policy H3)?	If no please specify why?						
	Affordable tenure	Percentage mix					
What would be the preferred tenure mix of	Social rent Affordable rent						
the affordable housing?	Starter homes						
	Intermediate housing						
Gypsy, travellers and travelling showpeople – please state number of pitches if the site is proposed for this use		pitches					
6b. For proposed employment uses:							
What net floor space (GIA) could be accommodated in total (sq. m)?							
Please indicate how you would propose to provide commercial units on site.	☐ Single unit ☐ multiple units						
	B1(a)						
What type of employment use(s) would you	B1(b)						
propose for the site?	B1(c)						
	B2						
	B8						
6c. Why has this choice of employment la	nd been identified?						
6c. For proposed retail, leisure, tourism, c	ommunity facilities, waste & m	inerals or other uses:					
Please give further details if the proposed us	e is to contain any of these comp	onents. Please include details of					
floorspace.							

### **PHASING**

7. Please indicate how many dwellings or how much floorspace you estimate would be completed within each timeframe:									
		(no of units)	Employ- ment (sq. metres)	Retail (sq. metres)	Tourism (sq. metres)	Leisure (sq. metres)	Other (please state)		
	Year 1 (April 2018 – March 2019)								
	Year 2 (April 2019 – March 2020)								
Within the next 5 years	Year 3 (April 2020 – March 2021)								
	Year 4 (April 2021 – March 2022)								
	Year 5 (April 2022 – March 2023)								
6-10 years (April 2023 – N									
11-15 year (April 2028 – M									
16-20 year (April 2033 – N	r <b>S</b> March 2038)								
8. Please construct	provide de ion.	tails of the	anticipated	timeline fo	r a plannin	g application	on and lead in time for		
9. What a	re the expe	cted delive	ry rates per	annum, if	not given iı	n question	7?		
	•								

### **DELIVERY**

10. Market Interest: Please indicate wha	at stage of market interest is associated with the site.
Site is owned by a developer	Comments:
Site under option to a developer	
Enquiries received	
Site is being marketed	
None	
Not known	
11. If a strategic scale site (ie. 50+ reside	ential units, 5,000 sq.m+ commercial floorspace, 2 ha site size or
above or a proposal requiring an Enviro development and delivery?	nmental Impact Assessment) how would you approach site
(For example, site split into development pa	arcels, differentiation of products, specialist uses, engaging with SME
builders)	
,	
	for the site to be deemed sustainable development and
acceptable on Planning grounds (i.e. inf	rastructure & design etc)?
13. Please outline what infrastructure we	ould be provided and when
13. I lease outilité what infrastructure w	build be provided and when:

44 Have those been any discussions with infrastructure questions about this site?
<ul><li>14. Have there been any discussions with infrastructure providers about this site?</li><li>Yes □ No □If yes, please provide further details below, especially reference to utilities (water supply/waste water/broadband):</li></ul>
What has been the outcome of these discussions?
15. Please provide evidence to support your proposed delivery rates as set out in question 7. For example, can you provide details of existing schemes with similar build out times?

### **VIABILITY**

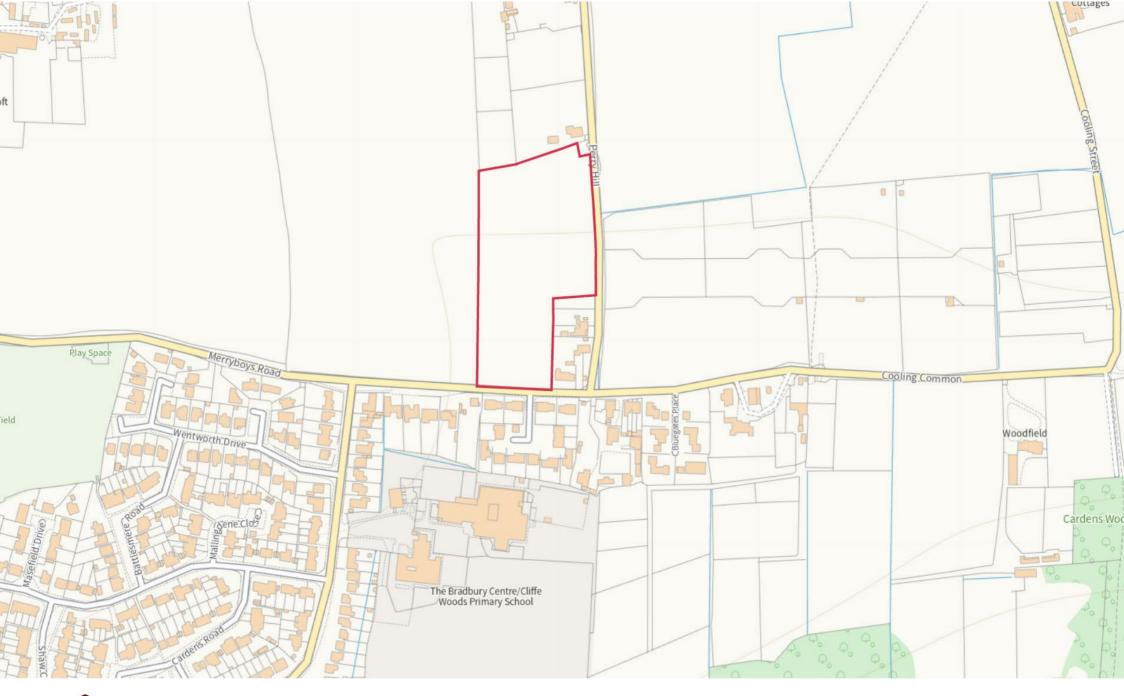
16. Do you consider that your proposed development would be viable, given the requirements of Medway Guide to Developer Contributions and Obligations 2018 and section 10 (infrastructure) of the Development Strategy Consultation 2018?
Yes □ No □ If no, please explain why?
17. Do you consider that your proposed development would be viable, given the emerging affordable housing policy (H3) as set out in the Medway Local Plan Development Strategy consultation document?
Yes □ No □ If no, please provide further details below:
18. Are there any other viability issues that could potentially impact on the delivery of the proposed development?
Yes □ No □ If yes, please provide further details below:
Could Medway Council Planning Service provide any assistance in overcoming any identified issues?

### SUSTAINABILITY OF THE SITE

19. How do you consider the proposed development could meet the vision and strategic objectives for Medway's growth, as set out in the Local Plan Development Strategy consultation?
Please indicate how the proposed development could contribute the social, economic and environmental wellbeing of Medway.
20. What impacts do you think the proposed development would have, as measured against the Sustainability Appraisal framework for the Medway Local Plan?

### **FURTHER COMMENTS**

21. Please Medway SL	use the AA 2018	space	below	to	provide	any	further	comments	OI	rinformation	in	regards	to	the







### **Medway Council Local Plan 2041**

### **Regulation 18b Consultation**

September 2024

Consultation response by

Site ID: HHH29
Form submission ID: 229
Respondent ID: 359
Supplementary information





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#### 1 INTRODUCTION

### 1.1 Background

- 1.1.1 Dean Lewis Estates Limited is a professional strategic land promotion company specialising in the delivery of sustainable residential and mixed-use development.
- 1.1.2 This submission provides Dean Lewis Estates Limited response to and representations in respect of this Regulation 18 consultation into the 'Medway Local Plan 2041'.
- 1.1.3 This submission relates specifically to **Rural Growth and High Halstow in particular**. It should be read in conjunction with the submitted Dean Lewis Estates Representations which focus on the key planning policy considerations for the Medway Local Plan to enable its successful implementation, thereby sustainably meeting the identified full objectively assessed needs for housing (OAN) and enabling the wider regeneration of Medway to continue in concert with economic growth and delivering significant social and environmental net gains throughout the plan area.

## 1.2 Developing a Spatial Strategy - Rural Development Site

1.2.1 Dean Lewis Estates fully support the Council's identification of the Hoo Peninsula is a sustainable and strategic location for residential-led growth in its Reg 18 B Plan. High Halstow forms part of this growth strategy.

### Land at Christmas Lane, High Halstow - Site ID: HHH29

- 1.2.2 Development at Christmas Lane, High Halstow will provide Circa 65 dwellings and will integrate with the scheme proposed by Redrow that adjoins the site.
- 1.2.3 An extract of the Illustrative Framework Plan for the site is shown overleaf.





1.2.4 A summary of the Site Constraints, Social, Environmental and Economic Considerations are set below.

### Constraints

- Medway Estuary Ramsar designation and Special Protection Area lie to the south of the prospective development site.
- Minor impact of traffic generation.
- Boarding Kennels nearby the site. Noise mitigation measures will be required.



#### Social Considerations

- The new residential neighbourhood will meet the critical housing need providing new market and affordable homes.
- The new neighbourhood will integrate with the existing community and facilities that are located High Halstow and Sharnal Street.

### **Environmental Considerations**

- Planned growth will provide for sustainable development that addresses climate change in terms of the design of new homes.
- The site is of low ecological value. New tree planting, water attenuation features and BNG will all contribute to the enhancement of the ecological value of the site.
- The surface water drainage attenuation for the site will be connected to the existing culvert at the lowest point of the site.
- The existing public footpath link running immediately adjacent to the site along the western boundary will provide a link into proposed Redrow development site and will offer access to the countryside to the south.

#### **Economic**

- The additional housing will provide the immediate economic impact of supporting local jobs for local companies and trades people involved in the building of new homes and provision of infrastructure.
- Access to local employment at Kingsnorth and Grain will help to reduce out commuting and will assist in capturing greater expenditure for local businesses on the Hoo Peninsula.
- 1.2.5 Dean Lewis Estates confirm that delivery of the above site achievable in the first five years of the plan period.
- 1.2.6 The site will assist Medway Council to meet its housing requirement and ensure that development is focused in sustainable locations.



LOCAL PLAN TEAM
Medway Council
Gun Wharf
Dock Road
Chatham
Kent
ME4 4TR

Your ref: Reg 18b Consultation
Our ref: Chatham Interface Sites,
Homes England
6 September 2024
OFFICIAL FROM HOMES ENGLAND

Sent by Email: planning.policy@medway.gov.uk

Dear Sir/Madam.

# Medway Council - Regulation 18(b) Local Plan 2041 Consultation - Chatham Interface Sites

These representations have been prepared by WSP on behalf of Homes England in response to Medway Council's Regulation 18 (b) Local Plan 2041 Consultation and relate to Homes England's interest in the future of the Chatham Interface Sites. Homes England have also made separate representations in relation to Chattenden Barracks and Lodge Hill Camp.

### INTRODUCTION

Homes England is an executive non-departmental public body, sponsored by the MHCLG, and the governments' Housing and Regeneration Agency. Homes England has the aspiration, influence, expertise and resource to drive positive market change. By releasing more land to developers who want to make homes happen, Homes England assists in the delivery of the new homes England needs and helps to improve neighbourhoods and grow communities. Homes England works in collaboration with partners who share its ambition, including local authorities, private developers, housing associations, lenders and infrastructure providers.

As set out in Homes England's Strategic Plan 2023-28, its mission is to drive regeneration and housing delivery to create high-quality homes and thriving places. This will support greater social justice cross England and the creation of places people are proud to call home.

A key focus for Homes England is the quality of what is being delivered, including championing environmental sustainability, design and beauty in homes and places that they support to create distinctive places and spaces that are designed for people to use and thrive.

The Chatham Interface Sites, known as the 'Riverside Site' (ref. CCB25) and the 'Brunel Site' (ref. CCB35) are owned by Homes England and are within the designated Chatham Maritime Regeneration Area in the current Medway Local Plan (2003). The location of these sites is shown in Figure 1 below.

**OFFICIAL** 

WSP House 70 Chancery Lane London WC2A 1AF Tel: +44 20 7314 5000 wsp.com



Figure 1: Location of the Chatham Interface Sites



### **Purpose of Representations**

Pursuant to Regulation 18 of the Town and Country Planning Act (Local Planning) (England) Regulations 2012 these representations are made in respect of the Draft Medway Local Plan 2041 published in July 2024 (herein referred to as the 'Reg.18 (b) Local Plan') to confirm Homes England's position in respect of its land interests at the Chatham Interface Sites.(ref: CCB25 and CCB35). These representations submit that the sites remain available, deliverable and achievable for residential led development within the forthcoming Plan period and should not be allocated primarily allocated for non-residential uses.

## **Support for the Plan Making Process**

These representations have specific regard to NPPF paragraph 15 December 2023 (and 'Draft text for consultation' July 2024 paragraph 16) in relation to Government's local plan making requirements and the tests for soundness as set out in further detail in this letter. Homes England is supportive of Medway Council progressing their new Local Plan to Adoption and therefore is setting out suggestions in these Representations to help ensure that the Plan is as sound as possible for when it is examined by the Inspector. The Plan needs to be prepared in accordance with legal and procedural requirements to ensure that it is positively prepared, justified, effective and consistent with national policy (test of soundness Examining Plans, NPPF Paragraph 35



(Paragraph 36 NPPF 'Draft text for consultation' (July 2024)). Homes England's comments are made in order to assist with the Plan-Making process, noting the publication of the draft NPPF was post publication of the Reg. 18(b) Local Plan. As such, in preparing these representations, the Medway Local Plan 2041 Regulation 18 (b) - July 2024 and accompanying appendices have been considered.

### **Background**

Homes England is the freehold owner of the Chatham Interface Sites. Both sites are located within the designated Chatham Maritime regeneration in the current Medway Local Plan (2003). Homes England are also working in partnership with the Vistry Group on Chatham Interface and the Vistry Group have also submitted representations to this consultation stage of the Plan.

In 2018, the Development Brief: Interface Land, Chatham Supplementary Planning Document (SPD) was published by Medway Council and identified the sites for residential led development with opportunities for supporting mixed uses. The Interface Land Sites are located between the regenerated parts of the historic dockyard and the modern retail, leisure and residential development to the north and the University Campus to the east. This creates a unique opportunity to continue the vision and objectives of the regeneration programme.

### The Riverside Site (ref. CCB25)

The Riverside site is approximately 2.6ha and lies to the west of Main Gate Road (the main access to the Historic Dockyard) and south of Leviathan Way, overlooking the River Medway. Access to the Riverside Site is via Main Gate Road onto Western Avenue and then Dock Road/Maritime Way via a roundabout. The site lies within the Chatham Historic Dockyard Conservation Area. The site is cleared of any buildings, but hardstanding and self-seeded grassed areas remain. A slipway on site provides access to the river. To the south are the Slip Buildings which are a scheduled monument and Grade I listed. The Riverside site is accessed off Main Gate Road via Western Avenue.

The SPD (2018) states that the Riverside Site could accommodate a more contemporary style of development with higher density, and still respect historic views, adjacent Slip Buildings, and archaeological remains.

### The Brunel Site (ref.CCB35)

The Brunel site is 2.7ha and lies within the Chatham Historic Dockyard Conservation Area. The site is located west of Dock Road and south of The Observatory office premises and Travelodge hotel. A nursery facility lies outside but adjacent to the site in the east sharing the access to the site off Brunel Way. Access to the Brunel Site is likely to be via Brunel Way onto Dock Road. Access to Brunel Way is achievable in from both directions off Dock Road..

The Northern Mast Pond (Scheduled Monument) and large areas of car parking lie to the west. The Brunel Sawmill (Scheduled Monument and Grade 1 Listed) lies to the south with a range of mixed uses within the Historic Dockyard beyond. The western portion of the site is cleared of any buildings, the eastern portion contains the Police House which is a mid-19th Century, 3-storey Grade II Listed building and Scheduled Monument. Self-seeded trees and vegetation surround the Police House to the south and east. The Brunel site is accessed off Brunel Way via Dock Road. Rights of access also exist via Main Gate Road and along the southern edge of the northern mast



pond into the site. The western part of the site fronting the Northern Mast Pond and the main Historic Dockyard visitors attraction car park is currently utilised for parking.

Pre-application advice was sought from Medway Council for indicative proposals which considered 151 residential units on The Riverside Site and 108 units on the Brunel Site. The pre-application response by Medway Council was provided in July 2023 which supported residential led development on both sites and focused on the detail that a planning application would need to consider rather than question the principle of development.

## **MEDWAY'S STRATEGIC GROWTH OPTIONS**

Medway Council's preferred Option, SGO 3, blends regeneration, brownfield and greenfield development. Homes England broadly supports the overall assessment methodology of the Spatial Growth Options that has been undertaken. Homes England position on the Growth options is set out in more detail in reference to representations made in relation to Chattenden Barracks and Lodge Hill Camp.

The specific issue associated with these representations concerns the proposed assessment of the Chatham Interface sites for non residential purposes and that they should remain as residential led allocations as per current adopted planning policy.

Homes England supports the 'brownfield first' approach taken by Medway Council, and clearly the Interface Site is a previously developed brownfield site. It is in a sustainable, urban location and represents a key opportunity to make efficient use of land and will assist Medway in meeting its residential development needs whilst also making a positive contribution to the vibrancy and sustainability of the historic dockyards. The overall aims and objectives of the draft Reg 18(b) Local Plan are broadly supported as these align with the objectives found in Homes England's Strategic Plan (2023 to 2028).

However, the Interface Sites have now been identified by Medway Council in this Reg18(b) consultation as non-residential on the Draft Polices Map as informed by the Interim Sustainability Appraisal (ISA). This is contrary to the Development Brief SPD (2018) which states:

"These important and prominent locations have the potential to create a new benchmark for future place-making and residential led mixed use development, providing a key part in the success of Medway as a Smart and Sustainable University Waterfront City for the 21st Century"

The adopted SPD continues by confirming that residential development will be the dominant land use on both sites. As noted above the sites have further been subject to pre-application discussions just over 12 months ago where the Council confirmed the sites as being suitable in principle for residential-led development with opportunities for supporting mixed uses. No commentary is provided within this advice that the sites would be suitable for non-residential floorspace only. It therefore appears that the consideration of both sites for non residential uses in the main is erroneous and should be rectified in the next stage of the Plan.

The Chatham Interface Sites support the Council's key focus for residential development and regeneration in order to meet the proposed vision and objectives. It is therefore essential that the Sites are allocated as part of this next Local Plan period in order to meet these objectives.



## **Interim Sustainability Appraisal**

Volume 1 of the Interim Sustainability Appraisal (ISA) at Table 8.15 outlines the reasons for the selection and rejection of reasonable alternative strategic sites for the Draft Local Plan. Both Interface Sites (ref. CCB25 and CCB35) have been selected for development the following reason:

"The development would help to deliver the vision and the strategic objectives of the new Local Plan. Opportunity for sustainable development in accessible location, making best use of PDL and potential improvement to urban form through redevelopment."

With this in mind and the current adopted policy position it is still unclear as to why the Sites have been allocated for only non-residential development, and there has been no justification in the supporting documents for this change, particularly in relation to employment needs. Volume 2 of the ISA includes a Sustainability Assessment of the Sites as non-residential development, however as discussed, the Sites are suitable for residential led development.

If the ISA reassessed the sites in terms of residential led development the scoring would be the same or improved, particularly on delivering the objective of residential development on a brownfield site in a sustainable location. In the absence of robust employment needs data for the preferred stance on these sites, as drafted in this consultation, it is strongly recommended that the sites should reflect the current policy position as residential led development. To assist a few specific areas are clarified below.

### Air Quality

The Sites are not in an AQMA and are over 200m from an AQMA. The Sites originally scored poorly for air pollution as it was considered to be a development proposal which could potentially result in a significant increase in air pollution. This is due to it being assessed for non-residential development. On the basis of this being a residential-led development, this classification would show that the development would be expected to result in a negligible increase in air pollution. The Site is in a highly sustainable location where it is anticipated most future residents would use sustainable forms of travel (as reflected in its assessment for SA Objective 10), with limited parking provision proposed to reflect this, limiting car usage. Future residential-led development on the Chatham Interface sites would therefore have a negligible impact on air pollution.

#### Ecology and Biodiversity Net Gain

The majority of land within both sites is included as Open Mosaic Habitat (OMH) under the MAGIC Priority Habitat Inventory. The data records for both sites indicate the areas have been identified based on the dataset of previously developed land held by the NLUD and UK Perspectives Aerial Photography, rather than any ground truthing. Historical aerial photography from Google Earth dating from 1960 shows the Brunel Site had supported several buildings and hardstanding areas, whilst the Riverside Site appeared to be used for storage of materials associated with the dockyard. By 1990, all buildings were demolished.

Both sites were subject to survey in June and late July 2024, focusing on open habitats (namely grassland and sparsely vegetated ground) in terms of classification as OMH. Both of these areas of OMH form important ecological features due to their priority habitat status, although neither are considered to be of importance outside of a local context. Given the nature of the habitats present, it is considered that similar opportunities could be fairly readily recreated if the areas of OMH were



to be lost, such that presence of OMH is not considered to be an overriding constraint to development. The Lowland Medow was considered to not be a high quality example of this habitat. Accordingly, the Lowland Medow is considered to be of importance only at the local level.

Remaining habitats not considered to form important ecological features, such that these appear relatively unconstrained in terms of ecology, albeit further surveys would be required in relation to faunal species (notably reptiles and invertebrates) at the appropriate stage to inform mitigation requirements.

## Accessibility

A number of existing pedestrian routes and footways surround both sites. Medway Town Centre, local schools and shops can all be reached within a 20-minute walk distance from the proposed development site. Cycle route provision also surrounds both sites through a mix of on and off-road designated cycle lanes. National Cycle Route (NCR) 1 routes along Dock Road which borders the Brunel Site. Connections to NCR 1 and other numerous routes on the local network provide good connections to local amenities and Chatham town centre as well as neighbouring towns. The area with an approximate cycle journey time of 20 minutes is extensive and covers the whole of Chatham and Gillingham providing access to rail facilities. The approximate journey time taken to travel between Gillingham/Chatham and London is between 40 minutes to 1 hour 8 minutes. All required local facilities lie within acceptable cycling and walking distances of the site. A number of bus stops, comprising high quality bus shelters are situated with 400m of both sites, namely on Dock Road, Riverside Avenue and Central Avenue. Access to 11 frequent bus routes can be achieved within 400m.

#### Heritage

The sites lie within Chatham Historic Dockyard Conservation area, the important assets have been noted above. The design layout and massing will take account of the Conservation Area and should achieve a high quality design as also expressed in the pre-application advice.

#### Flood Risk

The Sites have been identified as having risk of tidal flooding from the River Medway. However, the Sites benefit from existing flood defences. Further mitigation measures could include the height of ground floor levels, and no habitable living accommodation at ground level. This could also be specified in any Strategic Planning Policy that looks to allocate the Site for residential-led mixed-use development in the emerging Local Plan.

# PRINCIPLE OF DEVELOPMENT

The principle of residential led development has already been confirmed by Medway Council in pre-application discussions. The Riverside and Brunel sites are located within the wider Chatham Maritime Regeneration Area as defined by the Medway Local Plan (2003) and are therefore deemed suitable in principle for development. The adopted Chatham Interface Land Development Brief (June 2018) also supports the development of this key regeneration site and in doing so identifies the potential for a residential-led development with opportunities for supporting mixed uses. These important and prominent sites have the potential to create a new benchmark for future place-making and residential led mixed use development, providing a key part in the success of Medway's future growth.



# **DELIVERABILITY IN LINE WITH THE NPPF**

The NPPF requires local authorities to prepare local planning policies that are aspirational but deliverable. In relation to "identifying land for homes", NPPF (July 2024) Paragraph 69 (Paragraph 70, NPPF 'draft text for consultation') states that:

"Strategic policy-making authorities should have a clear understanding of the land available in their area through the preparation of a strategic housing land availability assessment. From this, planning policies should identify a sufficient supply and mix of sites, taking into account their availability, suitability and likely economic viability."

For a site to be considered deliverable for housing it:

"Should be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years..." (NPPF Annex 2: Glossary: 'Deliverable')

NPPF (2023) paragraph 123 emphasises the importance of making effective use of land and making as much use as possible of previously-developed land. However, allocating the brownfield Interface Sites for employment would not be making best use of the site in accordance with the NPPF.

### Available now:

Homes England is the freeholder of the site. It is the Agency's intention that the site will be brought forward for development in the short term to meet local development needs, including the delivery of much-needed homes and associated infrastructure to benefit the community.

### Suitable for development:

In determining that the sites are suitable for redevelopment, a number of factors have been considered, including Medway's growth strategy, the optimal use of the site and site-specific influences.

Key to the successful reuse of this previously developed land is ensuring flexibility in the planning policies to ensure it is brought back into effective use. In line with the NPPF (June 20204) Paragraph 122 ('Draft text for consultation' Paragraph 121), the brownfield nature of the site significantly contributes to its suitability for redevelopment:

"Strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that makes as much use as possible of previously-developed or 'brownfield' land"

Allocating the sites for mixed-use development, including residential, has the potential to:

- Deliver a mixed-use development within a core regeneration area where the principle of development has previously been established;
- Progress appropriate proposals for homes based on the highest quality design approaches;
- Realise the place making potential of the site, enhancing the heritage of the Site, its setting and their setting, providing additional tree lining, public open space;
- Providing development that corresponds to the wider area, including the slipways and the mast pond;
- Integrating surrounding complementary land uses and good road, rail and sustainable transport connections by strengthening linkages to and through the site via a high-quality public realm ensuring footpath, cycle and river connectivity.



### Achievable:

The Development Brief SPD (2018) demonstrates that residential led development for the sites is achievable. Homes England supports and accelerates the delivery of housing-led projects. The Agency has expertise and a track record in unlocking and delivering complex development sites, delivering infrastructure early and accelerating the provision of new homes working with a variety of delivery partners. This provides greater control on pace of delivery, quality of new homes and innovative building technologies.

Medway Council is facing challenging housing delivery targets. Planning policy requires that there is a step change in delivery and the emerging Local Plan will be the principal vehicle to deliver this radical change. Homes England, as the Government's Housing and Regeneration Agency, is seeking to redevelop the interface sites in line with Medway's vision for the emerging Local Plan period.

#### **CONCLUSIONS**

Homes England is supportive of the progress made since the previous Regulation 18 consultation (2023). In addition, Homes England advocates for the inclusion of the Chatham Interface Sites as allocated sites for residential led development with the opportunity for supporting mixed use development and is supportive of the blended strategy for sustainable growth (SGO3). In particular, Homes England agrees with the brownfield first approach, as there is significant potential development for homes, jobs and services in Medway's historic dockyard.

As set out throughout this representation it is considered that the Interface Sites have erroneously been assessed for only non-residential development. The Sites are capable of accommodating residential dwellings and therefore would result in a net gain in housing. The Chatham Interface Sites are brownfield sites on previously developed land that are available, suitable and achievable, making them deliverable for development, making an important contribution to Medway's growth strategy. There is considerable opportunity to provide a well-designed, high-quality, and sustainable development that minimises the impact on the local environment.

Homes England look forward to continuing dialogue with Medway Council and playing a role in shaping the Local Plan at future stages of the plan-making process, through to Adoption.

If you require any further information, please contact beth.wells@wsp.com or the undersigned.

Yours faithfully

Andrew Pepler MRTPI Director



# MEDWAY LOCAL PLAN REGULATION 18B CONSULTATION

# **REPRESENTATIONS**

Prepared on behalf of Uniper Ltd

September 2024

On behalf of Uniper Ltd

Registered Office: Buckingham Court Kingsmead Business Park, London Road, High Wycombe,

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Office Address: 2 Kings Hill Avenue, Kings Hill, West Malling, Kent, ME19 4A

## **Document Control Sheet**

Project Name: MedwayOne, Kingsnorth

Project Ref: 33567/A5/HH/HE

Report Title: Representations to Medway Local Plan Regulation 18B Consultation

	Name	Position	Signature	Date
Prepared by:	Hardeep Hunjan	Associate Planner	НН	September 2024
Reviewed by:	Huw Edwards	Director	HE	September 2024
Approved by:	Huw Edwards	Director	HE	September 2024

#### For and on behalf of Stantec UK Limited

Revision	Date	Description	Prepared	Reviewed	Approved

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.



# **Appendices**

APPENDIX 1 FORMER KINGSNORTH POWER STATION – website link

APPENDIX 2 GRAIN POWER STATION



# 1.0 INTRODUCTION

- 1.1 These representations are submitted on behalf of Uniper Ltd in response to Medway Council's Local Plan (Setting the Direction for Medway 2041) Regulation 18B Consultation published in July 2024. Uniper is progressing the redevelopment of the former Kingsnorth Power Station site and also own the Grain Power Station and therefore have a direct interest in the Local Plan and the long-term development strategy for Medway.
- 1.2 The former Kingsnorth Power Station is an extant employment allocation (Policy S12: Kingsnorth) within the adopted Medway Local Plan (2003). The Plan identifies Kingsnorth as a 'Strategic Development' with the potential for Class B2 (Industrial Development) and Class B8 (Storage and Distribution) development.
- 1.3 Uniper secured Outline Planning Permission in August 2023 for redevelopment of the former Kingsnorth Power Station site (known as <u>MedwayOne</u>) for a range of employment uses (Outline Planning Permission ref. MC/21/0979). Reserved Matters Applications for the detailed design of development plots and the infrastructure estate road, associated lighting, landscape, drainage and ecological areas have recently been prepared/approved and are ongoing by Uniper and possible new occupiers. A site location plan is included at **Appendix 1**.
- 1.4 The site was submitted to the Call for Sites exercise undertaken in February 2023 (Site ID: HHH36) and has been identified as a "preferred site allocation" for "non-resi" on the Policies Map (North East). Uniper <a href="mailto:supports">supports</a> its identification as such.
- 1.5 **Grain Power Station** forms part of the existing employment allocation for the Isle of Grain (Policy S13) as identified within the 2003 Medway Local Plan. The policy allows for Class B1 (Business) (now E(g)), Class B2 (General Industry) and Class B8 (Storage and Distribution) Uses.
- 1.6 The Grain Power Station site is currently in use as a Combined Cycle Gas Turbine (CCGT) and combined heat and power (CHP) plant and was acquired by Uniper in 2011. The wider site has potential for further Energy and B2/B8/E(g)(iii) Uses.
- 1.7 The site was submitted to the Call for Sites exercise (Site ID: AS26) undertaken in February 2023, and has been identified as a "preferred site allocation" for "non-resi" on the Policies Map (North East). Uniper **supports** its identification as such. A site location plan is included at **Appendix 2**.



- 1.8 Both Sites are longstanding existing employment allocations within the extant Medway Local Plan (2003) and comprise brownfield sites. **MedwayOne** is due to deliver the first units in 2025/2026, subject to approval of Reserved Matters Applications and Discharge of Conditions.
- 1.9 Anticipated timescales for commencement of delivery at **Grain Power Station** are likely to be within the early part of the new Local Plan period. This process has already commenced in respect of:
  - i) <u>Carbon Capture @ Grain B Power Station</u>

    <u>Grain B power station scoping opinion for Environmental Impact Assessment:</u>

    variation to section 36 consent, Electricity Act 1989 GOV.UK (www.gov.uk)
  - ii) "National Grid's Grain CO2 Gathering Pipeline"
     National Grid Grain CO2 Gathering Pipeline REQUEST FOR AN ENVIRONMENTAL
     IMPACT ASSESSMENT (EIA) SCOPING OPINION (medway.gov.uk)
- 1.10 These representations focus on the strategic issues that are associated with the redevelopment of the Former Kingsnorth Power Station (Appendix 1) and future re-development proposals at the Grain Power Station (Appendix 2).
- 1.11 Notwithstanding our Client's specific land interests, these representations have been prepared in objective terms and in recognition of prevailing planning policy in particular Government guidance as set out in the National Planning Policy Framework [NPPF] (Draft July 2024) and National Planning Practice Guidance [NPPG] (March 2014, as amended).

### i) Content of Representations

- 1.12 Uniper continues to work positively and proactively with Medway Council in seeking to deliver the comprehensive redevelopment of these longstanding brownfield sites and welcomes the production of this next stage of the emerging Local Plan.
- 1.13 These representations provide a high-level overview of the Reg18B Local Plan and has responded largely to the 44No questions posed within the Draft Local Plan, with some additional commentary where relevant.



# 2. Medway Local Plan 2041: Reg 18B

## **Natural Environment**

Question 1: The Council could consider setting local standards for development that go beyond national policy/regulations in addressing climate change. What evidence would justify this approach, and what standards would be appropriate?

We consider the Council should presently stick with National policy guidance/regulations in respect of Climate Change, especially in the light (at this stage) of an incomplete "evidence base".

Uniper nevertheless appreciates the objective and sentiment of seeking to do so, and is already working hard to establish and deliver 21<sup>st</sup> Century solutions to help achieve increased levels of sustainable development, inc the emerging proposals for Carbon Capture at Grain.

Question 2: Do you consider that the Council should seek to go beyond the statutory minimum of a 10% increase in BNG? What evidence can you provide to support your view?

No. The statutory minimum 10% net gain already represents a significant gain and accords with the National requirement, which is set out clearly within the Environment Act 2021 and the NPPF.

**Question 3**: Do you agree that the tariff based strategic approach applied to development within 6 km of the designated areas, supporting the delivery of the Bird Wise SAMMS programme represents an effective means of addressing the potential impact of recreational disturbance on the designated SPA and Ramsar habitats of the Thames, Medway and Swale Estuaries and Marshes.

Yes – but SAMMS & SEMS (where required) – and we understand now known as "SAMMS+". We understand this will be secured via an extended SAMMS programme, which collects enhanced financial contributions from respective promoters/developments.

**Question 4**: Do you consider that Medway Council should identify landscapes of local value as an additional designation in the new Local Plan. What should be the criteria for designation? Are there areas that you would identify as justifying a local valued landscape designation – where and why?

No comment.

**Question 5**: Do you agree that the Council should promote Natural England's Green Infrastructure Framework standards in the Medway Local Plan policy?

Uniper supports the principles of Natural England's Green Infrastructure Framework, but does not consider it necessary for such standards to be replicated in Medway Local Plan policy.

**Question 6**: Has the draft Medway Green and Blue Infrastructure Framework identified the correct key issues and assets, and provide effective guidance for strengthening Medway's green infrastructure?

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nd Blue Infrastructure Framewo

Uniper supports the aims and objectives of the draft Medway Green and Blue Infrastructure Framework with regard to the Hoo Peninsula.

**Question 7**: Do you consider the Green Belt boundary should be revised in line with the recommendations in the 2018 Green Belt Assessment?

**Question 8**: Do you consider that exceptional circumstances exist to justify review of the Green Belt boundary?

Uniper considers that the re-use of long-standing employment brownfield sites should be prioritised for employment purposes ahead of the release of "new" greenfield and Green Belt sites for such purposes.

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# **Built Environment**

**Question 9**: Should this policy be broadened out to areas adjacent or near to Conservation Areas rather than only within? If so, please explain why.

No comment.

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## **Housing**

Uniper has limited comments in respect of the proposed "housing" via the emerging Local Plan, save and except that proposed on the Hoo Peninsula and the growth/expansion of Hoo Rural Town.

Uniper is keen to ensure that any "housing growth" is planned comprehensively with the associated "employment growth" necessary to provide for the opportunity of achieving increased levels of truly sustainable development.

Nevertheless, the Uniper **supports** the blended approach between urban regeneration and greenfield sites (in line with the over-arching "Spatial Strategy SGO3") and the presently indicative site allocations.

However, Uniper does have concerns at some of the emerging policy aspirations in the absence of an updated **Infrastructure Delivery Plan (IDP)** and updated **Viability Assessment**. Uniper considers that robust versions of both of these documents are essential before committing further (at this stage) to many of the draft policies set out in the Reg 18B Plan.

**Question 10**: Do you think this policy provides effective guidance on the required housing mix in Medway?

**Question 11**: Do you agree with having a 10% requirement for affordable housing on urban brownfield sites and 30% requirement for affordable housing on greenfield sites and higher value urban locations?

What do you consider would represent an effective alternative approach? Do you agree with a varied approach for affordable housing requirements based on the different value areas across Medway?

Question 12: What do you consider would represent an effective split of tenures between social/affordable rent and intermediate/low-cost home ownership housing in delivering affordable housing?

Question 13: Do you have any views on the delivery of affordable housing, and the cascade principle? What evidence can you provide to support your views?

**Question 14**: Do you have views on defining the limits to over-concentration of HMOs in a community? What criteria would be recommended?

Question 15: Do you have any sites you wish to promote for self-build allocation?

Questions 9 - 15: No comment

# **Economic Development**

Uniper notes there are no "questions" in respect of Chapter 7: Economic Development, which is perhaps surprising given the important nature of sustaining and achieving increased levels of economic growth across Medway.

The Draft Reg 18B was published for consultation ahead of the (new) Government's publication of the changes to the Draft NPPF (July 2024). It is anticipated that the Council will make the necessary changes to be reflected in the subsequent Reg 19 version of the Local Plan.

This is particularly relevant for Medway (a Unitary Authority) in respect of the need for increased levels of coordination with neighbouring strategic policy-making authorities, and reflected in the latest Draft NPPF and new para 27 (in part):

Once the matters which require collaboration have been identified, strategic policy-making authorities should make sure that their plan policies are consistent with those of other bodies where a strategic relationship exists on these matters, and with the relevant investment plans of infrastructure providers, unless there is a clear justification to the contrary. In particular their plans should ensure that:

a) a consistent approach is taken to planning the delivery of major infrastructure, such <u>as</u>

<u>major transport services/projects</u>, utilities, waste, minerals, environmental

<u>improvement and resilience</u>, and strategic health, education and social infrastructure



(such as hospitals, universities, major schools, major sports facilities and criminal justice accommodation);

[Underlining and emphasis is Uniper's, especially in respect of the strategic highway network and KCC and National Highways]

Uniper also wishes to draw attention to the other following proposed changes in the Draft NPPF in respect of "Building a strong, competitive economy" (Chapter 6, Draft NPPF):

#### Para 84 (in part) (as proposed to be changed):

### 86.84. Planning policies should:

- set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration;
- b) set criteria, er-and identify strategic sites, for local and inward investment to match the strategy and to meet anticipated needs over the plan period. Appropriate sites for commercial development which meet the needs of a modern economy should be identified, including suitable locations for uses such as laboratories, gigafactories, data centres, digital infrastructure, freight and logistics.

And Para 85 (in part) (as proposed to be changed):

87.85. Planning policies and decisions should recognise and address the specific locational requirements of different sectors. This includes making provision for:

- a) clusters or networks of knowledge and data-driven, creative or high technology industries; and for new, expanded or upgraded facilities and infrastructure that are needed to support the growth of these industries (including data centres and grid connections);
- b) storage and distribution operations at a variety of scales and in suitably accessible locations, that allow for the efficient and reliable handling of goods, especially where this is needed to support the supply chain, transport innovation and decarbonisation;
- c) the expansion or modernisation of other industries of local, regional or national importance to support economic growth and resilience.



Both of these new/amended paragraphs go the heart of what Uniper is seeking to achieve at both of its land-holdings on the Hoo Peninsula. Both are uniquely placed within Medway, and indeed across the wider South East, to deliver these "new" National objectives set out in the latest Draft NPPF. The next version of the Medway Local Plan (Reg 19) should identify and reflect these unique opportunities at MedwayOne and Grain, and craft suitably worded Local Plan policies to help ensure their (unhindered) successful delivery.

Draft Local Plan policies **S10**: **Economic Strategy** and **S11**: **Existing Employment Provision** are a useful start in this regard, but should be more specific in respect of the proposed/potential uses both at MedwayOne and at Grain.

As presently drafted, Uniper supports the following references in the Draft Local Plan:

 Larger scale Net Zero Carbon Energy generating uses and port using facilities to be directed to the Hoo Peninsula to sites at Kingsnorth and Grain. [in Policy S10, in part]

And

• The site of the former Kingsnorth Power Station, on the Hoo Peninsula provides an opportunity for new commercial and industrial uses at the 113ha site, of which half could be developable land. The landowner is seeking to deliver a modern and sustainable development to create new employment opportunities for skilled jobs and to attract investment to the region. A mix of commercial, manufacturing, industrial, distribution, data centre and energy uses, could be brought forward on site. The site has potential to be intensified to maximise the development potential of this strategic brownfield site, to deliver a high quality, commercial scheme with flexible space to meet market needs. [Para 7.4.5]

In commenting on this presently, Uniper recognises the Council's acknowledgement given to the requirement for an up-to-date **Employment Land Needs Assessment** (ELNA) in order to inform the subsequent Reg19 version of the Local Plan. With this in mind, Uniper is supportive of the Council identifying sufficient sites in order to meet the District's future employment needs over the Plan period, it is important to accord with the NPPF insofar as any extant 2003 brownfield allocations are fully utilised before the release of any new greenfield allocations.

It is important that future potential allocations on the Hoo Peninsula do not undermine the success of sites which already have planning permission including MedwayOne. Furthermore, the Local Plan (Reg19) should consider how employment land can be appropriately phased to ensure that development on brownfield land can be prioritised. This is particularly important for the following reasons:

the greenfield land that has been identified for potential employment uses as part of the Land Availability
 Assessment is relatively unconstrained and requires less financial investment to develop than
 MedwayOne, which is remediating and regenerating contaminated brownfield land;



- MedwayOne is located on an existing allocated employment site within the adopted Local Plan. The
  principle of employment development in this location is therefore already well established and the recent
  grant of Outline Planning Permission reaffirms this;
- Without the phasing of future employment land on greenfield sites this would undermine the progress of development at MedwayOne because employment development of (cheaper) greenfield land over brownfield sites could be more commercially attractive for potential occupiers.

The same general principles relate to Grain Power Station in terms of prioritising redevelopment of a brownfield site over greenfield land.

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Uniper has no specific comment in respect of the remaining Questions:

- Retail & Town Centres (Questions 16 34)
- Transport (Question 35: Lorry Parking)

But Uniper notes and <u>supports</u> the reference within the "Vision for Access and Movement in Medway" that "local employment opportunities are available at Kingsnorth and the Isle of Grain", which will help to provide for increased levels of self-containment and internalised trips on the Peninsula.

&

Uniper also <u>supports</u> **Policy T21: Riverside Infrastructure** and its supporting text, which seeks to safeguard and stimulate the economic potential of the River Medway.

- Health, Communities & Infrastructure (Questions 36 43)
- Waste Management (Question 44: Inert waste and further landfill)

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### **Energy (Chapter 13)**

Whilst there are no specific questions in respect of the Energy Chapter, Uniper <u>supports</u> the aims and objectives of Medway Council in transitioning to net zero carbon by 2050, and the recognition (both past and for the future) in how the Hoo Peninsula was/is of strategic importance:

## Para 13.1.1 (in part)

Energy use and supply are intrinsic to the Council's aims. Medway has an established strategic importance for energy infrastructure, particularly on the Hoo Peninsula. In the 20th Century, this was a key location for fossil fuel powered Power Stations. The sector is now transitioning away from carbon-based energy and seeking wider



opportunities. This transition provides new opportunities for Medway's economy, and innovation in meeting energy needs for existing and new communities.

#### Para 13.2.6

Power stations located at Damhead Creek and the Isle of Grain have a combined installed capacity of over 3GW. This represents 38% of the total installed capacity for the South East region and 4% for the UK. Damhead Creek has planning permission for a significant expansion in power generation.

### Policy S25: Energy Supply (in part)

Kingsnorth and the Isle of Grain are suitable locations for renewable and low carbon energy development. Proposals for such developments will be supported if the potential adverse impacts are or can be made acceptable, including cumulative landscape and visual impacts.

Uniper is also supportive of Medway Council and its work in respect of the Heat Networks Delivery Unit (part of the Department for Business, Energy and Industrial Strategy), and supports its aims/objectives of Policy T41: Heat Networks.

\_\_\_\_\_

#### **Conclusion:**

Uniper <u>supports</u> the overall vision for sustainable economic growth to meet Medway's employment needs, but it is clear that this strategy will need to be supported by relevant updates to the previous economic evidence base and the ELNA to ensure that it accurately reflects Medway's employment land needs over the entirety of the Plan period.

Uniper considers it important to ensure that future employment allocations are appropriately phased to ensure that there is a clear strategy that gives substantial weight to the best possible use of brownfield land and prioritises the use of brownfield over greenfield land to meet identified employment needs.

The key **strategic infrastructure** needs have been identified and Medway Council should work closely with key stakeholders including Gravesham Borough Council, KCC and National Highways to identify necessary key strategic infrastructure to address present/future capacity issues on the strategic highway network. The Thames Estuary Growth Board should also be engaged fully in order to help maximise the economic potential of the Lower Thames Estuary and 2050 Growth Commission's objectives.

This is necessary to ensure that wider future development on the Hoo Peninsula including MedwayOne and development at the Grain Power Station is not unduly constrained.

Both sites at the former **Kingsnorth Power Station** (**MedwayOne**) and **Grain Power Station** will play a key role in realising Medway's vision for economic growth, inward investment and employment generation and the policy framework for these sites within the next iteration of the emerging Local Plan (Reg 19) should ensure that there is sufficient flexibility to support future development.

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# **APPENDIX 1**

# FORMER KINGSNORTH POWER STATION SITE LOCATION PLAN

<u>Medway One – This is MedwayOne, the former Kingsnorth Power Station site</u>



# **APPENDIX 2**

# **GRAIN POWER STATION SITE LOCATION PLAN**



planning transport design environment infrastructure land

# MEDWAY COUNCIL REGULATION 18b CONSULTATION RESPONSE

MILL HILL, GILLINGHAM

LAA REF: RN1

RESPONDANT ID REF: 193

LOCAL PLAN REG 18B PLAN REF: 3921 INTERIUM SUSTAINABILITY PLAN REF: 3919

**CLIENT: PERSIMMON HOMES & TAYLOR WIMPEY** 

September 2024



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Appendix 1 – Regulation 18a Representations



# 1 INTRODUCTION

### 1.1 PURPOSE OF THE STATEMENT

- 1.1.1 These representations have been prepared on behalf of Persimmon Homes & Taylor Wimpey in response to Medway Council's Regulation 18b Local Plan consultation 2024.
- 1.1.2 The consultation document includes different spatial options for development including a preferred option which has informed the identification of potential sites for allocation for the Plan period until 2041. Alongside these, are proposed development management policies, which are also being consulted on.
- 1.1.3 The Plan does not identify land at Mill Hill, Gillingham ("the Site") as a preferred site for allocation. Alongside commenting on the general "Soundness" of the Plan, these representations seek the inclusion of the Site as a housing allocation. As is demonstrated, the Site would positively contribute to meeting the Council's strategic objectives and preferred spatial strategy for growth. In particular, the Plan currently fails to identify sufficient sites to meet the identified housing requirement. This is a sustainable and deliverable site which would contribute to addressing the identified deficit.

### 1.2 SUMMARY

- 1.2.1 As set out in full in these representations the Local Plan must:
  - Support the Council's intention to Plan to meet its <u>full</u> objectively assessed need. The Council has persistently under delivered against its housing requirement, resulting in a significant housing need in both market and affordable which must be addressed;
  - Amend the "Vision" (para 2.1) to include reference to housing. Whilst
    the "Vision" in general is supported, it is a significant failing that it
    does not mention the delivery of housing, a fundamental element of
    the Plan. In not addressing the need to deliver housing as an integral
    part of the "Vision" it fails to accord with the NPPF (para 15). This was
    a matter raised at the Reg 18a consultation stage that has still not
    been addressed;



- Amend the "Strategic Objectives" to include as an objective on its own
  the need to deliver housing to meet identified needs. This is necessary
  to accord with the NPPF (para 20) which requires the inclusion of
  strategic policies that set out the overall strategy and pattern for
  spatial growth, including for the provision of housing. The "Strategic
  Objectives" can therefore not be silent on this matter. As with the
  above, this point has still not been addressed following comments on
  the Reg 18a consultation;
- Extend the Plan period until at least 2042, to ensure it covers the required 15yrs at the point of adoption (NPPF, para 22). This was raised at the Reg 18a consultation stage and the Plan period has still not been extended sufficiently;
- Raised significant concerns regarding the level of reliance that is being placed on windfall sites and extant planning permissions as part of the overall housing land supply, which is not supported by the Council's evidence base;
- As an outcome of the above, identifies a significant shortfall in the supply of housing. The inclusion of land at Mill Hill, would contribute to addressing this shortfall as a suitable, sustainable and deliverable site;
- Re-review the suitability of land at Mill Hill for development against the Interim Sustainability criteria and demonstrate that the assessment must be updated to more positively assess the Site;
- Provide general support for the Council's preferred spatial growth option (SGO3) subject to the inclusion of land at Mill Hill, which is compatible with this growth option; and
- Provide comments on a number of development management policies.
- 1.2.2 Below is an overview of the structure of the remainder of the consultation response:
  - Chapter 2 Provides feedback on the overall vision of the Local Plan including the Plan period;
  - Chapter 3 Provides commentary on preferred strategic growth option;



- Chapter 4 Considers the Council's overall housing requirement and housing land supply position;
- **Chapter 5** Provides comments on and assesses the Site against the criteria in the Interim Sustainability Appraisal;
- **Chapter 6** Provides comments on the general development management policies; and.
- Chapter 8 Sets out the overall conclusions.
- 1.3.1 Each section includes a "summary".



# 2 VISION

### 2.1 THE PLAN PERIOD

- 2.1.1 From the Reg 18a Plan, the Plan period has been extended to 2041. However, without reference to the supporting evidence base, it is not possible to ascertain the start date for the Plan. The Government's current Standard Method sets out a requirement of 1,658 homes pa. The Interim Sustainability Appraisal sets out that this results in a requirement for 26,528 homes increasing to 27,854 accounting for the required 5% uplift. This covers just a 16yr period.
- 2.1.2 To provide the required 15 yr Plan period (NPPF, para 22), the Plan must be adopted in 2026. Given the Council's previous difficulties with progressing its Local Plan, the stage of consultation (Regulation 18b), the level of interest received in the Local Plan and likelihood of slippage, including potential for extended EiPs i.e., Maidstone and Tunbridge Wells (over a 1yr), it is unlikely that the Council will be able to submit a Local Plan in 2025 for adoption in 2026. It would therefore be prudent to extend the Plan period until at least 2042 to provide a sufficient buffer should progress with and adoption of the Plan be delayed, ensuring it covers the minimum 15yr period required.
- 2.1.3 For the Plan to be considered to be "Positively Prepared" and therefore "Sound", the Plan period must therefore be extended by at least a further year with a requirement for at least 29,595 new homes, including the 5% buffer

### 2.2 COMMENTS ON THE VISION

- 2.2.1 The Council has not addressed previous Reg18a consultation comments in respect of the "Vision" and its failure to clearly set out the need for housing. This is a matter that must still be addressed and our previous representations are maintained that central to the "Vision" must be "how much development is provided" as a matter that is fundamental to the framework for growth and spatial strategy as a determinative matter. This is a significant failing, considering the "Context" identifies "the supply of new homes is central to the Local Plan" (para 2.7).
- 2.2.2 NPPF (para 15) states that:



The planning system should be genuinely plan-led. Succinct and up-to-date plans should provide a positive vision for the future of each area; a <u>framework for addressing housing needs</u> and other economic, social and environmental priorities; and a platform for local people to shape their surroundings.

- 2.2.3 In the absence of the "Vision" setting out the intention of how much development is to be delivered, specifically housing development, it does not provide a positive framework for addressing housing need contrary to the NPPF (para 15).
- 2.2.4 The "Vision" as set out at para 3.1 must be amended as follows (new text in red):

The policies and growth strategy in the new Plan will deliver the vision for what we want to achieve for Medway by 2040. Our thoughts for what this vision could look like are set out below. The vision encompasses all aspects of policies in the new Local Plan, including housing, transport, environment, retail, employment and waste and minerals.

2.2.5 Allied to this, a new paragraph must be added, or existing paragraphs amended as part of the "Vision" clearly setting out the intention of the Local Plan to meet identified housing and employment needs. The 7<sup>th</sup> paragraph (un-numbered) could be amended as follows:

The Plan will seek to deliver at least 27,854 new homes (1,658 pa + 5%) to ensure the needs of all sections and ages of the community can find decent places to live. The quality of new development has enhanced Medway's profile, and driven up environmental standards in construction, and older properties have been retro-fitted to improve sustainability. Custom and self-build housing has provided new living opportunities for residents. Investment in new services and infrastructure, such as transport, schools, healthcare and open spaces, has supported house building to provide a good quality of life for residents.

- 2.2.6 The proposed change aligns with the "Development Needs" (set out in the executive summary of the draft Local Plan), which sets out the approximate housing target of 28,000 homes to be delivered across the Plan Period. However, as set out in this Statement, it is thought that the proposed number of homes being planned for must be increased.
- 2.2.7 The outlined changes are essential to ensure the Plan is "Positively Prepared", "Consistent with National Policy" and therefore "Sound" (NPPF, para 35).



### 2.3 SUMMARY

2.3.1 Contrary to the requirements of the NPPF (para 15), the "Vision" fails to identify the provision of housing as an important component of the Plan and does not set out how much development should be provided for. This is a determinative matter in identifying the preferred spatial strategy. In not expressing the amount of development that is to be delivered, the Plan also fails to be positively prepared in not providing a suitable framework for addressing housing needs for the delivery of at least 27,854 new homes, although as set out in the following section, this should be increased to at least 29,595 new homes.



# 3 PREFERRED STRATEGIC GROWTH OPTION

### 3.1 SGO3 - BLENDED APPROACH & INCLUSION OF LAND AT MILL HILL

- 3.1.1 The Council's preferred SGO is option 3, as a "Blended Strategy", this promotes a 'brownfield first' approach supporting urban regeneration, complemented by greenfield sites in suburban and rural locations to provide for wider housing choice.
- 3.1.2 The strategy recognises that a wide range of sites will be required to meet the housing requirement and is likely to promote a more deliverable pattern of growth over the alternative options, which includes an "Urban Focus" (SGO 1) and "Dispersed Growth (SGO2). However, as set out in Section 4, additional sites need to be identified to meet the identified levels of housing need, with further Sites needing to be drawn from the "Dispersed Growth" option. This could include land at Mill Hill, Gillingham.
- 3.1.3 As demonstrated in Section 5 the assessment of the Site has been re-viewed against the criteria in the Interim Sustainability Appraisal and it has been determined that the Site performs much better against the criteria than has currently been assessed.
- 3.1.4 As has been set out in previous representations (included at Appendix 1), the Site is sustainably located and suitable for development being relatively unconstrained. Controlled by two National housebuilders it is also deliverable. The Draft Local Plan is not accompanied by any housing trajectory, it is therefore not possible to ascertain whether there are sufficient sites identified which could come forward in the first 5yrs. This Site would not only be suitable for inclusion in the Plan (broadening the variety of Sites, inline with the intentions of the blended model) but can also critically contribute to the Council's 5 yr supply.

#### 3.2 SUMMARY

3.2.1 SGO3 is supported subject to the inclusion of land at Mill Hill (Site RN1) which is compatible with the Council's preferred growth option and would critically support the delivery of housing, where insufficient sites have currently been identified.



# 4 HOUSING REQUIREMENT & SUPPLY

# 4.1 NPPF CONSULTATION

- 4.1.1 Proposed changes to the NPPF are currently being consulted on, which reflect the new Labour Government's manifesto to "kickstart growth". Central to the manifesto, are reforms to the planning system to support and increase house building, this includes consulting on proposed changes to the Standard Method, amongst other NPPF updates/amendments.
- 4.1.2 In the case of Medway, this does not materially change the amount of development that Medway should be planning for with the Revised Standard Method reducing the housing requirement by just 14 homes pa. However, it is of significance that the proposed changes to the NPPF also seek to reverse relaxations introduced in December 2024 (para 62) which advised that the Standard Method was a "starting point" for plan making. This is proposed to be removed, and the expectation re-introduced that Plans, should <u>as a minimum</u>, plan for the number of homes identified through the Standard Method.
- 4.1.3 However, housing delivery is integral to the Government's agenda, including a commitment to build 1.5million new homes over the next parliament. It is therefore almost certain that the proposals to change the Standard Method and remove the relaxation on how this should inform plan making will come into effect. In this context, it is therefore paramount that the Council continues to Plan to meet in full its identified housing need for the Plan to be found "Sound". Subject to the changes identified in these representations, we support the Council's current intention to Plan to meet its current identified need.

#### 4.1 MEETING NEIGHBOURING AUTHORITIES' UNMET NEED

- 4.1.1 Through the evidence available, it is not apparent whether Medway intends to assist neighbouring authorities in meeting their housing requirements, which must be also addressed in the context of the NPPF (para 11 and 60).
- 4.1.2 Gravesham Borough Council through its previous Reg18 consultation requested that Medway Council take 2,000 homes to assist it in meeting its housing need. Under the July 24 draft NPPF consultation the proposed Revised Standard Method increased Gravesham's annual housing requirement by an additional 32 homes (increase to 693 homes pa). It is therefore likely that this request will remain, with



- the potential that further assistant will be requested from Medway to help address any housing shortfall.
- 4.1.3 Similarly, Tonbridge and Malling Borough Council (TMBC) is also likely to have its housing requirement increased under the Revised Standard Method by a further 237 homes (total 1,057 homes pa).
- 4.1.4 Whether there is a need for Medway to assist neighbouring authorises in addressing their housing requirements, must be addressed in the Reg19 Plan, especially since Local Plans for these neighbouring authorities are being developed at the same time and to avoid a worsening of the housing land supply position. The demonstration of cross-boundary working will be essential to ensuring the Plan is "Effective" and thus "Sound".

# 4.2 HOUSING REQUIREMENT

4.2.1 In the absence of an up-to-date Local Plan, the Council has fallen significantly short against its housing requirement over a successive number of years, leading to a worsening of the housing supply in Medway, especially in respect of affordable housing. As set out above, we therefore support the Council's intention to Plan for its full identified housing requirement. However, as set out in Section 2.2, the Plan period must be extended for a further year. Therefore, the housing requirement must be increased to at least 29,595 new homes, including the 5% buffer, with the potential that a further allowance might need to be made, to address the needs of neighbouring authorities.

#### 4.3 PREFERRED HOUSING ALLOCATIONS

- 4.3.1 Notwithstanding our support for the Council's intention to Plan to meet it full identified need, the consultation document as a whole is lacking in evidence and it is not apparent that sufficient sites have been identified to meet the housing need.
- 4.3.2 The identified preferred allocated sites totals 234, of which 217 comprise residential led development sites. Some of these are complex sites, with existing uses and multiple land ownerships, specifically the brownfield sites. There is not sufficient evidence currently available to allow further assessment of the suitability and deliverability of these sites and therefore determine whether sufficient Sites have in fact been identified to meet the need.



- 4.3.3 Further evidence must be provided at Reg19 to demonstrate the suitability of the preferred allocated sites to ensure that the Plan is "Effective". Without this information it is impossible to make a robust assessment about whether the currently proposed "Blended Strategy" is "Sound".
- 4.3.4 However, as set out in Section 5, land at Mill Hill is considered compatible with the Council's preferred blended strategy and is less sensitive than other sites, which have been identified as preferred allocations i.e.LW8.

# 4.4 COMMITTED SITES AND WINDFALL SITES

- 4.4.1 The Interim Sustainability Appraisal (para 3.1.2) sets out that after accounting for windfall sites and sites that are already committed, there is a residual requirement to identify 22,491 homes. Based on a housing requirement of 27,854 homes, windfalls and existing commitments make up 5,363 homes or 19% of the overall requirement, which is <u>very</u> significant.
- 4.4.1 The NPPF (para 71) sets out that:

Where an allowance is to be made for windfall sites as part of anticipated supply, there should <u>be compelling evidence that they will provide a reliable source of supply</u>. Any allowance should be realistic having regard to the strategic housing land availability assessment, historic windfall delivery rates and expected future trends. (Our emphasis)

- 4.4.2 Neither the Plan nor the supporting technical assessments provide any breakdown of what proportion of the 5,363 homes are already committed and what proportion is windfall or indeed what committed sites are being relied upon. In the absence of this information the full 5,363 committed and windfall homes cannot be relied upon.
- 4.4.3 As acknowledged in the NPPF (para 71), the Council can refer to historic windfall delivery. However, this must be considered in the context that Medway Council has not had an up-to-date Local Plan for some 20yrs. The vast majority of sites that have come forward are therefore not allocated and thus contribute to windfall provision. This significantly distorts the historic windfall delivery rate and fails to consider that moving forward a larger proportion of future windfall sites are likely to be allocated in the Local Plan, thus also raising concerns in respect of double counting.



- 4.4.4 Furthermore, it cannot be relied upon that all committed sites will come forward or for the full consented amount. A discount to these this part of the supply must also be applied with the supply also needed to be evidenced.
- 4.4.5 Having regard to the NPPF (para 71), this consultation Plan is not supported by any compelling evidence that would justify placing such significant reliance on the windfall supply or that the number is even realistic. Additional and robust evidence must therefore be produced to support such a high proportion of the supply coming from committed or windfall sites for the Plan to be "consistent with National Policy" and "Effective". This must include where necessary the allocation of additional sites to address any shortfall, which is considered likely.



# 5 LAND AT MILL HILL

# 5.1 THE SITE

- 5.1.1 The Site (circa 3.37ha) has previously been promoted through the Reg18a consultation for residential development and previous representations are enclosed for ease (Appendix 1). The Site has also been promoted through the LAA (REF RN1) for residential development with a proposed capacity for circa 100 homes.
- 5.1.2 The Site is located to the east of Gillingham, between Yokosuka Way and Lower Rianham Road. The Site is triangular in shape being contained by the adjacent roads as well as Lower Featherby Road to the east, alongside existing residential development.

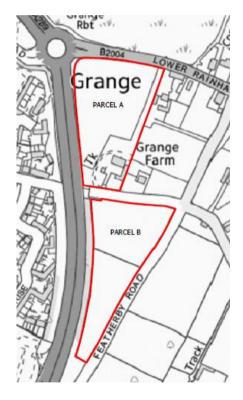


FIGURE 5.1: SITE LOCATION PLAN



# 5.2 INTERIM SUSTAINABILITY APPRASIAL

- 5.2.1 The accompanying Interim Sustainability Appraisal (ISA) provides a high-level assessment of all the Sites that have been promoted through the Local Plan and Call for Sites. This Site (RN1) has been included in the ISA and comments are provided below on how the Site has been assessed.
- 5.2.2 At this stage it is noted in the ISA that potential Site mitigation has not necessarily been taken into account when assessing the immediate suitability of the Sites. Additional information/commentary is therefore provided against the sustainability criteria, where we consider the assessment to be inaccurate or misleading in terms of the overall suitability of the Site for development.

# Objective 2: Climate Change Adaption

- 5.2.3 The Site is assessed as a double negative (--) in respect of flood zones and surface water flood risk. This is a misleading assessment, since the development area can be located outside the areas of flood risk and indeed this has been set out in previous representations.
- 5.2.4 The assessment of the Site should therefore be amended to "0".

#### Objective 3: Biodiversity and Geodiversity

5.2.5 Against the European sites criteria, the Site is assessed as "--" suggesting that it is within the Medway Estuary and Marshes SPA. This is incorrect. The Site lies outside this area, being located to the south of it. The assessment must therefore be amended from "--" to "-" in line with other assessments.

#### Objective 4: Landscape

5.2.6 The Site is assessed negatively against several of the landscape criteria, including Country Park, Landscape Character Assessment, Views from the PROW, Views experienced by local residents and coalescence. Each of these points are addressed in turn below. However, more fundamentally it cannot be correct that this Site scores similarly in landscape terms to Site LW8, for 2,075 homes in the Capstone Valley. The ISA therefore fails to take into account as part of its assessment the overall scale of the development and therefore its likely impacts. The Capstone Valley is also far more sensitive in landscape terms because of the wide views it offers as well as the separation between Hempstead and Lordswood. This must be



re-evaluated to ensure assessments are fair and reflective of the likely impacts of development.

# Country Park

- 5.2.7 There is no evidence that supports the conclusion that because the Site is close to a Country Park that development there might have a negative impact. The Country Park is located some 1.2km to the east of the Site. There is a smaller area of country park closer to the Site (some 500m to the east), which is not publicly accessible for ecological enhancement reasons. However, this is still some distance from the Site. The land to the north of the Site (towards the river Medway) and north of the Lower Rainham Road, is also visually contained by existing dense vegetation on rising round. This is further confirmed in the supporting Landscape Caracter Assessment (LCA), prepared by LUC which specifically notes that this area has a sense of enclosure as a result of landform and shelter belts with limited views out to the Estuary (pg 383 of the Assessment).
- 5.2.8 Given the distance of the Site from the Country Park, typography, as well as intervening development, the development of the Site would not negatively impact the Park. The assessment should therefore be amended against this criterion from "-" to "O".

#### Landscape Character Area

- 5.2.9 The LCA identifies that Site as lying within Landscape Character Area E1: Lower Rainham (LCA). The assessment does not assess the capacity of the character area or specific sites to absorb development. This therefore does not support the assessment of harm in the SA.
- 5.2.10 The Site is well contained by existing urban features, most notably the adjacent roads to the north and west as well as the existing residential development to the east. Overall, it comprises two relatively small parcels of land, bisected by a road. Because of the existing features, including the noise from the road to the west (Yokosuka Way), it is heavily impacted by existing urban features, therefore the contribution that it makes to the overall character and quality of this character area is therefore determined to be limited. Through the inclusion of suitable mitigation, including reinforcement of the boundary features, the assessment of the Site should be amended from "-" to "O".

# Views from the PROW

5.2.10 The Site is not visable from any public rights of way which are neither not within close proximity to the Site or because of the intervening landscaping and the



visually contained nature of the Site. The assessment must therefore be amended from "-" to "O".

# Views Experience by Local Residents

5.2.11 There is limited residential development adjacent to the Site, with the majority of the development located to the west and separated from the Site by Yokosuka Way, a dual carriageway. The views across the Site from the neighbouring residential development is also set within the context of the urban edge of Gillingham. Whilst there are views of the Site from neighbouring properties, the assessment of harm must be considered in the context of the quality of those views. The assessment should therefore be amended from "-" to "O". To reflect the low level of impact in this instance

#### Coalescence

- 5.2.11 The LCA does raises concerns about potential impacts on the LCA as a result of coalescence, principally in respect of development which has occurred closer towards Lower Rainham, in the east of the character area.
- 5.2.12 The gap between Gillingham and Lower Rainham is circa 2.7km. The Site, at its widest point is just 203 m wide accounting for just circa 7% of the overall gap. Given the limited nature of the development and the extent to which it is already contained by existing urbanising features, the development of the Site would not result in actual or perceived coalescence. The assessment of the Site against this criteria must therefore be amended from "-" to "0".

# Objective 5: Pollution

5.2.13 The Site is assessed as " - -" against the air pollution criterion. The threshold for this assessment seems to simply derive from the potential capacity on the Site for 100 homes. The assessment does not take into account mitigating factors such as electric cars. It is also cannot be a correct that a development of this scale is comparable to some sites which are being promoted for over 1,000 homes. Whilst it is recognised that a line must be drawn for the assessment, this appears to be arbitrarily low. The assessment should therefore be amended to "-".

# Overall Assessment for Excluding the Site

5.2.14 Table 8.14 summarises why sites are either included or excluded from the site selection. Mill Hill (Site RN1) is excluded for 3no. reasons, loss of BMV, coalescence and beyond reasonable walking distance to public transport.



- 5.2.15 Matters of coalescence have already been addressed.
- 5.2.16 Large parts of Medway comprise BMV land, including much larger proposed allocations on the Hoo Peninsula. This site relates to two very small, limited parcels of land, which are of are principally used for grazing. They do not form part of a larger field system; therefore the development of the Site would not have a significant detrimental effect on overall BMV land in the District, especially when compared to other alternative proposed allocations.
- 5.2.17 In respect of walking distances to public transport. There is a bus stop immediately adjacent to the Site on Lower Rainham Road. This is currently a school bus stop. The use of the bus stop could be expanded to provided other services. The existence of a bus stop (albeit for school) further underlines that it and therefore the Site is accessible by foot.
- 5.2.18 The reasons for excluding the Site are therefore not justified or suitably evidenced. For the reasons outlined the Site should be-assessed and identified as a suitable site for development.

#### 5.3 SUMMARY

5.3.1 There is limited information currently available as to how the ISA has been evidenced. However, as above a number of shortfalls and discrepancies in how the Site has been assessed have been identified and the ISA must be amended accordingly. Subject to the changes set out, the Site compares favourably with other preferred allocated Sites and is therefore suitable for inclusion in the Reg19 Local Plan.



# 6 DEVELOPMENT MANGEMENT POLICIES

# 6.1 OVRVIEW AND RESPONSE TO POLICIES AND QUESTIONS

6.1.1 The following section provides where appropriate responses to the questions in the Plan, which principally focus on the Development Management Policies. However, not all policies have an associated question, as such in some places, we comment on the policy itself. The following subheadings are set out in the order that they appear in the Plan.

Question 1: The Council could consider setting local standards for development that go beyond national policy/regulations in addressing climate change. What evidence would justify this approach, and what standards would be appropriate?

- 6.1.2 The PPG provides guidance in respect of climate change and specifically addresses whether Local Planning Authorities can set higher energy performance standards than building regulations in their Local Plan. The PPG specifically states that authorities "can set energy performance standards for new housing or the adaptation of buildings to provide dwellings, that are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes". (para 012 Ref ID: 6-012-20190315). Building Regulations now closely aligns with this.
- 6.1.3 The NPPF (para 16 f) further sets out that Plans should avoid unnecessary duplication of policies. Matters of energy performance are already addressed through Building Regulations, which support the transition to zero carbon, taking into account the availability of technology and other energy sources, to ensure developments remain deliverable. Planning policies should support proposals which seek to provide improvements over Building Regulations and not hamper innovation. However, it should not be a requirement to exceed Building Regulations, thus risking housing delivery, especially where this is not supported by the Council's evidence, including its Viability Assessment.



Question 2: Do you consider that the Council should seek to go beyond the statutory minimum of a 10% increase in BNG? What evidence can you provide to support your view?

- 6.1.4 The principle of BNG is supported in accordance with the statutory requirement of 10%. However, the increased requirement for 20% BNG is not "Justified" and is not supported by the Council's evidence base.
- 6.1.5 The Council's evidence base fails to take into account any additional space requirements to attain 20% BNG, which can vary significantly from site to site depending on habitats present. This can have significant spatial implications in terms of where development can be delivered on a site, including the overall quantum of development that can be achieved. Furthermore, it can significantly impact the viability and therefore the deliverability of developments, particularly brownfield sites, which often host more unique habitats which are harder and far most costly to replace under the BNG trading rules.
- 6.1.6 Simply, the Plan would fail to be "Effective" if the requirement was increased.

Question 3: Do you agree that the tariff based strategic approach applied to development within 6 km of the designated areas, supporting the delivery of the Bird Wise SAMMS programme represents an effective means of addressing the potential impact of recreational disturbance on the designated SPA and Ramsar habitats of the Thames, Medway and Swale Estuaries and Marshes.

6.1.7 We have no in principle objection to the tariff-based approach. The contributions are currently clearly set out within the Developer Contributions Guide, which is updated annually. This policy just formalises the existing approach in the Local Plan. However, with the increased levels of growth being proposed, this mitigation may need to be refreshed, to ensure it continues to provide an effective mitigation strategy.

# Policy T1 Promoting High Quality Design

- 6.1.8 Contrary to the requirements of the NPPF (para 16), the policy is neither clearly nor concisely written. However, the policy does introduce the requirement for all developments to demonstrate sustainability criteria, such as:
  - (1) Meeting the BREEAM standard of 'Very Good' for both energy and water efficiency; and
  - (2) Biodiversity 2020, and Building with Nature Standards



- 6.1.9 BREEAM is only applicable to non-residential development. There is no evidence to justify why development needs to adhere to Biodiversity 2020. This layers on additional unnecessary guidance, which repeats other policies aims in the Local Plan, competes or overlaps with BNG requirements. The above standards are therefore not considered "Justified".
- 6.1.10 We further note the requirement at the end of the Policy that all units are M4. This is a minimum building regulation requirement and as such does not need to be repeated in planning policy

# Policy T1 Promoting High Quality Design

- 6.1.11 The policy introduces the requirement for all developments to demonstrate compliance with sustainability criteria, such as:
  - (1) Meeting the BREEAM standard of 'Very Good' for both energy and water efficiency; and
  - (2) Biodiversity 2020, and Building with Nature Standards
- 6.1.12 BREEAM is only applicable to non-residential development. There is no evidence to justify why development needs to adhere to Biodiversity 2020. This layers on additional unnecessary guidance, which repeats other policies aims in the Local Plan, competes or overlaps with BNG requirements. The above standards are therefore not considered "Justified".

# Policy DM5: Housing Design

- 6.1.13 As currently written, it is not very concise, repetitive and repetitive other policies. The requirements of some elements of the policy are also not clear in terms of what the Council is seeking or how the requirement might be satisfied. For example, the last bullet point seeks a design for "flexible living: successful places that are robust and support long life and loose fit' neighbourhoods that are flexible and adaptable to rapidly changing circumstances". What standards does the Council intend to apply to help determine whether something is flexible living, and what are the key design criteria for long-life and loose-fit neighbourhoods?
- 6.1.12 The NPPF requires policies to be written so the decision maker knows how to react to development proposals (NPPF, para 20 d). There is no guidance to suggest how this requirement is to be satisfied. This criterion is therefore not "Justified" and must be removed. It is also urged that the other criteria are re-visited to determine if they are all necessary and whether what it being asked for is clear.



# Policy DM6: Sustainable Design and Construction

- 6.1.13 The policy introduces the following design requirements:
  - a) Include design principles founded on locally sourced and/or recycled materials; and
  - b) Any submission must include details of how the proposal is seeking to address the climate emergency with an aim to achieve or aspire to net zero carbon with due regard to Medway's current Climate Action Plan and Corporate Strategy. The whole life cycle of a building should be considered.
- 6.1.14 In terms of point a) it is not clear what is being asked for. This seems to ask for both local design techniques (whatever these might be) and/or use of recycled materials?. What is being asked for needs to be clarified. However, it must be acknowledged, that it might not be possible to meet either of these requirements, because of other design requirements such as building regulations or lack of available local materials.
- 6.1.15 In respect of b) See comments in respect of Policy S1, but this is now superseded by the requirements of Building Regulations. The matter is also already addressed under Policy S1. This should therefore be removed to avoid unnecessary repetition.

# Question 10: Do you think this policy provides effective guidance on the required housing mix in Medway?

- 6.1.16 The general thrust of the policy provides that the Local Housing Needs Assessment (LHNA) is the <u>starting point</u> for assessing the appropriateness of the range of housing types and sizes proposed, to ensure identified needs are met. However, it acknowledges that the mix must also be appropriate to the size, location and characteristics of the Site, which is essential to ensuring developments are in keeping with the local area.
- 6.1.17 The policy therefore provides effective guidance, as long as it continues to take a balanced approach, recognising that individual site circumstances must also be taken into account, and housing mixes do not entirely have to reflect the LHNA.
- 6.1.18 Notwithstanding, the policy as currently worded is repetitive and is in need of refinement. It also refers to self-build plots, which is already covered in Policy T9 and as such this reference should be removed.



Question 11: Do you agree with having a 10% requirement for affordable housing on urban brownfield sites and 30% requirement for affordable housing on greenfield sites and higher value urban locations? What do you consider would represent an effective alternative approach? Do you agree with a varied approach for affordable housing requirements based on the different value areas across Medway?

6.1.20 At this stage no specific comments are made in respect of the percentage of affordable housing being sought. However, in principle there is no objection to brownfield sites attracting a lower percentage requirement. However, the increased requirement for greenfield site (presently at 25% with a proposed uplift to 30%), must be kept under review alongside the accompanying Viability Appraisal. Should the Council introduce additional design requirements such as 20% BNG or other sustainability requirements i.e. net zero measures, this will impact viability and therefore the percentage of affordable housing development might be able to support.

Question 12: What do you consider would represent an effective split of tenures between social/affordable rent and intermediate/low-cost home ownership housing in delivering affordable housing?

6.1.21 It is considered that the policy should use percentages led by the need requirement set out in Table 7.1 of the Local Housing Needs Assessment which is reflected in Policy T3 (51% social/affordable housing & 49% affordable home ownership, including First Homes). The policy as currently drafted reflects this.

# Policy T9: Self-Build and Custom Housebuilding

9.6.1 Sites of 100+ dwellings will be expected to provide no less than 4% plots for self and custom build. However, the final number of plots to be provided should be informed by the level of interest identified on the Council's register. Furthermore, there should be an agreed marketing period, which releases the plot/s from being self or custom build, should the plot/s be unsuccessfully marketed within the agreed timeframes. Currently the above measures are not reflected in the policy, which should be amended accordingly to ensure housing meets identified needs and does no delay homes coming forward, if there is insufficient demand or need.



# 7 CONCLUSIONS

# 7.1 OVERALL SUMMARY

- 7.1.1 The Council's proposals to Plan to meet its full objectively assessed need is supported. The Council has persistently under delivered against its housing requirement, resulting in a significant housing need, both market and affordable which must be addressed.
- 7.1.2 Amend the "Vision" to include reference to housing. Whilst the "Vision" in general is supported, it is a significant failing that it does not mention the delivery of housing, a significant element of the Plan. In not addressing the need to deliver housing as an integral part of the "Vision" it fails to accord with the NPPF (para 15).
- 7.1.3 Extend the Plan period until at least 2042, to ensure it covers the required 15yrs at the point of adoption (NPPF, para 22).
- 7.1.4 Council must review its housing land supply position. Insufficient information is provided with the consultation document to determine if sufficient sites have been identified to address the identified need. The Council's reliance on permitted sites and extant permissions is also not evidenced or justified.
- 7.1.5 Additional sites, such as land at Mill Hill must be allocated for development to address the shortfall in housing numbers as a result of the extended plan period and likely reduction in the housing land supply from windfall and extent planning permissions.
- 7.1.6 Review the assessment of land at Mill Hill in the Interim Sustainability Appraisal. The Site performs better against the criteria than currently assessed and as such should be identified for development, as a site that is compatible with the Council's preferred spatial strategy for growth (SGO3).



planning transport design environment infrastructure land

# MEDWAY COUNCIL REGULATION 18 CONSULTATION RESPONSE

MILL HILL, GILLINGHAM

LAA REF RN1 OPUS SUBMISSION FORM REF: 264 RESPONDANT ID REF: 193

**CLIENT: PERSIMMONHOMES & TAYLOR WIMPEY** 

October 2023



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# 1 INTRODUCTION

# 1.1 PURPOSE OF THE STATEMENT

- 1.1.1 These representations have been prepared on behalf of Persimmon Homes & Taylor Wimpey in response to Medway Council's *'Setting the direction for Medway 2040'* Regulation 18 Local Plan consultation 2023. The consultation is a statement of the Council's commitment in getting a new Local Plan in place for the period 2022-2040 (18 yrs) and seeks to provide certainty in the direction for Medway's growth.
- 1.1.2 The consultation document is very high level and does not include any preferred strategy for growth but provides options for growth set within the background of the identified housing requirement, the "Vision" and "Strategic Objectives" set by the Council. These representations are made within this context and answer the following key questions:
  - 1) Do you have any comments about the proposed vision?
  - 2) Do you have any comments about the proposed strategic objectives?
  - 3) Do you have any comments about the considerations in developing the spatial strategy?
  - 4) Do you have any comments about the interim Land Availability Assessment?
- 1.1.3 In answering the above questions, it has been further demonstrated how land at Mill Road, Gillingham would positively contribute to meeting the strategic objectives of the Local Plan and spatial strategy for growth, which for the reasons we outline must draw on all the spatial options to deliver the identified housing requirement. Whilst the consultation document does not expressly invite comment on individual sites, it is highly pertinent to the consideration of the different spatial strategies to consider the suitability and deliverability of individual sites to ensure the Local Plan is deliverable and thus "Sound" (NPPF, para 35).
- 1.1.4 These representations must be read alongside the on -line form/platform which has been completed.



# 1.2 SUMMARY

- 1.2.1 As set out in full in the representation , the Local Plan must:
  - Plan to meet its <u>full</u> objectively assessed need. The Council has persistently under delivered against its housing requirement, resulting in a significant housing need, both market and affordable;
  - Extend the Plan period until at least 2042, to ensure it covers the required 15yrs at the point of adoption (NPPF, para 22);
  - Amend the "Vision" (para 3.1) to include reference to housing. Whilst the "Vision" in general is supported, it is a significant failing that it does not mention the delivery of housing a significant element of the Plan. In not addressing the need to deliver housing as an integral part of the "Vision" it fails to accord with the NPPF (para 15);
  - Amend the "Strategic Objectives" to include as an objective on its own the need to deliver housing to meet identified needs. This is necessary to accord with the NPPF (para 20) which requires the inclusion of strategic policies that set out the overall strategy and pattern for spatial growth, including for the provision of housing. The "Strategic Objectives" can therefore not be silent on this matter.
  - Ensure the potential supply of housing identified is deliverable and reliable, especially within the early part of the Plan period. Concerns are raised that the identified housing capacity of the respective housing pipelines identified are not accurate and/or are not deliverable within the Plan period, a wide range of sites therefore need to be allocated for development, such as land at Mill Road, Gillingham.
  - There is no one spatial strategy that can deliver the Council's full housing need. However, the spatial strategy must include "Suburban Expansion" sites.

# 1.3 STRUCTUREOF THE DOCUMENT

- 1.3.1 Below is an overview of the structure of the remainder of the consultation response:
  - Chapter 2 Provides feedback on the overall vision of the Local Plan;

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- Chapter 3 Provides commentary on the strategic objectives of the Local Plan;
- Chapter 4 Provides a response to the developing spatial strategy development needs of Medway, the housing supply position, pipeline development, windfall Supply and any other potential allocations;
- Chapter 5 Provides an overview of the Site setting out the reasons why land at Mill Road, Gillingham should be allocated;
- Chapter 6 Sets out the preferred spatial strategy and why this represents the most suitable and thus "Sound" option.
- Chapter 7 Provides a response on the land availability assessment; and
- Chapter 8 Sets out the overall conclusions.
- 1.3.1 Each section includes a "summary" which forms the basis of our response on the on-line form/platform.



# 2 VISION

# 2.1 THE PLAN PERIOD

- 2.1.1 The "Vision" for the Plan is 2022 - 2040 (18yr period). To provide the required 15 yr Plan period (NPPF, para 22), the Plan must be adopted in 2025. Given the Council's previous difficulties with progressing its Local Plan, the stage of consultation (Regulation 18), the change in administration, and based on the period of examination of other Local Plans i.e., Maidstone and Tunbridge Wells (over a 1yr) it is unlikely that the Council will be able to submit a Local Plan in 2024 for adoption in 2025. It would therefore be prudent to extend the Plan period until at least 2042 to provide a sufficient buffer should progress with and adoption of the Plan be delayed, ensuring it covers the minimum 15yr period required.
- 2.1.2 Notwithstanding the above, should the Council consider pursuing the Rural Development option as a spatial strategy for growth through the expansion of Hoo, then policies must set out a vision that looks further ahead, at least 30 yrs (NPPF, para 22). Curre ntly the "Vision" fails to do this, only looking to 2040.

# 2.2 COMMENTS ON THE VISION

- 2.2.1 The "Vision" for Medway encompasses broad policy principles for the future emerging Local Plan covering transport, employment, the environment, retail, waste and minerals.
- 2.2.2 It is noted that the "Vision" seeks to provide more sustainable and resilient development, strengthen and enhance the character of Medway including supporting green infrastructure, create a healthy place in which to live and work and provide decent places to live for all sectors and ages of the community. It further highlights Medway as a leading economic player in the region where it can support the business space attracting new investment. Alongside development, there should also be the provision of improved travel choices and infrastructure provision.
- 2.2.3 However, the "Vision" is silent on its intention to meet its identified housing need. It is similarly silent on its intention of addressing economic/employment needs. In-deed, the overarching principles for the "Vision" fails to identify housing at all (para 3.1) as forming an important component of the Plan.

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- 2.2.4 Whilst the "Vision" talks in general terms about how development is to be provided, central to the "Vision" must be "how much development is provided" as a matter that is fundamental to the framework for growth and spatial strategy as a determinative matte r. This is a significant failing, considering the "Context" identifies "the supply of new homes is central to the Local Plan" (para 2.7).
- 2.2.5 NPPF (para 15) states that:

The planning system should be genuinely plan -led. Succinct and up-to-date plans should provide a positive vision for the future of each area; a <u>framework for addressing housing needs</u> and other economic, social and environmental priorities; and a platform for local people to shape their surroundings.

- 2.2.6 In the absence of the "Vision" setting out its intention of how much development is to be delivered, specifically housing development, it does not provide a positive framework for addressing housing need contrary to the NPPF (para 15). This failing is furt her perpetrated by the "Strategic Objectives" (see Section 3 of this Statement), which also does not address the scale of housing provision that should be delivered, also contrary to the NPPF (para 20). This underlines the importance of the" Vision" setting out the intentions for growth.
- 2.2.7 The "Vision" as set out at para 3.1 must be amended as follows (new te xt in red):

The policies and growth strategy in the new Plan will deliver the vision for what we want to achieve for Medway by 2040. Our thoughts for what this vision could look like are set out below. The vision encompasses all aspects of policies in the new Local Pl an, including housing, transport, environment, retail, employment and waste and minerals.

2.2.8 Allied to this, a new paragraph must be added, or existing paragraphs amended as part of the "Vision" clearly setting out the intention of the Local Plan to meet identified housing and employment needs. The 7 the paragraph (un - numbered) could be amended as follows:

The Plan will seek to deliver at least 28,500 new homes to ensure the needs of all sections and ages of the community can find decent places to live. The quality of new development has enhanced Medway's profile, and driven up environmental standards in construction, and older properties have been retro - fitted to improve sustainability. Custom and self-build housing has provided new living opportunities for residents. Investment in new services and infrastructure, such as transport, schools, healthcare and o

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spaces, has supported house building to provide a good quality of life for residents.

- 2.18 The proposed change aligns with the "Development Needs" (para 5.4), which as set out in Section 4 of this statement the Plan must seek to deliver on.
- 2.19 The outline d changes are essential to ensure the Plan is "Positively Prepared", "Consistent with National Policy" and therefore "Sound" (NPPF, para 35).

#### 2.3 SUMMARY

- 2.3.1 The Plan period is insufficient and should be extended to at least 2042 allowing sufficient time for its adoption which is unlikely to happen in 2025, ensuring it covers the required 15yrs (NPPF, para 22).
- 2.3.2 Contrary to the requirements of the NPPF (para 15), the "Vision" fails to identify the provision of housing as in important component of the Plan (para 3.1) and does not set out how much development should be provided for. This is a central component of the Plan as a determinative matter for the spatial strategy. In not expressing the amount of development that is to be delivered, is also fails to be positively prepared and provide a suitable framework for addressing housing needs. The "Vision" must be amen ded at para 3.1 to reference housing and the supporting text amended to include reference to the delivery of at least 28,500 new homes.



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# 3 STRATEGIC OBJECTIVES

# 3.1 COMMENTS ON THE STRATEGIC OBJECTIVES

- 3.1.1 The consultation document sets out four strategic objectives to positively plan for the development and infrastructure needs of Medway whilst conserving and enhancing the natural, built and historic environment. The objectives are:
  - Prepared for a sustainable and green future;
  - Supporting people to lead healthy lives and strengthen our communities;
  - Securing jobs and developing skills for competitive economy; and
  - Boost pride in Medway through quality and resilient development.
- 3.1.2 As set out in the Plan (para 4.1), the objectives are to "feed into the wording of policies and how sites and different locations are assessed for potential development". It is therefore notable that there is no strategic objective dealing expressly with the amount of housing that needs to be delivered.
- 3.1.3 Whilst it is acknowledged that in general terms the objective of "Supporting People to Lead Healthy Lives and Strengthening Our Communities" mentions in general terms the types of housing to be delivered, but it does not set out how much. This is a determining factor in deciding what is the most appropriate spatial strategy and should inform the basis of future strategic policies, as required by the NPPF (para 20 and 23). In accordance with the NPPF (para 11 ), this should also reflect as a minimum the objectively assessed need (28,500 new homes or 1,667 pa)
- 3.1.4 In the absence of clearly setting out what the housing requirement is and whether the Plan is looking to meet its need (which it should, see Section 4), the process of using the stated objectives to inform the Council's assessment of different sites and locations for development cannot be considered as "Positively Prepared" or "Justified", contrary to the NPPF (para 35).
- 3.1.5 The "Strategic Objectives" must therefore be either expanded to include the amount of housing that is to be planned for , which must reflect the objectively assessed need as a minimum (NPPF, para 11b) or a new objective added which identifies th is.

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- 3.1.6 With regards to the spatial objectives more generally, the general principles are supported. However, they further highlight the need for the amount of development to be planned for must be expressed as an objective, since many of the other objectives are dependant on the delivery of housing including the ambitions for improved employment floorspace and higher value employment opportunities, which are also reliant on providing enough housing.
- 3.1.7 More generally, the objectives also only talk about development on brownfield land as part of its regeneration objectives. The objectives do not directly address the need to release greenfield land for development. This is misleading, since the release of greenfield sites is essential to meeting the objectives of the Plan and therefore must be referenced for clarity.
- 3.1.8 The consultation document (para 5.11) further mentions that the "the Council must consider if there is capacity to provide up to an additional 2,000 homes to help meet Gravesham's housing needs, following a request from the neighbouring authority". Again, the strategic objectives are silent on this matter, and it must be clarified whether the Council intends the Plan to help address this need, as a matter which is highly formative to the distribution of growth and selection of housing sites.

#### 3.2 SUMMARY

3.2.1 The strategic objectives as currently drafted do not provide a "Sound" basis to inform the development strategy, site selection or future planning policies, where they fail to set out the amount of development that is to be planned for. This is fundamental to informing the spatial strategy and policy making, especially in respect of setting strategic policies (NPPF, para 20). The objectives must therefore either be expanded or a new objective added which sets out that the Plan seeks to deliver its full objectively assessed need as a minimum (NP PF, para 11b). Furthermore, that greenfield land must be released to deliver this.

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# 4 DEVELOPING A SPATIAL STRATEGY

# 4.1 DEVELOPMENT NEEDS

- 4.1.1 The consultation document (p ara 5.3) sets out the development needs of Medway, identifying a current housing need of 1,667 homes pa or circa 28,500 over the Plan period (2022 2040). Para 5.4 casts doubt about whether this is an appropriate figure. However, it is considered essential that the Plan seeks to deliver development that meets Medway's objectively assessed need in <u>full</u>.
- 4.1.2 As evidenced in Table 3.1, the Council has consistently failed to deliver against its housing requirement since 1986, with it last meeting its requirement in only two consecutive years in 2008/08 and 2009/10. This has no doubt lead to the current acute shortage of housing in Medway and current identified need. During this time the need for affordable housing has also become even more acute, with an identified annual need for 870 affordable homes pa (Medway Local Housing Needs Assessment, October 2021, prepared by Arc4).
- 4.1.3 The growing need for both market and affordable housing lends emphasis to the requirement for the Council to plan to meet its full objectively assessed need, as required by the NPPF (para 11b and para 23 ), supporting the Government's objectives to significantly boost the supply of homes (NPPF, para 60).

Summa	ry of Historic	Housing Delivery	in Medway
Year	Completions	Requirement (at that time)	Difference
1986/87	1,118	1160	-42
1987/88	821	1160	-339
1988/89	1,454	1160	294
1989/90	1,467	1160	307
1990/91	391	1160	-769
1991/92	825	900	- 75
1992/93	769	900	-131
1993/94	669	900	-231
1994/95	546	900	-354
1995/96	644	900	-256
1996/97	598	900	-302
1997/98	702	900	-198
1998/99	698	900	-202
1999/20	719	900	-181
2000/01	603	700	-97

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2001/02	603	700	-97
2002/03	676	700	-24
2003/04	733	700	+33
2004/05	646	700	- 54
2005/06	562	700	-138
2006/07	591	815	-224
2007/08	761	815	- 54
2008/09	914	815	99
2009/10	972	815	157
2010/11	657	815	-158
2011/12	809	815	-6
2012/13	556	815	-259
2013/14	579	1000	-421
2014/15	483	1,000	-517
2015/16	553	1,000	-447
2016/17	642	1,000	-358
2017/18	680	1,334	-654
2018/19	647	1,683	-1,036
2019/20	1,130	1,662	-532
2020/21	1,087	1,586	-504
2021/22	1,102	1,657	-573
1986 /87 - 2021/22	27,407	35,727	-8 ,320

TABLE 3.1 SUMMARY OF HISTORIC HOUSING DELIVERY IN MEDWAY

- 4.1.4 It is noted that Gravesham Borough Council through its previous Regulation 18 consultation asked Medway to take 2,000 homes to assist it in meeting its housing need. Therefore, it is even more pressing that that the Council plans to meet its housing objective in full, since this could contribute to a worsening housing supply and affordability, if there is consistent under delivery of housing in this part of Kent (if Gravesham does not meet its needs). Medway Council should therefore work with Gravesham Borough Council to determine if it needs to and/or can accommodate any of its needs, to ensure the Plan is "Positively Prepared" (NPPF, para 35).
- 4.1.5 As a <u>minimum</u>, the objective to meet the objectively assessed need in full is supported, as required by National policy , with the Council to explore further whether it also needs to plan to meet any needs arising from Gravesham Borough Council or any other Council's (as appropriate) i.e Tonbridge & Malling, which also boarders Medway.

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# 4.2 HOUSING SUPPLY

4.2.1 The consultation document sets out the need for 1,667 homes pa, equivalent to 28,312 homes up to 2040 (circa 28,500 homes). The below section considers the potential pipeline supply of sites, with reference to the Land Availability Assessment (LAA), Interim Report, September 2023. Considering the supply of sites and their relative suitability and deliverability is highly relevant to the spatial strategy and potential preferred approach considered in Section 5.

# **Pipeline Development**

- 4.2.2 A pipeline supply of sites with planning permission for 7,583 homes, of which 2,061 homes are under construction as of 31 March 2023 is identified.
- 4.2.3 Based on the level of information available, it is difficult to determine with any level of certainty whether the purported supply is reliable. However, we have concerns over double counting on several of the sites shown in Appendix C and D of the LAA around Strood waterfront, the urban edge of Strood North and Finsbury, Cliff Woods and Rainham as several of the sites identified in Appendix D have been delivering homes before the start of the identified plan period in 2022. The Council should make it clear through its future evidence base how units delivered before 2022 have not been counted towards the overall supply.
- 4.2.4 Furthermore, it cannot be assumed that each one of these sites will come forward or come forward in full. For instance, consents can lapse or the full development potential of a site is not achieved , for example reserved matters is granted for fewer homes than consented under an Outline permission. Based on previous delivery rates, a discount rate must therefore be applied, allowing for an element of under implementation . As such the full 7,583 homes cannot be relied upon as part of the spatial strategy.

# Windfall Supply

- 4.2.5 Windfall development is defined at Annex 2 of the NPPF as sites not specifically identified in the Development Plan.
- 4.2.6 The NPPF (para 71) sets out that:

Where an allowance is to be made for windfall sites as part of anticipated supply, there should be compelling evidence that they will provide a reliable source of supply. Any allowance should be realistic having regard

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to the strategic housing land availability assessment, historic windfall delivery rates and expected future trends. (Our emphasis)

- 4.2.7 The consultation document sets out that 3,000 homes will be delivered from windfall sites. The Council has published a Housing Delivery Test (HDT) Action Plan (July 2022) as it has not met the requirements of the HDT 2021. This action plan identifies the delivery of large/windfall dwellings which on average since 2012 have delivered 919 dwellings per annum. This provides data on the historic delivery of windfall sites in Medway.
- 4.2.8 As acknowledged in the NPPF (para 71), the Council can make reference to historic windfall delivery. However, this must be considered in the context that the Council has not had an up -to-date Local Plan for 20yrs. The vast majority of sites that have come forward are therefore not allocated and thus contribute to windfall provision. This significantly distorts the windfall delivery rate.
- 4.2.9 Whilst the data provided in the HDT Action Plan (July 2022) may on the face of it provide the justification for a higher windfall rate, it is unclear as to how exactly the Council has arrived at a figure of 3,000 without an appropriate methodology being published. Though our experience, we are also aware that historically a high proportion of homes have come forward on brownfield windfall sites. The supply of such sites is not exhaustive, and it is noted that a significant number of brownfield sites are also identified in "Urban Regeneration" spatial strategy. There is therefore a high potential for doubling counting (brownfield sites propping up windfall supply but are then also allocated).
- 4.2.10 The 3,000 dwellings given over to the windfall allowance therefore seems optimistically high, especially where this does not count to the first five years of supply. In the absence of any detailed evidence, it is considered that the Council do not have a compelling case to rely on the delivery of 3,000 homes. The windfall supply through the Plan period should therefore be reduced.

#### **Potential Allocations**

- 4.2.11 The LAA identifies 447 sites across Medway that have the potential to supply 38,216 homes. This is above the housing requirement of the 28,312 homes (+ 9,904 homes). The sites can be broken down into four distinctive categories, which form the different spatial strategy options as follows:
  - Urban regeneration;
  - Suburban growth;

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- Rural development; and
- Green Belt loss.
- 4.2.12 The remainder of this section analyses the potential capacity of each category.

# Urban Regeneration Sites

- 4.2.13 The urban regeneration sites make up the second largest element of the potential supply, with the potential deliver 11,151 homes.
- 4.2.14 We have significant concerns regarding the reliability of this supply on the basis:
  - The development potential of many of the site s has been known about for some time, but they have yet /failed to come forward, including within more economically buoyant times, because of issues of viability or technical constraints:
  - Several of the sites are known to have complex landownership/leasehold constraints, preventing or delaying delivery;
  - The requirement to provide BNG is likely to be a significant constraint to brownfield sites coming forward, especially smaller sites.

# Suburban growth

- 4.2.15 Suburban Growth has the potential to supply 9,680 homes . Several sites within this category are not considered suitable , such as:
  - In Capstone and Darland in areas of local landscape importance /sensitivity adjacent to or in the Country Park or being sites of special nature conservation/local nature reserves;
  - Sites on the southern boundary of Medway's administrative area with Maidstone Borough Council where there are long-standing concerns regarding deliverability due to issues of access and landownership, resulting in lapsed consents;
  - Sites to the north of the settlement confines of Rainham , which have been subject to previous unsuccessful Appeals must be discounted, including sites detached from the urban area, which do not form a logical extension or outpost for development, being unsustainably located.







# Rural Development

- 4.2.16 Rural development has the potential to supply 14,736 homes. The majority of the rural housing sites are on the Hoo Peninsula centred around the settlements of Chatterden, Cliffe, Cliffe Woods, Allhallow s, Hoo St Werburgh High Hailstow, Lower Stoke and the Isle of Grain.
- 4.2.17 This is the single potential largest supply of housing. The following concerns are raised regarding many of the sites.
  - The sites identified around the settlements of Allhallows, the Isle of Grain and Lower Stoke are within the periphery of Medway's administrative area with limited access to sustainable modes of transport and every-day services to meet the needs of the existing and future residents of the settlement. Many of the sites proposed for development in these areas are large and propose a scale of development that is either disproportionate to the settlement and/or is unsustainably located having regard to the Council's strategic objectives;
  - The peripheral sites around the edge of Cliffe Woods do not form logical extensions to the settlement in this Plan period given the existing pipeline of development to the south and west of the settlement that have either been granted planning permission all have live planning applications submitted to the Council;
  - Development whether it be for future employment, residential or mixeduse development on the Hoo Peninsula is reliant on the existing road network. Medway Council lost its Housing Infrastructure Funding (HIF) of £170 million in July 2023 to deliver the expansion of Hoo. This significantly reduces the ability of any development in Hoo to form a reliable part of the Council's housing land supply and therefore cannot be relied upon.

#### Green Belt Loss

4.2.18 Only represents a potential supply for 2,649 homes and therefore cannot be considered a suitable spatial strategy in light of the housing need.

#### 4.3 SUMMARY

4.3.1 There are significant concerns regarding the pipeline supply and windfall allowance, how these have been calculated and whether they can form a reliable

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- part of the Council's housing land supply. The number of sites needing to be allocated for housing is therefore likely to be higher than currently anticipated.
- 4.3.2 In addition, no one of the spatial options can deliver on the Council's housing requirement. A combination of options is therefore essential to ensuring the objectively assessed need is met, including allocating sites within the "Suburban Expansion" option, such as Land at Mill Road, Gillingham, as set out in Section 5.

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# 5 LAND AT MILL ROAD, GILLINGHAM

# 5.1 OVERVIEW OF ALLOCATION OPPORTUNITY

5.1.1 The Site has been promoted through the LA A (REF RN1) for residential development. The Site is included within the Suburban Expansion opportunity. The allocation of the Site for circa 100 homes would offer the following:

# Deliverability within 5 yrs

- The Site is controlled by two National housebuilders with a strong track record of delivery in Medway.
- The Site is not constrained and is of a size that can be delivered within 5 years ensuring it can contribute to the immediate supply of housing.
- There are no viability constraints, meaning unlike some regeneration sites, the proposals will be able to deliver affordable housing in line with policy requirements, contributing to meeting a significant unmet need.

# Contributing to a range of site s

- To secure a robust and deliverable housing land supply, the NPPF (para 69) advocates Local Plans identifying a mix and range of small and medium sized sites, recognising the important contribution these can make to housing land supply, since they are often built out quickly. The Site would contribute to this, as well as contribute to providing variety in terms of location to respond to different market needs.
- Contribute to the provision of family housing. The urban regeneration sites are more likely to include higher proportions of apartments and a mix of housing types will be required to meet different needs.

# **Opportunities**

- The Site is well located close to existing services and facilities and would represent a sustainable urban extension, which would contribute to the upgrading of existing facilities to meet its residents needs.
- The Site is not of a size that it would significantly contribute towards highway constraints and could come forward in the immediate term. The



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Site is however well related to existing pedestrian and cycle transport links and is therefore accessible by a range of modes of transport.

- Many of the sites identified within the Suburban Extensions and Rural Development Sites lie with an ALLI, which cover much of Medway. The Site is well contained and is not publicly accessible, the Site's contribution to function and purpose of the "Gillingham Riverside" ALLI is therefore limited. As such, the development of the Site will not undermine the purpose and function of the ALLI and would therefore have limited landscape impacts, unlike many of the other sites put forward.
- The Site is paddocks and is of low ecological value. The development is not constrained by ecology, and it is expected that 10% BNG can be easily achieved on the Site.
- Development can be positioned outside the areas of flood risk, which cover only a small proportion of the Site. These areas provide opportunities for open space and ecological enhancement through the provision of new/more varied habitats.
- The consultation document recognises that a number of the sites within the Suburban Expansion spatial strategy include Grade I Agricultural Land. However, this is common to much of Medway and the need to develop on Grade I is likely to be required. However, this Site is made up of (two quite small and constrained sites for farming, currently used as paddocks), BMV is not considered to be a constraint to development and its loss outweighed by the significant housing need.
- The Site is not constrained by any heritage considerations.
- 5.1.2 The Site is located in a highly sustainable and accessible location. The Site is relatively unconstrained, with no constraints identified that would prevent it coming forward for housing. The development of the Site for housing therefore provides the opportunity to support the ongoing regeneration of Medway, by delivering growth and contributing to the viability of Gillingham. Furthermore, it would provide an important contribution towards the immediate supply of housing and diversification of sites in line with the NPPF (para 69).







# 6 PREFERRED SPATIAL STRATEGY

# 6.1 PREFFERED SPATIAL STRATEGY

6.1.1 As is evident from Table 1 of the consultation document no single development scenario supplies enough homes to meet the objectively assessed need. The consultation document is therefore misleading in asking for comments on a preferred development option (suggesting there is only one option for growth) , when a combination of all the options is likely to be required. However, having regard to the Site at Section 5, the preferred development option is "Suburban Expansion".

# Option 2 - Suburban Expansion

- 6.1.2 This focuses on land around Gillingham, Rainham and the south of the administrative area in Capstone. Whilst we have raised concerns about several of the sites within this category coming forward, this is the preferred spatial strategy, where in the main they relate well to the existing urban area and form sensible and sustainable extensions.
- 6.1.3 Since these sites are greenfield sites and therefore mo st likely to be deliverable over the Plan period, (especially within the first 5 years), they form a more reliable supply. They are also more likely to be able to secure community benefits and infrastructure, including much needed affordable housing and unlikely to be constrained by issues of viability, such as sites under Option 1 (Urban Regeneration) and 3 (Rural Expansion).
- 6.1.4 Sites such as Land at Mill Road will form an important part of the Council's supply, being unconstrainted and can be delivered quickly allowing time for larger more complex sites to come forward, later in the Plan period.

# 6.2 SUMMARY

6.2.1 To meet the identified housing requirement in full, housing will need to be allocated drawing on a number of the spatial strategies. However, the preferred spatial strategy is the suburban expansion strategy , which must include Land at Mill Road, Gillingham.

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# 7 OTHER COMMENTS ON THE LAND AVAILABILITY ASSESSMENT

7.1.1 No comments at this stage. However, at this stage it is noted that it does not include any technical analysis and we reserved the right to comment on the LAA at a later stage.

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# 8 CONCLUSIONS

# 8.1 OVERALL SUMMARY

- 8.1.1 Plan to meet its full objectively assessed need. The Council has persistently under delivered against its housing requirement, resulting in a significant housing need, both market and affordable.
- 8.1.2 Extend the Plan period until at least 2042, to ensure it covers the required 15yrs at the point of adoption (NPPF, para 22).
- 8.1.3 Amend the "Vision" (para 3.1) to include reference to housing. Whilst the "Vision" in general is supported, it is a significant failing that it does not mention the delivery of housing, a significant element of the Plan. In not addressing the need to deliver housing as an integral part of the "Vision" it fails to accord with the NPPF (para 15).
- 8.1.4 Amend the "Strategic Objectives" to include as an objective on its own the need to deliver housing to meet identified needs. This is necessary to accord with the NPPF (para 20) which requires the inclusion of strategic policies that set out the overall strategy and pattern for spatial growth, including for the provision of housing. The "Strategic Objectives" can therefore not be silent on this matter.
- 8.1.5 Ensure the potential supply of housing identified is deliverable and reliable, especially within the early part of the Plan period. Concerns are raised that the identified housing capacity of the respective housing pipelines identified are not accurate and/or are not deliverable within the Plan period, a wide range of sites therefore need to be allocated for development, such as land at Mill Road, Gillingham.
- 8.1.6 There is no one spatial strategy that can deliver the Council's full housing need. However, the spatial strategy must include "Suburban Expansion" sites.

