Onshore Cable Route

Travel Plan

DCO Requirement 27

Applicable to Works No.s 5B to 20, 25 to 38, 41 to 49 and 52 to 61

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1	31/08/21	Kay Griffin	Phil Rew-Williamson	Catherine Sibley	-
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Description of Revisions			
Rev	**Page**	**Section**	**Description**
1	All	All	New Document
2	All	All	Amendments made throughout document in repsonse to consultee comments on Interim Draft and cable route layout design
3	All	All	Amendments made throughout document in repsonse to consultee comments on Final Draft and cable route layout design

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1. INTRODUCTION AND SCOPE

1.1. Project Overview

1. East Anglia Three Limited (EATL) was awarded a Development Consent Order (DCO) by the Secretary of State, Department of Business, Energy & Industrial Strategy (DBEIS) on 7 August 2017 for the East Anglia THREE Offshore Windfarm (EA THREE). The DCO granted consent for the development of a 1,200MW offshore windfarm and associated infrastructure.

2. The DCO has now been subject to three non-material variations:

- In March 2019 EATL submitted a non-material change application to DBEIS to amend the consent to increase the maximum generating capacity from 1,200MW to 1,400MW and to limit the maximum number of gravity base foundations to 100. In June 2019 DBEIS authorised the proposed change application and issued an Amendments Order.
- In July 2020 EATL submitted a second non-material change application to DBEIS to amend the parameters of its offshore substations (reducing the number of these to one) and wind turbines (a decrease in the number of turbines and an increase in their hub height and rotor radius). On 15 April 2021 DBEIS authorised this proposed change application and issued an Amendments Order.
- In August 2021 EATL submitted a third non-material change application to DBEIS to amend the consent to remove the maximum generating capacity of 1,400MW and to amend the parameters of its wind turbines (a decrease in the number of turbines and an increase in their hub height and rotor radius). In September 2022 DBEIS authorised the proposed change application and issued an Amendments Order.

3. The onshore construction works associated with EA THREE will have a capacity of 1,400MW and transmission connection of 1,320MW. The construction works will be spread across a 37km corridor between the Suffolk coast at Bawdsey and the converter station at Bramford, passing the northern side of Ipswich. As a result of the strategic approach taken, the cables will be pulled through pre-installed ducts laid during the onshore works for East Anglia ONE Offshore Windfarm (EA ONE), thereby substantially reducing the impacts of connecting to the National Grid (NG) at the same location. The infrastructure to be installed for EA THREE, therefore, comprises:

- The landfall site with one associated transition bay location with two transition bays containing the connection between the offshore and onshore cables;
- Up to four onshore electrical cables (single core);
- Up to 62 jointing bay locations each with up to two jointing bays;
- One onshore converter station, adjacent to the EA ONE Substation;
- Three cables to link the substation to the National Grid Bramford Substation;
- Up to three onshore fibre optic cables; and
- Landscaping and tree planting around the onshore converter station location.

4. Since the granting of the DCO, the decision has been made that the electrical connection for EA THREE will comprise a high voltage direct current (HVDC) cable rather than a high voltage alternating current cable and, therefore, the type of substation that will be required is a HVDC converter station. The substation will, therefore, be referred to here as a 'converter station' and this amended terminology has been agreed with the relevant authorities on 15 October 2020. It has also been determined that only one converter station will be constructed rather than two that will be installed in a single phase.

5. The EA THREE onshore works commenced development in July 2022, with works at the Converter Station, Paper Mill Lane, Playford Corner and Clappits.

1.2. Purpose and Scope

6. This plan has been produced to fulfil DCO Requirement 27 Part (1)(b) which states:

> *27. (1) No stage of the connection works may commence until for that stage the following have been submitted to and approved by the relevant local planning authority in consultation with the relevant highway authority—*
>
> *(b) a travel plan which must be in accordance with the outline travel plan;*

7. The scope of this document relates to the Travel Plan associated with the construction of the onshore cable route that runs from the landfall location at Bawdsey to the onshore Converter Station works located near Bramford, Suffolk (Figure 1 Site Context Plan). These works comprise Work No.s 5B to 61, as defined in the EA THREE DCO. The Requirement Discharge Documents (RDDs) relating to the construction and installation of cable route infrastructure within the Clappits Works Stage (Work No.s 21 to 24), Playford Corner Works Stage (Work No.s 39 and 40), Paper Mill Lane Works Stage (Work No.s 50 and 51) and Converter Station Stage (Work No.s 62 to 69) have previously been discharged. For the sake of completeness and to provide a suite of comprehensive RDDs for use by the Principal Contractor for the cable route (NKT), the infrastructure and activities that fall within these areas and the associated management measures for these will also be addressed in this document. Nevertheless, this document seeks only to discharge this Requirement with respect to Works No.s 5B to 20, 25-38, 41-49 and 52 -61.

8. This document is intended to set out a plan to meet key objectives which will maximise the sustainability of travel methods used to get to and from the cable route construction works, to reduce the associated volume of vehicular traffic and therefore minimise the carbon footprint generated and the impact on the environment and surrounding communities. This will involve ensuring that methods of travel used are more sustainable – e.g. minibuses/crew buses instead of cars – and that the need for travel to and from site is absolutely required.

9. While this Travel Plan is a full Travel Plan (rather than an Interim Travel Plan in the terminology used by Suffolk County Council (SCC) guidance (SCC, undated) (see Section 5.2.2)), this Travel Plan is a dynamic, living document that will be updated as required following review of monitoring outputs, to ensure that the aims and objectives represent the up-to-date situation in respect of travel and access. This Travel Plan will be in use for the duration of the construction phase associated with the cable works and, therefore, regular monitoring and review will be essential to ensuring that the document remains relevant.

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10. This Travel Plan has been developed with consideration for the scale of the development and the likely impact on travel behaviour for construction staff and vehicles as a result of any potential measures.

11. EATL will work with the SCC Highways Authority to ensure appropriate resourcing is in place to monitor compliance with the provisions of this Travel Plan.

12. The information contained herein shall be adhered to by the appointed Principal Contractor and implementation and compliance will be monitored by the Construction Management Team. These measures will only be revised with the agreement of Mid Suffolk District Council (MSDC), East Suffolk Council (ESC) and Suffolk County Council (SCC). Any revisions to the Travel Plan will be issued with the quarterly monitoring report (see Section 10.2).

1.3. Objectives

13. A Travel Plan is an important tool for delivering sustainable access to a development. It provides a strategy that seeks to deliver sustainable transport objectives through positive action. This Travel Plan seeks to establish clear outcomes to be achieved in relation to access and sets out all the measures to be implemented, with timescales, targets and responsibilities for implementation, monitoring and review.

14. An Outline Travel Plan (Document 8.8 of the Environmental Statement (ES)) was produced to support the EA THREE DCO application. This Travel Plan has been produced in accordance with the principles, objectives and guidance provided within the Outline Travel Plan which provides the necessary guidance to formulate a plan for managing the potential increase in vehicular traffic as a result of EA THREE onshore construction works.

15. From a transport planning perspective, the onshore cable route has challenging features such as, a specialist workforce, which is widely disbursed and travelling from remote locations. Without intervention, the workforce would have the propensity to use private car travel to site and many of those journeys would be single occupancy. This in turn could lead to significant environmental impacts on the local highway network and the surrounding communities in the vicinity of the onshore cable route.

16. A review of the transport network within the project study area (Section 6 refers) has concluded that the existing public transport, road and public right of way networks offer few opportunities to access the site by walking, cycling or public transport and therefore these modes are unlikely to make a material contribution to the construction personnel travel choices. To address this, a Travel Plan strategy has been developed which concentrates on transporting personnel to site, at a minimum occupancy of 1.5 employees per vehicle (with a preferred occupancy of 2.5 employees per vehicle), to manage the impact of the construction workforce traffic. This requires intercepting employees at journey origin with multiple pick-ups by minibus/crew bus and car share syndicates with the aim of reducing single occupancy vehicles. In addition, the Travel Plan Strategy includes the following key features for the project as a whole:

- Preventing employees travelling direct to certain sections of the cable route (i.e. sections 1 to 7 and 9 to 10 as shown on Figure 3 during the main cable route construction phase)(see Section 5.3);
- The restriction of travel to the two Primary CCSs, converter station and onshore cable route sections 8 and 11 by single occupancy cars; and
- The provision of minibus/crew bus transfer from the Primary CCSs to sections 1 to 7 and 9 to 10.:

17. The main objectives of this Travel Plan aim to bring a sustainable transport arrangement to the daily construction operations and can be summarised as follows:

- Achieve a minimum occupancy of 1.5 employees per vehicle and where possible to meet a stretch target of 2.5 employees per vehicle;
- Achieve a minimum percentage of trips made by minibus/crew bus pick-up service of 35%;
- Achieve the minimum number of single car occupancy car traffic movements to and from the development in order to minimise traffic impacts on local communities and commuters;
- Reduce the need for travel to and from site; and
- Address the access needs of site users, by supporting cycling, walking and public transport; and
- Outline the performance standards required of the Principal Contractor to ensure the project is managed within the bounds of the employee generated traffic impacts assessed in Appendix 1 (Traffic and Transport Technical Note (see paragraph 70).

18. In contrast to a more typical workplace Travel Plan, construction employees would be in a contractually controlled environment, ensuring that monitoring and enforcement regimes are more readily accepted.

2. ABBREVIATIONS

CCS	Consolidated Construction Site
CIHT	Chartered Institution of Highways and Transportation
CLO	Community Liaison Officer
DBEIS	Department of Business, Energy and Industrial Strategy
DC	Direct Current
DCO	Development Consent Order
EA ONE	East Anglia ONE Offshore Windfarm
EA THREE	East Anglia THREE Offshore Windfarm
EATL	East Anglia THREE Limited
ES	Environmental Statement
ESC	East Suffolk Council
HVDC	High Voltage Direct Current
MSDC	Mid Suffolk District Council
MW	Megawatt
NCR	National Cycle Route
NG	National Grid
NPPF	National Planning Policy Framework

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PRoW	Public Rights of Way
SCC	Suffolk County Council

3. CONSTRUCTION DETAILS

3.1. Construction Overview

19. The construction works will be undertaken across a 37km corridor between the Suffolk coast at Bawdsey and the Converter Station at Bramford, passing the northern side of Ipswich. The cables are to be installed through pre-installed ducts, laid during the onshore construction works for the EA ONE project. Construction has started on the cable route at three locations where Construction Consolidation Sites (CCS) will be located, at Playford, Paper Mill Lane and Clappits. This next phase of the construction works are expected to begin in Spring 2024 with an expected completion in December 2025. The construction activities within the onshore cable route will be as follows:

- Any minor temporary modifications to the public road network.
- Establish 3 additional CCS (approximate duration of 6 weeks for the establishment of each CCS).
- Establish 29 accesses from the public highway. These may require Section 278 Agreement with the Local Highways Authority (see Appendix 2 Transport Route Assessment of the Traffic Management Plan (EA3-LDC-CNS-REP-IBR-000080) for details).
- Establish up to circa 12.7km of stone haul road to access the jointing bay locations from the access points;
- Install 6.4km of proprietary trackway system to reach, *inter alia,* both ends of each Horizontal Directional Drill (HDD). HDDs will be accessed by proprietary trackway system from the jointing bay hardstandings or access points to allow each HDD to be proved.
- Establish 29 temporary jointing bay compounds (including 2 transition jointing bays) (approximate duration of 2 weeks for each compound).
- Excavation of jointing bay pits to locate the existing ducts at each jointing bay location (approximate duration of 3 weeks for each jointing bay location);
- Construct jointing bays (approximate duration of 3 weeks for each jointing bay).
- Transport of cables to site, from designated port to an off-site cable storage location and on to the jointing bay locations.
- Duct proving along the cable route.
- Pull cables through ducts and undertake jointing (approximate duration of 3 weeks per location).
- Backfill and reinstatement of jointing bays (approximate duration of 2 weeks).
- Remove temporary jointing bay hardstandings / compounds and CCS Compounds, haul roads, trackmatting and access points.
- Reinstate all disturbed land, permanent fences, replacement hedges and vegetation with suitable hedgerow species, during the first appropriate planting season.

20. The layout of the above infrastructure is shown in Figure 1 Site Context Plan. The locations of the soil bunds are currently indicative and may be moved within the previously disturbed areas, following agreement with EATL, the Ecological Clerk of Works (EcoW) and the Archaeological Consultant. Similarly, the stone haul road/ trackway may also be moved laterally within a distance of +/-5m, following agreement with EATL, the ECoW and the Archaeological Consultant. Currently 12.7km of stone haul road and 6.4km of proprietary trackway are proposed, however it may be possible to reduce further the quantity of stone haul road required by using trackway where practicable. The use of trackway is less invasive (being placed directly on the topsoil) and requires fewer HGV movements. EATL commits to consulting MSDC, ESC and SCC (as applicable) with regards to any changes to the layout, should the design change significantly (e.g. changes to: highway access routes including access routes into and along the cable corridor; number of jointing bays; and anything that potentially requires archaeological assessment and mitigation).

21. Circa 8 teams of 5 workers will work in parallel across the cable route, installing the infrastructure at each location.

22. Temporary modification of the existing road networks may be required, such as localized widening, socketing of street signs and temporary moving of street furniture to allow the passage of larger HGVs, as set out in the Access Management Plan (EA3-LDC-CNS-REP-IBR-000079). This will be undertaken prior to construction commencing within relevant sections of the cable corridor route.

3.2. Construction Consolidation Sites (CCS)

23. The installation of the cable will require two 'Primary Construction Consolidation Sites' (PCCS) and four 'Secondary Construction Consolidation Sites' (SCCS), as set out in Table 3-1. All the proposed CCS will be within areas that were previously used for the EA ONE construction works.

Table 3-1 – Construction Consolidation Site Locations

CCS Type	Address	Dimensions (m^2)	Comments
Primary	Paper Mill Lane, Claydon, Ipswich, Suffolk IP6 0AP	3,577	Installed 2022 HGV turning area and parking 1,750m^2
Primary	Top Street, Martlesham, Suffolk IP12	3,572	HGV turning area and parking x 1,400m^2
Secondary	Bullen Lane, Bramford, Ipswich, Suffolk IP8	1,200	
Secondary	Playford Corner, Playford Mount, Ipswich, Suffolk IP6 9DS	581	Installed 2022
Secondary	Clappits, Woodbridge Road, Newbourne, Woodbridge, Suffolk IP12 4PA	1,185	Installed 2022/2023
Secondary	Landfall, Ferry Road, Woodbridge, Suffolk, IP12 3AS	1,200	Installation and use of CCS to be undertaken using Permitted Development Rights

24. As shown in Table 3-1, the dimensions of the CCS will be in accordance with Part 3, Requirement 12(9) of the DCO which limits the size of the PCCS to 3,600m^2 and the SCCS to 1,200m^2.

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25. The PCCSs will:

- Provide areas for the storage of materials and equipment;
- House site administration and welfare facilities for the labour resources;
- Form an interchange hub for deliveries of material, equipment and resources; and
- Allow HGVs to park prior to entering the local road network during peak hours.

26. The SCCSs will function as hubs for distribution along the cable route and will include welfare facilities with some limited storage of materials and equipment. SCCS may also include site offices.

27. The Paper Mill Lane PCCS will be the main administrative compound for the onshore works. Top Street PCCS and Landfall SCCS also include designated office space.

28. The CCS will be constructed as follows:

- Mark out the extent of CCS with use of Global Positioning Systems (GPS) Real Time Kinematic (RTK) setting out equipment;
- Set out and install drainage features as required. Any encountered existing field drains will be located, capped or diverted to areas where any outfall can be managed in accordance with the Surface Water and Foul Drainage Management Plan (EA3-LDC-CNS-REP-IBR-000081);
- Erect security fencing around the perimeter of CCS;
- Excess vegetation to be removed from soil and from site prior to soil stripping. Strip topsoil under conditions where the topsoil is within its plastic limit with regards to moisture content to minimise damage to the soils structure and texture and store in designated areas within the same field boundary, all in accordance with BS3882, British Standard Topsoil and the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009). The removed vegetation will be either disposed of offsite or used on site for weed suppression in accordance with the correct licence/exemption;
- Excavate to formation level and store any excess material. Topsoil and subsoil storage bunds will be placed in bunds locally separately, the topsoil bund being seeded, if they are to be stored for longer than 6 months. Subsoil bunds will be kept weed free;
- Place imported stone in accordance with the CCS base structure design. Hardstandings will be installed in line with temporary works design assessments and may typically be circa 600mm thick;
- Install prefabricated site offices, meeting room and welfare facilities, where required.

3.3. Accesses, Stone Haul Roads and Trackway

29. Existing accesses and farm tracks will be used where possible (with reinforcement where necessary) to access the jointing bay and HDD locations. Circa 12.7km of 5m wide stone haul road will be installed, in accordance with the permitted 18.05km (as set out in Part 3, paragraph 12(12) of the DCO). In addition, 6.4km of proprietary trackway system will be used to access, *inter alia*, the HDD proving locations. All tracks will, as far as reasonably possible, follow the track bed used for EA ONE.

30. There will be several HGV turning points and passing bays along the stone haul road and trackway. These are to provide HGVs with a safe location to turn round after driving onto the easement from the public highway and to reverse as short a distance as possible to the leading edge of the haul road/trackway construction. Over longer lengths of haul road/trackway further HGV turning points will be constructed allowing the HGV to drive along the haul road/trackway and reverse shorter distances.

31. The routing of the stone haul road/ trackway will be set out using GPS RTK equipment. For trackway, the proprietary trackway matting would be installed directly on the existing topsoil. For stone haul road the construction will be as follows:

- Set out the site tracks with the use of GPS RTK equipment;
- Erect and maintain suitable signage and goal posts where the temporary road runs under overhead lines in accordance with HSE GS6 "Avoiding danger from overhead power lines;
- Set out and install drainage features along the edges of the length of road to be constructed. Any impacted existing field drains will be located, capped or diverted to areas where any outfall can be managed in accordance with the Surface Water and Foul Drainage Management Plan (EA3-LDC-CNS-REP-IBR-000081;
- Clear vegetation, strip topsoil and subsoil material for storage in separate designated stockpiles with suitable signage.
- Topsoil storage bunds will be stored locally and seeded if they are to be stored for longer than 6 months. Subsoil bunds will be kept weed free.;
- Excavate to formation level and store any excess material;
- Test the existing ground conditions to ensure suitability of the temporary works design and bearing capacity for the haul road and hard standing areas;
- Layers of stone and geotextiles/geogrid will then be placed on the cleared surface.

32. Based on the temporary works design and the soil bearing capacity, the 450mm thick stone haul road is likely to include one layer of non-woven geotextile and a layer of Geogrid 30/30 placed on the compacted sub-soil, with a second layer of geogrid 30/30 installed after 300mm of stone is place.

33. Where the stone haul road/trackway crosses over an existing watercourse, a flume will be installed temporarily to allow crossing of the watercourse and the continued flow of the watercourse beneath. When the watercourse is too wide to flume with a single board pipe, a proprietary bridge will be utilised. (See the Watercourse Crossing Method Statement (Appendix 12 of the Onshore Cable Route Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000084).

3.4. Jointing Bay Compounds

34. 27 jointing bay compounds will be required, in addition to a compound for the 2 transition jointing bays at landfall. The jointing bay compounds will comprise hard standing to provide a working platform and to accommodate containers, drum trailer movement, parking, and welfare. The jointing bay compounds will have areas up to a maximum of 3,690m² (In accordance with Part 3 Requirement 12(11) which limits the area to 3,740m^2). A typical layout is shown in Figure 2 of the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000084).

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35. Once the location of the jointing bay compounds has been established (using GPS RTK equipment), the creation of the compound will commence with erection of security fencing, removal of topsoil layer and installation of hard standing areas. The jointing bays (25m x 5m) will then be excavated to a depth of up to 2.5m with adequate slope batter or shoring on all sides of the excavation to prevent the soil from collapse. The existing ducts will be exposed and concrete slabs constructed to provide a level working area. Drainage channels and a sump pit will be included to facilitate drainage and dewatering. Installation and jointing of the cables will then take place before the earth link boxes and fibre optic boxes are installed and the area back filled with subsoil and Cement Bound Sand, as required.

36. Earthing link boxes will be installed within the cable system on every fourth jointing bay. All link boxes will be installed into a link box chamber that will be buried to below plough depth at a minimum of 1.2m, within the jointing bay.

37. To enable the fibre optic cable pulling through the already installed ducts, a pulling chamber will be installed at every jointing bay location. All cable joints, link boxes and pulling chambers will be buried to below plough depth of 1.2m.

3.5. Duct Proving

38. The ducts to be used for EA THREE, which were installed during the EA ONE project construction works, will require cleaning and proving to ensure that they are intact, free of debris and ready for cable installation. Cleaning and proving will be undertaken by using a foam sponge pig, driven under air pressure from jointing bay to jointing bay followed by drawing a brush and mandrill through from jointing bay to jointing bay.

39. Each set of HDD ducts will also require proving. A larger diameter duct was installed at the HDD locations than is used along the rest of the cable route. Therefore, an excavation (2m x 3m x 1.5m) will be made at each end of each of the HDD locations at the duct diameter transition location. The transition coupler will be removed before cleaning and proving the HDD ducts as described above.

40. The construction of the two transition jointing bays within the transition bay compound is addressed in the Landfall Method Statement (EA3-LDC-CNS-REP-IBR 000078) (Reference to jointing bays in the remainder of this document also includes transition bays). These works will use the adjacent SCCS, located off Ferry Road, Bawdsey.

3.6. Cable Pull-through

41. The HVDC cable wound drums will be transported from the docks to the cable drum storage location located in Kesgrave close to Ipswich. Cable drums will then be transported directly to the jointing bay compounds. Cable lengths are dependent on the distance between the jointing bays and are typically between 750m and 1950m in length. Before cable installation commences the cable ducts and communications ducts will be given a final clean through and proved by pulling through a sponge, brush and mandrill.

42. Installation of the cables into the ducts will begin with a cable pulling system being installed into the jointing bay. A steel bond and winching system with free spinning rollers will be installed along the bottom of the jointing bay. The cable will then be drawn off the lorry mounted cable drum using HGV hydraulic assist and cable winch & winch wire.

43. Pulling calculations have confirmed that mechanical cable pushers will be required to assist the cable pull in operation on several of the longer pull locations, where cable pushers will be installed within the jointing bay. A dynamometer will ensure the maximum calculated pulling tension of the cables is not exceeded. Tension on the cable will be reduced using a biodegradable water-based lubricant, for example, “Lubtec-HD” (as used on EA ONE). Once both HVDC cables have been installed, the cable will then be jointed within the jointing bay and tested before moving onto the next pair of cables along the route. This process will be repeated for each of the twenty-eight sections.

44. The pre-installed DTS fibre optic ducting will be proven by blowing a gauging steel ball bearing through the ducting joint bay to joint bay. The Communication fibre ducts will be proven by blowing a sponge pig through prior to installing the fibre optic cable. Fibre optic cables will then be blown through the ducted system from jointing bay to jointing bay. The blowing of fibre optic cables requires a highspeed air flow combined with a mechanical pusher.

45. It is expected that pulling and jointing operations at each joining bay would take approximately 2.5 weeks, typically spread over a three-to-four-week period, with a typically eight-person team installing the cables and a three-person jointing team.

3.7. Reinstatement

46. The jointing bay compounds, CCSs, accesses and stone haul roads will be reinstated and restored with the stored topsoil and subsoil in accordance with BS3882, British Standard Topsoil and the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009). Reinstatement will only take place under conditions where the topsoil is within its plastic limit with regards to moisture content to minimise damage to the soil’s structure and texture. If necessary, the subsoil will be ‘ripped’ under friable conditions prior to placement if compaction had occurred. Topsoil may also require ripping if compacted following the removal of the trackway. Topsoil will be spread in such a way as to ensure that it does not become compacted. Pasture and arable land will be reseeded as required, fences reinstated, and suitable hedgerow species replanted during the first appropriate planting season in accordance with the Landscape Management Pan (EA3-LDC-CNS-REP-IBR-000077).

4. LOCAL COMMUNITY LIAISON

47. EATL is committed to providing clear communication to local residents and will manage public relations with local residents and businesses that will be affected by construction traffic. Proactive community liaison will be maintained, keeping local residents informed of the type and timing of works involved, the transport routes associated with the works, the hours of likely construction traffic movements and key traffic management measures. As outlined in the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000084), a combination of communication mechanisms such as posters, notices, exhibitions, letters, newsletters, website updates and parish council meetings will be employed to keep local residents and businesses informed.

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48. A designated EA THREE Community Liaison Officer (CLO) will manage and respond to any public concerns, queries or complaints in a professional and diligent manner as set out in the Community Liaison and Public Relations Procedure contained within the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000010). The Complaints Procedure will be publicised and complaints will be directed to the EATL Community Liaison Officer. All enquiries will be logged, investigated and rectifying actions taken when deemed appropriate. Enquiries will be dealt with in an expedient and courteous manner. Details of complaints will be reported to MSDC, ESC and SCC within 48 hours

49. The CLO will liaise with Town Councils, Parish Councils, District Councillors and County Councillors to identify any local activities that may overlap with the construction works. EATL's Land Team will also speak to landowners regarding the timing of harvest and agricultural activity.

50. Parish Councils, District Councillors and County Councillors in the area including Ward Members and Portfolio Holders and the local liaison group will be contacted (in writing) in advance of the proposed works and ahead of key milestones in order to advise them of the ongoing works. The information provided will include a timetable of works, a schedule of working hours, the extent of the works, and a contact name, address and telephone number in case of complaint or query.

51. As part of the Cable Works Traffic Management Plan (EA3-LDC-CNS-REP-IBR-000080), all transport related to the construction of the EA THREE cable will be registered and issued with a unique vehicle identification code, as set out in Appendix 3 of the Traffic Management Plan (EA3-LDC-CNS-REP-IBR-000080) for the cable works. This will be included on an identification sticker/board that will be placed in a prominent position on the vehicle to enable the site management team and members of the public to identify the vehicle and its association to EA THREE. This will be monitored by the Traffic Co-ordinator (see Section 6 of the TMP (EA3-LDC-CNS-REP-IBR-000080)). SPR construction vehicles will have a defined identification livery so that they are immediately identifiable to construction staff and third parties.

5. BACKGROUND

5.1. Policy Context

52. Travel plans are secured through a policy framework that extends from national through to local level when dealing with new development proposals.

53. The National Planning Policy Framework (NPPF)[1] includes a general objective of supporting and promoting sustainable transport and at paragraph 111, requires all developments that will generate significant amounts of movement to provide a travel plan.

54. The Department for Transport Circular 02/2013[2] entitled 'The Strategic Road Network and the Delivery of Sustainable Development' was published in September 2013 and sets out the ways in which the highways authority will engage with communities and developers to deliver sustainable development and, thus, economic growth, whilst safeguarding the primary function and purpose of the strategic road network. The overarching aim of Circular 02/2013 is to manage the impact of development through initiatives that manage down traffic impact and support the promotion of sustainable transport and the development of accessible sites. One of the key tools in achieving this would be the Travel Plan. Circular 02/2013 notes that:

> "*The preparation and implementation of a robust travel plan that promotes use of sustainable transport modes… is an effective means of managing the impact of development on the road network and reducing the need for major transport infrastructure*."

5.2. Guidance

55. There is no current national or local guidance that relates to the specific situation of preparing a Travel Plan for a temporary construction site. Therefore, this Travel Plan has adopted good practice and guidelines published for more typical workplace Travel Plans and applied them to the construction phase of the East Anglia THREE cable works. The following text sets out the salient guidance.

5.2.1. National Travel Plan Guidance

56. The Department for Communities and Local Government published "Travel plans, transport assessments and statements"[3] in March 2014. The guidance supports the NPPF by setting out the general principals to be followed when preparing a Travel Plan, stating that they should be:

- Proportionate to the size and scope of the proposed development to which they relate, and build on existing information wherever possible;
- Established at the earliest practicable stage of a development proposal;
- Be tailored to particular local circumstances (other locally determined factors and information beyond those which are set out in the guidance may need to be considered, provided there is robust evidence for doing so locally);
- Be brought forward through collaborative ongoing working between the Local Planning Authority/ Transport Authority, transport operators, Rail Network Operators, Highways England where there may be implications for the strategic road network and other relevant bodies. Engaging communities and local businesses in Travel Plans, Transport Assessments and Statements can be beneficial in positively supporting higher levels of walking and cycling (which in turn can encourage greater social inclusion, community cohesion and healthier communities).

[1] National Planning Policy Framework, February 2019, Ministry of Housing, Communities and Local Government https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf
[2] DfT Circular 02/2013, 10 September 2013, The Strategic Road Network and the Delivery of Sustainable Development, https://www.gov.uk/government/publications/strategic-road-network-and-the-delivery-of-sustainable-development
[3] https://www.gov.uk/guidance/travel-plans-transport-assessments-and-statements

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5.2.2. Local Travel Plan Guidance

57. SCC recently published "Suffolk Travel Plan Guidance" on their website. The document sets out the specific requirements for preparing a Travel Plan in Suffolk with respect to operational workplaces rather than construction sites.

5.3. Travel Requirements

58. The Environmental Statement identified 37 points of access for the construction and operation of the onshore cable route. Following design of the jointing bay locations, the total number of accesses required is 29 in order to reach the two Primary CCS, four Secondary CCS, 29 jointing bay locations and the proving locations for 20 HDDs. These are described within the Onshore Cable Route Access Management Plan (EA3-LDC-CNS-REP-IBR-000079), summarised in Table 5.1 and shown on the Figure 1.

Table 5-1 Temporary Infrastructure Access Locations

Access ID	Easting	Northing	Address	Cable Infrastructure
AP01 - ONCS	609869	246238	EA THREE Converter Station, Bullen Lane, Bramford, Mid Suffolk, Suffolk, England, IP8 4JH	• The western side of HDD21.
AP02 - Bullen Lane	610571	246219	Bullen Lane, Bramford, Mid Suffolk, Suffolk, England, IP8 4JH	• Bullen Lane SCCS; • The eastern side of HDD21 • Both sides of HDD1; and • Jointing Bay JB1/2.
AP-03 - Somersham South	611310	247810	Somersham Road, Bramford, Mid Suffolk, Suffolk, England, IP8 4JR	• Jointing Bay (JB2/3).
AP04 - Somersham North	611304	247828	Somersham Road, Bramford, Mid Suffolk, Suffolk, England, IP8 4JR	• The western side of HDD2.
AP05 - Somersham Dairy Farm	611089	248004	Somersham Road, Bramford, Mid Suffolk, Suffolk, England, IP8 4JR	• The eastern side of HDD2.
AP07 -Broomvale West	612070	248974	Bramford Road, Little Blakenham, Mid Suffolk, Suffolk, England, IP8 4JX	• The western side of HDD19.
AP08 - Broomvale East	612102	249044	Bramford Road, Little Blakenham, Mid Suffolk, Suffolk, England, IP8 4JU	• The eastern side of HDD19 and the western side of HDD4; and • Jointing Bay JB3/4.
AP09 Paper Mill Lane	612821	248970	Paper Mill Lane, Claydon, Mid Suffolk, Suffolk, England, IP8 4DE	• Paper Mill Lane PCCS; and • The eastern side of HDD4 and the western side of HDD5.
AP10 - Claydon Hill	613318	249098	Old Ipswich Road, Claydon, Mid Suffolk, Suffolk, England, IP6 0AE	• Jointing Bay JB4/5; and • The eastern side of HDD5.
AP11 Henley Road West	616126	249058	Henley Road, Akenham, Mid Suffolk, Suffolk, England, IP6 0HJ	• Jointing Bay JB5/6.
AP12 - Henley Road East	616137	249062	Henley Road, Akenham, Mid Suffolk, Suffolk, England, IP6 0HJ	• Three Jointing Bays (JB6/7, JB7/8 and JB8/9); and • Both sides of HDD6.
AP14- Tuddenham North	619919	248760	Grundisburgh Road, Tuddenham St Martin, East Suffolk, Suffolk, England, IP6 9DE	• Jointing Bay JB9/10; and • The western side of HDD20.
AP15 - Tuddenham South	619992	248740	Grundisburgh Road, Tuddenham St Martin, East Suffolk, Suffolk, England, IP6 9DE	• The eastern side of HDD20.
AP16 - Playford	621518	248681	Bealings Road, Playford, East Suffolk, Suffolk, England, IP6 9DL	• Playford Corner SCCS; and • Two Jointing Bays (JB10/11 and JB11/12).
Lodge Road – AP17	623730	248396	Lodge Road, Great Bealings, East Suffolk, Suffolk, England, IP13 6NL	• Jointing Bay JB12/13; and • The western and eastern sides of HDD7.

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Access ID	Easting	Northing	Address	Cable Infrastructure
AP18 - Seckford Hall Road	624532	248505	Seckford Hall Road, Great Bealings, East Suffolk, Suffolk, England, IP13 6NR	• Jointing Bay JB13/14
AP19 - Top Street	625342	247801	Top Street, Martlesham, East Suffolk, Suffolk, England, IP12 4RD	• Top Street PCCS; and • Jointing Bay JB14/15 A&; B; and • The western and eastern sides of HDD8.
AP20 - Sandy Lane East	626133	247899	Sandy Lane, Martlesham, East Suffolk, Suffolk, England, IP12 4DW	• Jointing Bay JB15/16; and • The eastern side of HDD10.
AP21 - Sandy Lane West	625969	247765	Sandy Lane, Martlesham, East Suffolk, Suffolk, England, IP12 4SA	• The eastern side of HDD9 and the western side of HDD10.
AP22 - Martlesham	626303	246347	Waldringfield Road, Waldringfield Heath, Waldringfield, East Suffolk, Suffolk, England, IP12 4PJ	• Jointing Bay JB16/17; and • The eastern side of HDD11.
AP23 - Waldringfield Road 1	626729	245986	Waldringfield Road, Waldringfield Heath, Waldringfield, East Suffolk, Suffolk, England, IP12 4PJ	• Jointing Bay JB 17/18; and • Both sides of HDD12 and HDD13.
AP24 - Waldringfield Road 2	627132	245568	Waldringfield Road, Waldringfield Heath, Waldringfield, East Suffolk, Suffolk, England, IP12 4PJ	• Jointing Bay JB18/19.
AP25 - Ipswich Road	627466	244836	Ipswich Road, Waldringfield Heath, Waldringfield, East Suffolk, Suffolk, England, IP12 4QU	• Jointing Bay JB19/20.
AP26 - Clappits South	627267	243776	Woodbridge Road, Newbourne, East Suffolk, Suffolk, England, IP12 4PA	• Clappits SCCS; • Two Jointing Bays (JB20/21 and JB21/22); and • The western side of HDD14.
AP27 - Kirton	628205	240381	Park Lane, Kirton, East Suffolk, Suffolk, England, IP10 0QB	• Two Jointing Bays (JB 22/23 and JB 23/2); and • The eastern side of HDD14 and both sides of HDD15.
AP28 - West of Deben	629387	239004	St Ethelbert, Lower Falkenham Road, Lower Falkenham, Falkenham, East Suffolk, Suffolk, England, IP10 0QY	• Jointing Bay JB 24/25; and • The western side of HDD16.
AP29 - Ramsholt	632046	241323	Alderton, East Suffolk, Suffolk, England, IP12 3AG	• Two Jointing Bays (JB25/26 and JB 26/27); and • The western side of HDD17.
AP30 - Queen's Fleet	634499	239042	RAF Bawdsey Substation, Ferry Road, Bawdsey, East Suffolk, Suffolk, England, IP12 3AT	• Jointing Bays JB 27/28; and • The eastern side of HDD17
AP31 - Landfall	634712	239301	Ferry Road, Bawdsey, East Suffolk, Suffolk, England, IP12 3AT	• Two Transition Jointing Bays (TJB-1 28/29 and TJB-2 28/29).

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59. A key part of the Travel Plan strategy during the main construction phase (i.e. once both Primary CCSs are in place) is to permit employees to generally only travel direct to the following[4]:

- Paper Mill Lane PCCS – located just of the A14 on Paper Mill Lane, approximately 1km south-west of Claydon;
- Top Street PCCS located on Top Street, just off the A12 approximately 0.5km south from the outskirts of Woodbridge.

60. The PCCS locations will be the focus of deliveries and workers, with efficient means of onwards transport to serve the SCCS, the jointing bays and HDD proving locations. In order to avoid unnecessary additional mileage, construction workers will, however, be able to travel directly to the following, as these movements are more suitable than using the PCCS as a hub (see Figure 1).

- In Section 11:
  - Access Point AP01 to reach the western side of HDD 21;
  - Access Point AP02 to reach Bullen Lane CCS, Jointing Bay JB 1/2, the eastern end of HDD21 and both ends of HDD1 ;
- In Section 8:
  - Access AP11 (on Henley Road) to access Jointing Bay JB 5/6; and
  - Access AP12 (on Henley Road) to access three Jointing Bays (JB 6/7, JB 7/8 and JB 8/9), western end of HDD6).

61. The construction of the cable is likely to require circa 45 staff on average, with a peak workforce of 300 personnel. The construction period is anticipated to commence in Spring 2024 and comprise a total of 2 years for the cable works. The onshore cable route and the converter station will be constructed to a certain extent concurrently, albeit with a time lag of 18 months. It is expected that a high proportion of the staff employed will either live locally or stay within the local area throughout the working week and travel home at weekends.

62. Construction working hours are limited by the DCO to the following:

Requirement 25 – (1) Construction work for the connection works must only take place between 0700 hours and 1900 hours Monday to Saturday, with no activity on Sundays or bank holidays, except as specified in paragraph (2).

(2) Outside the hours specified in paragraph (1), construction work may be undertaken for essential and non-intrusive activities including but not limited to:

(a) continuous periods of operation that are required as assessed in the environmental statement, such as concrete pouring;

(b) fitting out works associated with the onshore substation(s) comprised within Work No. 67;

(c) delivery to the connection works of abnormal loads that may cause congestion on the local road network;

(d) connection works carried out on the foreshore daily start up or shut down;

(f) electrical installation; and

(g) non-destructive testing.

63. Further information is provided in Section 5.5 of the CoCP (EA3-OND-CNS-REP-IBR-000084).

64. Chapter 27 Traffic and Transport of the ES for the East Anglia THREE project has assessed the environmental impact of traffic on the routes within the onshore highway study area across a range of effects, namely:

- Pedestrian amenity;
- Severance;
- Road safety; and
- Driver delay.

[4] Some travel direct to working areas will be required by NKT and EATL management team members.

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65. The ES assessment was predicated on a Travel Plan being implemented as embedded mitigation to reduce the numbers of employee vehicle movements through the promotion of car-sharing. The ES, therefore, assessed a level of traffic that would be generated during peak construction, assuming minimum vehicle occupancy of 2.5 employees per vehicle. The assessment assumed all employee trips have been reduced by a factor of 2.5 at entry point to the study area. The approach assumed multi pick up of employees prior to entering the study area, typically by minibus/crew-bus or car share syndicates. The overall ratio of 2.5 assumed some essential single occupancy trips (e.g. Health and Safety Inspectors) and some multioccupancy vehicles (typically minibuses with capacity for 12 employees).

66. The ES concluded that the environmental impact of the proposed East Anglia THREE construction traffic would have no residual significant impact. Impacts of negligible to minor levels were predicted on the basis that the use of Travel Plans for each stage of the development would manage daily employee traffic demand and would be in place at the preconstruction stage.

67. Since the preparation of the ES in 2015, lessons learnt from the East Anglia TWO and East Anglia ONE North Offshore Windfarm' Environmental Statements and DCO Examination and following discussions with the Principal Contractors for the Converter Station (Siemens Energy) and cable (NKT) regarding likely car occupancy, it has become clear that a car occupancy of 2.5 is unlikely to be achievable. It was, therefore, agreed with SCC at the Traffic Working Group 3 (15 December 2021), that a target of 1.5 personnel per vehicle would be more appropriate, with a stretch target of 2.5 to also be considered.

68. An updated transport assessment (with the scope set out in paragraph 69 has been undertaken to consider this occupancy level and the actual employee numbers anticipated by the Principal Contractors. This is included here as Appendix 1 East Anglia Three Onshore Cable Route Works Traffic and Transport Technical Note (Traffic and Transport Technical Note). The Traffic and Transport Technical Note provides an overview of the changes to the vehicle numbers associated with the onshore cable route works and also the converter station works in order to consider all project-related traffic on the road network.

69. The Traffic and Transport Technical Note sets out the following:

- A summary of the assessment assumptions and requirements for EA THREE as identified in the ES for the DCO submission;
- A comparison of the ES and NKT vehicle movements associated with the cable installation works at the sensitive junctions on the highway network that are likely to be used by traffic associated with these works, using a lower car occupancy for the NKT data than presented in the ES, for a robust assessment;
- Junction capacity assessments of the existing layouts of the sensitive junctions forecast to experience an increase of 30 two-way vehicle movements or more in the evening peak hour associated with the cable installation works (the anticipated maximum traffic flows where there would be construction activities at a number of work locations at the same time) and the converter station construction (average vehicle movements as the peak periods for the cable installation works and converter station would not occur at the same time). The junctions identified for assessment were Junction 1: Claydon Interchange, Junction 5: Roundabout junction of the A12 and A1214, Junction 6: Roundabout junction of the A12 and Newbourne Road and Junction 11: Roundabout junction of the A12 and the B1438);
- The modelling shows the additional vehicle movements do not have a significant impact on the operation of the junctions compared to the base year 2024 plus committed development scenario as summarised below:
  - Junction 1 - all arms within capacity;
  - Junction 5 - all arms within capacity;
  - Junction 6 - both A12 arms well above capacity in 2024 base + committed and with development. Development increases queue length only 1% (A12 north) and 32% (A12 south); however, an improvement scheme is proposed at the junction;
  - Junction 11 - B1438 and A12 south Ratio of Flow Capacity (RFC) both exceed 1.0. Queues increase by 47% and 61% respectively; however, this is less than in the morning peak without any development traffic; and
- An update of road safety analysis at key junctions and routes the highway network that are likely to be used by traffic associated with the cable installation works. This indicates there are no road safety issues that would be exacerbated by an increase in traffic flows and that no changes to the measures proposed in this Traffic Management Plan are required.

70. The maximum daily and evening peak vehicle movements for the two scenarios where there would be construction activities at a number of work locations at the same time, as assessed in Appendix 1 are summarised in Table 3-3. This is based on a car occupancy of 1.5, which has been identified from lessons learnt from the East Anglia TWO and East Anglia ONE North Offshore Windfarm Environmental Statements and DCO Examinations, advice from SCC and through discussions with NKT and the Principal Contractor for the Converter Station (Siemens Energy), who have suggested that a 2.5 car occupancy is unlikely to be achievable.

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Table 5-2 Expected traffic movements

Scenario (Access points)	Employees				HGV movements	
	Number		Vehicle movements			
	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak
1 (28, 29 and 30)	300	60	200	40	360	30
2 (2, 3 and 31)	230	48	153	32	440	20

71. Table 5-2 details that there could be a peak of 300 employees per day associated with the construction of the onshore cable. With the application of an employee to vehicle ratio of 1.5, the number of daily employee vehicle arrivals would be 200 for the cable works. The vehicles associated with the transport of these personnel have been considered within the Traffic and Transport Technical Note (Appendix 1).

72. The commitments made in this Travel Plan are designed to enable the 1.5 ratio to be achieved and this ratio is, therefore, a principal target of the Travel Plan (see Section 8.1) with a stretch target of 2.5 employees per vehicle. A quarterly monitoring report will be produced for issue to MSDC, ESC and SCC, as set out in Section 10.

73. The HGVs and abnormal loads that will also be required to visit site are described in the Traffic and Transport Technical Note included as Appendix 1 and in the Traffic Management Plan (EA3-LDC-CNS-REP-IBR-000080).

6. ACCESS BY SUSTAINABLE TRAVEL MODES

6.1. Walking

74. The Chartered Institution of Highways and Transportation (CIHT) document entitled 'Guidelines for Providing for Journeys on Foot' considers 2km as a 'preferred maximum' distance for commuting on foot.

6.1.1. Paper Mill Lane PCCS

75. The Paper Mill Lane CCS is in a remote location bounded by the A14 to the east and Paper Mill Lane to the west. The A14 limits the walking routes available, with the village of Claydon to the north-east being the only settlement accessible within the recommended 2km walking distance. However, this would be via Paper Mill Lane which has no footpath provision. There are no Public Rights of Way (PRoW) that would enable pedestrian access.

6.1.2. Top Street PCCS

76. The villages of Woodbridge and Martlesham are within the preferred maximum walking distance of Top Street PCCS. Woodbridge can be accessed via a single narrow public footpath that runs west alongside the B1438 Ipswich Road, to an existing set of steps leading down to the north of the PCCS, from the roundabout junction with the A12. There are no footway provisions to the east of the PCCS along Top Street. Martlesham can be accessed via Top Street, which is part of the Fyn Valley Walk at this location.

6.1.3. Access Points AP01 and AP02 in Section 11 of the Cable Route

77. Due to the remote location of Access Points AP01 and AP02 (i.e. Bullen Lane or the public rights of way network), there are few settlements (i.e. only Burstall and the edge of Bramford) that are within the recommended 2km distance for walking . Similarly, Ipswich Railway Station is around 9.5km by road and this is not considered to be a reasonable walking distance. In addition, Bullen Lane is a single carriageway road with blind bends and no pedestrian walkways. Thus, it is not proposed that employees will be encouraged to walk to these accesses.

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6.1.4. Access Points AP11 and AP12 in Section 8 of the Cable Route

78. AP11 and AP12 are located on the west and east sides of Henley Road respectively. Henley Road is a derestricted road with a 60mph speed limit. The 2km catchment area from both access points only allows access to the village of Westerfield and the northern edge of Ipswich, however, existing walking provision is minimal, with no footpaths. Therefore, these access locations are not conducive to pedestrian movements.

6.2. Cycling

79. Cycling is generally an acceptable mode of travel for journeys up to 5km. Figure 2 illustrates the potential catchment areas of 5km radius for workers to cycle to each of the permitted access points.

6.2.1. Paper Mill Lane PCCS

80. A cycle distance of 5km from Paper Mill Lane PCCS allows access to Bramford and a large part of Ipswich. Access to Ipswich is hampered by the A14 allowing only two direct routes into the city. The first route into north Ipswich involves negotiating the busy Junction 1 of the A14, into Claydon. Once into Claydon, turning off onto Old Ipswich Road, leading into Old Norwich Road, entering Ipswich from the north. This route forms part of the National Cycle Network Route (NCNR) 51. The second option routes into west Ipswich by heading south along Paper Mill Lane until it joins the B1067, the B1067 heads east passing under the A14, and enters into the outskirts of Ipswich.

6.2.2. Top Street PCCS

81. Whilst there are no formal cycling facilities in the vicinity of the Top Street PCCS, there are a number of routes which can be accessed within 5km of the site. These include NCNR1 which links Woodbridge and Ipswich via on-road routes and uses part of Top Street and Sandy Lane in the immediate vicinity of the PCCS.

82. In addition to NCNR1, there is also Regional Cycle Route 41 which provides an on-road cycle route, which links NCNR1 on Top Street (to the south of the PCCCS) to Felixstowe via School Lane and Waldringfield Road.

83. By utilising the existing cycle routes, cycling from Top Street PCCS could provide access to a number of settlements in the area including Martlesham Heath, Kesgrave to the south east and Grundisburgh and the Bealings to the north east. It can be observed that cycling from Top Street PCCS to Ipswich can be achieved via NCNR1 however the distance (9-10km) is only likely to be attractive to the most committed of cyclists.

6.2.3. Access Points AP01 and AP02 in Section 11 of the Cable Route

84. A cycle distance of 5km from Access Points AP01 and AP02 encompasses the villages of Bramford, Sproughton and the edge of Ipswich. Whilst there are no formal cycling routes in the vicinity, there are a number of routes which can be accessed within 8km. These include NCNR1 which crosses Loraine Way (B1113) at Tye Lane (this part of the cycle route is no longer part of the National Cycle Network due to traffic speeds/volumes but is included on the Sustrans mapping for use by experienced cyclists). Ipswich Railway Station is around 9.5km by road.

6.2.4. Access Points AP11 and AP12 in Section 8 of the Cable Route

85. The recommended 5km cycling catchment area from Accesses AP11 and AP12 allows a large majority of northern Ipswich to be accessed and some of the small surrounding hamlets.

6.3. Public Transport — Bus

6.3.1. Paper Mill Lane PCCS

86. The closest bus stops to Paper Mill Lane PCCS are at 'The Greyhound' and 'The Crown' on Ipswich Road in Claydon approximately 1km away. There are no buses that route past the PCCS that could stop if required.

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Table 6-1 Bus timetable for bus stops at Claydon

Service No	Route	Approximate two-way frequencies Monday to Friday First Service	Typical Frequency	Last Service	Saturdays First Service	Typical Frequency	Last Service
88	Ipswich-Stowmarket	06:56	06:56, 08:00, 09:06, 09:36, 10:06 then; Every 36 and 06 minutes past the hour until 14:06 (14:36 on school holidays and schooldays only) then; 15:06, 15:51, 16:38, 17:08, 17:38, 18:08	18:08	08:06	Every 30 minutes until 09:06 then every 36 and 06 minutes past the hour until 18:06	18:06
88	Stowmarket-Ipswich	07:21	07:21, 07:46, 08:15, 09:17, 09:47, 10:17, 10:47, 11:17 then; Every 47 and 17 minutes past the hour until 15:17, then; 15:47 and 16:17 on school holidays and 16:07 on schooldays only, then; 17:02, 17:52, 18:22	18:22	08:17	Every 47 and 17 minutes past the hour until 18:17	18:17

87. 'The Greyhound' and 'The Crown' bus stops will be included on the minibus / crew bus collection service in order to transport workers from the bus stop to Paper Mill Lane PCCS. It is not considered, however, that there will be a significant uptake of public transport due to the time taken to travel to and from site at the start and end of shifts at 7am and 7pm.

6.3.2. Top Street PCCS

88. The closest bus stop to Top Street PCCS is located approximately 80m south of the site on Top Street. There are bus stops on each side of the road. Regular bus services, which can be accessed from these stops, are summarised in Table 6-2. This information will be updated, as required, for future revisions of the Travel Plan.

Table 6-2 Bus timetable for bus stop at Primary CCS E

Service No	Route	Bus departures from Martlesham Outside Nursery Monday to Friday First Service	Typical Freq	Last Service	Saturdays First Service	Typical Freq	Last Service
63	Ipswich – Martlesham - Framlingham	07:46 (schooldays only)	Twice a day	14:36 (schooldays only) 14:36 (terminates at Framlingham, Shelter. Not schooldays)	N/A	N/A	N/A
65	Ipswich – Woodbridge – Rendlesham	12:06	Every hour until 14:06 (terminates at Rendlesham, Spencer Road) then 15:06 and 17:51	17:51 (terminates at Rendlesham, Spencer Road)	14:06	Twice a day	16:06

Service No	Route	Bus departures from Martlesham Outside Nursery Monday to Friday First Service	Typical Freq	Last Service	Saturdays First Service	Typical Freq	Last Service
73	Old Felixstowe – Trimley – Kirton – Woodbridge	09:01	Then 11:31, every two hours until 15:31 (not schooldays), then 17:51	17:51	09:01	Then 11:31, every two hours until 17:51	17:51
79	Ipswich – Bucklesham – Newbourne - Woodbridge	14:22	Once a day	14:22	N/A	N/A	N/A
Bus departures from Martlesham opposite Nursery							
63	Framlingham – Martlesham – Ipswich	10:17	Twice a day	16:37 (schooldays only)	N/A	N/A	N/A
65	Aldeburgh – Rendlesham – Woodbridge – Ipswich	07:47	The 10:02, 11:47 then every hour until 13:47, then 15:32 (not schooldays)	15:32 (not schooldays)	09:47	Twice a day	11:47
73	Woodbridge – Kirton – Trimley – Felixstowe	07:40 (terminates at Felixstowe, Great Eastern Square. Not schooldays) 07:40 (serves Walton, Felixstowe Academy. Terminates at Felixstowe, Great Eastern Square. Schooldays)	Then every two hours from 09:45 until16:05 (not schooldays)	17:15 (terminates at Felixstowe, Great Eastern Square)	07:40 (terminates at Felixstowe, Great Eastern Square)	Then every two hours from 09:45 until 13:45, then 16:05	16:05
79	Woodbridge – Newbourne – Bucklesham – Ipswich	09:20	Once a day	09:20	N/A	N/A	N/A

89. There are good services for employees based in Woodbridge and Ipswich with services that pass outside of the PCCS site which have the potential to result in mode shift.

6.3.3. Access Points AP01 and AP02 in Section 11 of the Cable Route

90. The closest bus stops to Access Points AP01 and AP02 are located 3km away and it is unlikely that employees would use public transport due to the distance needed to walk from the bus stop and the need to approach the access points on foot along Bullen Lane, which as noted above, is not suitable for pedestrians.

6.3.4. Access Points AP11 and AP12 in Section 8 of the Cable Route

91. There are no bus stops in the vicinity of Access Points AP11 and AP12 on Henley Road.

6.4. Public Transport – Train

6.4.1. Paper Mill Lane PCCS

The nearest railway stations to Paper Mill Lane PCCS are located in Needham Market and Ipswich some 7.4km and 7.7km away respectively. Needham Market Station is located on the Ipswich to Cambridge line operated by Abellio Greater Anglia. Currently, there are services running approximately every hour stopping at Needham Market station between 05:17 and 22.29 Monday to Saturday. Reduced services operate on a Sunday. Ipswich Station runs services to London, Norwich, Lowestoft, Cambridge, Peterborough and Felixstowe and is run by Abellio Greater Anglia. These routes include many local stations across Suffolk and Norfolk, offering the opportunity for construction workers to reach Ipswich via train. In order for employees to travel between the railway stations and the PCCS, employees would need to make a linked trip by cycle.

6.4.2. Top Street PCCS

92. The closest railway station to Top Street PCCS is located at Woodbridge some 2.6km away. The station is operated by Abellio Greater Anglia running between Ipswich and Lowestoft. Currently, there are services running approximately every hour stopping at Woodbridge station between 06:37 and 22:31 Monday to Friday. In order for employees to travel between the railway station and Top Street CCS, employees would need to make a linked trip. The distance would discount walking as a viable option, and make a linked bus or cycle trip the only realistic option to access Primary CCS E.

6.4.3. Access Points AP01 and AP02 in Section 11 of the Cable Route

93. Ipswich rail station is located around 9.5km from Access Points AP01 and AP02. A minibus shuttle service will be operated to collect and drop off workers for specific shift times between the train station and the converter station and Access Points AP01 and AP02. The exact location and timings will be agreed with Suffolk County Council and local bus companies but further detail is provided in Section 9.4.

6.4.4. Access Points AP11 and AP12 in Section 8 of the Cable Route

94. Access Points AP11 and AP12 are located 5.2km from Ipswich rail station respectively.

6.5. Summary

95. A review of the transport network within the vicinity of the cable route construction works has concluded that the accessibility of the development will enable only a few journeys to be made by cycle, bus and train to the construction sites from across Ipswich and Woodbridge as well as places further afield.

96. The PCCSs have been located close to main A-roads and away from sensitive receptors to reduce the traffic impact on local communities. This represents a compromise in terms of access by sustainable transport modes.

97. Recognising that sustainable modes will have a limited share of workforce travel, it is proposed that the travel measures set out in Section 9 of this Travel Plan be implemented to minimise vehicle movements further.

7. ADMINISTRATION

7.1. Introduction

98. This Travel Plan forms a framework for further detailed initiatives to be drawn up between EATL and its Principal Contractor. This framework sets out the objectives and principles for achieving sustainable travel and provides details of the targets, responsibilities for implementation and monitoring and review requirements. This framework has been incorporated into agreements drawn up between EATL and the Cable Works Principal Contractor.

7.2. Travel Plan Co-ordinator

99. Management of the Travel Plan will be achieved through the identification of a suitable person as the Travel Plan Co-ordinator on behalf of the Principal Contractor.

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100. The Travel Plan Co-ordinator will provide a key role in delivering a successful Travel Plan. The Travel Plan Co-ordinator role will be undertaken by a senior member of the Principal Contractors' site management team and will be based on site (i.e. the cable route site as a whole) for the duration of the construction works. The name, contact details and working hours of the appointed Travel Plan Co-ordinator will be provided to ESC, MSDC and SCC Highways Authority prior to commencement of the works. The Travel Plan Co-ordinator will report to a senior member of the Principal Contractor's Construction Team. Any changes in Travel Plan Co-ordinator will be notified to ESC, MSDC and SCC. The Travel Plan Co-ordinator, on behalf of the Principal Contractor, will have ultimate responsibility for compliance with this Travel Plan, with EATL maintaining a compliance oversight.

101. The Travel Plan Co-ordinator role will be established prior to the occupation of the site and will act as the fulcrum for the development of the Travel Plan measures and the day to day operation of the Plan. Once appointed, the Travel Plan Co-ordinator will act as the main contact for the Travel Plan for both construction staff and SCC Highways Authority and will be responsible for implementing measures and monitoring the effects of implementation. The Travel Plan Co-ordinator will regularly attend on site progress meetings in order to influence and engage with construction staff to ensure successful implementation of the Travel Plan.

102. The Travel Plan Co-ordinator will:

- Set up and maintain a filing system for all correspondence relating to the Travel Plan;
- Oversee the implementation of the Travel Plan including the monitoring programme, reporting and any corrective measures required to meet the targets, which will be identified through discussion with relevant local authorities;
- Oversee the necessary data collection exercises and monitoring programme and report to the relevant authorities;
- Identify potential breaches and ensure corrective procedure is followed; and
- Advise on alternative / corrective measures required to meet targets.

103. The Travel Plan Co-ordinator will be responsible for setting up and launching the Travel Plan in accordance with the schedule set out in Table 7-1.

Table 7-1 Travel Plan Administration Schedule:

Timescale	Action
Two months before construction starts	Appoint Travel Plan Co-ordinator Exchange contact details with relevant officers (SCC) Collect details of local accommodation Arrange minibus/crew bus provision Research travel information
One month before construction starts	Obtain up-to-date public transport timetables and literature Review walking and cycling facilities Prepare and issue Travel Plan Information Packs for all construction staff Set-up a car sharing register and establish car share syndicates Ensure sufficient cycle parking and associated facilities are available at site. Produce a staff notice board specific to the site with useful information regarding travel choice and include information such as details of car share schemes, cycle routes, bus and train times, etc. Implement mechanisms for providing guaranteed lift home.
Four weeks after construction starts	Begin spot checks to monitor number of staff using the minibus/crew bus pick-up service and average car occupancy

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Timescale	Action
Every month after construction starts	Monitor travel patterns through data acquired from minibus/crew bus drivers, car occupancy and car park utilisation. Data will be collected with respect to management of shift patterns to demonstrate that the assumptions in Traffic and Transport Technical Note remain valid. Undertake Travel Plan audit and modify where appropriate Liaise with relevant officers (SCC) and other groups where appropriate Issue a Travel Plan Information Pack and undertake site induction for new starters Maintain and update the information stored in the car sharing register Monitor cycling provision
Every three months after construction starts	Produce monitoring report

7.3. Monitoring by the Highways Authority

104. The Travel Plan Co-Ordinator will liaise with SCC Highways Authority regarding monitoring and enforcement of the Travel Plan measures by them.

7.4. Funding

105. Appropriate funding will be allocated by EATL at the start of the Travel Plan process to cover the costs involved in administering the Travel Plan over the construction period. This will be incorporated into any tender agreement.

106. The funding will cover all costs relating to the Travel Plan Co-ordinator, implementation of measures and initiatives, marketing of the Travel Plan and monitoring.

107. Funding will also cover the costs of the SCC reviewing officer, via the Planning Performance Agreement.

8. TARGETS

108. The setting of targets is essential to ensure that the objectives of this Travel Plan are met. Targets are therefore linked to the objectives and are SMART (Specific, Measurable, Achievable, Realistic and Time-related). Targets will be measurable through the use of indicators, which represent the results of monitoring. Indicators may also be used to highlight the progress of the Travel Plan without necessarily having a linked target.

109. The two types of target are:

- Aims, which consider modal share; and
- Actions which are non-quantifiable and represent milestones.

8.1. Aims – Modal Share Targets

110. Table 8-1 shows the three modal targets which will be maintained and measured throughout the life of the project. The Travel Plan Co-ordinator will be responsible for collating and reporting the data associated with these. Details of the data to be collected, the monitoring plan and reporting schedule are provided in Section 10.1 of this Travel Plan.

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Table 8-1 Travel Plan Targets, Indicators and Monitoring Methods

Target Type	Target	Indicator	Monitoring Method
Average Vehicle Occupancy	Minimum of 1.5 employees and where possible 2.5 employees per vehicle	Number of occupants Number of vehicles	Completion of sign in sheets Spot check counts
Percentage of trips made by minibus/crew bus pick-up service	Minimum of 35%	Number of minibus/crew bus trips	Daily driver record
PM Peak Worker Vehicle Movements (Two Way)	Maximum of 40 [5]	Number of vehicles	Spot check counts

8.2. Actions – Milestone Targets

111. The Travel Plan Co-ordinator will be responsible for implementing measures throughout the construction works, which will be reviewed monthly, by the Travel Plan Co-ordinator, following the results of monitoring to identify if any changes are required, for example to the minibus/crew bus service in order to maximise its use by workers.

112. The initial milestone target would be to ensure that all new staff receive a Travel Plan Information Pack. Details of what is to be included in these packs are provided in Section 9.1 of this Travel Plan. Further milestone targets may include providing additional cycle parking, subject to demand.

9. TRAVEL MEASURES

113. Implementation of this Travel Plan will require consultation with construction workers as the project progresses to establish which measures are the most effective, prove difficult to implement or may be unpopular. This will be the responsibility of the Travel Plan Co-ordinator.

114. The following sections in this Travel Plan outline the measures to be promoted by the Travel Plan Co-ordinator. They are set out under the following general headings:

- Travel awareness;
- Travel database;
- Public transport information;
- Minibus/crew bus service;
- Cycling;
- Car sharing scheme;
- Car parking management;
- Managing worker movements;
- Welfare and catering facilities;
- Road safety;
- Guaranteed lift home; and
- Sustainable travel by port workers.

9.1. Travel Awareness

115. Good accurate information on the range of services and travel initiatives available is a critical element of a successful Travel Plan.

116. The Travel Plan Co-ordinator will make new employees and sub-contractors aware of the existence of the Travel Plan by providing them with an information leaflet summarising the Travel Plan as part of a Travel Plan Information Pack, which will be issued to all employees on appointment of their position. Any parking management policies will be explained to members of staff during the recruitment process.

[5] In accordance with Table 2 of the Traffic and Transport Technical Note (Appendix 1)

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117. The Travel Plan Information Pack will include, though not exclusively, the following:

- A map showing the location of the PCCSs and permitted accesses in relation to the local area, highlighting the nearby bus stops and associated times of bus services using these stops.
- Details of services that stop at the railway stations and bus stations, highlighting the minibus/crew bus pick-up service;
- Information relating to traffic-related environmental concerns, congestion problems and car sharing to raise awareness;
- Details of local accommodation available;
- Details of car sharing scheme;
- Details of minibus/crew bus collection points and frequencies;
- Details and maps of local cycle and walking routes
- Details of provisions made for cyclists;
- Rules for car parking; and
- Details of the "guaranteed ride home scheme".

118. The Travel Plan Co-ordinator will ensure that any amendments to the Travel Plan or any relevant information are passed on to members of staff in the form of leaflets.

119. Information will be provided to new staff about the range of facilities available on site and this will be posted on noticeboards at the PCCSs.

9.2. Travel Database

120. The Travel Plan Co-ordinator will collate data on a monthly basis, having been recorded by drivers of minibuses/crew buses and through spot checks of vehicle occupancy, to calculate the proportions of staff travelling by minibus/crew bus and average car occupancy. The information recorded will be put into a database to monitor the monthly figures and identify any trends that may lead to targets being missed.

121. Information contained within the database will inform the review process which will be carried out in conjunction with MSDC, ESC and SCC Highways Authority.

9.3. Public Transport Information

122. The Travel Plan Co-ordinator will encourage use of public transport as a mode of travel to work by implementing the following initiatives.

- Provide up-to-date public transport information, including route maps and timetables, with the Travel Plan Information Pack and on staff notice-boards;
- Provide details of local taxi companies;
- Provide regular minibus/crew bus collection and drop-off at Ipswich rail station;
- Provide secure lockers to allow tools and equipment to remain on-site;
- Liaise regularly with local public transport operators to ensure that information remains valid;
- Liaise with local public transport operators to attempt to negotiate a discount for site workers; and
- Provide details of the websites and telephone advice services to enable staff to obtain details on their individual journey requirements, including the Transport Direct journey planner and Traveline (Tel 0871 200 2233).

9.4. Minibus/Crew Bus Service

123. The contractor will provide a minibus/crew bus collection service that will transport construction workers from pre-arranged points to the PCCS and permitted access locations. A crew-bus has fewer seats than a minibus (e.g. 6 vs 12) but also has space for transport of materials and tools. They can also include welfare facilities. Transit tipper crew cabs may also be used for personnel transportation and these would typically seat 5 plus the driver.

124. The collection points will be determined from the location of local accommodation and will primarily cover Ipswich and Woodbridge, including key destinations such as Ipswich bus and rail stations and key bus stops in proximity to the PCCS. The minibus/crew bus pick up locations will be further developed when details of locations of accommodation of workers are available.

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125. Pick up points, with safe off-road parking, will be established near the A14 north and south, and the A12 north and south, to intercept longer distance journeys. All pick up points would be carefully selected by the Travel Plan Co-ordinator and will be chosen so as to not induce trips through the sensitive junctions identified in the ES, namely:

- Junction 1: Roundabout junction of the A14 and B1113;
- Junction 5: Roundabout junction of the A12 and A1214;
- Junction 6, Roundabout junction of the A12 and Newbourne Road;
- Junction 11: Roundabout junction of the A12 and B1438; and
- Junction 12, Roundabout junction of the A14 and A12 (south).

126. Details of these collection points will be provided within Travel Plan Information Packs for all staff. The locations will be reviewed, based on demand, and could result in wider coverage in order to meet demand.

127. In addition, during the main construction phase those workers arriving at the PPCS will be transported by minibus/crew bus using the public road connections to their construction work sites as follows:

- From Paper Mill Lane PCCS to:
  - Jointing Bays JB 2/3 to JB 4/5; and
  - HDD proving locations: HDD2 W&E to HDD5 E
- From Top Street PCCS to
  - Playford Corner SCCS, Clappits SCCS and the Landfall CCS,
  - Jointing Bays JB 9/10 to TJ 28/29 ;and
  - HDD proving locations HDD6 E to HDD17 E.

128. This will reduce the number of vehicle movements travelling on the local road network.

129. The Travel Plan Co-ordinator will monitor the minibus use and would, if needed, develop a methodology to promote the use of the minibus to ensure the 35% target can be achieved.

9.5. Cycling

130. The Travel Plan Co-ordinator will encourage cycling as an alternative mode of travel to work by implementing the following initiatives:

- Provide secure cycle parking for construction workers at Paper Milll Lane PCCS, Top Street PCCS and Bullen Lane SCCS.
- Provide changing facilities (including showers) and secure lockers to allow tools and equipment to remain on-site;
- Provide a communal toolbox, to include puncture repair kit, cycle tools, oil, etc;
- Promote the availability of cycling information, including route maps and useful tips and guidance, from, for example, the Sustrans website (https://www.sustrans.org.uk/);
- Promote implementing a Bicycle Users Group to help encourage non-confident or new cyclists;
- Investigate the potential for staff to hire bikes on a short-term basis for those staying locally;
- Establish contact with the senior cycling officer of MSDC and ESC to ensure that up-to-date information is available regarding cycle routes and other facilities for cyclists in the vicinity of the site.

9.6. Car Sharing Scheme

131. The majority of construction workers will work in teams and therefore, if they require temporary accommodation in the area, are likely to reside in the same location. This will naturally lead to car sharing as frequently occurs on any construction project. However, for those who do not benefit from the above circumstances, the Travel Plan Co-ordinator will set up a car sharing scheme / register. Staff will be consulted by the Travel Plan Co-ordinator to allow potential car sharers to register an interest and provide details of their journey to and from work. The Travel Plan Co-ordinator will then identify suitable matches for staff that may be able to share their journeys to and from work.

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9.7. Car Parking Management

132. Car parking will be provided on site in accordance with the Suffolk Guidance for Parking, Technical Guidance, 2019, as far as is relevant to construction. Parking for staff, visitors and minibuses/crew buses will all be contained within the CCSs and jointing bay compounds. The management of car parking associated with the development will be considered alongside other initiatives to make efficient use of the construction site space. This will ensure sufficient space is available for visitors.

133. A key mechanism to ensure compliance with the target vehicle movements will be to restrict parking spaces. Total parking provision for employees would be in line with the employee vehicle trips (i.e. one space per arrival). The Principal Contractor will assess their workforce and would optimise the number of single occupancy, car share and minibus/crew bus spaces to accord with the benchmark targets. A permit system would be adopted to allocate these spaces and the car parking spaces will be clearly marked.

134. Preferential parking for registered car sharers and minibus/crew bus drivers would be provided on site. Single occupancy parking would only be permitted if authorised by pre-booking.

135. It is currently anticipated that the electrical supplies to the Primary CCSs will be by diesel generators, which would not be appropriate for the provision of electric vehicle charging points. Should mains supply electricity be available, then electric vehicle charging points will be installed. Provision will be made for emergency charging to avoid electric vehicles becoming stranded on site in accordance with the Suffolk Guidance for Parking, Technical Guidance, 2019. No electric vehicle charging facilities are proposed at the SCCS.

136. All employees will be required to park in designated areas and display their parking permit to prevent unauthorised parking. Employees not parking their vehicle in designated areas or not displaying their permit will be subject to an enforcement action (see Section 10.3).

137. Access to the PCCSs and access points AP01, AP02, AP11 and AP12 would be prohibited for those on foot or cycle, unless a prior arrangement had been made. This is a measure aimed at discouraging employees travelling in single occupancy cars, and parking locally and walking/cycling to the sites.

138. The demand and supply of the car parking area will also be monitored on a monthly basis. Any additional parking requirements would be identified in advance by prior notification and provision made where possible. Use of the local Park & Ride facilities will be an important measure for controlling worker arrivals to site. Use of these facilities have been considered and discussed with SCC (Traffic Working Group 4, 16/12/21) and are not anticipated to be a viable option at this stage, this will, however be kept under review.

139. To support the Travel Plan, a combination of the following measures will be implemented in order to minimise travel by car:

- Effective reduction in number of car parking spaces compared to number of employees at each major stage of the construction programme;
- Reallocation of spaces for cycle storage (as required); and
- Provide priority spaces for minibus/crew bus use.

9.8. Management of Worker Movements

140. Details of the updated Transport Assessment and the maximum daily construction worker vehicle movements are provided in the Traffic and Transport Technical Note in Appendix 1 of this Travel Plan. Peak hours on the network are considered to be 08:00-09:00 and 17:00-18:00, the peak hour movements are presented in Appendix 1. The majority of EA THREE construction workers will travel to site before the morning peak starts at 08.00. As such, the Traffic and Transport Technical Note focuses on a PM peak hour assessment. The Traffic and Transport Technical Note gives details of the maximum peak hour construction vehicle movements (both HGV and construction workers). As noted in paragraph 6.2 the Traffic and Transport Technical Note the anticipated maximum number of vehicles (both employee and HGV) will not result in either capacity issues at the identified sensitive junctions (the A14/B1113 Claydon Interchange, A12/A1214, A12/Newbourne Road and A12/B1438) nor will additional traffic management measures be required with respect to road safety. No additional traffic management measures are, therefore, considered necessary.

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9.9. Welfare and Catering Facilities

141. To avoid the need for employees to drive off site during the working day for lunch, welfare facilities will be provided at the PCCS during periods of use, this will include an area for employees to prepare and eat lunch.

9.10. Road Safety

142. A 'near miss' reporting system for all highways incidents will be established by the Travel Plan Co-ordinator. The Travel Plan Co-ordinator will ensure that all accidents and near misses are recorded within this system and that employees are reminded during inductions to report all issues through the near miss system. Any accidents or near misses will be recorded, investigated, and reported to transport stakeholders by the Travel Plan Co-ordinator and or HSE Co-ordinator. Near-misses will be reported within the quarterly monitoring report that will be issued to MSDC, ESC and SCC (see Section 10.1).

143. The Travel Plan Co-ordinator will retain records of all incidents and submit to SCC Highways Authority within 48 hours.. If emerging issues are identified, the Travel Plan Co-ordinator will initiate discussions with highway stakeholders to identify potential opportunities for improvement.

9.11. Guaranteed Lift Home

The Travel Plan Co-ordinator will set up and manage a system to ensure that anyone who did not travel in their own car has a guaranteed lift home in the event of an unforeseen problem e.g. picking up a sick child from school. This aims to encourage the use of car sharing/minibuses/crew buses, cycling, walking, and public transport by giving users the security of knowing they can return home quickly in an emergency.

9.12. Sustainable Travel by Port Workers

144. Travel Plan measures relating to movements of offshore construction workers associated with the Marshalling and Base Ports will be detailed within the relevant Port Travel Plan.

9.13. Summary of Measures

9.13.1. Definite Measures

Table 9-1 Measures to be implemented

Measures to be Implemented	
Travel Plan Coordinator	Appoint Travel Plan Coordinator
Travel awareness	Travel Plan Information Pack
Travel database	Monitoring data collated on a monthly basis
Public transport information	Staff notice boards within communal areas Travel Plan Information Pack
Minibus/crew bus service	From pre-arranged points e.g. bus and rail stations
Cycling	Secure cycle parking Changing area (including showers) and lockers Communal toolbox
Car sharing scheme	Manage and encourage use of car share register
Car parking management	Restriction of parking spaces with permit system Monitoring of overspill parking.
Management of worker movements	Shift patterns would be managed so as to adhere to worker movements assessed in the application for the DCO.
Welfare and catering facilities	Facilities to be provided on site to minimise off-site trips
Road safety	An accident and near miss reporting system
Guaranteed lift home	To ensure that anyone who did not travel in their own car has the security of knowing they can return home quickly in an emergency.

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9.13.2. Potential Measures

Table 9-2 Measures to be Investigated

Measures to be Investigated	
Car Parking	Level of parking to be reviewed during construction programme
	Reallocate spaces for cycling
	Provision of emergency electrical vehicle charging points
Public Transport	Potential for additional or revised minibus/crew bus pick-up points following feedback from monitoring and staff
Cycling	Monitor cycle parking use and increase provision if necessary Investigate potential for bike hire

10. MONITORING AND ENFORCEMENT

10.1. Monitoring

146. The Travel Plan Co-ordinator will monitor travel on a monthly basis throughout the construction period and will report to MSDC, ESC and SCC every three months (within 4 weeks of the end of that reporting period)(as overseen by EATL's Onsite Consents Compliance Manager).

147. The monitoring of the Travel Plan is important for the following reasons:

- It will demonstrate to MSDC, ESC and SCC that the aims and objectives of the Travel Plan are being achieved;
- It justifies the commitment of the Travel Plan Co-ordinator and of other resources;
- It maintains support for the Travel Plan by reporting successes; and
- It identifies any measures that are not working or problems with the approach of the Travel Plan.

148. Surveys and on-site records will be used to monitor travel to and from the site. The surveys will be used to monitor the number of staff using the minibus/crew bus service, car share syndicates, car park utilisation and the average car occupancy, while spot checks will identify any deficiencies in cycle parking provision. Cycling trips would be monitored simultaneously with car park occupancy and those entering the site would be cross referenced to their journey origin in order to discourage parking locally and then cycling into site. The results will then be compared with the mode share targets identified in Section 8 of this Travel Plan. In addition, feedback would be sought from the workforce during site briefings to gain an understanding of travel habits and to seek suggestions for improving the Travel Plan.

149. On arrival to site each day, workers will be required to sign in. Provision will be made on the sign in sheet for workers to record their mode of transport taken that day. This will provide a large amount of important data for the Travel Plan Co-ordinator to review and evaluate which measures of the Travel Plan are successful and where amendments may need to be made.

150. The local highway network adjoining each site access will regularly be observed by the Travel Plan Co-ordinator to check for evidence of overspill parking. Minibus/crew bus pick up points will also be checked to ensure personnel are using the designated parking areas.

151. The Travel Plan Co-ordinator will develop the monitoring programme in conjunction with SCC Highways Authority to ensure that the monitoring procedures are appropriate. The Travel Plan Co-ordinator will maintain a monitoring table of progress to key Travel Plan targets based on the results of the monitoring travel surveys.

152. The Travel Plan Co-ordinator will produce a quarterly report. As a minimum it would detail:

- Results from the car park surveys and staff briefings and any relevant supplementary data;
- Details of any identified Travel Plan breaches and corrective action; and
- Details of complaints and follow up actions.

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153. This Travel Plan is a dynamic, living document that will be updated as required following review of monitoring outputs, to ensure that the aims and objectives represent the up-to-date situation in respect of travel and access. Through monitoring, should it become apparent that the aims of the Travel Plan are not being achieved through the measures identified in this document, then additional measures will be identified, discussed with SCC Highways Authority and implemented where possible.

10.2. Review Strategy

154. The Travel Plan Co-ordinator will produce a Quarterly Monitoring Report. A typical structure for the Quarterly Monitoring Report would be as follows:

- Introduction and Background – this will provide detail with regards to the types of works being undertaken and number of construction workers and will include the Travel Plan Co-ordinator Contract Details;
- Results of Surveys and Monitoring – the Travel Plan Co-ordinator will collate the results of surveys, staff briefings and monitoring that have been undertaken. Where appropriate, the results of the surveys undertaken will be compared to the targets defined in the Travel Plan;
- Breaches, Complaints and Corrective Actions– setting out details of any identified Travel Plan breaches and complaints received (if any) and corrective or follow up actions (complaints and corrective actions to be reported by email within 48 hours, summarised in the Quarterly Monitoring Report and discussed as necessary at the Implementation Meetings (generally bi-monthly, increasing to monthly at times of peak activity). Information on near misses will also be included in this section;
- Achievements – this will include the work undertaken over the previous period with evidence and examples;
- Specific Measures – this will detail how all measures from the Travel Plan have been implemented;
- Summary – this will detail whether the Travel Plan is on track to meet its targets and if not, why not; and
- Future Plan – this will detail any amendments to the Travel Plan for the next period. This will include any specific outcomes or desired results and the details of any additional measures that are to be included in the Travel Plan to ensure compliance with the Modal Share Targets set out in Section 8.1. Where needed, such measures will be discussed and agreed with SCC, MSDC and ESC.
- Appendices.

155. The monitoring reports will provide an evidence base to identify the need to undertake corrective action. The Quarterly Monitoring Report shall be issued by the Travel Plan Co-ordinator to SCC within 4 weeks of the end of that reporting period. The system for their review and discussion will be agreed with MSDC, ESC and SCC during the development of the Travel Plan by the Travel Plan Co-ordinator, prior to commencement on site. MSDC, ESC and SCC would, in any case, be informed of any complaints within 48 hours.

10.3. Enforcement

10.3.1. Introduction

156. The consequences of not meeting the Travel Plan targets would be an increase in employee traffic on the highway network, impacting on sensitive junctions, potentially leading to increases in driver delay and other environmental effects. It is therefore essential that the Travel Plan Co-ordinator can quickly react to any breaches and implement corrective processes. This section therefore provides a summary of the mechanisms that would ensure that the Travel Plan is effectively enforced.

10.3.2. Potential Breaches

157. To ensure that the aims of the Travel Plan can be effectively enforced it is important to define what would constitute a breach. The Travel Plan therefore considers that the following would constitute a breach of the Travel Plan whereby corrective measures would be required:

1. Exceeding the daily employee vehicle trip targets (see Section 8.1);
2. Construction workers overspill parking on the public highway; and
3. Construction traffic being driven inappropriately, e.g. speeding.

10.3.3. Corrective Process

158. On receipt of a report of a potential breach, the Travel Plan Co-ordinator would investigate the circumstances and compile a report for MSDC, ESC and SCC within seven working days. The report would outline the outcome of the investigation and what corrective action (if necessary) had been implemented. If the breach is found to be material, the following three stage correction process will be followed:

- Stage one – SCC confirms a breach and requests the Travel Plan Co-ordinator to review the data and concerns. SCC and the Travel Plan Co-ordinator would then agree the extent of the breach of controls and agree action. This is likely to be a contractor warning at this stage;

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- Stage two – If a further material breach is identified the contractor would be given a further warning and required to involve individuals / subcontractors / suppliers to produce an action plan to outline how the issue would be rectified and any additional mitigation measures proposed. The action plan would identify a strategy with a duration of not more than seven working days to correct the breach.
- Stage three – Should further breaches still occur, the contractor would be required to remove the offender from site and the contractor/supplier would receive a formal warning. Any continued breaches by individuals of the supplier/contractor may be dealt with by the formal dispute procedures of the contract.

159. Failure to follow the performance standards (including the correction process) or continued breaches would be addressed by contractual measures between EATL and the contractor.

160. Individual employee breaches will be addressed through UK employment law whereby the three-stage process outlined above will form the basis for disciplinary proceedings.

161. Further corrective actions would be discussed and agreed with MSDC, ESC and SCC as necessary and appropriate. For example, if it is agreed that notwithstanding implementation of the corrective process above targets cannot be met for the existing works programme, alternative options will be investigated, for example the re-programming of the works.

11. REFERENCES

Suffolk County Council, (undated) *Suffolk Travel Plan Guidance*, https://www.suffolk.gov.uk/planning-waste-and-environment/planning-and-development-advice/travel-plans/

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APPENDIX 1 TRAFFIC AND TRANSPORT TECHNICAL NOTE

FOR DISCHARGE

East Anglia THREE Onshore Cable Works

Traffic and Transport Technical Note

ScottishPower Renewables

Prepared by:

SLR Consulting Limited

15 Middle Pavement, Nottingham, NG1 7DX

SLR Project No.: 404.05356.00006

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Revision: 02

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	16 August 2023	Daniel Moran	Kay Griffin	Kay Griffen
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1.0 Introduction

1.1 Background

SLR Consulting Ltd. (SLR) has undertaken a review and analysis of the anticipated vehicle movements associated with the cable installation works stage of the East Anglia THREE Offshore Windfarm (EA THREE) Onshore Cable Works as per the Development Consent Order (DCO) dated 7th August 2017.

The forecast vehicle movements (personnel and Heavy Goods Vehicles (HGV)) were included in Chapter 27 'Traffic and Transport' of the Environmental Statement (ES), which was prepared by Royal HaskoningDHV in support of the DCO submission (Document Reference – 6.1.27).

The vehicle movements identified in the ES, which was prepared in 2015, were estimates based on a set of reasoned assumptions, professional experience and using previous project experience; however, NKT, the Principal Contractor for the EA THREE onshore cable works has now confirmed the vehicle movements for the construction programme. These revised vehicle movements form the basis of the analysis presented in this Technical Note.

1.2 Purpose of the Report

The objective of this Technical Note is to provide Suffolk County Council (SCC) with an overview of the confirmed (peak) vehicle numbers associated with the EA THREE onshore cable works, including an assessment of the likely impacts at the required locations on the highway network.

This Technical Note therefore sets out the following:

- A summary of the assessment assumptions and requirements for EA THREE as identified in the ES;
- A comparison of the ES and NKT vehicle movements associated with the EA THREE onshore cable works at the sensitive junctions on the highway network that are likely to be used by traffic associated with these works, using a lower vehicle occupancy for the NKT data than presented in the ES;
- A review of the likely impacts,by undertaking junction capacity assessments at the sensitive junctions on the highway network that are likely to be used by traffic associated with the EA THREE onshore cable works, including vehicle movements that are likely to be on the highway network associated with the EA THREE Converter Station construction works; and
- An update of road safety analysis at key junctions on the highway network that are likely to be used by traffic associated with the EA THREE cable installation works and EA THREE Converter Station.

2.0 DCO Submission Traffic Data

2.1 Assessment Assumptions

A brief summary of the assumptions employed to assess the impact of vehicle movements associated with the construction of EA THREE is set out as follows:

- The nature of construction works typically requires that employees work longer hours in the summer and shorter hours in the winter to take advantage of the available daylight. Therefore, whilst employees would arrive prior to the morning network peak hour (08:00 to 09:00) throughout the year (and therefore no requirement for assessment during this period), there is the possibility that there would be an overlap between construction employees departing and the network evening peak hour (17:00 to 18:00 observed from traffic counts) i.e. when the construction shift finishes at the same time as the evening network peak (employees would be departing their place of work and HGVs would be returning from making deliveries).
- As a worst case it was assumed that all employee trips would overlap with the evening network peak hour, recognising this scenario is only likely to occur during a two-month period before and after the summer months.
- The delivery of materials and plant to the Primary CCSs (Paper Mill Lane and Top Street) would be spread over a ten-hour period, whilst onward deliveries to Secondary CCSs or points of access would be scheduled to avoid the highway network peak hours.
- A car occupancy of 2.5 employees per vehicle; and
- To develop a worst-case impact scenario on the highway network, the peak traffic demand for each section was added together to create a theoretical ‘in-combination worst case’ week whereby the peak construction activity for all sections would occur concurrently. This results in the combined traffic flows on the ‘A’ class road network as over-estimated.

2.2 Assessment Requirements

In order to assess if there was any potential for significant impact the evening peak (17:00 to 18:00) on the highway network, the forecast EA THREE construction traffic generation was assigned to the junctions across the agreed study area, to inform the DCO application.

SCC identified 11 junctions across the agreed study area as potentially being susceptible to increases in traffic flow.

In Chapter 27 ‘Traffic and Transport’ it was concluded that the forecast vehicle movements associated with the construction of EA THREE (total construction works) were of a magnitude that could potentially lead to significant impacts at the following three sensitive junctions:

- Junction 1: Roundabout junction of the A14 and B1113 (Claydon Interchange);
- Junction 5: Roundabout junction of the A12 and A1214; and
- Junction 11: Roundabout junction of the A12 and B1438.

In the Outline Construction Traffic Management Plan Outline (CTMP), prepared for the EA THREE DCO application, the list of sensitive junctions where the forecast vehicle movements identified as having the potential to lead to significant impacts was as follows:

- Junction 5: Roundabout junction of the A12 and A1214;

- Junction 6: Roundabout junction of the A12 and Newbourne Road;
- Junction 8: Priority junction of the B1079 and Manor Road; and
- Junction 11: Roundabout junction of the A12 and B1438.

Capacity assessments were not undertaken at any of the junctions listed above (in Chapter 27 or the Outline CTMP) as part of the DCO application; however, the following strategy was proposed:

- The junctions identified as having the potential to lead to significant impacts would be subject to detailed analysis through the development of the Construction Traffic Management Plan (CTMP), post-consent, when a contractor has been appointed and can inform outcomes; and
- Further analysis would seek to quantify the potential significance of these impacts and the scope of mitigation measures. Potential mitigation measures would focus on enhanced travel planning and restricting peak hour movements rather than physical junction improvements.

The maximum vehicle movements in the evening peak hour at the sensitive junctions that would be used by the traffic associated with the EA THREE as identified in *Table 27.17 Peak Hour Traffic Flows through Sensitive Junctions* of Chapter 27 'Traffic and Transport', are set out in **Table 1**

Table 1: Evening Peak (17:00 – 18:00) Junction Vehicle Impacts (DCO Submission)

Junction		Total EA THREE		
		Cars/LGVs	HGVs	Total
1	A14/B1113	80	16	96
5	A12/A1214	88	22	110
6	A12/Newbourne Road	48	22	70
8	B1079/Manor Road	15	0	15
11	A12/B1438	134	22	156

3.0 Confirmed Traffic Data – Onshore Cable Works

3.1 Introduction

In the context of the strategy set out in **Section 2.2,** and using the assessment assumptions in Chapter 27 'Traffic and Transport', the following text sets out the confirmed peak vehicle movements for the EA THREE onshore cable works anticipated by NKT and the confirmed typical EA THREE Converter Station vehicle movements anticipated by Siemens. The assessment is based on the peak period of activity during the construction programme for the EA THREE cable installation works, which is predominately associated with the delivery of material for the construction of haul roads undertaken at the same time for a number of work locations. These are programmed to occur during the summer of 2024.

3.2 Trip Generation

3.2.1 EA THREE Cable Installation Works

The revised maximum (daily and evening peak) number of employee, employee vehicle movements (and HGV movements associated with the peak period of activity for the EA THREE cable works are set out in Table 2 (and provided in full in **Appendix A)** for the following scenarios:

- **Scenario 1:** The peak activity of works at access points AP28, AP29 and AP30 that will occur at the same time; or
- **Scenario 2:** The peak activity of works at access points AP2, AP3 and AP31 that will occur at the same time.

The EA THREE cable installation assessment flows for Scenarios 1 and 2, which will occur in Summer 2024, have been derived using information from NKT using the following assumptions:

- Daily employees / vehicle movements are arrivals and departures, during the peak hours and at other times during the day;
- Evening peak employees / vehicle movements are departures between 17:00 and 18:00 from the relevant access points at the end of the working day; and
- Daily HGV movements are arrivals and departures at the Primary CCSs, during the peak hours and at other times during the day; and
- Evening peak HGV movements are arrivals at a Primary CCS between 17:00 and 18:00.

Employee vehicle movements are based on a car occupancy of 1.5, which has been identified from lessons learnt from the EA TWO / EA ONE North ES and Examination, advice from SCC and through discussions with NKT, who has suggested that a 2.5 car occupancy is unlikely to be achievable.

Given the peak period of activity for the EA THREE cable installation will occur at the time in the year with the most available daylight hours (see **Appendix B** for a summary of daylight hours across the year and likely timing of workforce movements), in reality, the impacts set out in this Technical Note are likely to be much less.

Also, as HGVs are not permitted to make an onward journey from the Primary CCS to a Secondary CCS or construction access during the peak hours on the highway network, the forecast number of HGVs arriving at the Primary CCS's to inform this assessment are likely to be an over-estimate and therefore robust.

Table 2: EA THREE Confirmed Maximum Figures – Cable Installation (NKT)

Scenario (Access Points)	Employees				HGV Movements	
	Number		Vehicle Movements			
	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak
1 (28, 29 and 30)	300	60	200	40	360	30
2 (2, 3 and 31)	230	48	153	32	440	20

3.2.2 EA THREE Converter Station

As the construction of the EA THREE Converter Station will be undertaken at the same time as the EA THREE onshore cable works, the typical vehicle movements associated with the EA THREE Converter Station have been included and are set out in **Table 3.**

Table 3: EA THREE Confirmed Typical Figures – Converter Station (Siemens)

Construction Phase	Employees				HGV Movements	
	Number		Vehicle Movements			
	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak
Converter Station	80	80	106	53	20	4

3.3 Trip Distribution

3.3.1 Employees

The distribution for employee traffic identified in the ES, is shown in **Table 4** and has been used to distribute the NKT and Siemens construction traffic data for the EA THREE cable installation works and EA THREE Converter Station.

Table 4: Employee Traffic Distribution (ES) (percentages)

Labour Type	Origin/Destination					
	A12 South	A14 South	A12 North	A1214	A14 North	B1438
In-Migrant Labour (66%)	8.5	10.6	47.9	25.5	0	7.4
Resident Labour (34%)	43.6	2.0	8.9	21.8	19.8	4.0

3.3.2 HGVs

The distribution for HGVs has been provided by NKT for the EA THREE cable installation works and by Siemens for the EA THREE Converter Station, as set out below:

- Cable Installation Works (Paper Mill Lane)
  - 50% of HGVs from / to A14 South; and
  - 50% of HGVs from / to A14 North.
- Cable Installation Works (Top Street)
  - 62.5% of HGVs from / to A12 North; and
  - 37.5% of HGVs from / to A14 South.
- Converter Station

- 70% of HGVs from / to A14 South; and
- 30% of HGVs from / to A14 North.

3.4 Trip Assignment

3.4.1 EA THREE Onshore Cable Works

The maximum number of vehicle movements associated with the peak period for the EA THREE cable installation in the evening peak hour at Junctions 1, 5, 6, 8 and 11 (the highest from Scenario 1 and 2), is shown in **Table 5** to **Table 8.**

Table 5: EA THREE Onshore Cable Works Vehicle Impacts (Junction 1: A14/B1113 Claydon Interchange)

Arm	NKT		
	Cars/LGVs	HGVs	Total
B1113	24	0	24
A14 North	0	10	10
Ipswich Road	0	0	0
A14 South	0	10	10
Paper Mill Lane	0	0	0
Total	**24**	**20**	**44**

Table 6: EA THREE Onshore Cable Works Vehicle Impacts (Junction 5: A12/A1214)

Arm	NKT		
	Cars/LGVs	HGVs	Total
A12 North	10	0	10
Main Road	0	0	0
A12 South	6	13	19
A1214	0	0	0
P&R	0	0	0
Total	**16**	**13**	**29**

Table 7: EA THREE Onshore Cable Works Vehicle Impacts (Junction 6: A12/Newbourne Road)

Arm	NKT		
	Cars/LGVs	HGVs	Total
A12 North	7	0	7
Newbourne Road	0	0	0
A12 South	6	13	19
Foxhall Road	0	0	0
Total	**13**	**13**	**26**

Table 8: EA THREE Onshore Cable Works Vehicle Impacts (Junction 11: A12/B1438)

Arm	NKT		
	Cars/LGVs	HGVs	Total
A12 North	11	17	28
B1438	0	0	0
A12 South	4	13	17
Total	**15**	**30**	**45**

The NKT assessment flows are shown in **Figure 1** and **Figure 2.**

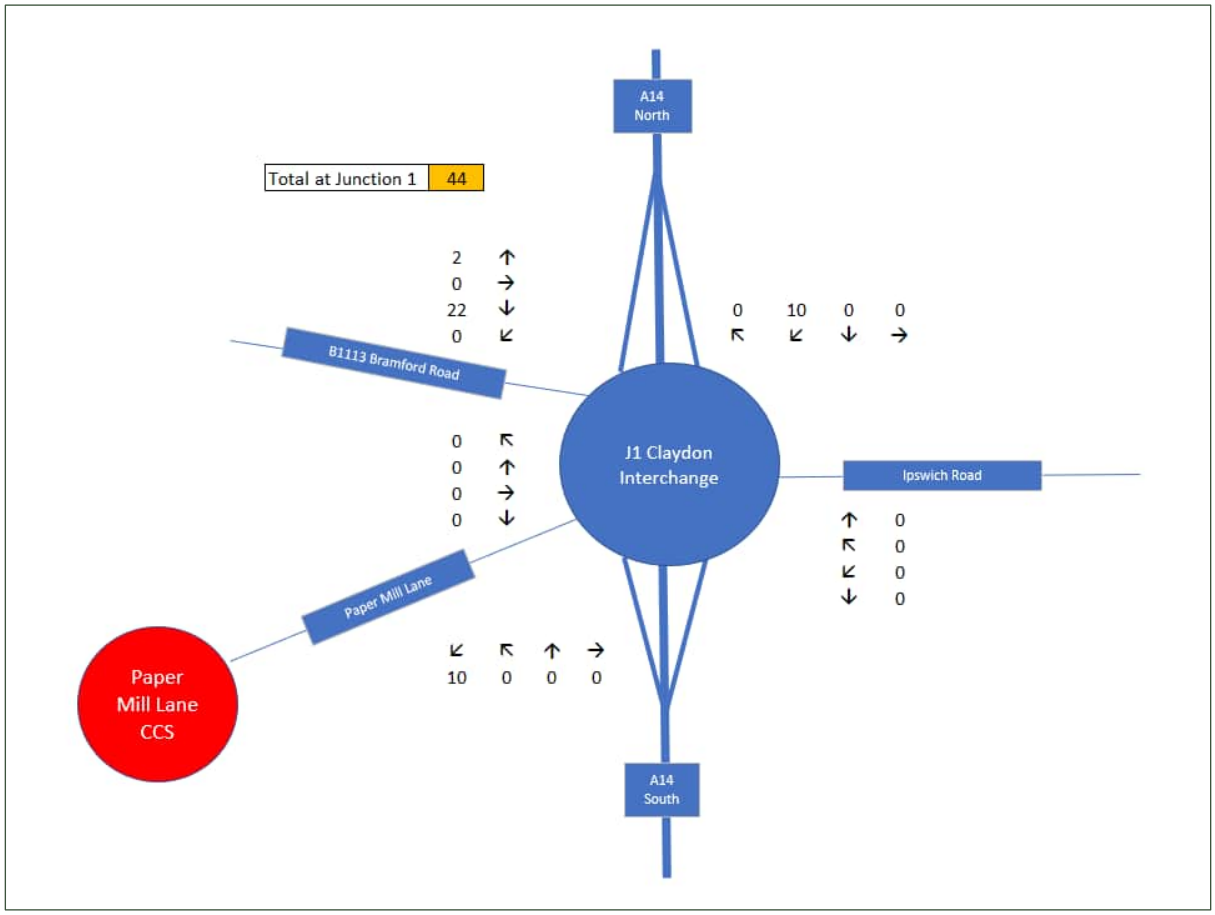


Figure 1: NKT EA THREE Onshore Cable Works Traffic Flows (Junction 1)

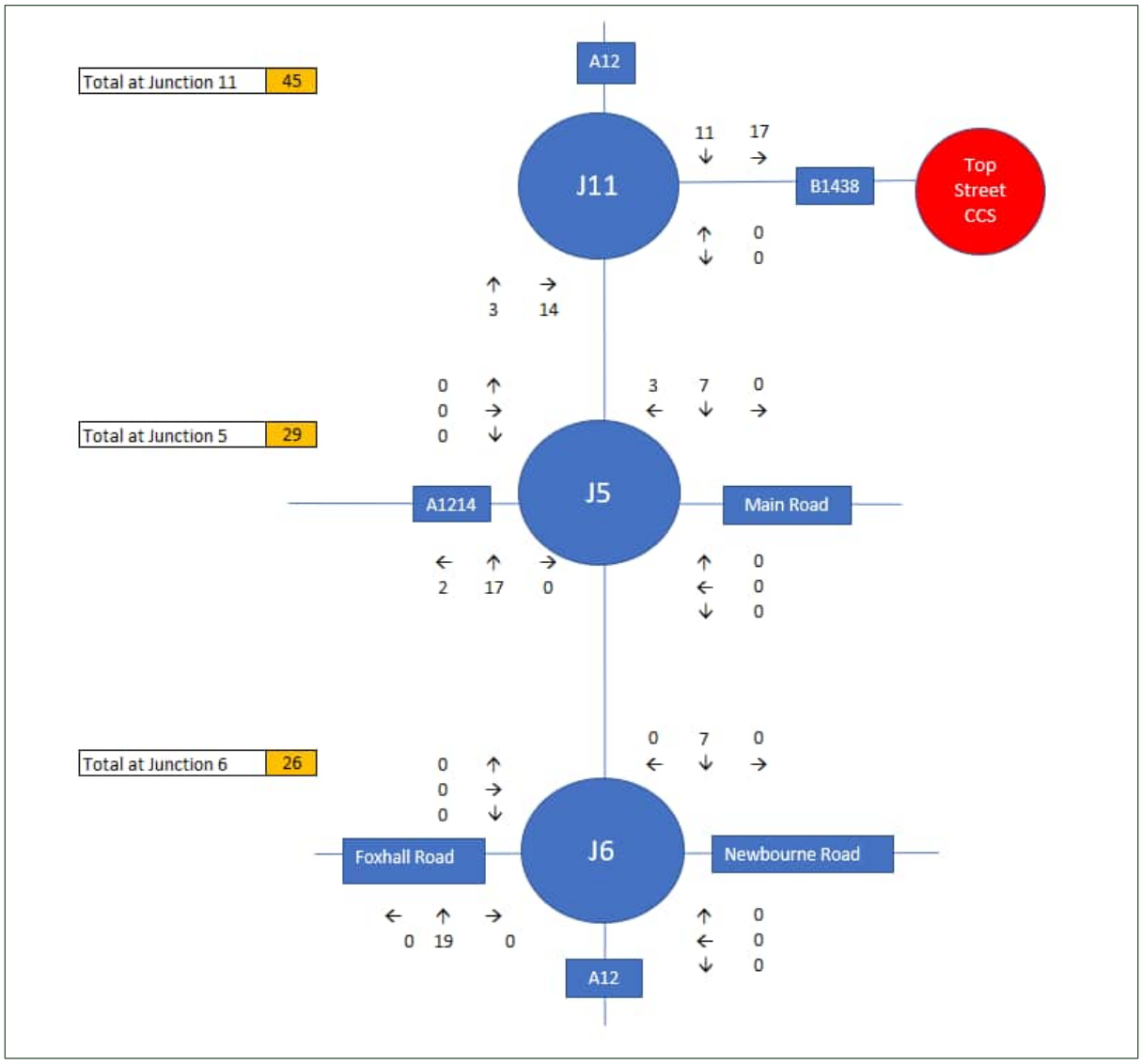


Figure 2: NKT EA THREE Onshore Cable Works Traffic Flows (Junctions 5, 6 & 11)

3.4.2 EA THREE Converter Station

The maximum number of vehicle movements associated with the peak period for the Converter Station in the evening peak hour at Junctions 1, 5, 6, 8 and 11 is shown in **Table 9** to **Table 12** and are in **Figure 3** and **Figure 4.**

Table 9: EA THREE Converter Station Vehicle Impacts (Junction 1: A14/B1113 Claydon Interchange)

Arm	Siemens		
	Cars/LGVs	HGVs	Total
B1113	53	0	53
A14 North	0	2	2
Ipswich Road	0	0	0
A14 South	0	2	2
Paper Mill Lane	0	0	0
Total	**53**	**4**	**57**

Table 10: EA THREE Converter Station Vehicle Impacts (Junction 5: A12/A1214)

Arm	Siemens		
	Cars/LGVs	HGVs	Total
A12 North	0	0	0
Main Road	0	0	0
A12 South	22	0	22
A1214	0	0	0
P&R	0	0	0
Total	**22**	**0**	**22**

Table 11: EA THREE Converter Station Vehicle Impacts (Junction 6: A12/Newbourne Road)

Arm	Siemens		
	Cars/LGVs	HGVs	Total
A12 North	0	0	0
Newbourne Road	0	0	0
A12 South	22	0	22
Foxhall Road	0	0	0
Total	**22**	**0**	**22**

Table 12: EA THREE Converter Station Vehicle Impacts (Junction 11: A12/B1438)

Arm	Siemens		
	Cars/LGVs	HGVs	Total
A12 North	0	0	0
B1438	0	0	0
A12 South	22	0	22
Total	**22**	**0**	**22**

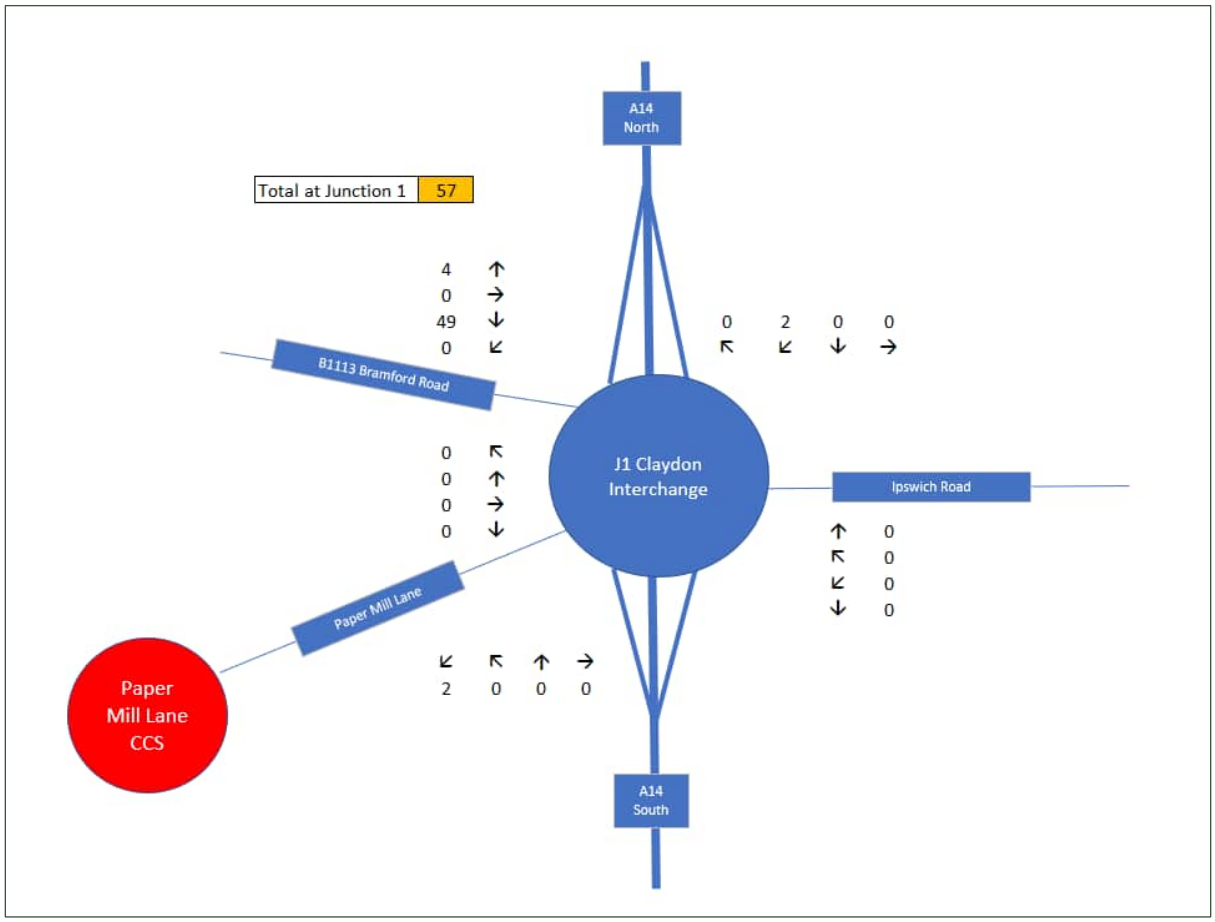


Figure 3: Siemens EA THREE Converter Station Traffic Flows (Junction 1)

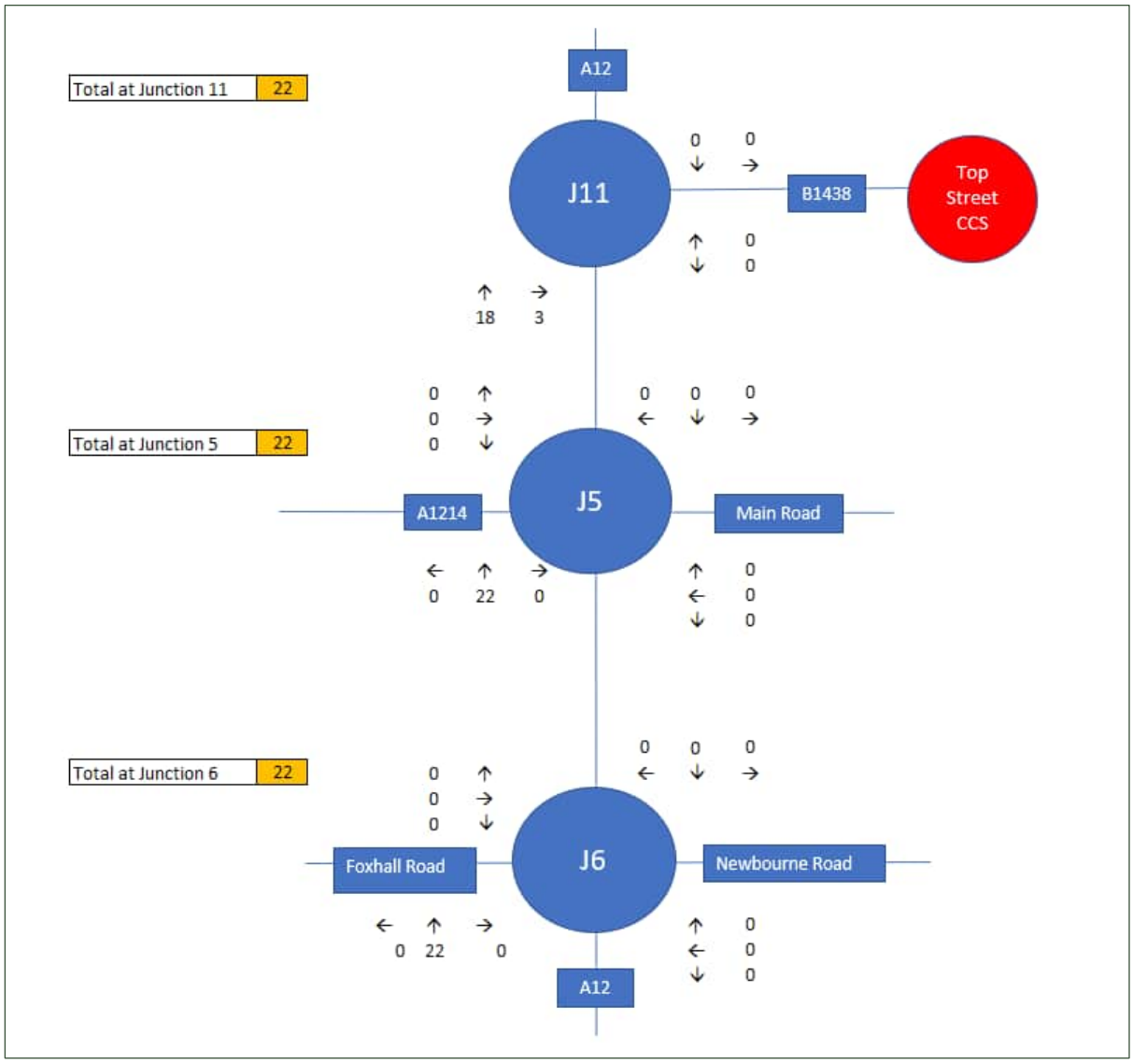


Figure 4: Siemens EA THREE Converter Station Traffic Flows (Junctions 5, 6 & 11)

3.4.3 EA THREE Onshore Cable Works and EA THREE Converter Station (EA THREE Total)

The maximum number of vehicle movements associated with the peak period for the EA THREE cable installation works and the EA THREE Converter Station in the evening peak hour at Junctions 1, 5, 6, 8 and 11 is shown in **Table 13** to **Table 16** compared to the EA THREE traffic movements assessed in the ES for the DCO application**,** and are also shown in **Figure 5** and **Figure 6.**

Table 13: EA THREE Total Vehicle Impacts (Junction 1: A14/B1113 Claydon Interchange)

Arm	ES			NKT and Siemens		
	Cars/LGVs	HGVs	Total	Cars/LGVs	HGVs	Total
B1113	84	8	92	77	0	77
A14 North	0	2	2	0	12	12
Ipswich Road	0	0	0	0	0	0

Arm	ES			NKT and Siemens		
	Cars/LGVs	HGVs	Total	Cars/LGVs	HGVs	Total
A14 South	0	6	6	0	12	12
Paper Mill Lane	0	0	0	0	0	0
Total	**84**	**16**	**100**	**77**	**24**	**101**

Table 14: EA THREE Total Vehicle Impacts (Junction 5: A12/A1214)

Arm	ES			NKT and Siemens		
	Cars/LGVs	HGVs	Total	Cars/LGVs	HGVs	Total
A12 North	65	0	65	10	0	10
Main Road	0	0	0	0	0	0
A12 South	10	22	32	28	13	41
A1214	13	0	13	0	0	0
P&R	0	0	0	0	0	0
Total	**88**	**22**	**110**	**38**	**13**	**51**

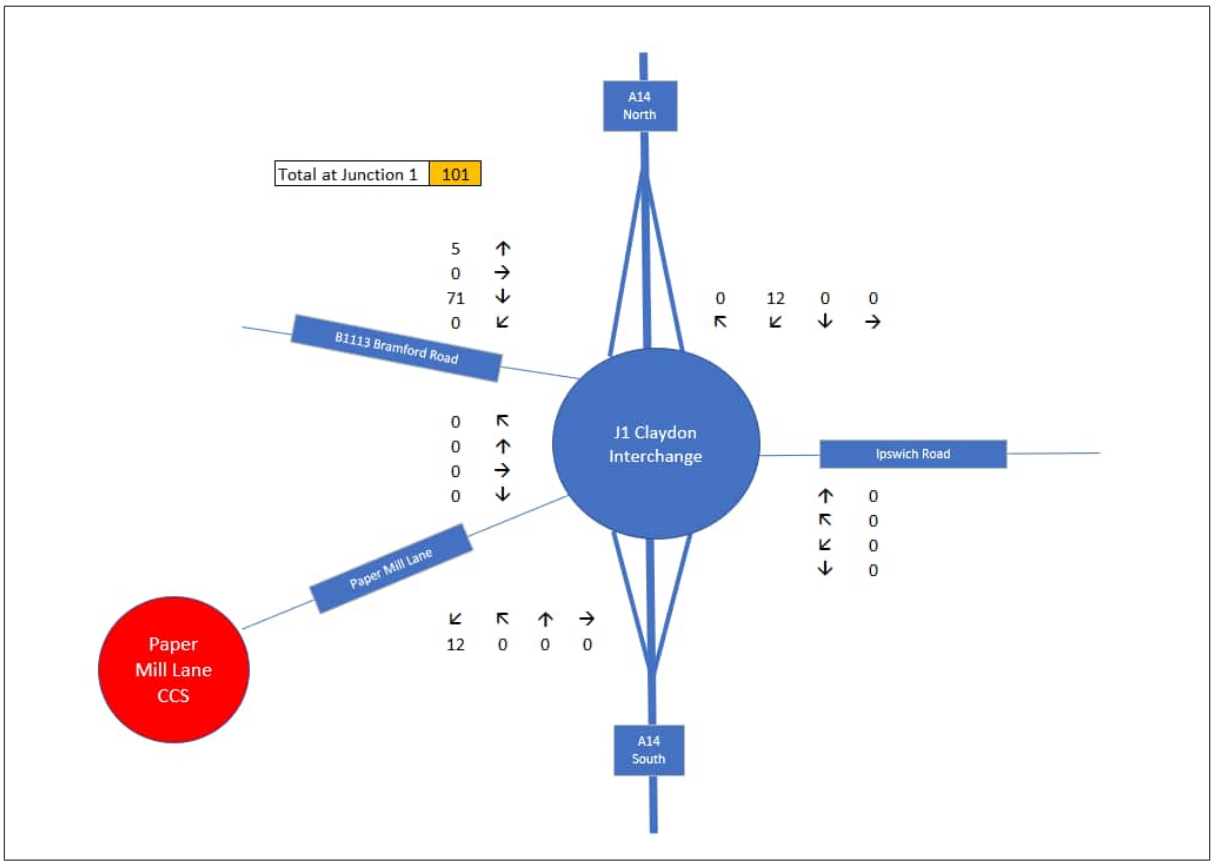


Figure 5: NKT and Siemens Total EA THREE Traffic Flows (Junction 1)

Table 15: EA THREE Total Vehicle Impacts (Junction 6: A12/Newbourne Road)

Arm	ES			NKT / Siemens		
	Cars/LGVs	HGVs	Total	Cars/LGVs	HGVs	Total
A12 North	38	0	38	7	0	7
Newbourne Road	5	0	5	0	0	0
A12 South	5	22	27	28	13	41
Foxhall Road	0	0	0	0	0	0
Total	**48**	**22**	**70**	**35**	**13**	**48**

Table 16: EA THREE Total Vehicle Impacts (Junction 11: A12/B1438)

Arm	ES			NKT / Siemens		
	Cars/LGVs	HGVs	Total	Cars/LGVs	HGVs	Total
A12 North	9	0	9	11	17	28
B1438	115	0	115	0	0	0
A12 South	10	22	32	26	13	39
Total	**134**	**22**	**156**	**37**	**30**	**67**

As **Table 13** shows, the confirmed number of EA THREE vehicle movements are of the same magnitude (one vehicle greater) in the evening peak hour (17:00 to 18:00) at Junction to the vehicle numbers assessed in the ES for the DCO Submission.

Table 14 to **Table 16** show the confirmed number of EA THREE vehicle movements are less (between around 30 to 50%) in the evening peak hour (17:00 to 18:0) at Junctions 5, 6 and 11 than the vehicle numbers assessed in the ES for the DCO Submission.

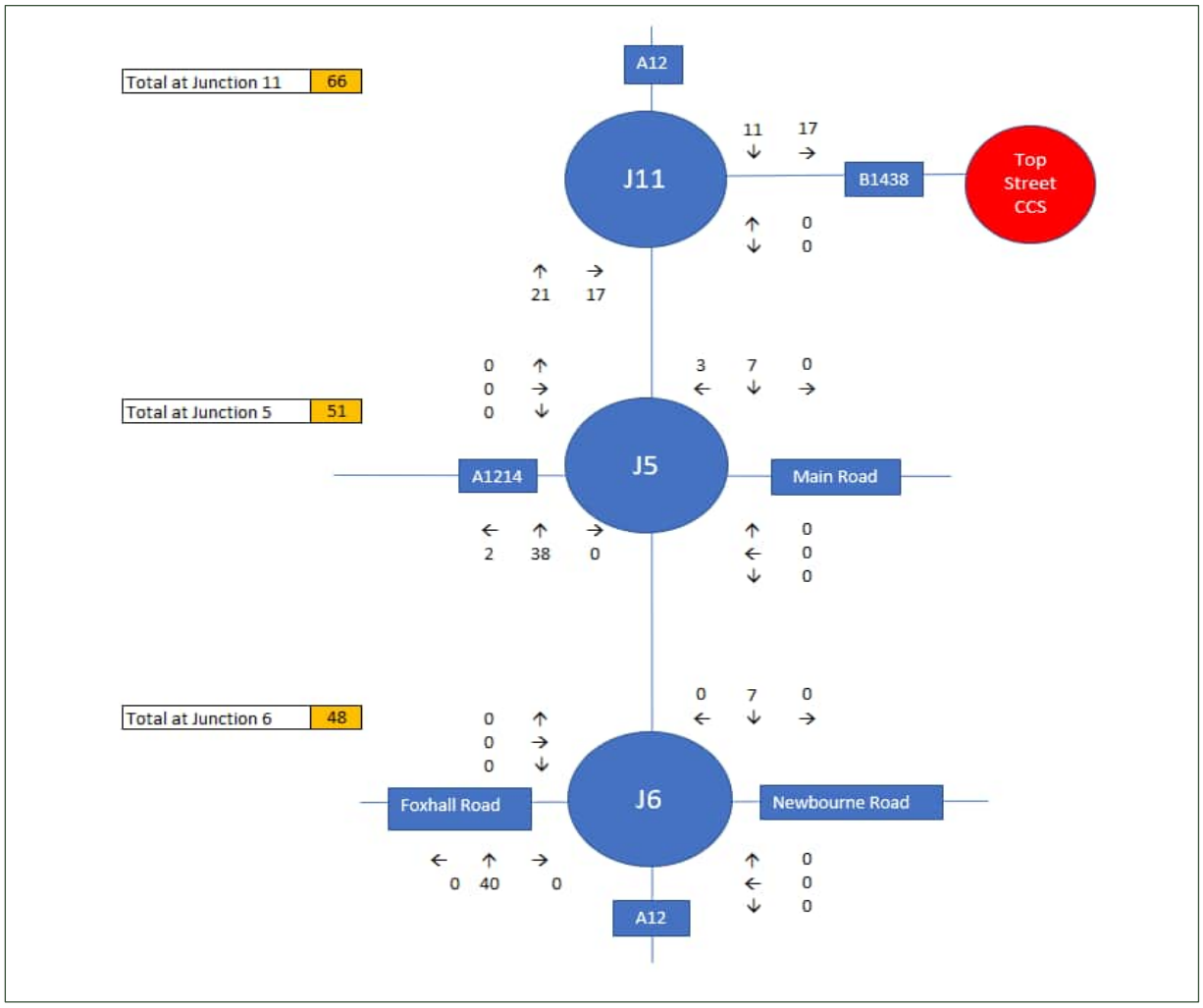


Figure 6: NKT and Siemens Total EA THREE Traffic Flows (Junctions 5, 6 & 11)

4.0 Impact Assessment

4.1 Introduction

This section presents a capacity assessment of the following sensitive junctions to assess the potential impact of the EA THREE onshore cable works and Converter Station construction traffic, based on the confirmed vehicle movement data provided by NKT and Siemens.

- Junction 1: Grade-separated roundabout junction of the A14 and B1113 (Claydon Interchange);
- Junction 5: Roundabout junction of the A12 and A1214;
- Junction 6: Roundabout junction of the A12 and Newbourne Road; and
- Junction 11: Roundabout junction of the A12 and B1438.

4.2 Assessment Parameters

The assessment has been based on the following parameters:

- Evening Peak (17:00 to 18:00);
- 2024 assessment year;
- Addition of proportionate committed development traffic that is assumed likely to be on the highway network in 2024 from land at Adastral Park (3,000 dwellings) Planning Application Ref: DC/17/1435/OUT, Blacktiles Lane (47 dwellings) Planning Application Ref: DC/16/1992/FUL and Sizewell C early years of the construction programme;
- Existing junction layouts; and
- Confirmed vehicle movement data provided by NKT and Siemens;

Baseline traffic flows for Junctions 1, 5 and 6 have been obtained from the following:

- Junction 1: A14/B113 Claydon Interchange – the capacity assessment output in the TA submitted in support of the planning application for the extension to Port One Business and Logistics Park (Ref: DC/20/01175);
- Junction 5: A12/A14 – the Transport Assessment (TA) prepared by TPA in December 2019) for the residential development at the Suffolk Constabulary Headquarters, in Martlesham Heath (Planning Application Ref: DC/20/0902/OUT;
- Junction 6: A12/Newbourne Road – the TA prepared in March 2019 by WYG for the Orwell Green Garden Village, development in Bucklesham (Planning Application Ref: DC/19/1988/OUT); and

The data are provided in **Appendix C.** The original survey data was not available for the 2016 data at the A12/Newbourne Road junction and therefore approximated HGV percentages have been applied to the Passenger Car Unit (PCU) flows using surveyed flows at the A12/A1214 as reasonable estimates.

Background traffic growth has been applied to the baseline traffic data to an assessment year of 2024, using TEMPRO v7.2, constrained to employment growth only given the addition of the committed housing schemes. Details of the committed development traffic data is provided in **Appendix D.**

There is a highway improvement scheme proposed by SCC at the A12/A1214 junction; however, as this is not a committed scheme, the existing junction has been modelled. There is a committed highway scheme at the A12/Newbourne Road roundabout associated with the Adastral Park development; however, this is not required until the occupation of the 601st dwelling and it is unlikely that this would occur by 2024, given the proposed build out rates set out in Table 23.1 of the Planning Statement submitted for the land at Adastral Park application (prepared by CODE Development Planners Ltd. in March 2017) and as we understand no dwellings have currently been built and occupied.

The baseline plus committed development traffic flows for Junction 11: A12/B1438 have been derived from the traffic model prepared to assess the impact of the Sizewell C development, provided by SCC.

4.3 Traffic Flows

The resulting traffic flows for the following assessment scenarios are shown in:

- 2024 base + committed development; and
- 2024 base + committed development + EA THREE (Onshore Cable Works[1] and Converter Station)

[1] Worst case Scenario 1 for Junctions 5,6 and 11 and worst case Scenario 2 for Junction 1

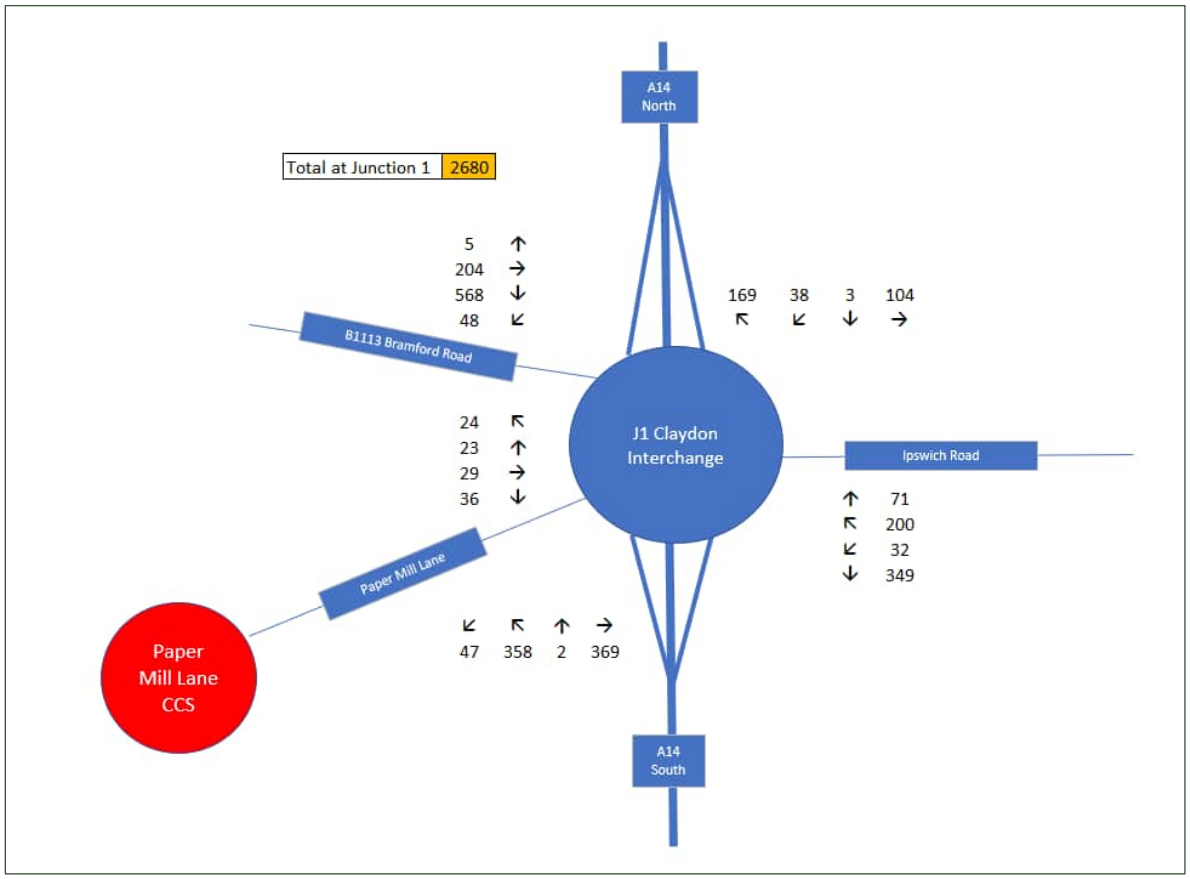


Figure 7: **Base 2024 plus Committed Development Traffic Flows (Junction 1)**

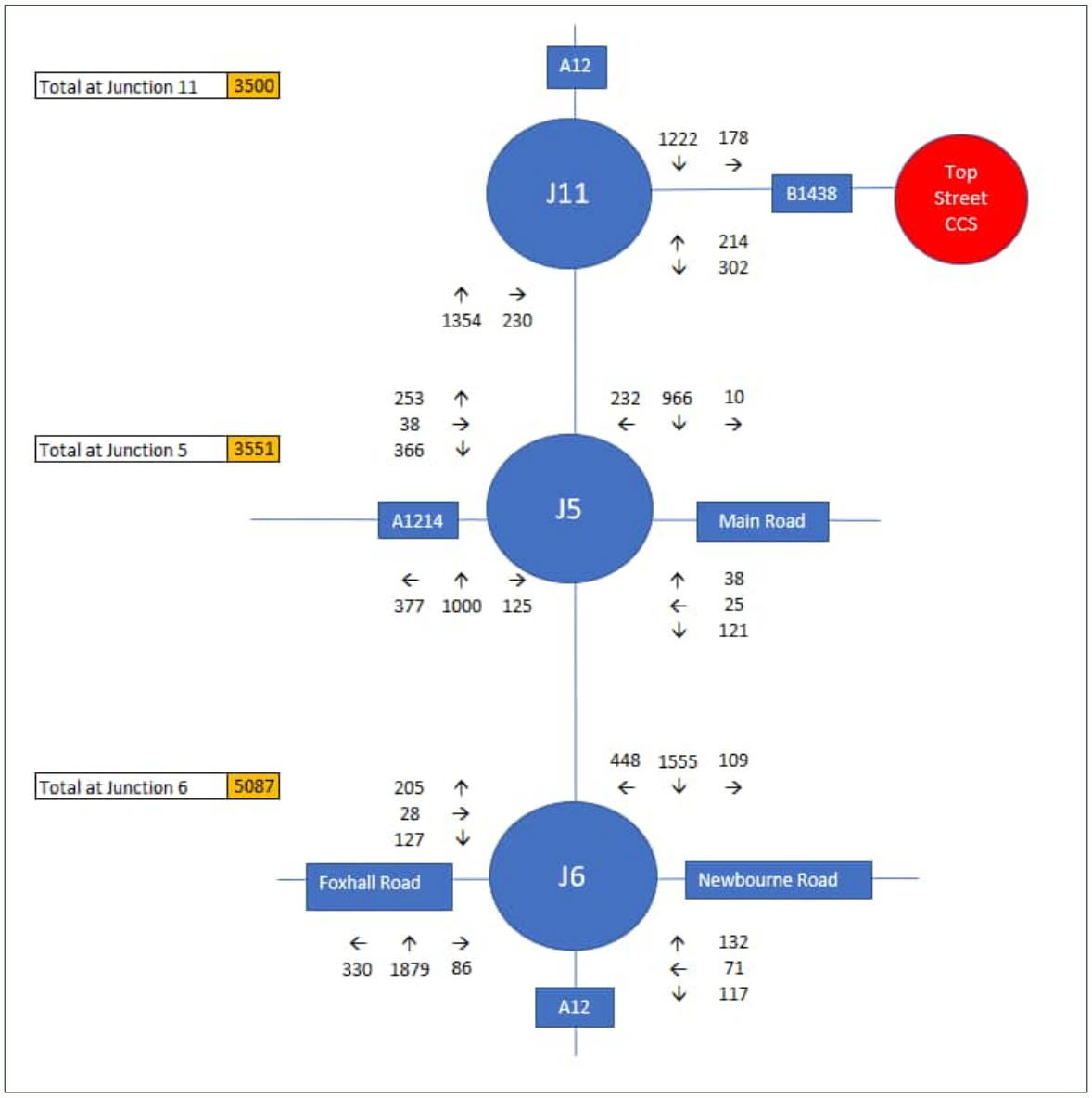


Figure 8: Base 2024 plus Committed Development Traffic Flows (Junctions 5, 6 & 11)

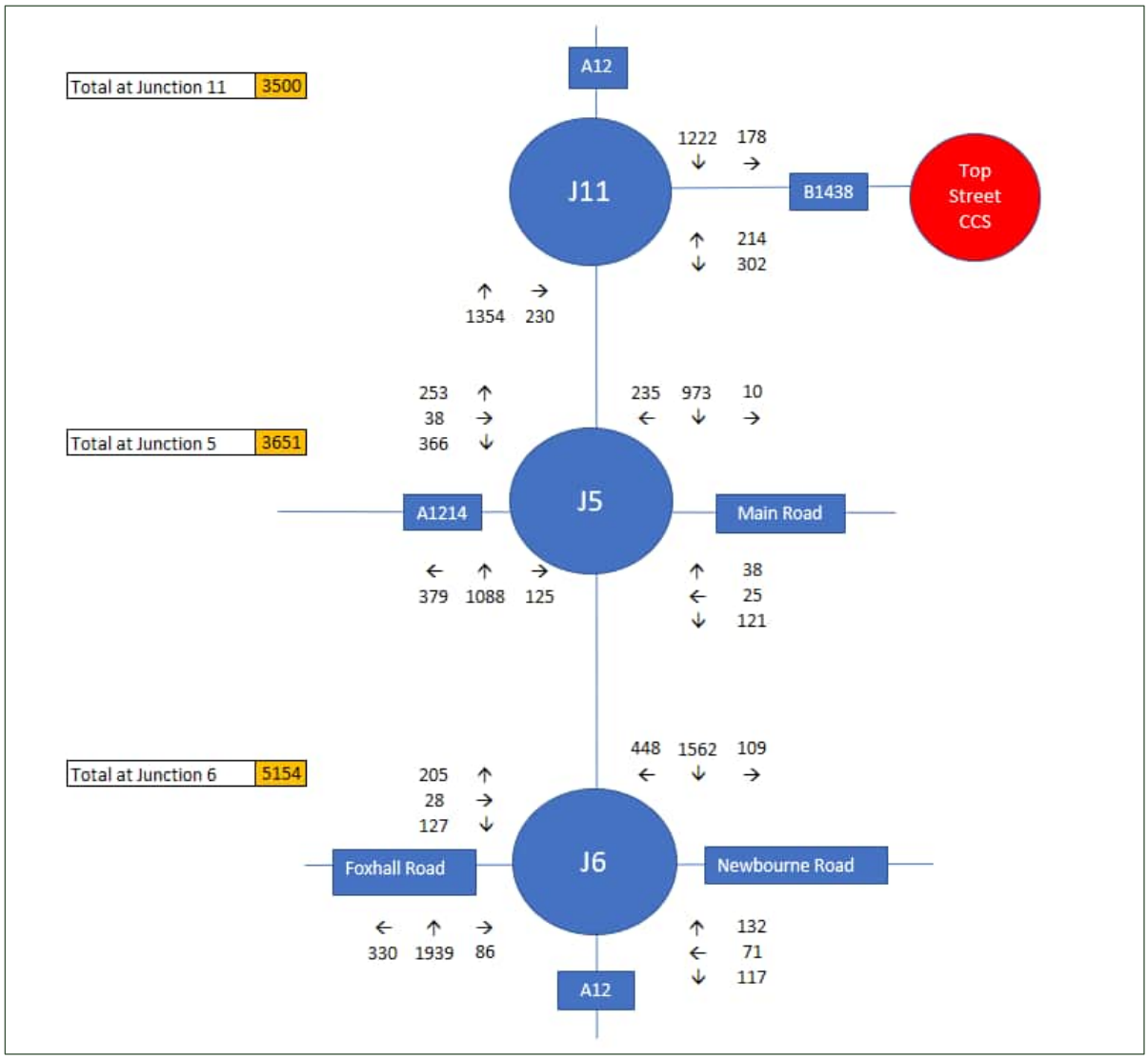


Figure 9: Base 2024 plus Committed Development plus EA THREE Scenario 1 Traffic Flows (Junctions 5, 6 & 11)

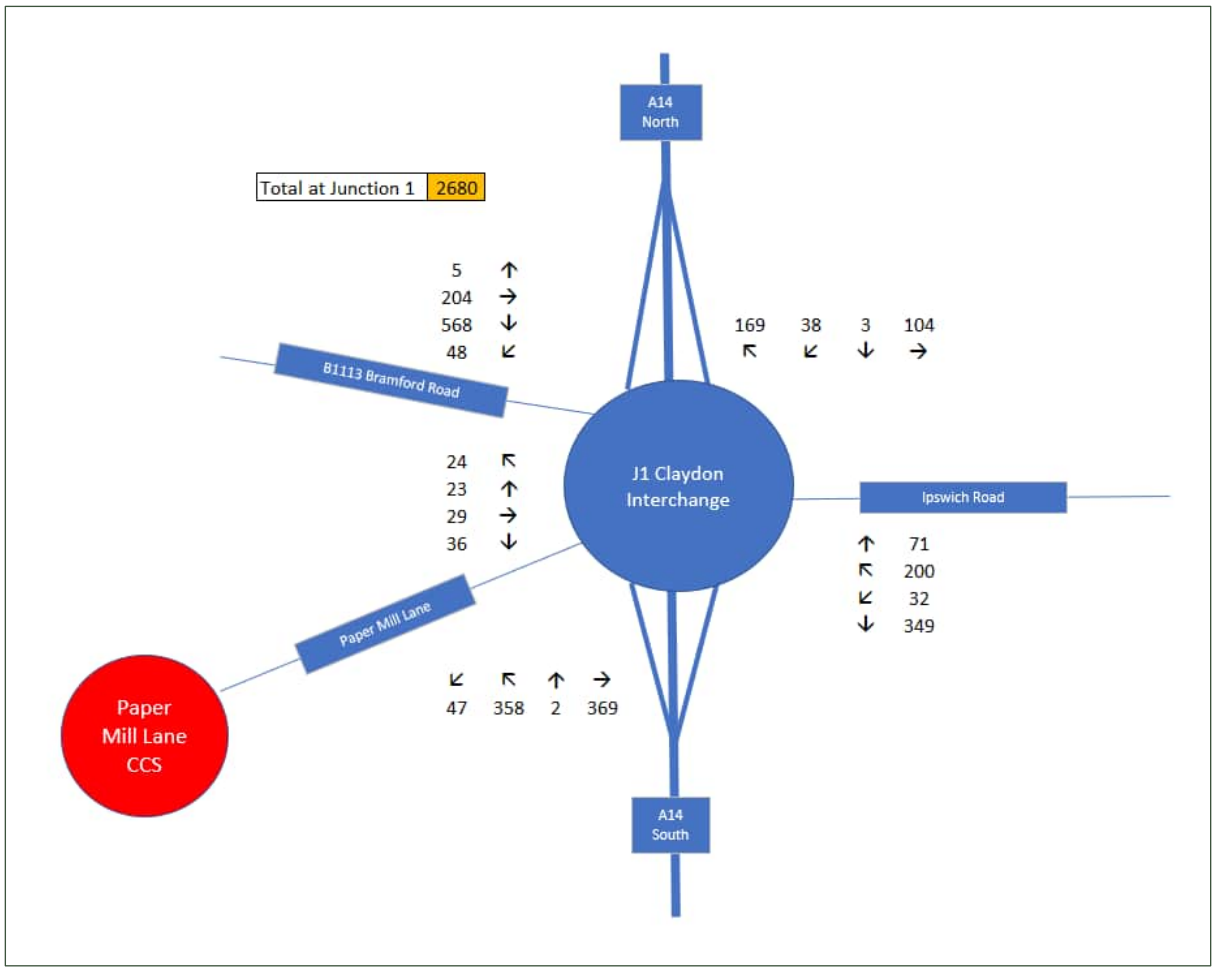


Figure 10: Base 2024 plus Committed Development plus EA THREE Scenario 2 Traffic Flows (Junction 1)

4.4 Capacity Assessments

4.4.1 Junction 1: A14/B1113 (Claydon Interchange)

The ARCADY model presented in the Transport Assessment for DC/20/01175 has been replicated and updated following a review of the junction geometries and additional comments from SCC, and the results of the two assessment scenarios (including a plan showing the junction geometries) identified above are provided in Appendix E and summarised in **Table 17.**

The replicated model was accepted for use by SCC in February 2022, prior to the submission of the EA THREE Converter Station Transport Technical Note (March 2023).

Table 17: Junction 1 ARCADY Results (17:00 to 18:00, 2024 Assessment)

Arm	2024 Base + Committed Development		2024 Base + Committed Development + EA3	
	RFC	Maximum Queue	RFC	Maximum Queue
Ipswich Road	0.41	1	0.44	1
A14 Northbound Off-slip	0.41	1	0.44	1
Paper Mill Lane	0.10	1	0.10	1
B1113 Bramford Road	0.64	2	0.70	1
A14 Southbound Off-slip	0.24	0	0.28	0

As **Table 17** shows, the junction operates well within its theoretical capacity in the base plus committed development scenario and continues to operate well within its theoretical capacity with the addition of the EA THREE vehicle movements, with negligible queues and spare capacity for additional vehicle movements.

Given the above, the temporary increase in vehicle movements at the A14/B1113 (Claydon Interchange) junction associated with the EA THREE onshore cable works and the EA THREE Converter Station (which are robust for the summer months) is considered to be a negligible impact that can be managed through the implementation of the CTMP.

4.4.2 Junction 5: A12/A1214

The Linsig model of the existing junction layout presented in the TA for DC/20/0902/OUT (300 dwellings at the Suffolk Constabulary Headquarters at Martlesham Heath) has been replicated. The full Linsig results are provided Appendix G.

The replicated model was accepted for use by SCC in February 2022, prior to the submission of the EA THREE Playford Corner and Clappits works Transport Technical Note (March 2023).

The results of the 2024 assessment scenarios with and without the EA THREE onshore cable works and EA THREE Converter Station traffic flows provided by NKT and Siemens are shown in **Table 18.**

Table 18: Junction 5 Linsig Results (17:00 to 18:00, 2024 Assessment)

Arm	2024 Base + Committed Development		2024 Base + Committed Development + EA THREE	
	Degree of Saturation (DoS)	Mean Maximum Queue (MMQ)	Degree of Saturation (DoS)	Mean Maximum Queue (MMQ)
A12 North	44.6	5	47.1	6
Main Road	22.3	1	23.0	1
A12 South	54.2	7	55.7	7
A1214	55.3	7	55.9	7
P&R	0	0	0	0
Practical Reserve Capacity (PRC)	62.7		60.6	
DoS across all arms	55.3%		55.9%	

Table 18 shows the junction is still predicted to operate well within its design and theoretical capacity in 2024 with the addition of committed development traffic flows. The addition of the EA THREE traffic flows has a negligible impact on Mean Maximum Queue (MMQ) lengths on the A12 north only, with very minor changes to the Practical Reserve Capacity (PRC) and Degree of Saturation (DoS).

Given the above, the temporary increase in vehicle movements at the A12/A1214 junction associated with the EA THREE cable installation works and the EA THREE Converter Station (which are robust for the summer months) is considered to be a negligible impact that can be managed through the implementation of the CTMP.

4.4.3 Junction 6: A12/Newbourne Road

An ARCADY model has been built of the existing roundabout junction at the A12/Newbourne Road and the results of the two 2024 assessment scenarios identified above are provided in **Appendix G** and summarised in **Table 19** below.

The model was accepted for use by SCC in February 2022, prior to the submission of the EA THREE Playford Corner and Clappits works Transport Technical Note (March 2023).

Table 19: Junction 6 ARCADY Results (17:00 to 18:00, 2024 Assessment)

Arm	2024 Base + Committed Development		2024 Base + Committed Development + EA3	
	RFC	Maximum Queue	RFC	Maximum Queue
A12 North	1.21	216	1.21	219
Newbourne Road	0.94	8	0.94	8
A12 South	1.22	247	1.27	326
Foxhall Road	0.88	6	0.90	7

Table 19 shows the junction to be operating well over its theoretical capacity in the 2024 with committed development scenario, with significant queues on the A12 arms. The addition of the EA THREE traffic flows has a negligible impact on the RFCs, with the biggest increase

in RFC of 0.05 on the A12 South, which has a significant increase in maximum queue of 79 vehicles. However, the following should be highlighted:

- Whilst the junction is over capacity in the 2024 baseline with committed development traffic, once the RFC reached a value of 1, queues build exponentially in ARCADY, which would not reflect what would occur in reality and the results should be treated with caution; and
- The highway improvement at the junction associated with the Adastral Park consented development is not required until the occupation of the 601st dwelling (which will be some years from now) and represents in the region of 200 vehicle movements at this junction permitted until the scheme is in place. Given the peak 48 vehicle movements associated with the EA THREE onshore cable works and EA Three Converter Station construction traffic are anticipated in the summer of 2024, this level of temporary impact should be considered acceptable.

Given the above, the temporary increase in vehicle movements at the A12/Newbourne Road junction associated with the EA THREE onshore cable works and the EA THREE Converter Station (which are robust for the summer months) is considered to be a negligible impact that can be managed through the implementation of the CTMP.

4.4.4 Junction 11: A12/B1438

An ARCADY model has been provided by SCC of the existing roundabout junction at the A12/B1438 and the results of the two 2024 assessment scenarios identified above are provided in **Appendix H** and summarised in **Table 20** below.

The model was accepted for use by SCC for the Sizewell C DCO application; however, SCC noted that some alterations were undertaken to the model associated with lane usage. SCC has suggested that, given the level of EA THREE impact compared to Sizewell C, the model should be acceptable for use and will review this with the submission of this Technical Note.

The base plus committed scenario selected from the model to be most appropriate to assess the impact of the peak EA THREE onshore cable works and typical EA THREE Converter Station works is the 2023 early years scenario, which does not include any improvements at the junction, as included in the 2028 and 2034 scenarios.

Table 20: Junction 11 ARCADY Results (17:00 to 18:00, 2024 Assessment)

Arm	2024 Base + Committed Development		2024 Base + Committed Development + EA3	
	RFC	Maximum Queue	RFC	Maximum Queue
A12 North	0.64	2	0.65	2
B1438	1.02	17	1.08	25
A12 South	1.04	44	1.07	71

The results in Table 20 show the junction is forecast to operate its theoretical capacity in the base plus committed scenario, which includes the Sizewell C early years construction traffic. The addition of the EA THREE vehicle movements exacerbates the queues on the A12 west and B1438. For the A12 west, the forecast maximum queue (71 vehicles) is lower than the following maximum queues forecast for the baseline plus committed scenarios for the morning peak hours:

- 07:00 to 08:00, approximately 108 vehicles; and
- 08:00 to 09:00, approximately 72 vehicles

During the summer months of 2024, which is the peak period for the EA THREE cable installation works, due to the available daylight hours, the number of vehicle movements associated with the construction of EA THREE during the morning peak hours (and evening peak hour) is likely to be negligible as set out in the ES for the DCO application.

The maximum queue on the B1438 only increases marginally with the addition of the EA THREE vehicle movements.

Given the above, the temporary increase in vehicle movements at the A12/B1438 junction associated with the EA THREE onshore cable works and the EA THREE Converter Station (which are robust for the summer months) is considered to be a negligible impact that can be managed through the implementation of the CTMP.

4.4.5 Capacity Assessment Summary

A summary of the forecast impact of the peak EA THREE vehicle movements associated with the peak months of activity for the cable installation works and a typical month associated with the construction of the Converter Station in the evening peak hour (17:00 to 18:00) assessed against a 2024 with committed development baseline is as follows:

- Junction 1: A14/B1113 Claydon Interchange – The forecast impact is negligible, with spare capacity at the junction for additional vehicle movements;
- Junction 5: A12/A1214 - The forecast impact is negligible, with spare capacity at the junction for additional vehicle movements;
- Junction 6: A12/Newbourne Road - Whilst the junction is already over capacity in the baseline plus committed development scenario, the forecast number of EA THREE vehicle movements are significantly lower than those permitted at the junction, associated with the Adastral Park consented scheme, prior to an improvement scheme being required and therefore can be considered a negligible impact, particularly as the vehicle movements will be temporary; and
- Junction 11: A12/B1438 – Whilst the junction is already over capacity in the baseline plus committed development scenario, which the addition of the EA THREE vehicle movements only exacerbates, the RFCs and maximum queues on the A12 west are less than the base plus committed development scenario in the morning peak hours, where there will be a negligible number of EA THREE movements, particularly in the summer months where the peak EA THREE activity will occur.

5.0 Road Safety Assessment Review

5.1 Scope

This section provides an update on road safety from the analysis provided in the EA THREE Converter Station and Paper Mill Lane Works, and the Playford Corner and Clappits Works Traffic and Transport Technical Notes, prepared by SLR and submitted to SCC in March 2022, at the sensitive locations on the highway network that will be used by the EA THREE construction traffic.

The analysis in the Transport Technical Notes prepared and submitted to SCC in March 2022 used Crashmap to compare the most recent five-year period (2015 to 2019) which avoided the years where traffic levels was affected by the Covid-19 pandemic, with the five-year period prior to the DCO application (2011 to 2015). The review identified there has been a general improvement of road safety since the submission of the DCO application, with no deficiency in the layout or condition of the junctions and routes reviewed.

Therefore, no changes to the measures proposed in the Traffic Management Plan were considered to be necessary, which was agreed by SCC.

As Crashmap only has data up to the end of 2021, accident data has been obtained from SCC for 2020 to the 30th April 2023. For a robust assessment the period between 1st January 2017 and 30th April 2023 (six years and four months, to allow for the periods in 2021 and 2022 affected by the Covid-19 pandemic) has been reviewed.

The review has been undertaken at the following sensitive junctions where there is forecast to be a greater number of EA THREE construction vehicle movements than identified in either of the Transport Technical Notes prepared and submitted to SCC in March 2022:

- A12/B1438;
- A12/A1214;
- A12/Newbourne Road;
- A12/B1113 Claydon Interchange; and
- B1113

An analysis has been provided below with the reports included in Appendix I**.**

5.2 Analysis

5.2.1 Junction 1: A14/B1113 Claydon Interchange

There have been fewer accidents in the vicinity of the A14/B1113 Claydon Interchange in the assessment period compared to the period assessed in the ES for the DCO application, as follows:

- 2011 to 2015 – 24; and
- 2017 to 2023 – 12

Figure 11 shows a cluster of four accidents on the A14 northbound off-slip at the roundabout. From further investigations, one of the accidents occurred on Ipswich Road and has the wrong grid reference attached to the report. Of the three accidents that did occur at this location, two involved a vehicle colliding into the back of another due to hesitancy of joining the circulating carriageway and one occurred due to aggressive driving behaviour and a sudden change in lane.

Given the reduction in accidents at the junction and since there have only been two accidents with the same location and causation factor identified in the most recent assessment period, it can be concluded that there are no road safety issues at this junction that an increase in vehicles associated with the construction of EA THREE would exacerbate.

Figure 11: Locations of Accidents at Junction 1: A14/B1113 Claydon Interchange

5.2.2 B1113/Somersham Road

There have been no accidents in the vicinity of the B1113/Somersham Road junction in the assessment period compared to the three in the period assessed in the ES for the DCO application.

Given the reduction in accidents at the junction, it can be concluded that there are no road safety issues at this junction that an increase in vehicles associated with the construction of EA THREE would exacerbate.

5.2.3 B1113/Bullen Lane

There have been no accidents at the B1113/Bullen Lane junction in either of the five year periods. Therefore, it can be concluded that there are no road safety issues at this junction

that an increase in vehicles associated with the construction of EA THREE would exacerbate.

5.2.4 Junction 5: A12/A1214

There have been fewer accidents in the vicinity of the A12/ A1214 roundabout junction in the assessment period (which are shown in **Figure 12**) compared to the period assessed in the ES for the DCO application, as follows:

- 2011 to 2015 – 8; and
- 2017 to 2023 – 6

Given the reduction in accidents at the junction and since no clusters have been identified in the most recent assessment period, it can be concluded that there are no road safety issues at this junction that an increase in vehicles associated with the construction of EA THREE would exacerbate.

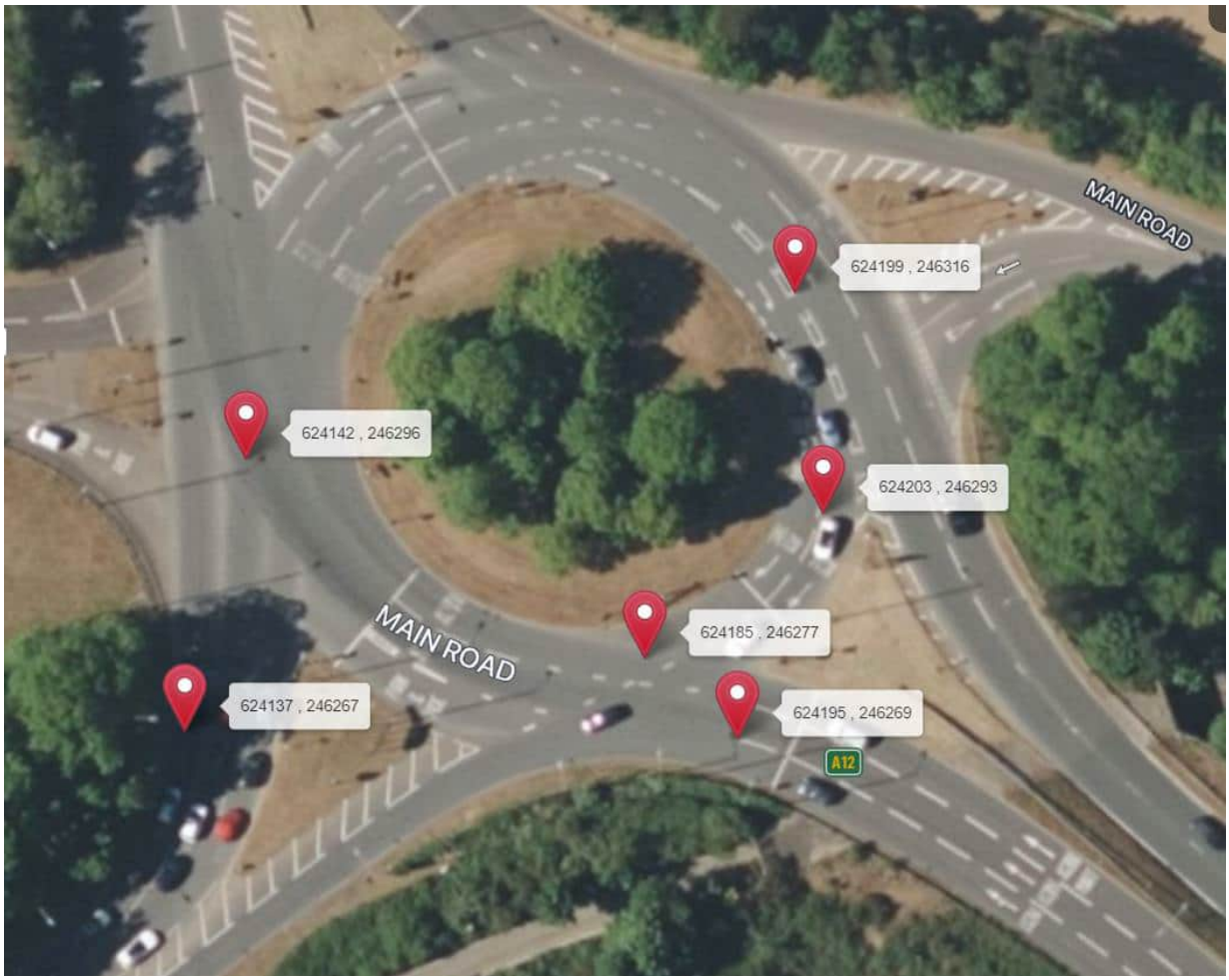


Figure 12: Locations of Accidents at Junction 5: A12/A1214

5.2.5 Junction 6: A12/Newbourne Road

There have been fewer accidents in the vicinity of the A12/ Newbourne Road roundabout junction in the assessment period compared to the period assessed in the ES for the DCO application, as follows:

- 2011 to 2015 – 11; and
- 2017 to 2023 – 10

Given the reduction in accidents at the junction in the current period compared to the period assessed in the ES and since no clusters have been identified in the most recent assessment period (as shown in **Figure 13**) It can be concluded that there are no road safety issues at this junction that an increase in vehicles associated with the construction of EA THREE would exacerbate.

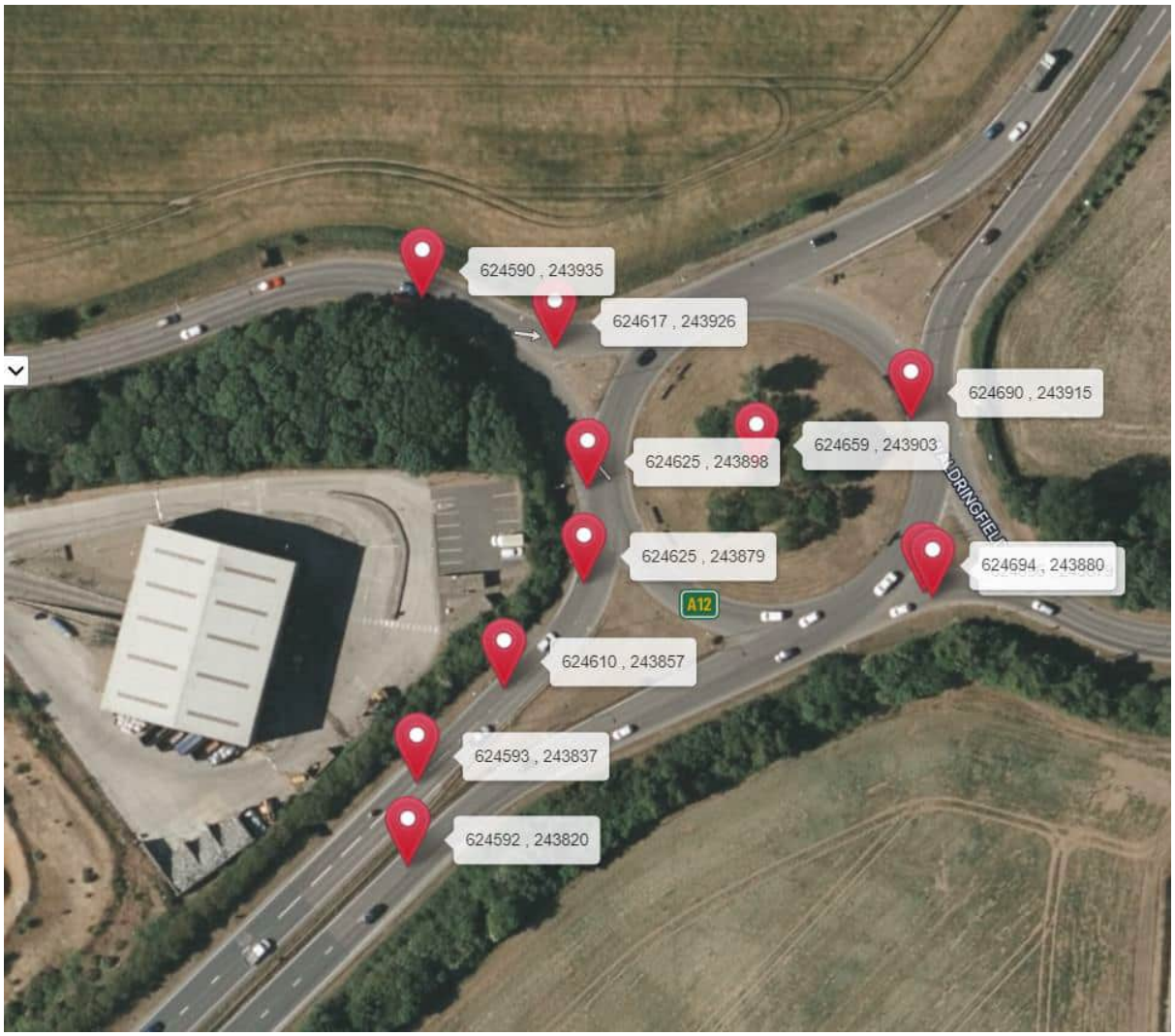


Figure 13: Locations of Accidents at Junction 6 A12/Newbourne Road

5.2.6 A12/B1438

There have been fewer accidents in the vicinity of the A12/B1438 roundabout junction in the assessment period (which are shown in **Figure 14**) compared to the period assessed in the ES for the DCO application, as follows:

- 2011 to 2015 – 8; and
- 2017 to 2023 – 6

Given the reduction in accidents at the junction and since no clusters have been identified in the most recent assessment period, it can be concluded that there are no road safety issues at this junction that an increase in vehicles associated with the construction of EA THREE would exacerbate.

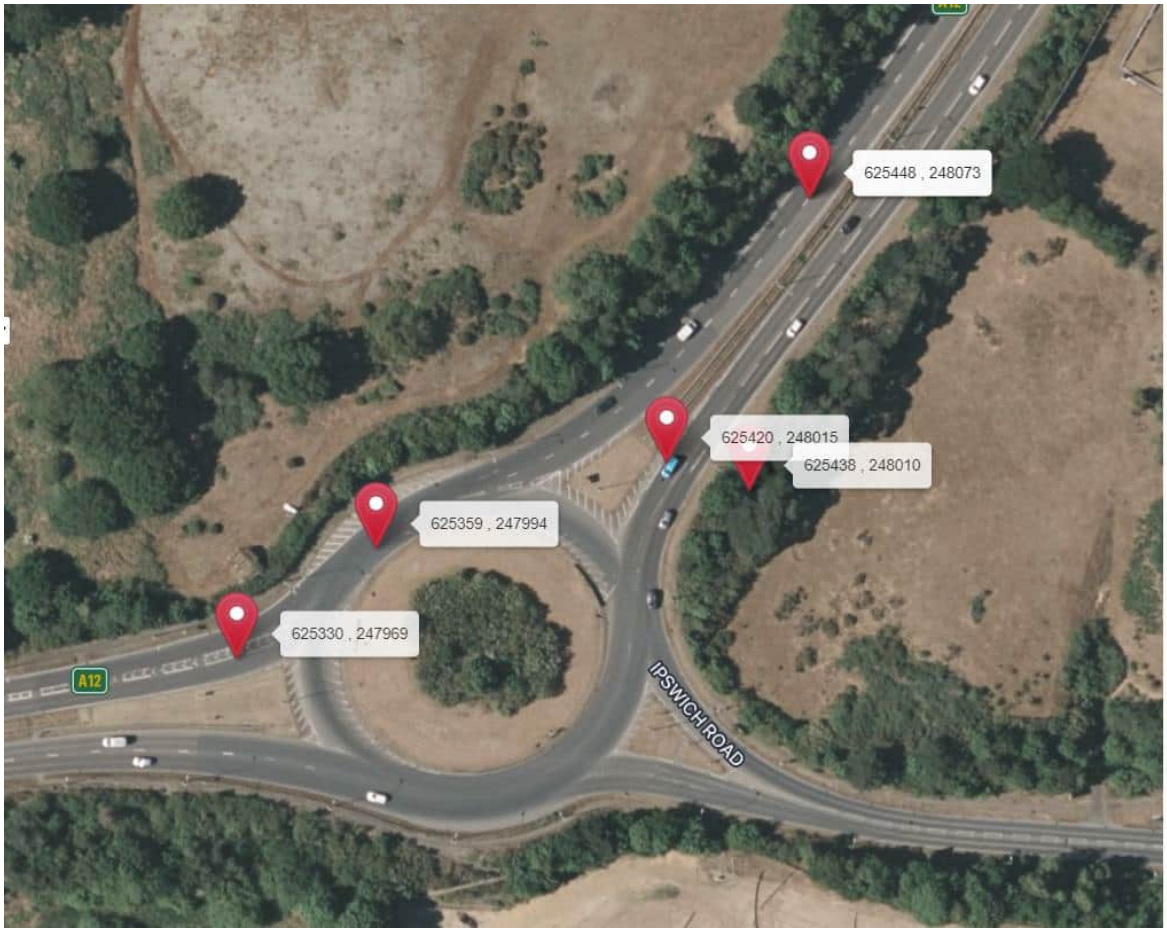


Figure 14: Locations of Accidents at Junction 11 A12/B1438

5.3 Summary

The review of road safety in this section would indicate that there has been an improvement in road safety since the submission of the DCO application at key junctions that will be used by the majority of construction traffic.

Therefore, no changes to the measures proposed in the Traffic Management Plan are considered to be necessary.

6.0 Summary and Conclusion

6.1 Summary

This Technical Note sets out the anticipated maximum number of vehicle movements associated with the construction of the EA THREE onshore cable works and EA THREE Converter Station in the evening peak hour at sensitive junctions on the A14 and A12 using confirmed data from NKT and Siemens. The assessment is based on a lower (and more realistic) vehicle occupancy of 1.5 employees, compared to the vehicle occupancy of 2.5 used in the ES for the DCO application.

The peak period for the EA THREE construction works will be in the summer of 2024, with the greatest number of daylight hours, which is likely to result in fewer workforce vehicles travelling in the evening peak hour, resulting in a robust assessment.

Junction capacity assessments have been undertaken to test the impact of the confirmed EA THREE traffic data at the junctions, incorporating vehicle movements associated with various committed developments. The assessment confirmed:

- There would be no or negligible additional queuing at Junction1 (A14/B1113 Claydon Interchange) and Junction 5 (A12/A1214) with the addition of the EA THREE vehicle movements compared to the 2024 with committed development scenario; and
- Whilst there would be increases in queuing at Junction 6 (A12/Newbourne Road) and Junction 11 (A12/B1438), due to the junctions already operating over their theoretical capacity in the 2024 with committed development scenario and queues building quickly (and not realistically) in the junction models, the impact is considered no worse than SCC has previously accepted for Adastral Park and Sizewell C, prior to improvements at those junctions being required.

A review of road safety on the routes that would be used by the construction traffic associated with EA THREE onshore cable works and EA THREE Converter Station shows there are no road safety issues that would be exacerbated by an increase in traffic flows and that no changes to the measures proposed in the EA THREE Traffic Management Plan are required.

6.2 Conclusion

As demonstrated, the impact of the confirmed EA THREE Onshore Cable Works and EA THREE Converter Station traffic data is such that there would be no significant impacts on capacity and no impacts on road safety on the routes used by construction traffic, with no mitigation required.

In, conclusion, as agreed with SCC, no further assessments on the highway network are required prior to the commencement of construction associated with the EA THREE Cable installation works and EA THREE Converter Station.

Appendix A NKT EA THREE Traffic Data

East Anglia THREE Onshore Cable Works

Traffic and Transport Technical Note

ScottishPower Renewables

SLR Project No.: 404.05356.00006

15 November 2023

	Primary Vehicle movements	Rev-02

Table 1: HGVs to Primary CCS's

Destination	Number of HGVs (single trips)						Peak Hour %
	A14 south		A12 north		Total		
	Daily	Peak Hour	Daily	Peak Hour	Daily	Peak Hour	
Papermill Lane	70	10	70	10	140	20	14.3%
Top Street	80	13	100	17	180	30	16.7%

Table 2: Workforce vehicles to Primary CCS's

Destination	Number of Workforce light duty Vehicles (single trips)						Peak Hour %
	A14 south		A12 north		Total		
	Daily	Peak Hour	Daily	Peak Hour	Daily	Peak Hour	
Papermill Lane	50	20	35	15	85	35	41.2%
Top Street	60	30	90	30	150	60	40.0%

Table 4: Daily Single Movements from Paper Mill Lane

Vehicles between Paper Mill Lane and Secondary TCCs or Construction Access	Number of Vehicles			
	HGVs	Workforce	Totals	Movements x 2
Access Point 1 (Bullen Lane ONCS access)	25	20	45	90
Access Point 2 CCS 1 (Bullen Lane)	80	30	110	210
Access Point 3 (Somersham Road)	60	30	90	180
Access Point 4 (Somersham Road)	5	15	20	40
Access Point 5 (Somersham Road)	5	15	20	40
Access Point 6 (Bramford Road) (Greenhouse access)	n\a	n\a	n\a	n\a
Access Point 7 (Bramford Road)	5	10	15	15
Access Point 8 (Bramford Road)	60	30	90	180
Access Point 9 Papermill Lane PCCS (Papermill Lane)	n\a	n\a	n\a	n\a
Access Point 10 (Old Ipswich Road)	60	30	90	180
Access Point 11 (Henley Road)	60	30	90	180
Access Point 12 (Henley Road)	60	30	90	180
Access Point 13 (Clopton Road)	10	25	35	70
Access Point 14 (Tudenham Road)	3	25	25	50
Access Point 15 (Tudenham Road)	3	25	25	50
Access Point 16 (Bealings Road) CCS 2 (Playford)	3	25	25	50
Access Point 17 (Lodge Road)	3	25	25	50
Access Point 18 (Seckfordhall Road)	3	25	25	50
Access Point 19 Top Street PCCS (Top Street)	n\a	n\a	n\a	n\a
Access Point 20 (Sandy Lane)	3	25	28	56
Access Point 21 (Sandy Lane)	3	25	28	56
Access Point 22 (Walderingfield Road)	3	25	28	56
Access Point 23 (Walderingfield Road)	3	25	28	56
Access Point 24 (Walderingfield Road)	3	25	28	56
Access Point 25 (Ipswich Road)	3	25	28	56
Access Point 26 (Newbourne Road) CCS 3 (Clappits)	3	25	28	56
Access Point 27 (Park Lane)	3	25	28	56
Access Point 28 (Falkenham Road)	3	25	28	56
Access Point 29 (Shottisham Road)	3	25	28	56
Access Point 30 (Ferry Road)	3	25	28	56
Access Point 31 CCS 4 (Ferry Road) Landfall	3	25	28	56

Table 5: Daily Single Movements from Top Street

Vehicles between Top Street and Secondary TCCs or Construction Access	Number of Vehicles			
	HGVs	Workforce	Totals	Movements x 2
Access Point 1 (Bullen Lane ONCS access)	5	3	8	16
Access Point 2 CCS 1 (Bullen Lane)	5	3	8	16
Access Point 3 (Somersham Road)	5	3	8	16
Access Point 4 (Somersham Road)	2	3	5	10
Access Point 5 (Somersham Road)	2	3	5	10
Access Point 6 (Bramford Road) (Greenhouse access)	n\a	n\a	n\a	n\a
Access Point 7 (Bramford Road)	2	3	5	10
Access Point 8 (Bramford Road)	2	3	5	10
Access Point 9 Papermill Lane PCCS (Papermill Lane)	n\a	n\a	n\a	n\a
Access Point 10 (Old Ipswich Road)	2	3	5	10
Access Point 11 (Henley Road)	2	3	5	10
Access Point 12 (Henley Road)	2	3	5	10
Access Point 13 (Clopton Road)	2	3	5	10
Access Point 14 (Tudenham Road)	45	30	75	150
Access Point 15 (Tudenham Road)	45	30	75	150
Access Point 16 (Bealings Road) CCS 2 (Playford)	45	30	75	150
Access Point 17 (Lodge Road)	50	25	75	150
Access Point 18 (Seckfordhall Road)	50	25	75	150
Access Point 19 Top Street PCCS (Top Street)	n\a	n\a	n\a	n\a
Access Point 20 (Sandy Lane)	25	20	45	90
Access Point 21 (Sandy Lane)	10	20	20	40
Access Point 22 (Walderingfield Road)	25	25	45	90
Access Point 23 (Walderingfield Road)	25	25	45	90
Access Point 24 (Walderingfield Road)	50	25	75	150
Access Point 25 (Ipswich Road)	40	25	60	120
Access Point 26 (Newbourne Road) CCS 3 (Clappits)	80	30	110	220
Access Point 27 (Park Lane)	80	30	110	220
Access Point 28 (Falkenham Road)	50	30	75	150
Access Point 29 (Shottisham Road)	80	30	110	120
Access Point 30 (Ferry Road)	50	30	75	150
Access Point 31 CCS 4 (Ferry Road) Landfall	80	30	110	220

Notes

Multi work Locations	HGVs	Workforce	Totals	Movements x 2	Comments	Peak Hour Workforce
Access Point 28 (Falkenham Road)	50	50	75	150	East side of the river Deben work to take place in multiple location due to Environmental constraints	13
Access Point 29 (Shottisham Road)	80	60	110	120		16
Access Point 30 (Ferry Road)	50	40	75	150		11
Access Point 2 CCS 1 (Bullen Lane)	80	45	110	210	Construction of Haul roads and Hardstandings to be undertaken at the simultaneous due to construction programme constraints	12
Access Point 3 (Somersham Road)	60	40	90	180		11
Access Point 31 CCS 4 (Ferry Road)	80	30	110	220		8
Access Point 10 (Old Ipswich Road)	60	30	90	180	Construction of Haul roads and Hardstandings to be undertaken at the simultaneous due to construction programme constraints	8
Access Point 11 (Henley Road)	60	30	90	180		8
Access Point 26 (Newbourne Road) CCS 3 (Clappits)	80	30	110	220	Construction of Haul roads and Hardstandings to be undertaken at the simultaneous due to construction programme constraints	8
Access Point 27 (Park Lane)	80	30	110	220		8

Appendix B Daylight Hours Analysis

East Anglia THREE Onshore Cable Works

Traffic and Transport Technical Note

ScottishPower Renewables

SLR Project No.: 404.05356.00006

15 November 2023

Month	First light		Last light		Workforce Arrivals	Workforce Departures
	Latest	Earliest	Earliest	Latest		
January	07:22	06:59	16:35	17:18	Before 07:00 for the majority of the month, some in the early part of 07:00 to 08:00	16:00 to 17:00 for half the month, 17:00 to 18:00 for half the month
February	06:58	06:09	17:19	18:06	Majority before 07:00	17:00 to 18:00 for half the month, 18:00 to 19:00 for half the month
March	06:07	05:58	18:08	20:01	Majority before 07:00	18:00 to 19:00 or 19:00 to 20:00
April	05:55	04:49	20:02	20:56	Majority before 07:00	Majority 19:00 to 20:00
May	04:47	03:56	20:58	21:59	Majority before 07:00	Majority 19:00 to 20:00
June	03:55	03:52	21:51	22:06	Majority before 07:00	Majority 19:00 to 20:00
July	04:35	03:52	21:28	22:06	Majority before 07:00	Majority 19:00 to 20:00
August	05:30	04:37	20:20	21:26	Majority before 07:00	Majority 19:00 to 20:00
September	06:21	05:32	19:09	20:18	Majority before 07:00	18:00 to 19:00 or 19:00 to 20:00
October	06:23	06:13	17:05	20:07	Majority before 07:00	18:00 to 1900 apart from a few days 17:00 to 18:00 when the clocks have gone back
November	06:59	06:14	16:28	17:03	Majority before 07:00	16:00 to 17:00 for half the month, 17:00 to 18:00 for half the month
December	07:22	07:01	16:34	16:27	Before 07:00 for the majority of the month, some in the early part of 07:00 to 08:00	16:00 to 17:00

Appendix C Baseline Traffic Data

East Anglia THREE Onshore Cable Works

Traffic and Transport Technical Note

ScottishPower Renewables

SLR Project No.: 404.05356.00006

15 November 2023

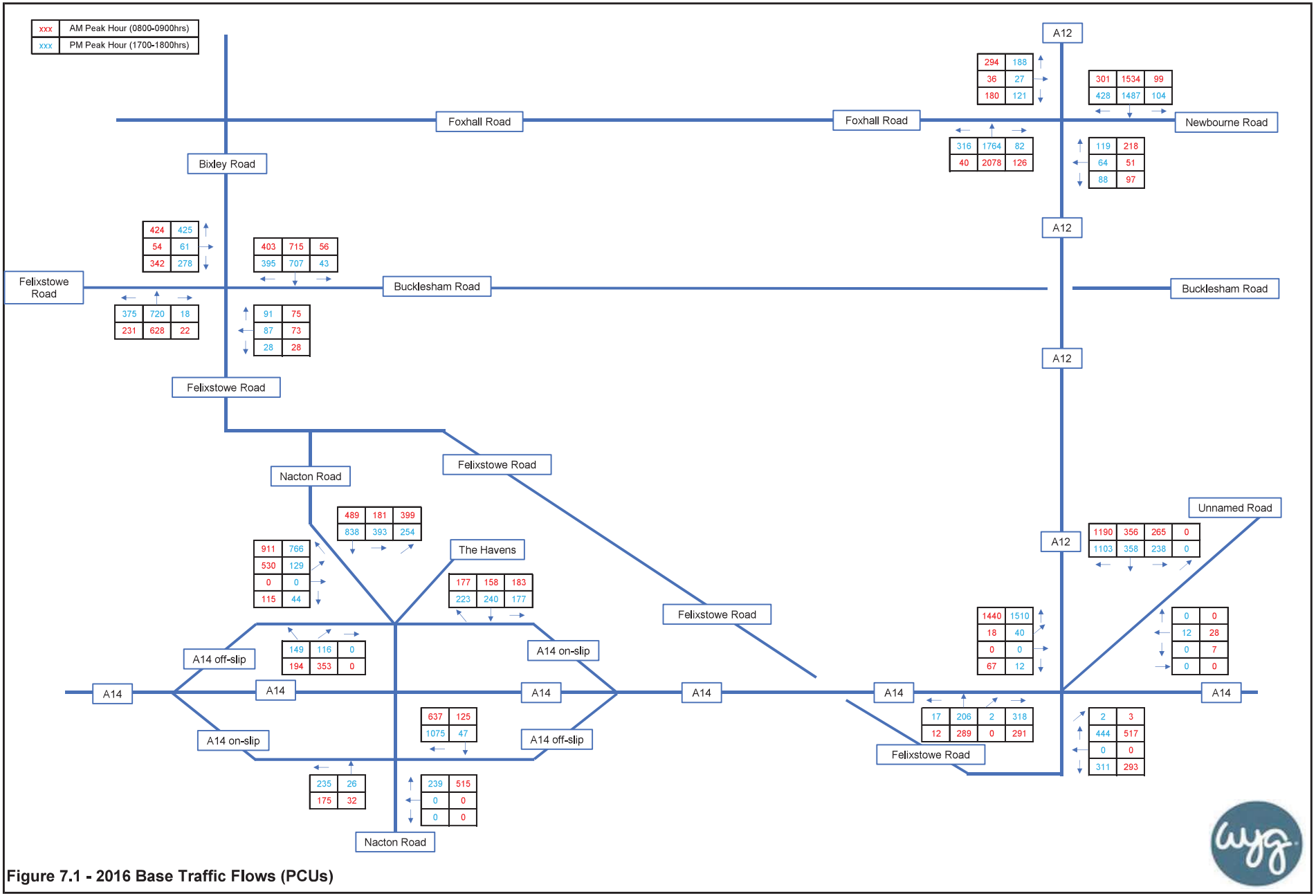
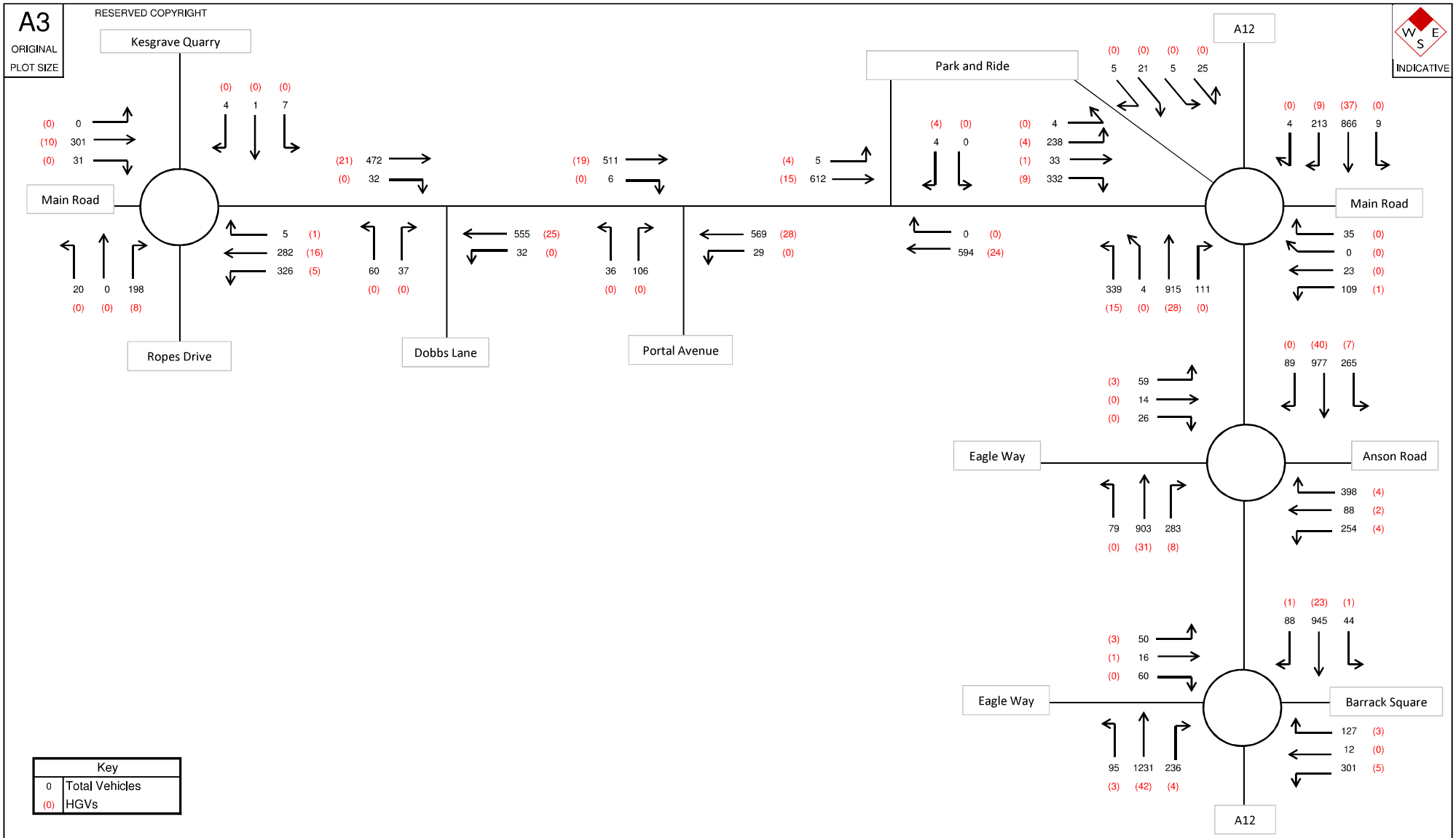


Figure 7.1 - 2016 Base Traffic Flows (PCUs)

A3
ORIGINAL
PLOT SIZE

RESERVED COPYRIGHT



tpa Transport Planning Associates	**Surveyed Traffic Flows - Evening peak (17:00-18:00)**	Date: **NOV '19**	Status: **INFORMATION**	Scale: **NTS**
	Suffolk Constabulary, Martlesham	Prepared By: **LM**	Checked By: **IB**	Approved By: **IB**
	Police and Crime Commissioner for Suffolk	Project No: **1605-81**	Figure No: **3.7**	Revision: **-**

A3
ORIGINAL
PLOT SIZE

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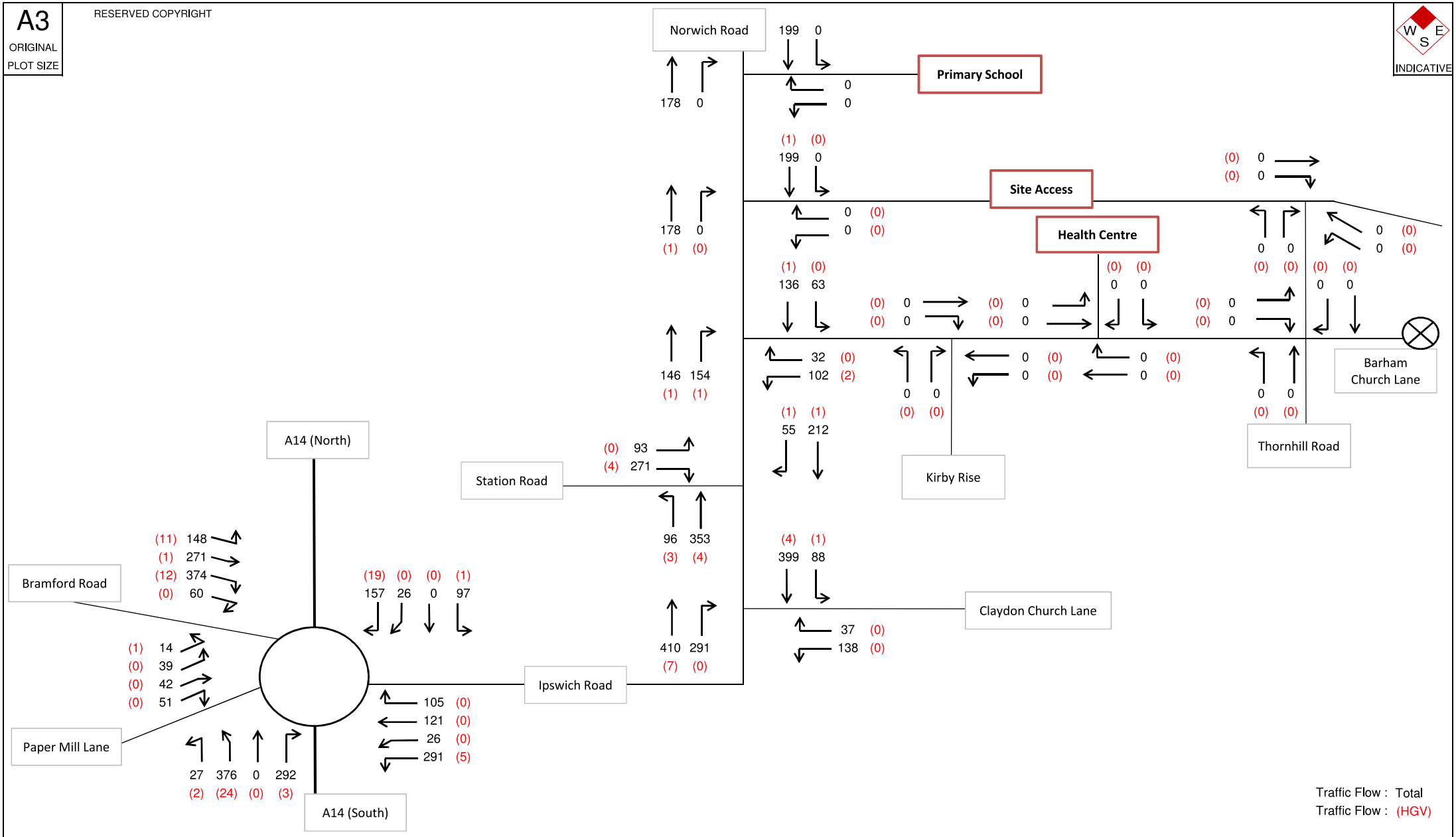
W E S

INDICATIVE



Traffic Flow : Total
Traffic Flow : (HGV)

Bristol
Cambridge
London
Oxford
Welwyn Garden City

tpa Transport Planning Associates

Sheraton House
Castle Park
Cambridge
CB3 0AX

01223 379135
www.tpa.uk.com

Surveyed (2016) Traffic Flows - PM Peak

Land off Norwich Road, Barham and Claydon

Pigeon Investment Management Ltd and Mr John Cutting

Date:	Status:	Scale:
April '17	INFORMATION	NTS

Prepared By:	Checked By:	Approved By:
LM	SM	JH

Project No:	Figure No:	Revision:
1601-86	3.1	-

Appendix D Committed Development Traffic

East Anglia THREE Onshore Cable Works

Traffic and Transport Technical Note

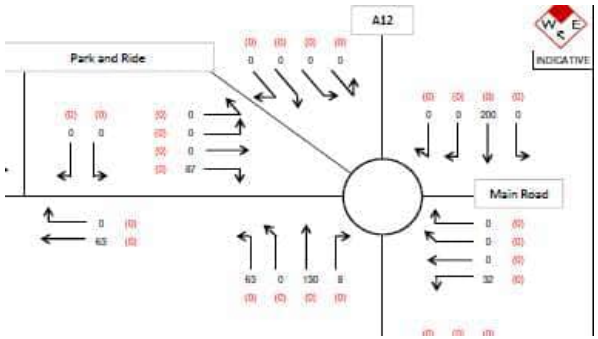
ScottishPower Renewables

SLR Project No.: 404.05356.00006

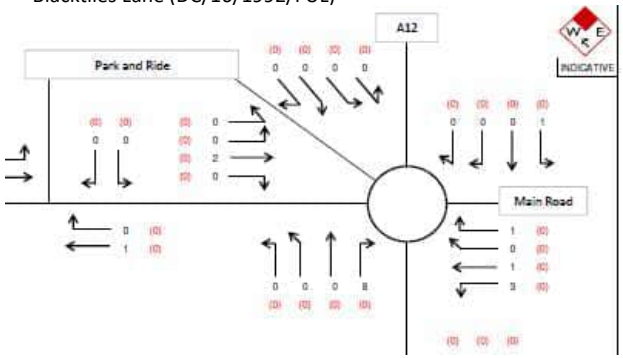
15 November 2023

Junction 5: A12/A1214

Adastral Park (DC/17/1435/OUT)



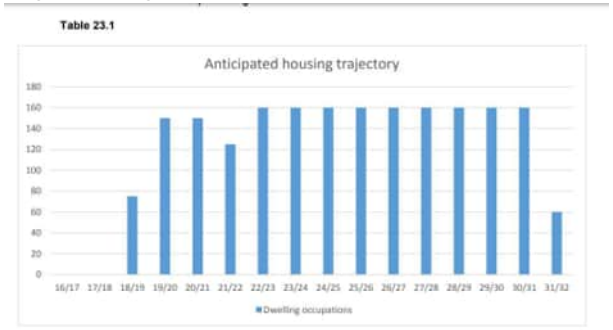
Blacktiles Lane (DC/16/1992/FUL)

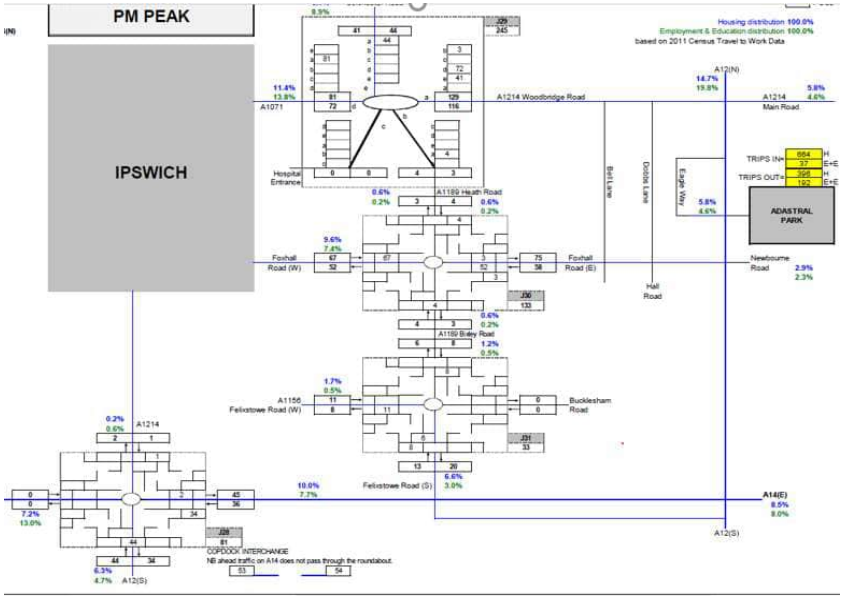


Junction 6: A12/Newbourne Road

Adastral Park (DC/17/1435/OUT)

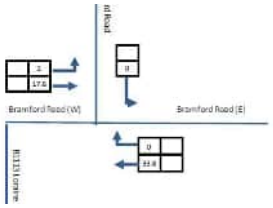
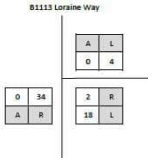
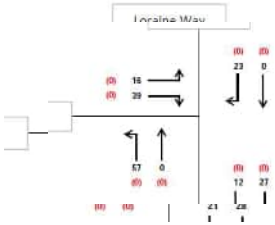
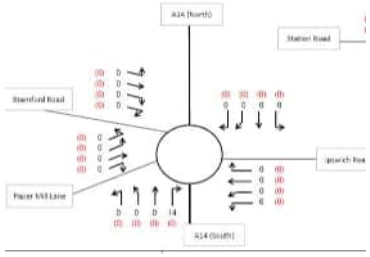
Original Phasing Plan





Assume first occupactions in 2023
Asssessment year of 2024
Assume 225 dwellings occupied 11%

	Total		A12 S			Foxhall Road		Newbourne Road		
	Arrivals	**Departures**	**Dist.**	**Arrivals**	**Departures**	**Arrivals**	**Departures**	**Dist.**	**Arrivals**	**Departures**
Housing	664	396	38.80%	258	154			2.90%	19	11
Employment	37	192	37.00%	14	71			2.30%	1	4
Total	**701**	**588**		**271**	**225**	**75**	**38**		**20**	**16**
11% at 2024	**77**	**65**	**0**	**30**	**25**	**8**	**4**	**0**	**2**	**2**

Reference	Comments	Include?	PM Peak Flows
DC/21/04711	Transport and Access Report. No HGVs during peak hours and construction personnel staggered (and not included in the assessment)	No	n/a
DC/21/00060	TMP - negligible vehicle movements	No	n/a
DC/19/01601	Same as DC/21/00060	No	n/a
DC/17/05331	No traffic data required for application	No	n/a
DC/19/03008	No traffic data required for application	No	n/a
DC/18/00233	Transport Assessment available - not assigned at Claydon Interchange, so 50/50 split to and from A14 S/N assumed	Yes	
DC/19/01401	Transport Assessment available - negligible flows (6 two-way) to/from B1113 north	No	
DC/19/00567	Transport Assessment available - not assigned at Claydon Interchange, so 50/50 split to and from A14 S/N assumed	Yes	
1856/17	TA Part 3	Yes	
DC/18/02010	Refused	No	n/a

	Total vehicle flows (cars)			
	Departures to		Arrivals from	
	A14 N	A14 S	A14 N	A14 S
B1113 Bramford Road	17	17	28	28
Ipswich Road		6		14

Appendix E Junction 1: A14/B1113 Claydon Interchange ARCADY Results

East Anglia THREE Onshore Cable Works

Traffic and Transport Technical Note

ScottishPower Renewables

SLR Project No.: 404.05356.00006

15 November 2023

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693
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Filename: 20220208_A14_Claydon_PM_B1113 revised flows v4.j10
Path: N:\Vectos Job Data\2023\VN232767
Report generation date: 11/08/2023 15:50:54

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2023 Base									
Arm 1	D1	1.1	4.31	0.52	A	D2	0.7	3.33	0.40	A
Arm 2		0.6	2.86	0.38	A		0.6	2.75	0.38	A
Arm 3		0.1	3.26	0.11	A		0.1	2.99	0.09	A
Arm 4		2.0	8.59	0.67	A		1.6	7.35	0.62	A
Arm 5		0.3	3.35	0.22	A		0.3	3.20	0.21	A
	2023 Base + Com Dev									
Arm 1						D3	0.7	3.49	0.41	A
Arm 2							0.7	2.92	0.41	A
Arm 3							0.1	3.13	0.10	A
Arm 4							1.7	7.69	0.64	A
Arm 5							0.3	3.38	0.24	A
	2023 Base + Com Dev + E3 S1									
Arm 1						D4	0.7	3.63	0.42	A
Arm 2							0.7	2.92	0.41	A
Arm 3							0.1	3.12	0.10	A
Arm 4							2.1	8.80	0.68	A
Arm 5							0.3	3.41	0.24	A
	2023 Base + Com Dev + E3 S2									
Arm 1						D5	0.8	3.91	0.44	A
Arm 2							0.8	3.23	0.44	A
Arm 3							0.1	3.13	0.10	A
Arm 4							2.3	9.25	0.70	A
Arm 5							0.4	3.98	0.28	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	28/01/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SLR\llong
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2023 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2023 Base + Com Dev	PM	ONE HOUR	16:45	18:15	15	✓
D4	2023 Base + Com Dev + E3 S1	PM	ONE HOUR	16:45	18:15	15	✓
D5	2023 Base + Com Dev + E3 S2	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2023 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A14 Claydon Interchange	Large Roundabout		1, 2, 3, 4, 5	5.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.02	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Ipswich Road		
2	A14 Northbound Offslip		
3	Paper Mill Lane		
4	Bramford Road		
5	A14 Southbound Offslip		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.05	7.85	36.0	55.3	127.0	15.0		
2	6.32	8.22	20.0	39.5	127.0	34.0		
3	3.05	7.67	24.5	30.4	127.0	18.0		
4	3.60	3.60	0.0	49.9	127.0	10.0		
5	6.90	7.35	20.0	49.7	127.0	14.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1032	✓	55.60
2	718	✓	109.60
3	1373	✓	18.00
4	646	✓	55.60
5	1469	✓	107.90

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.906	2615
2	1.012	2848
3	0.784	2412
4	0.751	1794
5	0.886	2703

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	838	100.000
2		ONE HOUR	✓	699	100.000
3		ONE HOUR	✓	128	100.000
4		ONE HOUR	✓	777	100.000
5		ONE HOUR	✓	278	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	512	35	201	90
	2	305	0	23	369	2
	3	38	30	0	39	21
	4	233	490	43	11	0
	5	107	2	16	153	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	2	0	2	1
	2	3	0	13	13	0
	3	5	10	0	13	10
	4	3	11	0	24	27
	5	3	0	13	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.52	4.31	1.1	A	769	1153
2	0.38	2.86	0.6	A	641	962
3	0.11	3.26	0.1	A	117	176
4	0.67	8.59	2.0	A	713	1069
5	0.22	3.35	0.3	A	255	383

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	631	158	558	2017	0.313	629	513	0.0	0.5	2.590	A
2	526	132	412	2218	0.237	525	775	0.0	0.3	2.126	A
3	96	24	849	1550	0.062	96	88	0.0	0.1	2.475	A
4	585	146	365	1396	0.419	582	580	0.0	0.7	4.407	A
5	209	52	862	1731	0.121	209	85	0.0	0.1	2.365	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	753	188	669	1908	0.395	753	613	0.5	0.6	3.113	A
2	628	157	493	2138	0.294	628	928	0.3	0.4	2.383	A
3	115	29	1016	1422	0.081	115	105	0.1	0.1	2.754	A
4	699	175	437	1345	0.519	697	694	0.7	1.1	5.545	A
5	250	62	1032	1583	0.158	250	101	0.1	0.2	2.699	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	923	231	817	1761	0.524	921	750	0.6	1.1	4.274	A
2	770	192	603	2030	0.379	769	1135	0.4	0.6	2.853	A
3	141	35	1244	1246	0.113	141	128	0.1	0.1	3.255	A
4	855	214	534	1274	0.671	852	850	1.1	2.0	8.445	A
5	306	77	1262	1384	0.221	306	124	0.2	0.3	3.338	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	923	231	820	1759	0.525	923	752	1.1	1.1	4.305	A
2	770	192	604	2029	0.379	770	1138	0.6	0.6	2.857	A
3	141	35	1245	1245	0.113	141	129	0.1	0.1	3.259	A
4	855	214	535	1274	0.672	855	851	2.0	2.0	8.593	A
5	306	77	1266	1381	0.222	306	124	0.3	0.3	3.349	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	753	188	673	1904	0.396	755	616	1.1	0.7	3.136	A
2	628	157	495	2137	0.294	629	933	0.6	0.4	2.390	A
3	115	29	1018	1420	0.081	115	106	0.1	0.1	2.758	A
4	699	175	438	1344	0.520	702	696	2.0	1.1	5.639	A
5	250	62	1038	1578	0.158	250	102	0.3	0.2	2.710	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	631	158	562	2014	0.313	632	515	0.7	0.5	2.608	A
2	526	132	414	2216	0.237	527	780	0.4	0.3	2.131	A
3	96	24	852	1548	0.062	96	88	0.1	0.1	2.479	A
4	585	146	366	1395	0.419	586	583	1.1	0.7	4.459	A
5	209	52	867	1726	0.121	209	85	0.2	0.1	2.373	A

2023 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A14 Claydon Interchange	Large Roundabout		1, 2, 3, 4, 5	4.31	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.31	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1032	✓	55.60
2	718	✓	109.60
3	1373	✓	18.00
4	646	✓	55.60
5	1469	✓	107.90

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	646	100.000
2		ONE HOUR	✓	722	100.000
3		ONE HOUR	✓	112	100.000
4		ONE HOUR	✓	736	100.000
5		ONE HOUR	✓	274	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	343	32	200	71
	2	355	0	35	330	2
	3	29	36	0	24	23
	4	204	480	48	4	0
	5	104	3	26	141	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	2	3	3	1
	2	3	0	15	9	0
	3	0	6	0	17	0
	4	2	5	2	75	6
	5	3	0	0	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.40	3.33	0.7	A	593	889
2	0.38	2.75	0.6	A	663	994
3	0.09	2.99	0.1	A	103	154
4	0.62	7.35	1.6	A	675	1013
5	0.21	3.20	0.3	A	251	377

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	486	122	553	2036	0.239	485	519	0.0	0.3	2.319	A
2	544	136	392	2285	0.238	542	647	0.0	0.3	2.064	A
3	84	21	828	1632	0.052	84	106	0.0	0.1	2.325	A
4	554	139	388	1433	0.387	552	525	0.0	0.6	4.072	A
5	206	52	867	1775	0.116	206	72	0.0	0.1	2.294	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	581	145	662	1933	0.300	580	621	0.3	0.4	2.661	A
2	649	162	469	2208	0.294	649	774	0.3	0.4	2.308	A
3	101	25	991	1504	0.067	101	127	0.1	0.1	2.564	A
4	662	165	464	1377	0.481	660	628	0.6	0.9	5.016	A
5	246	62	1038	1629	0.151	246	86	0.1	0.2	2.603	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	711	178	810	1794	0.397	710	761	0.4	0.7	3.319	A
2	795	199	574	2103	0.378	794	947	0.4	0.6	2.750	A
3	123	31	1213	1329	0.093	123	155	0.1	0.1	2.985	A
4	810	203	568	1300	0.623	808	769	0.9	1.6	7.267	A
5	302	75	1270	1430	0.211	301	106	0.2	0.3	3.189	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	711	178	812	1792	0.397	711	762	0.7	0.7	3.331	A
2	795	199	575	2102	0.378	795	949	0.6	0.6	2.753	A
3	123	31	1214	1328	0.093	123	155	0.1	0.1	2.987	A
4	810	203	568	1300	0.624	810	770	1.6	1.6	7.353	A
5	302	75	1273	1427	0.211	302	106	0.3	0.3	3.197	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	581	145	666	1930	0.301	582	623	0.7	0.4	2.673	A
2	649	162	470	2207	0.294	650	777	0.6	0.4	2.312	A
3	101	25	993	1503	0.067	101	127	0.1	0.1	2.569	A
4	662	165	464	1376	0.481	664	629	1.6	0.9	5.076	A
5	246	62	1042	1625	0.152	247	86	0.3	0.2	2.612	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	486	122	557	2033	0.239	487	522	0.4	0.3	2.330	A
2	544	136	393	2284	0.238	544	650	0.4	0.3	2.069	A
3	84	21	831	1630	0.052	84	106	0.1	0.1	2.328	A
4	554	139	389	1432	0.387	555	527	0.9	0.6	4.112	A
5	206	52	872	1771	0.116	206	72	0.2	0.1	2.300	A

2023 Base + Com Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A14 Claydon Interchange	Large Roundabout		1, 2, 3, 4, 5	4.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.50	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1032	✓	55.60
2	718	✓	109.60
3	1373	✓	18.00
4	646	✓	55.60
5	1469	✓	107.90

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2023 Base + Com Dev	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	652	100.000
2		ONE HOUR	✓	764	100.000
3		ONE HOUR	✓	112	100.000
4		ONE HOUR	✓	749	100.000
5		ONE HOUR	✓	302	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	349	32	200	71
	2	369	0	35	358	2
	3	29	36	0	24	23
	4	204	497	48	0	0
	5	104	3	26	169	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	2	3	3	1
	2	3	0	15	9	0
	3	0	6	0	17	0
	4	2	5	2	75	6
	5	3	0	0	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.41	3.49	0.7	A	598	897
2	0.41	2.92	0.7	A	701	1052
3	0.10	3.13	0.1	A	103	154
4	0.64	7.69	1.7	A	687	1031
5	0.24	3.38	0.3	A	277	416

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	123	584	2008	0.244	490	530	0.0	0.3	2.368	A
2	575	144	410	2267	0.254	574	664	0.0	0.3	2.124	A
3	84	21	878	1594	0.053	84	106	0.0	0.1	2.384	A
4	564	141	398	1430	0.394	561	564	0.0	0.6	4.130	A
5	227	57	887	1752	0.130	227	72	0.0	0.1	2.360	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	586	147	699	1900	0.309	586	634	0.3	0.4	2.740	A
2	687	172	490	2187	0.314	686	794	0.3	0.5	2.400	A
3	101	25	1050	1458	0.069	101	127	0.1	0.1	2.651	A
4	673	168	476	1372	0.491	672	675	0.6	1.0	5.131	A
5	271	68	1062	1604	0.169	271	86	0.1	0.2	2.702	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	718	179	855	1753	0.410	717	776	0.4	0.7	3.472	A
2	841	210	600	2077	0.405	840	972	0.5	0.7	2.911	A
3	123	31	1286	1272	0.097	123	155	0.1	0.1	3.131	A
4	825	206	583	1293	0.638	822	826	1.0	1.7	7.584	A
5	333	83	1299	1402	0.237	332	106	0.2	0.3	3.363	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	718	179	858	1750	0.410	718	777	0.7	0.7	3.485	A
2	841	210	601	2076	0.405	841	974	0.7	0.7	2.915	A
3	123	31	1287	1271	0.097	123	155	0.1	0.1	3.135	A
4	825	206	584	1293	0.638	825	827	1.7	1.7	7.686	A
5	333	83	1302	1399	0.238	333	106	0.3	0.3	3.375	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	586	147	703	1896	0.309	587	636	0.7	0.4	2.751	A
2	687	172	492	2185	0.314	688	798	0.7	0.5	2.405	A
3	101	25	1052	1456	0.069	101	127	0.1	0.1	2.657	A
4	673	168	477	1372	0.491	676	676	1.7	1.0	5.200	A
5	271	68	1067	1599	0.170	272	86	0.3	0.2	2.712	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	123	588	2005	0.245	491	532	0.4	0.3	2.381	A
2	575	144	412	2266	0.254	576	667	0.5	0.3	2.132	A
3	84	21	881	1591	0.053	84	106	0.1	0.1	2.388	A
4	564	141	399	1429	0.395	565	566	1.0	0.7	4.173	A
5	227	57	892	1748	0.130	228	72	0.2	0.1	2.369	A

2023 Base + Com Dev + E3 S1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A14 Claydon Interchange	Large Roundabout		1, 2, 3, 4, 5	4.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.94	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1032	✓	55.60
2	718	✓	109.60
3	1373	✓	18.00
4	646	✓	55.60
5	1469	✓	107.90

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2023 Base + Com Dev + E3 S1	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	652	100.000
2		ONE HOUR	✓	766	100.000
3		ONE HOUR	✓	112	100.000
4		ONE HOUR	✓	802	100.000
5		ONE HOUR	✓	304	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	349	32	200	71
	2	369	0	37	358	2
	3	29	36	0	24	23
	4	204	546	48	0	4
	5	104	3	28	169	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	3	3	2
	2	3	0	20	9	0
	3	0	6	0	17	0
	4	2	5	2	0	0
	5	3	0	0	7	12

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.42	3.63	0.7	A	598	897
2	0.41	2.92	0.7	A	703	1054
3	0.10	3.12	0.1	A	103	154
4	0.68	8.80	2.1	A	736	1104
5	0.24	3.41	0.3	A	279	418

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	123	622	1982	0.248	490	530	0.0	0.3	2.409	A
2	577	144	411	2266	0.255	575	700	0.0	0.3	2.127	A
3	84	21	878	1598	0.053	84	109	0.0	0.1	2.377	A
4	604	151	398	1429	0.422	601	564	0.0	0.7	4.331	A
5	229	57	924	1767	0.130	228	75	0.0	0.1	2.339	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	586	147	745	1868	0.314	586	634	0.3	0.5	2.806	A
2	689	172	492	2186	0.315	688	838	0.3	0.5	2.403	A
3	101	25	1050	1463	0.069	101	130	0.1	0.1	2.641	A
4	721	180	476	1371	0.526	720	675	0.7	1.1	5.510	A
5	273	68	1106	1608	0.170	273	90	0.1	0.2	2.696	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	718	179	911	1713	0.419	717	776	0.5	0.7	3.610	A
2	843	211	602	2077	0.406	842	1025	0.5	0.7	2.914	A
3	123	31	1286	1279	0.096	123	159	0.1	0.1	3.114	A
4	883	221	583	1292	0.683	879	826	1.1	2.1	8.631	A
5	335	84	1352	1393	0.240	334	110	0.2	0.3	3.399	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	718	179	914	1710	0.420	718	777	0.7	0.7	3.627	A
2	843	211	603	2076	0.406	843	1028	0.7	0.7	2.918	A
3	123	31	1287	1278	0.097	123	160	0.1	0.1	3.117	A
4	883	221	584	1292	0.684	883	827	2.1	2.1	8.799	A
5	335	84	1356	1389	0.241	335	110	0.3	0.3	3.414	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	586	147	749	1863	0.315	587	636	0.7	0.5	2.824	A
2	689	172	494	2185	0.315	690	843	0.7	0.5	2.408	A
3	101	25	1052	1461	0.069	101	131	0.1	0.1	2.645	A
4	721	180	477	1371	0.526	725	676	2.1	1.1	5.611	A
5	273	68	1112	1603	0.171	274	90	0.3	0.2	2.711	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	123	626	1979	0.248	491	532	0.5	0.3	2.423	A
2	577	144	413	2264	0.255	577	705	0.5	0.3	2.134	A
3	84	21	881	1596	0.053	84	109	0.1	0.1	2.383	A
4	604	151	399	1428	0.423	605	566	1.1	0.7	4.382	A
5	229	57	929	1762	0.130	229	75	0.2	0.1	2.349	A

2023 Base + Com Dev + E3 S2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A14 Claydon Interchange	Large Roundabout		1, 2, 3, 4, 5	5.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.28	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1032	✓	55.60
2	718	✓	109.60
3	1373	✓	18.00
4	646	✓	55.60
5	1469	✓	107.90

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2023 Base + Com Dev + E3 S2	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	652	100.000
2		ONE HOUR	✓	786	100.000
3		ONE HOUR	✓	112	100.000
4		ONE HOUR	✓	825	100.000
5		ONE HOUR	✓	324	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	349	32	200	71
	2	369	0	57	358	2
	3	29	36	0	24	23
	4	204	568	48	0	5
	5	104	3	48	169	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	2	3	3	1
	2	3	0	48	9	0
	3	0	6	0	17	0
	4	2	4	2	0	0
	5	3	0	46	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.44	3.91	0.8	A	598	897
2	0.44	3.23	0.8	A	721	1082
3	0.10	3.13	0.1	A	103	154
4	0.70	9.25	2.3	A	757	1136
5	0.28	3.98	0.4	A	297	446

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	123	654	1931	0.254	490	530	0.0	0.3	2.494	A
2	592	148	426	2182	0.271	590	717	0.0	0.4	2.260	A
3	84	21	878	1594	0.053	84	139	0.0	0.1	2.384	A
4	621	155	398	1435	0.433	618	564	0.0	0.8	4.391	A
5	244	61	940	1615	0.151	243	76	0.0	0.2	2.623	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	586	147	783	1808	0.324	586	634	0.3	0.5	2.943	A
2	707	177	510	2097	0.337	706	858	0.4	0.5	2.586	A
3	101	25	1050	1458	0.069	101	166	0.1	0.1	2.651	A
4	742	185	476	1377	0.539	740	675	0.8	1.2	5.639	A
5	291	73	1125	1466	0.199	291	91	0.2	0.2	3.063	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	718	179	956	1641	0.437	717	776	0.5	0.8	3.888	A
2	865	216	624	1982	0.437	864	1049	0.5	0.8	3.219	A
3	123	31	1285	1273	0.097	123	203	0.1	0.1	3.131	A
4	908	227	583	1298	0.700	904	826	1.2	2.3	9.045	A
5	357	89	1376	1265	0.282	356	111	0.2	0.4	3.958	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	718	179	960	1638	0.438	718	777	0.8	0.8	3.912	A
2	865	216	625	1980	0.437	865	1052	0.8	0.8	3.227	A
3	123	31	1287	1271	0.097	123	204	0.1	0.1	3.135	A
4	908	227	584	1297	0.700	908	827	2.3	2.3	9.249	A
5	357	89	1381	1261	0.283	357	111	0.4	0.4	3.980	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	586	147	788	1803	0.325	587	636	0.8	0.5	2.965	A
2	707	177	512	2095	0.337	708	863	0.8	0.5	2.595	A
3	101	25	1053	1456	0.069	101	167	0.1	0.1	2.658	A
4	742	185	477	1376	0.539	746	676	2.3	1.2	5.752	A
5	291	73	1132	1461	0.199	292	91	0.4	0.3	3.083	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	123	658	1927	0.255	491	532	0.5	0.3	2.507	A
2	592	148	428	2180	0.271	592	721	0.5	0.4	2.269	A
3	84	21	881	1591	0.053	84	139	0.1	0.1	2.388	A
4	621	155	399	1434	0.433	623	566	1.2	0.8	4.447	A
5	244	61	946	1610	0.151	244	76	0.3	0.2	2.635	A

Appendix F Junction 5: A12/A1214 Linsig Results

East Anglia THREE Onshore Cable Works

Traffic and Transport Technical Note

ScottishPower Renewables

SLR Project No.: 404.05356.00006

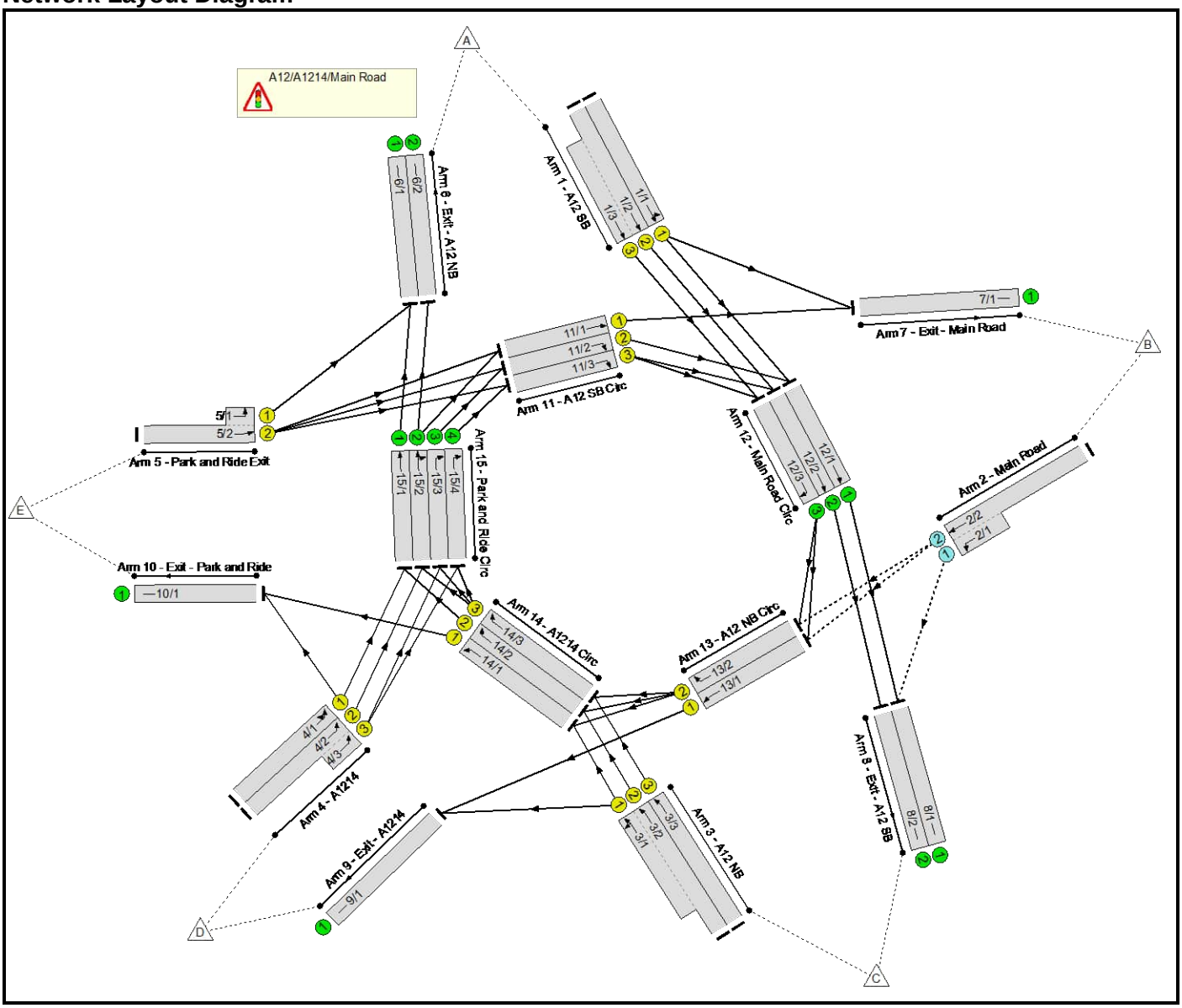
15 November 2023

Full Input Data And Results

User and Project Details

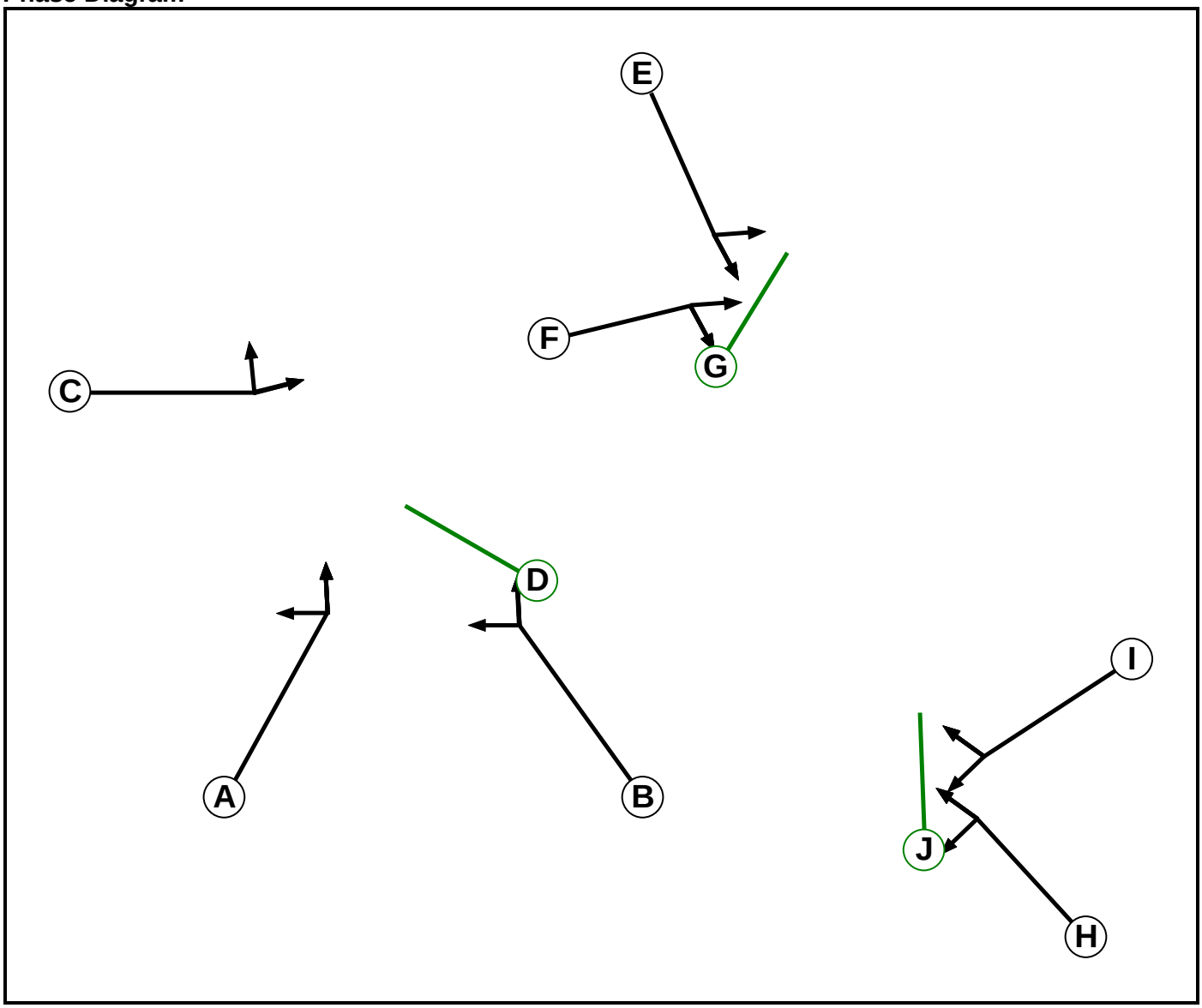
Project:	**East Anglia Three**
Title:	
Location:	A12/A1214/Main Road, Martlesham
Client:	Scottish Power Renewables
Additional detail:	
File name:	A12_A1214_Main Road - Scenario 1 and 2.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Dummy R/A	1		7	7
E	Traffic	2		7	7
F	Traffic	2		7	7
G	Dummy R/A	2		7	7
H	Traffic	3		7	7
I	Traffic	3		7	7
J	Dummy R/A	3		7	7

Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J
A		5	9	3	-	-	-	-	-	-
B	5		9	3	-	-	-	-	-	-
C	5	5		3	-	-	-	-	-	-
D	2	2	2		-	-	-	-	-	-
E	-	-	-	-		5	3	-	-	-
F	-	-	-	-	5		3	-	-	-
G	-	-	-	-	2	2		-	-	-
H	-	-	-	-	-	-	-		5	3
I	-	-	-	-	-	-	-	5		3
J	-	-	-	-	-	-	-	2	2	

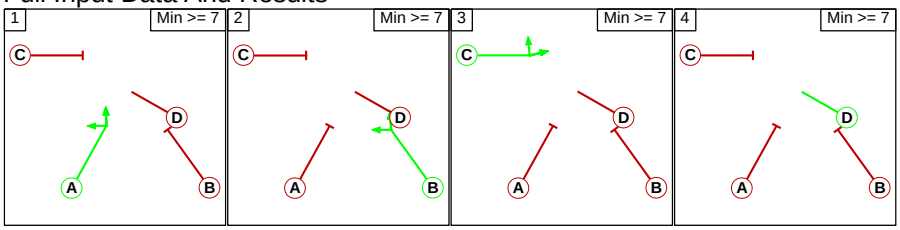
Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
1	3	C
1	4	D
2	1	E
2	2	F
2	3	G
3	1	H
3	2	I
3	3	J

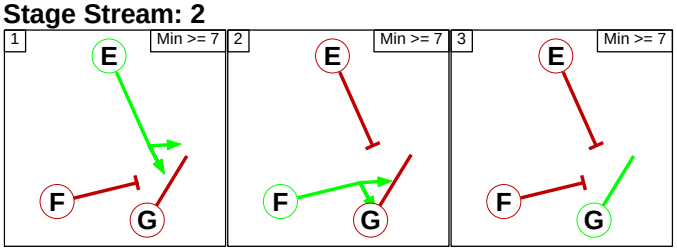
Stage Diagram

Stage Stream: 1

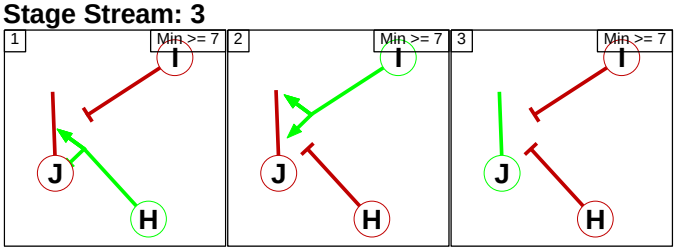
Full Input Data And Results



Stage Stream: 2



Stage Stream: 3



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

		To Stage			
		1	2	3	4
From Stage	1		5	9	3
	2	5		9	3
	3	5	5		3
	4	2	2	2	

Full Input Data And Results

Stage Stream: 2

		To Stage		
		1	2	3
From Stage	1		5	3
	2	5		3
	3	2	2	

Stage Stream: 3

		To Stage		
		1	2	3
From Stage	1		5	3
	2	5		3
	3	2	2	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A12/A1214/Main 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)
2/1 (Main Road)	8/1 (Left)	852	0	12/1	0.49	All	-	-	-	-	-
2/2 (Main Road)	13/1 (Ahead)	852	0	12/1	0.49	All	-	-	-	-	-
				12/2	0.49	All					
				12/3	0.49	All					
	13/2 (Ahead)	852	0	12/1	0.49	All					
				12/2	0.49	All					
				12/3	0.49	All					

Full Input Data And Results

Lane Input Data

Junction: A12/A1214/Main 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 (A12 SB)	U	E	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 7 Left	Inf
											Arm 12 Ahead	Inf
1/2 (A12 SB)	U	E	2	3	60.0	Geom	-	3.50	0.00	N	Arm 12 Ahead	Inf
1/3 (A12 SB)	U	E	2	3	13.2	Geom	-	3.60	0.00	Y	Arm 12 Ahead	Inf
2/1 (Main Road)	O		2	3	4.7	Geom	-	4.00	0.00	Y	Arm 8 Left	Inf
2/2 (Main Road)	O		2	3	60.0	Geom	-	4.00	0.00	Y	Arm 13 Ahead	Inf
3/1 (A12 NB)	U	H	2	3	14.8	Geom	-	3.80	0.00	Y	Arm 9 Left	Inf
											Arm 14 Ahead	Inf
3/2 (A12 NB)	U	H	2	3	60.0	Geom	-	3.60	0.00	N	Arm 14 Ahead	Inf
3/3 (A12 NB)	U	H	2	3	60.0	Geom	-	3.70	0.00	Y	Arm 14 Ahead	Inf
4/1 (A1214)	U	A	2	3	60.0	Geom	-	4.10	0.00	Y	Arm 10 U-Turn	Inf
											Arm 15 Left	Inf
4/2 (A1214)	U	A	2	3	60.0	Geom	-	4.10	0.00	N	Arm 15 Left	Inf
4/3 (A1214)	U	A	2	3	3.2	Geom	-	4.20	0.00	Y	Arm 15 Left	Inf
5/1 (Park and Ride Exit)	U	C	2	3	2.4	Geom	-	4.10	0.00	Y	Arm 6 Left	Inf
5/2 (Park and Ride Exit)	U	C	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 11 Ahead	Inf
6/1 (Exit - A12 NB)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2 (Exit - A12 NB)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Exit - Main Road)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Exit - A12 SB)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2 (Exit - A12 SB)	U		2	3	60.0	Inf	-	-	-	-	-	-

9/1 (Exit - A1214)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1 (Exit - Park and Ride)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1 (A12 SB Circ)	U	F	2	3	2.8	Geom	-	4.90	0.00	Y	Arm 7 Ahead	Inf
11/2 (A12 SB Circ)	U	F	2	3	2.8	Geom	-	4.90	0.00	N	Arm 12 Right	Inf
11/3 (A12 SB Circ)	U	F	2	3	2.8	Geom	-	4.70	0.00	Y	Arm 12 Right	Inf
12/1 (Main Road Circ)	U		2	3	2.6	Geom	-	4.40	0.00	Y	Arm 8 Ahead	Inf
12/2 (Main Road Circ)	U		2	3	2.6	Geom	-	4.40	0.00	Y	Arm 8 Ahead	Inf
12/3 (Main Road Circ)	U		2	3	2.6	Geom	-	3.80	0.00	Y	Arm 13 Right	Inf
13/1 (A12 NB Circ)	U	I	2	3	2.3	Geom	-	4.40	0.00	Y	Arm 9 Ahead	Inf
13/2 (A12 NB Circ)	U	I	2	3	2.3	Geom	-	4.40	0.00	Y	Arm 14 Right	Inf
14/1 (A1214 Circ)	U	B	2	3	2.6	Geom	-	4.60	0.00	Y	Arm 10 Ahead	Inf
14/2 (A1214 Circ)	U	B	2	3	2.4	Geom	-	4.40	0.00	N	Arm 15 Right	Inf
14/3 (A1214 Circ)	U	B	2	3	2.3	Geom	-	4.40	0.00	Y	Arm 15 Right	Inf
15/1 (Park and Ride Circ)	U		2	3	1.4	Geom	-	4.90	0.00	Y	Arm 6 Ahead	Inf
15/2 (Park and Ride Circ)	U		2	3	1.4	Geom	-	4.90	0.00	N	Arm 6 Ahead Arm 11 Right	Inf Inf
15/3 (Park and Ride Circ)	U		2	3	1.4	Geom	-	4.90	0.00	N	Arm 11 Right	Inf
15/4 (Park and Ride Circ)	U		2	3	1.4	Geom	-	4.90	0.00	Y	Arm 11 Right	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
3: '2024 Base + Com Dev - PM Peak'	17:00	18:00	01:00	
4: '2024 Base + Com Dev + Scenario 1 (accesses 28-30 + CS) PM Peak'	17:00	18:00	01:00	
5: '2024 Base + Com Dev + Scenario 2 (accesses 2,3 and 31 + CS) PM Peak'	17:00	18:00	01:00	

Scenario 3: '2024 Base + Com Dev - PM Peak' (FG3: '2024 Base + Com Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	10	966	232	4	1212
	B	38	0	121	25	0	184
	C	1000	125	0	377	4	1506
	D	253	38	366	0	4	661
	E	0	0	0	0	0	0
	Tot.	1291	173	1453	634	12	3563

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2024 Base + Com Dev - PM Peak
Junction: A12/A1214/Main Road	
1/1	447
1/2 (with short)	765(In) 529(Out)
1/3 (short)	236
2/1 (short)	121
2/2 (with short)	184(In) 63(Out)
3/1 (short)	381
3/2 (with short)	960(In) 579(Out)
3/3	546
4/1	187
4/2 (with short)	474(In) 108(Out)
4/3 (short)	366
5/1 (short)	0
5/2 (with short)	0(In) 0(Out)
6/1	784
6/2	507
7/1	173
8/1	750
8/2	703
9/1	634
10/1	12
11/1	163
11/2	192
11/3	174
12/1	629
12/2	703
12/3	236
13/1	257
13/2	42
14/1	8
14/2	601
14/3	562
15/1	784
15/2	670

15/3	192
15/4	174

Lane Saturation Flows

Junction: A12/A1214/Main 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 (A12 SB)	3.40	0.00	Y	Arm 7 Left Arm 12 Ahead	Inf Inf	2.2 % 97.8 %	1955	1955
1/2 (A12 SB)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 SB)	3.60	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1975	1975
2/1 (Main Road)	4.00	0.00	Y	Arm 8 Left	Inf	100.0 %	2015	2015
2/2 (Main Road)	4.00	0.00	Y	Arm 13 Ahead	Inf	100.0 %	2015	2015
3/1 (A12 NB)	3.80	0.00	Y	Arm 9 Left Arm 14 Ahead	Inf Inf	99.0 % 1.0 %	1995	1995
3/2 (A12 NB)	3.60	0.00	N	Arm 14 Ahead	Inf	100.0 %	2115	2115
3/3 (A12 NB)	3.70	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1985	1985
4/1 (A1214)	4.10	0.00	Y	Arm 10 U-Turn Arm 15 Left	Inf Inf	2.1 % 97.9 %	2025	2025
4/2 (A1214)	4.10	0.00	N	Arm 15 Left	Inf	100.0 %	2165	2165
4/3 (A1214)	4.20	0.00	Y	Arm 15 Left	Inf	100.0 %	2035	2035
5/1 (Park and Ride Exit)	4.10	0.00	Y	Arm 6 Left	Inf	0.0 %	2025	2025
5/2 (Park and Ride Exit)	4.00	0.00	Y	Arm 11 Ahead	Inf	0.0 %	2015	2015
6/1 (Exit - A12 NB Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Exit - A12 NB Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Exit - Main Road Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit - A12 SB Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Exit - A12 SB Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Exit - A1214 Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (Exit - Park and Ride Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1 (A12 SB Circ)	4.90	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2105	2105

11/2 (A12 SB Circ)	4.90	0.00	N	Arm 12 Right	Inf	100.0 %	2245	2245
11/3 (A12 SB Circ)	4.70	0.00	Y	Arm 12 Right	Inf	100.0 %	2085	2085
12/1 (Main Road Circ)	4.40	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2055	2055
12/2 (Main Road Circ)	4.40	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2055	2055
12/3 (Main Road Circ)	3.80	0.00	Y	Arm 13 Right	Inf	100.0 %	1995	1995
13/1 (A12 NB Circ)	4.40	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2055	2055
13/2 (A12 NB Circ)	4.40	0.00	Y	Arm 14 Right	Inf	100.0 %	2055	2055
14/1 (A1214 Circ)	4.60	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2075	2075
14/2 (A1214 Circ)	4.40	0.00	N	Arm 15 Right	Inf	100.0 %	2195	2195
14/3 (A1214 Circ)	4.40	0.00	Y	Arm 15 Right	Inf	100.0 %	2055	2055
15/1 (Park and Ride Circ)	4.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2105	2105
15/2 (Park and Ride Circ)	4.90	0.00	N	Arm 6 Ahead Arm 11 Right	Inf Inf	75.7 % 24.3 %	2245	2245
15/3 (Park and Ride Circ)	4.90	0.00	N	Arm 11 Right	Inf	100.0 %	2245	2245
15/4 (Park and Ride Circ)	4.90	0.00	Y	Arm 11 Right	Inf	100.0 %	2105	2105

Scenario 4: '2024 Base + Com Dev + Scenario 1 PM Peak' (FG4: '2024 Base + Com Dev + Scenario 1 (accesses 28-30 + CS) PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	10	973	235	4	1222
	B	38	0	121	25	0	184
	C	1088	125	0	379	4	1596
	D	253	38	366	0	4	661
	E	0	0	0	0	0	0
	Tot.	1379	173	1460	639	12	3663

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2024 Base + Com Dev + Scenario 1 PM Peak
Junction: A12/A1214/Main Road	
1/1	444
1/2 (with short)	778(In) 539(Out)
1/3 (short)	239
2/1 (short)	121
2/2 (with short)	184(In) 63(Out)
3/1 (short)	383
3/2 (with short)	1026(In) 643(Out)
3/3	570
4/1	227
4/2 (with short)	434(In) 68(Out)
4/3 (short)	366
5/1 (short)	0
5/2 (with short)	0(In) 0(Out)
6/1	873
6/2	506
7/1	173
8/1	785
8/2	675
9/1	639
10/1	12
11/1	163
11/2	230
11/3	136
12/1	664
12/2	675
12/3	239
13/1	260
13/2	42
14/1	8
14/2	650
14/3	601
15/1	873
15/2	669

15/3	230
15/4	136

Lane Saturation Flows

Junction: A12/A1214/Main 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 (A12 SB)	3.40	0.00	Y	Arm 7 Left Arm 12 Ahead	Inf Inf	2.3 % 97.7 %	1955	1955
1/2 (A12 SB)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 SB)	3.60	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1975	1975
2/1 (Main Road)	4.00	0.00	Y	Arm 8 Left	Inf	100.0 %	2015	2015
2/2 (Main Road)	4.00	0.00	Y	Arm 13 Ahead	Inf	100.0 %	2015	2015
3/1 (A12 NB)	3.80	0.00	Y	Arm 9 Left Arm 14 Ahead	Inf Inf	99.0 % 1.0 %	1995	1995
3/2 (A12 NB)	3.60	0.00	N	Arm 14 Ahead	Inf	100.0 %	2115	2115
3/3 (A12 NB)	3.70	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1985	1985
4/1 (A1214)	4.10	0.00	Y	Arm 10 U-Turn Arm 15 Left	Inf Inf	1.8 % 98.2 %	2025	2025
4/2 (A1214)	4.10	0.00	N	Arm 15 Left	Inf	100.0 %	2165	2165
4/3 (A1214)	4.20	0.00	Y	Arm 15 Left	Inf	100.0 %	2035	2035
5/1 (Park and Ride Exit)	4.10	0.00	Y	Arm 6 Left	Inf	0.0 %	2025	2025
5/2 (Park and Ride Exit)	4.00	0.00	Y	Arm 11 Ahead	Inf	0.0 %	2015	2015
6/1 (Exit - A12 NB Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Exit - A12 NB Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Exit - Main Road Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit - A12 SB Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Exit - A12 SB Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Exit - A1214 Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (Exit - Park and Ride Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1 (A12 SB Circ)	4.90	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2105	2105

11/2 (A12 SB Circ)	4.90	0.00	N	Arm 12 Right	Inf	100.0 %	2245	2245
11/3 (A12 SB Circ)	4.70	0.00	Y	Arm 12 Right	Inf	100.0 %	2085	2085
12/1 (Main Road Circ)	4.40	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2055	2055
12/2 (Main Road Circ)	4.40	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2055	2055
12/3 (Main Road Circ)	3.80	0.00	Y	Arm 13 Right	Inf	100.0 %	1995	1995
13/1 (A12 NB Circ)	4.40	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2055	2055
13/2 (A12 NB Circ)	4.40	0.00	Y	Arm 14 Right	Inf	100.0 %	2055	2055
14/1 (A1214 Circ)	4.60	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2075	2075
14/2 (A1214 Circ)	4.40	0.00	N	Arm 15 Right	Inf	100.0 %	2195	2195
14/3 (A1214 Circ)	4.40	0.00	Y	Arm 15 Right	Inf	100.0 %	2055	2055
15/1 (Park and Ride Circ)	4.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2105	2105
15/2 (Park and Ride Circ)	4.90	0.00	N	Arm 6 Ahead Arm 11 Right	Inf Inf	75.6 % 24.4 %	2245	2245
15/3 (Park and Ride Circ)	4.90	0.00	N	Arm 11 Right	Inf	100.0 %	2245	2245
15/4 (Park and Ride Circ)	4.90	0.00	Y	Arm 11 Right	Inf	100.0 %	2105	2105

Scenario 5: '2024 Base + Com Dev + Scenario 2 PM Peak' (FG5: '2024 Base + Com Dev + Scenario 2 (accesses 2,3 and 31 + CS) PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	10	968	234	4	1216
	B	38	0	121	25	0	184
	C	1031	125	0	377	4	1537
	D	253	38	366	0	4	661
	E	0	0	0	0	0	0
	Tot.	1322	173	1455	636	12	3598

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2024 Base + Com Dev + Scenario 2 PM Peak
Junction: A12/A1214/Main Road	
1/1	441
1/2 (with short)	775(In) 537(Out)
1/3 (short)	238
2/1 (short)	121
2/2 (with short)	184(In) 63(Out)
3/1 (short)	381
3/2 (with short)	997(In) 616(Out)
3/3	540
4/1	228
4/2 (with short)	433(In) 67(Out)
4/3 (short)	366
5/1 (short)	0
5/2 (with short)	0(In) 0(Out)
6/1	846
6/2	476
7/1	173
8/1	782
8/2	673
9/1	636
10/1	12
11/1	163
11/2	230
11/3	136
12/1	661
12/2	673
12/3	238
13/1	259
13/2	42
14/1	8
14/2	622
14/3	572
15/1	846
15/2	639

15/3	230
15/4	136

Lane Saturation Flows

Junction: A12/A1214/Main 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 (A12 SB)	3.40	0.00	Y	Arm 7 Left Arm 12 Ahead	Inf Inf	2.3 % 97.7 %	1955	1955
1/2 (A12 SB)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 SB)	3.60	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1975	1975
2/1 (Main Road)	4.00	0.00	Y	Arm 8 Left	Inf	100.0 %	2015	2015
2/2 (Main Road)	4.00	0.00	Y	Arm 13 Ahead	Inf	100.0 %	2015	2015
3/1 (A12 NB)	3.80	0.00	Y	Arm 9 Left Arm 14 Ahead	Inf Inf	99.0 % 1.0 %	1995	1995
3/2 (A12 NB)	3.60	0.00	N	Arm 14 Ahead	Inf	100.0 %	2115	2115
3/3 (A12 NB)	3.70	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1985	1985
4/1 (A1214)	4.10	0.00	Y	Arm 10 U-Turn Arm 15 Left	Inf Inf	1.8 % 98.2 %	2025	2025
4/2 (A1214)	4.10	0.00	N	Arm 15 Left	Inf	100.0 %	2165	2165
4/3 (A1214)	4.20	0.00	Y	Arm 15 Left	Inf	100.0 %	2035	2035
5/1 (Park and Ride Exit)	4.10	0.00	Y	Arm 6 Left	Inf	0.0 %	2025	2025
5/2 (Park and Ride Exit)	4.00	0.00	Y	Arm 11 Ahead	Inf	0.0 %	2015	2015
6/1 (Exit - A12 NB Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Exit - A12 NB Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Exit - Main Road Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit - A12 SB Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Exit - A12 SB Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Exit - A1214 Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (Exit - Park and Ride Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1 (A12 SB Circ)	4.90	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2105	2105

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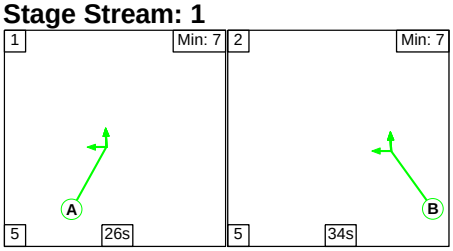
11/2 (A12 SB Circ)	4.90	0.00	N	Arm 12 Right	Inf	100.0 %	2245	2245
11/3 (A12 SB Circ)	4.70	0.00	Y	Arm 12 Right	Inf	100.0 %	2085	2085
12/1 (Main Road Circ)	4.40	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2055	2055
12/2 (Main Road Circ)	4.40	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2055	2055
12/3 (Main Road Circ)	3.80	0.00	Y	Arm 13 Right	Inf	100.0 %	1995	1995
13/1 (A12 NB Circ)	4.40	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2055	2055
13/2 (A12 NB Circ)	4.40	0.00	Y	Arm 14 Right	Inf	100.0 %	2055	2055
14/1 (A1214 Circ)	4.60	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2075	2075
14/2 (A1214 Circ)	4.40	0.00	N	Arm 15 Right	Inf	100.0 %	2195	2195
14/3 (A1214 Circ)	4.40	0.00	Y	Arm 15 Right	Inf	100.0 %	2055	2055
15/1 (Park and Ride Circ)	4.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2105	2105
15/2 (Park and Ride Circ)	4.90	0.00	N	Arm 6 Ahead Arm 11 Right	Inf Inf	74.5 % 25.5 %	2245	2245
15/3 (Park and Ride Circ)	4.90	0.00	N	Arm 11 Right	Inf	100.0 %	2245	2245
15/4 (Park and Ride Circ)	4.90	0.00	Y	Arm 11 Right	Inf	100.0 %	2105	2105

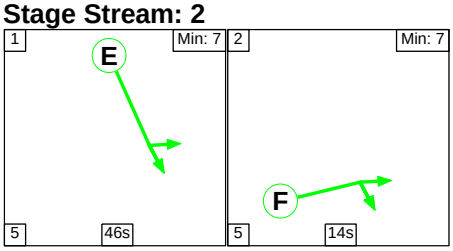
Scenario 3: '2024 Base + Com Dev - PM Peak' (FG3: '2024 Base + Com Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1

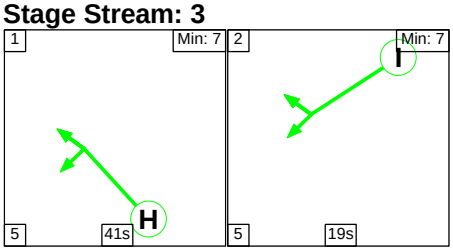


Stage Stream: 2



Full Input Data And Results

Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	26	34
Change Point	20	51

Stage Stream: 2

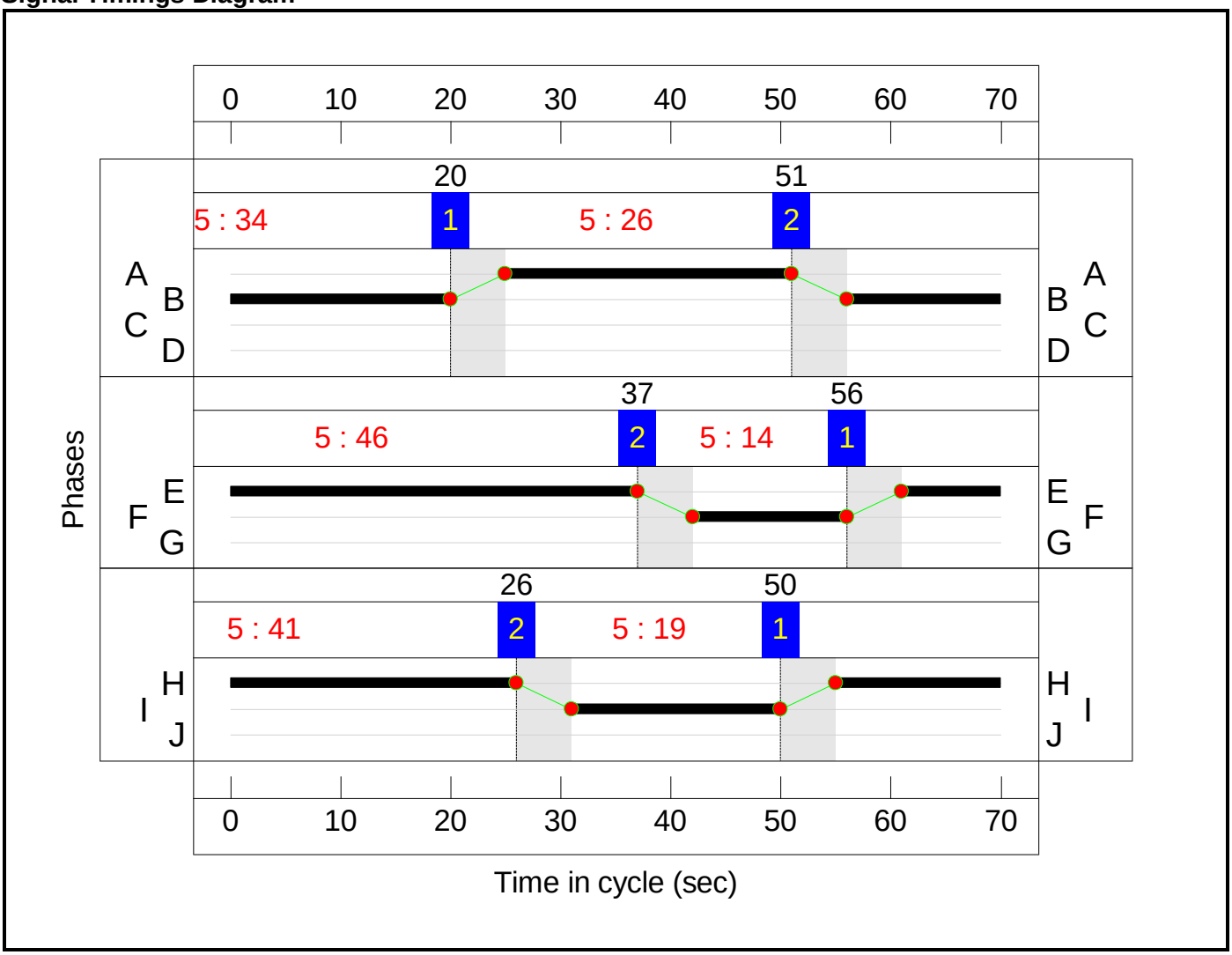
Stage	1	2
Duration	46	14
Change Point	56	37

Full Input Data And Results

Stage Stream: 3

Stage	1	2
Duration	41	19
Change Point	50	26

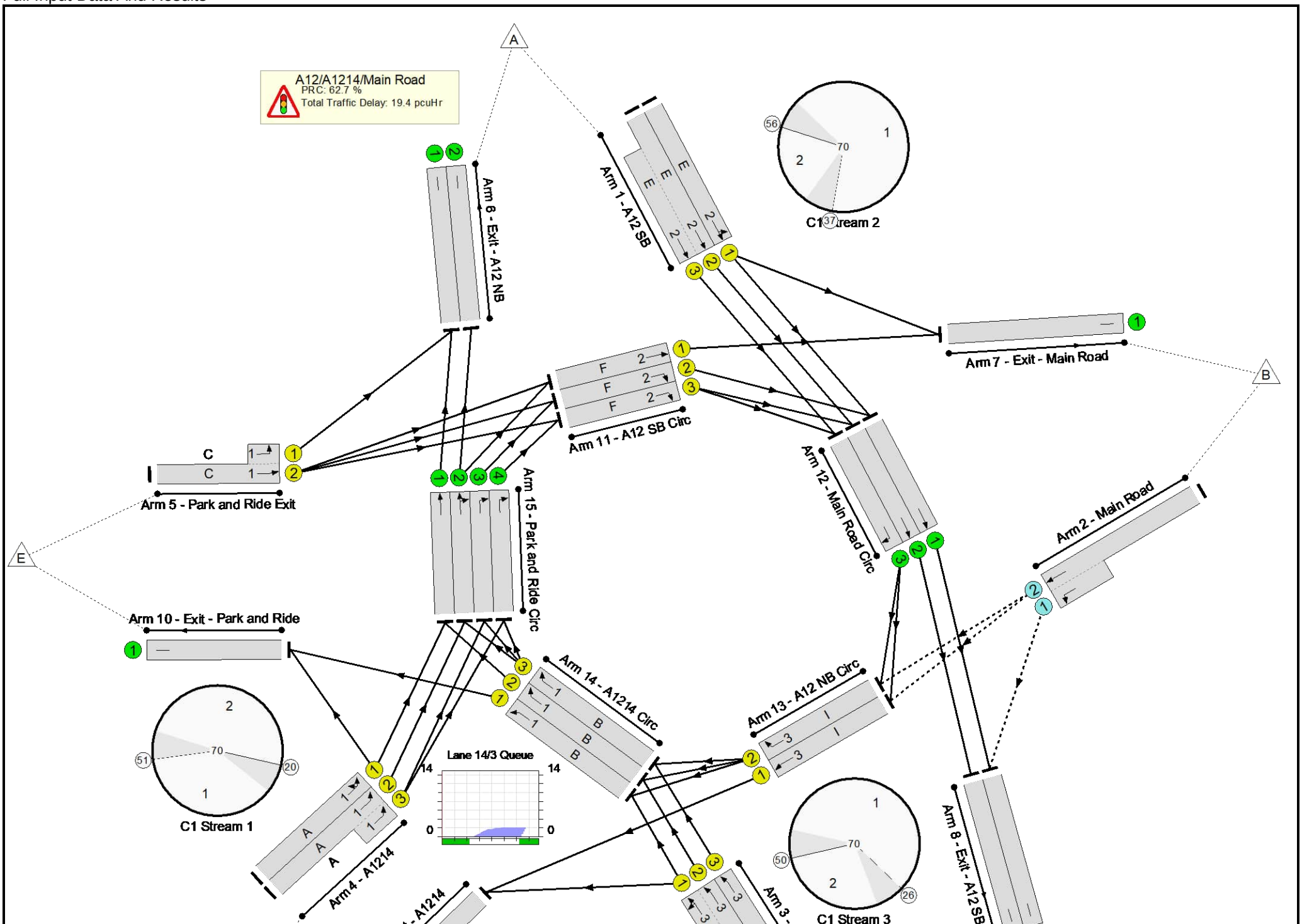
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

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	-	-	**N/A**	-	-		-	-	-	-	-	-	**55.3%**
A12/A1214/Main Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**55.3%**
1/1	A12 SB Left Ahead	U	2	N/A	E		1	46	-	447	1955	1313	34.1%
1/2+1/3	A12 SB Ahead	U	2	N/A	E		1	46	-	765	2105:1975	1714	44.6%
2/2+2/1	Main Road Left Ahead	O	N/A	N/A	-		-	-	-	184	2015:2015	826	22.3%
3/2+3/1	A12 NB Left Ahead	U	3	N/A	H		1	41	-	960	2115:1995	1772	54.2%
3/3	A12 NB Ahead	U	3	N/A	H		1	41	-	546	1985	1191	45.8%
4/1	A1214 U-Turn Left	U	1	N/A	A		1	26	-	187	2025	781	23.9%
4/2+4/3	A1214 Left	U	1	N/A	A		1	26	-	474	2165:2035	857	55.3%
5/2+5/1	Park and Ride Exit Left Ahead	U	1	N/A	C		0	0	-	0	2015:2025	0	0.0%
6/1	Exit - A12 NB	U	N/A	N/A	-		-	-	-	784	Inf	Inf	0.0%
6/2	Exit - A12 NB	U	N/A	N/A	-		-	-	-	507	Inf	Inf	0.0%
7/1	Exit - Main Road	U	N/A	N/A	-		-	-	-	173	Inf	Inf	0.0%
8/1	Exit - A12 SB	U	N/A	N/A	-		-	-	-	750	Inf	Inf	0.0%
8/2	Exit - A12 SB	U	N/A	N/A	-		-	-	-	703	Inf	Inf	0.0%
9/1	Exit - A1214	U	N/A	N/A	-		-	-	-	634	Inf	Inf	0.0%
10/1	Exit - Park and Ride	U	N/A	N/A	-		-	-	-	12	Inf	Inf	0.0%
11/1	A12 SB Circ Ahead	U	2	N/A	F		1	14	-	163	2105	451	36.1%
11/2	A12 SB Circ Right	U	2	N/A	F		1	14	-	192	2245	481	39.9%
11/3	A12 SB Circ Right	U	2	N/A	F		1	14	-	174	2085	447	38.9%

Full Input Data And Results

12/1	Main Road Circ Ahead	U	N/A	N/A	-		-	-	-	629	2055	2055	30.6%
12/2	Main Road Circ Ahead	U	N/A	N/A	-		-	-	-	703	2055	2055	34.2%
12/3	Main Road Circ Right	U	N/A	N/A	-		-	-	-	236	1995	1995	11.8%
13/1	A12 NB Circ Ahead	U	3	N/A	I		1	19	-	257	2055	587	43.8%
13/2	A12 NB Circ Right	U	3	N/A	I		1	19	-	42	2055	587	7.2%
14/1	A1214 Circ Ahead	U	1	N/A	B		1	34	-	8	2075	1038	0.8%
14/2	A1214 Circ Right	U	1	N/A	B		1	34	-	601	2195	1097	54.8%
14/3	A1214 Circ Right	U	1	N/A	B		1	34	-	562	2055	1027	54.7%
15/1	Park and Ride Circ Ahead	U	N/A	N/A	-		-	-	-	784	2105	2105	37.2%
15/2	Park and Ride Circ Ahead Right	U	N/A	N/A	-		-	-	-	670	2245	2245	29.8%
15/3	Park and Ride Circ Right	U	N/A	N/A	-		-	-	-	192	2245	2245	8.6%
15/4	Park and Ride Circ Right	U	N/A	N/A	-		-	-	-	174	2105	2105	8.3%

Full Input Data And Results

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	**-**	**-**	**368**	**0**	**0**	**13.1**	**6.3**	**0.0**	**19.4**	**-**	**-**	**-**	**-**
A12/A1214/Main Road	**-**	**-**	**368**	**0**	**0**	**13.1**	**6.3**	**0.0**	**19.4**	**-**	**-**	**-**	**-**
1/1	447	447	-	-	-	0.6	0.3	-	0.9	7.0	3.6	0.3	3.9
1/2+1/3	765	765	-	-	-	1.0	0.4	-	1.4	6.7	4.4	0.4	4.8
2/2+2/1	184	184	368	0	0	0.0	0.1	-	0.2	3.6	0.3	0.1	0.4
3/2+3/1	960	960	-	-	-	2.0	0.6	-	2.6	9.6	6.1	0.6	6.7
3/3	546	546	-	-	-	1.2	0.4	-	1.6	10.5	5.8	0.4	6.2
4/1	187	187	-	-	-	0.8	0.2	-	0.9	17.6	2.4	0.2	2.6
4/2+4/3	474	474	-	-	-	2.1	0.6	-	2.7	20.6	6.0	0.6	6.7
5/2+5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	784	784	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	507	507	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	173	173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	750	750	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	703	703	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	634	634	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	12	12	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	163	163	-	-	-	1.3	0.3	-	1.6	35.2	3.0	0.3	3.3
11/2	192	192	-	-	-	0.4	0.3	-	0.7	13.8	3.0	0.3	3.3
11/3	174	174	-	-	-	0.4	0.3	-	0.7	14.1	2.7	0.3	3.0
12/1	629	629	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	703	703	-	-	-	0.0	0.3	-	0.3	1.3	0.6	0.3	0.8
12/3	236	236	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	257	257	-	-	-	1.3	0.4	-	1.7	23.8	4.2	0.4	4.6
13/2	42	42	-	-	-	0.2	0.0	-	0.2	19.8	0.6	0.0	0.6
14/1	8	8	-	-	-	0.0	0.0	-	0.0	12.9	0.1	0.0	0.1

Full Input Data And Results

14/2	601	601	-	-	-	0.9	0.6	-	1.5	9.2	2.5	0.6	3.1
14/3	562	562	-	-	-	0.8	0.6	-	1.4	9.3	2.0	0.6	2.6
15/1	784	784	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
15/2	670	670	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
15/3	192	192	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/4	174	174	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0

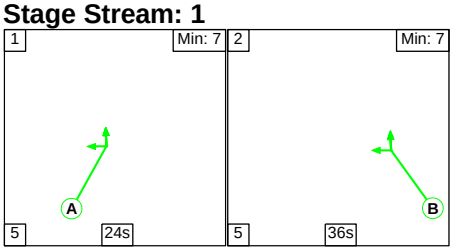
C1	Stream: 1 PRC for Signalled Lanes (%):	62.7	Total Delay for Signalled Lanes (pcuHr):	6.64	Cycle Time (s):	70
C1	Stream: 2 PRC for Signalled Lanes (%):	101.7	Total Delay for Signalled Lanes (pcuHr):	5.30	Cycle Time (s):	70
C1	Stream: 3 PRC for Signalled Lanes (%):	66.2	Total Delay for Signalled Lanes (pcuHr):	6.09	Cycle Time (s):	70
	PRC Over All Lanes (%):	62.7	Total Delay Over All Lanes(pcuHr):	19.36		

Full Input Data And Results

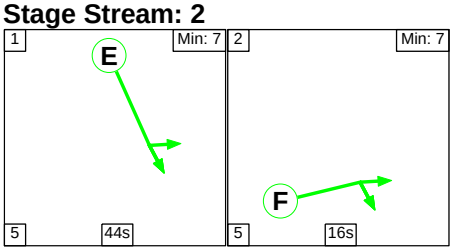
Scenario 4: '2024 Base + Com Dev + Scenario 1 PM Peak' (FG4: '2024 Base + Com Dev + Scenario 1 (accesses 28-30 + CS) PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

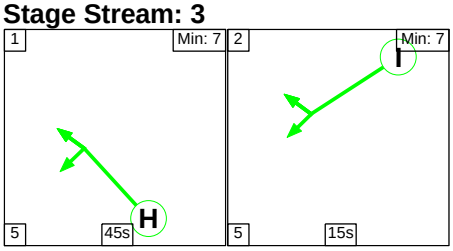
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	36
Change Point	20	49

Stage Stream: 2

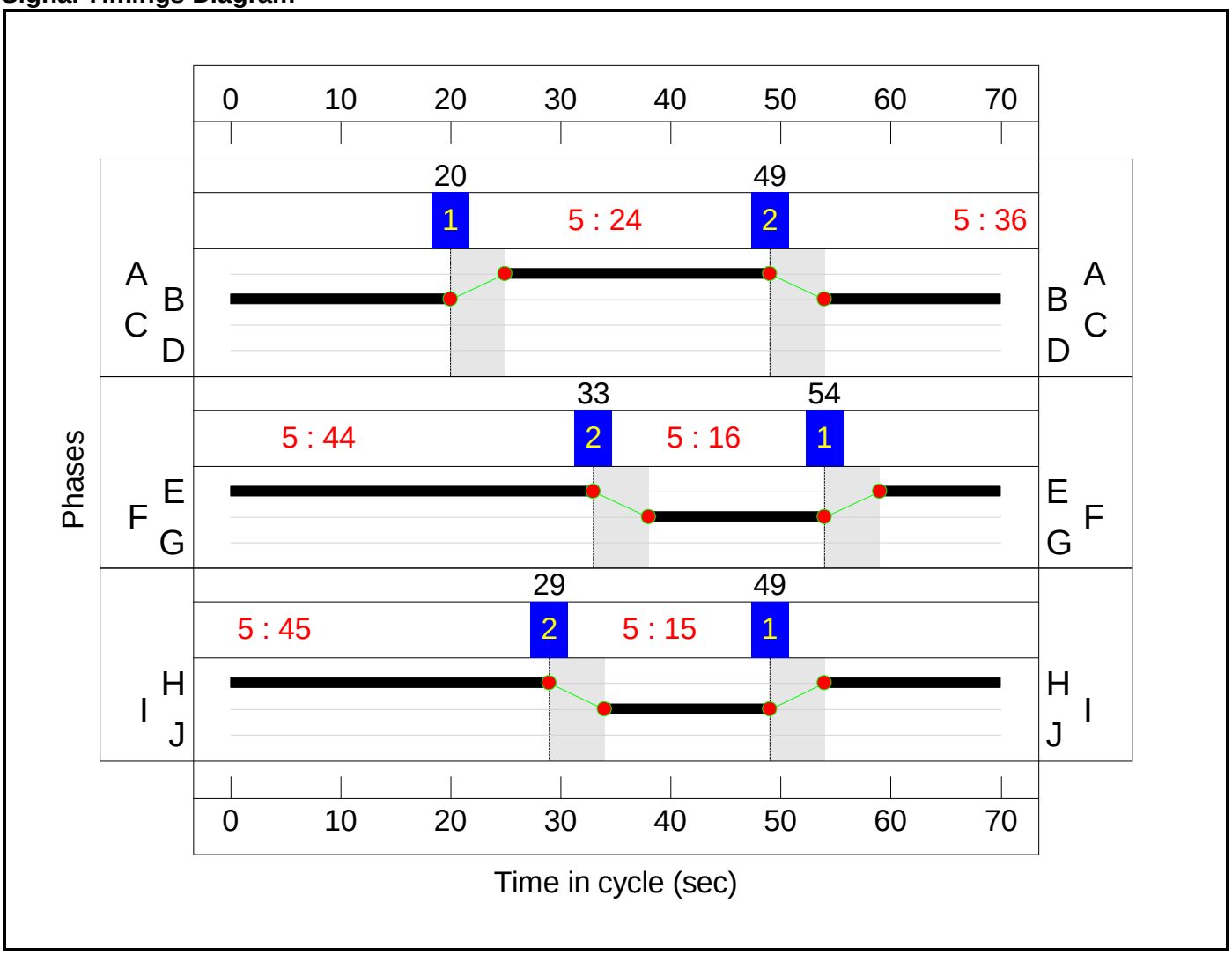
Stage	1	2
Duration	44	16
Change Point	54	33

Full Input Data And Results

Stage Stream: 3

Stage	1	2
Duration	45	15
Change Point	49	29

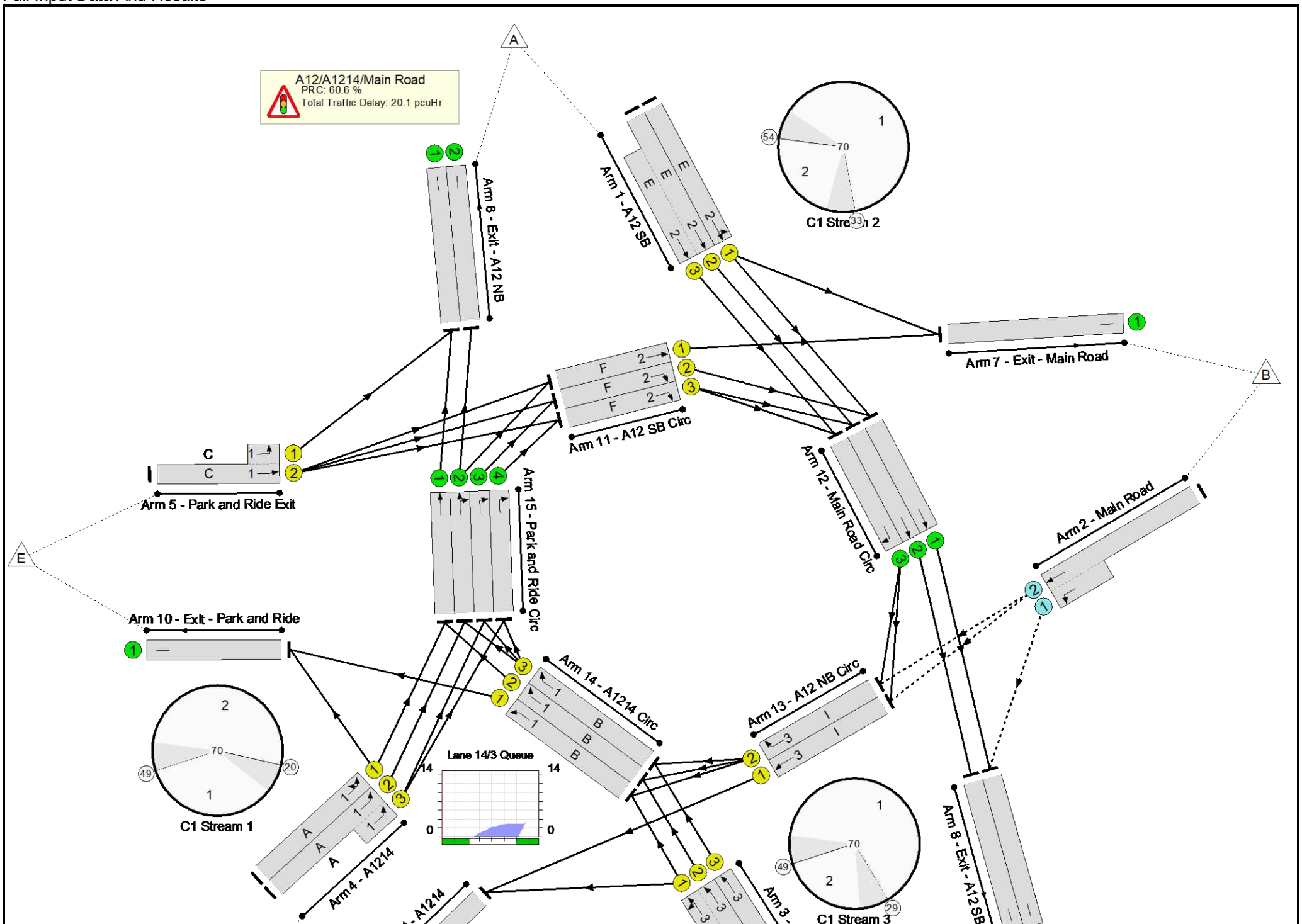
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

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	-	-	**N/A**	-	-		-	-	-	-	-	-	**56.0%**
A12/A1214/Main Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**56.0%**
1/1	A12 SB Left Ahead	U	2	N/A	E		1	44	-	444	1955	1257	35.3%
1/2+1/3	A12 SB Ahead	U	2	N/A	E		1	44	-	778	2105:1975	1654	47.1%
2/2+2/1	Main Road Left Ahead	O	N/A	N/A	-		-	-	-	184	2015:2015	800	23.0%
3/2+3/1	A12 NB Left Ahead	U	3	N/A	H		1	45	-	1026	2115:1995	1844	55.7%
3/3	A12 NB Ahead	U	3	N/A	H		1	45	-	570	1985	1304	43.7%
4/1	A1214 U-Turn Left	U	1	N/A	A		1	24	-	227	2025	723	31.4%
4/2+4/3	A1214 Left	U	1	N/A	A		1	24	-	434	2165:2035	777	55.9%
5/2+5/1	Park and Ride Exit Left Ahead	U	1	N/A	C		0	0	-	0	2015:2025	0	0.0%
6/1	Exit - A12 NB	U	N/A	N/A	-		-	-	-	873	Inf	Inf	0.0%
6/2	Exit - A12 NB	U	N/A	N/A	-		-	-	-	506	Inf	Inf	0.0%
7/1	Exit - Main Road	U	N/A	N/A	-		-	-	-	173	Inf	Inf	0.0%
8/1	Exit - A12 SB	U	N/A	N/A	-		-	-	-	785	Inf	Inf	0.0%
8/2	Exit - A12 SB	U	N/A	N/A	-		-	-	-	675	Inf	Inf	0.0%
9/1	Exit - A1214	U	N/A	N/A	-		-	-	-	639	Inf	Inf	0.0%
10/1	Exit - Park and Ride	U	N/A	N/A	-		-	-	-	12	Inf	Inf	0.0%
11/1	A12 SB Circ Ahead	U	2	N/A	F		1	16	-	163	2105	511	31.9%
11/2	A12 SB Circ Right	U	2	N/A	F		1	16	-	230	2245	545	42.2%
11/3	A12 SB Circ Right	U	2	N/A	F		1	16	-	136	2085	506	26.9%

Full Input Data And Results

12/1	Main Road Circ Ahead	U	N/A	N/A	-		-	-	-	664	2055	2055	32.3%
12/2	Main Road Circ Ahead	U	N/A	N/A	-		-	-	-	675	2055	2055	32.8%
12/3	Main Road Circ Right	U	N/A	N/A	-		-	-	-	239	1995	1995	12.0%
13/1	A12 NB Circ Ahead	U	3	N/A	I		1	15	-	260	2055	470	55.4%
13/2	A12 NB Circ Right	U	3	N/A	I		1	15	-	42	2055	470	8.9%
14/1	A1214 Circ Ahead	U	1	N/A	B		1	36	-	8	2075	1097	0.7%
14/2	A1214 Circ Right	U	1	N/A	B		1	36	-	650	2195	1160	56.0%
14/3	A1214 Circ Right	U	1	N/A	B		1	36	-	601	2055	1086	55.3%
15/1	Park and Ride Circ Ahead	U	N/A	N/A	-		-	-	-	873	2105	2105	41.5%
15/2	Park and Ride Circ Ahead Right	U	N/A	N/A	-		-	-	-	669	2245	2245	29.8%
15/3	Park and Ride Circ Right	U	N/A	N/A	-		-	-	-	230	2245	2245	10.2%
15/4	Park and Ride Circ Right	U	N/A	N/A	-		-	-	-	136	2105	2105	6.5%

Full Input Data And Results

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	**-**	**-**	**368**	**0**	**0**	**13.4**	**6.7**	**0.0**	**20.1**	**-**	**-**	**-**	**-**
A12/A1214/Main Road	**-**	**-**	**368**	**0**	**0**	**13.4**	**6.7**	**0.0**	**20.1**	**-**	**-**	**-**	**-**
1/1	444	444	-	-	-	0.7	0.3	-	1.0	8.0	3.9	0.3	4.2
1/2+1/3	778	778	-	-	-	1.2	0.4	-	1.7	7.8	4.9	0.4	5.4
2/2+2/1	184	184	368	0	0	0.0	0.1	-	0.2	3.9	0.3	0.1	0.4
3/2+3/1	1026	1026	-	-	-	1.6	0.6	-	2.2	7.8	6.1	0.6	6.7
3/3	570	570	-	-	-	0.9	0.4	-	1.3	8.2	5.2	0.4	5.6
4/1	227	227	-	-	-	1.0	0.2	-	1.3	19.9	3.2	0.2	3.4
4/2+4/3	434	434	-	-	-	2.1	0.6	-	2.7	22.7	6.0	0.6	6.7
5/2+5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	873	873	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	506	506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	173	173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	785	785	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	675	675	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	639	639	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	12	12	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	163	163	-	-	-	1.2	0.2	-	1.4	31.3	2.9	0.2	3.2
11/2	230	230	-	-	-	0.3	0.4	-	0.7	10.9	2.6	0.4	3.0
11/3	136	136	-	-	-	0.2	0.2	-	0.4	9.7	0.9	0.2	1.1
12/1	664	664	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	675	675	-	-	-	0.0	0.2	-	0.2	1.3	1.1	0.2	1.4
12/3	239	239	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	260	260	-	-	-	1.7	0.6	-	2.3	32.2	4.8	0.6	5.4
13/2	42	42	-	-	-	0.2	0.0	-	0.3	24.4	0.7	0.0	0.7
14/1	8	8	-	-	-	0.0	0.0	-	0.0	11.2	0.1	0.0	0.1

Full Input Data And Results

14/2	650	650	-	-	-	1.1	0.6	-	1.7	9.4	2.7	0.6	3.3
14/3	601	601	-	-	-	1.1	0.6	-	1.7	10.0	3.5	0.6	4.1
15/1	873	873	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
15/2	669	669	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
15/3	230	230	-	-	-	0.0	0.1	-	0.1	0.9	0.0	0.1	0.1
15/4	136	136	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0

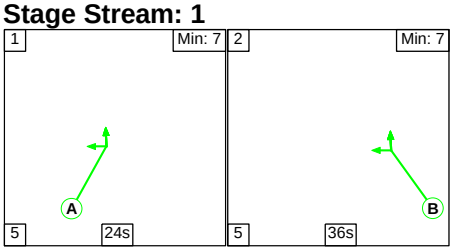
C1	Stream: 1 PRC for Signalled Lanes (%):	60.6	Total Delay for Signalled Lanes (pcuHr):	7.38	Cycle Time (s): 70
C1	Stream: 2 PRC for Signalled Lanes (%):	91.3	Total Delay for Signalled Lanes (pcuHr):	5.14	Cycle Time (s): 70
C1	Stream: 3 PRC for Signalled Lanes (%):	61.7	Total Delay for Signalled Lanes (pcuHr):	6.14	Cycle Time (s): 70
	PRC Over All Lanes (%):	60.6	Total Delay Over All Lanes(pcuHr):	20.07	

Full Input Data And Results

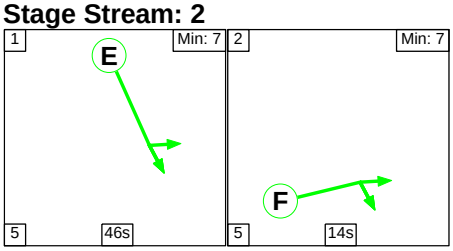
Scenario 5: '2024 Base + Com Dev + Scenario 2 PM Peak' (FG5: '2024 Base + Com Dev + Scenario 2 (accesses 2,3 and 31 + CS) PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

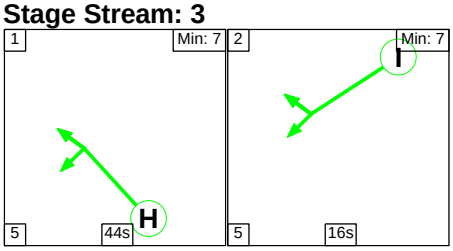
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	36
Change Point	13	42

Stage Stream: 2

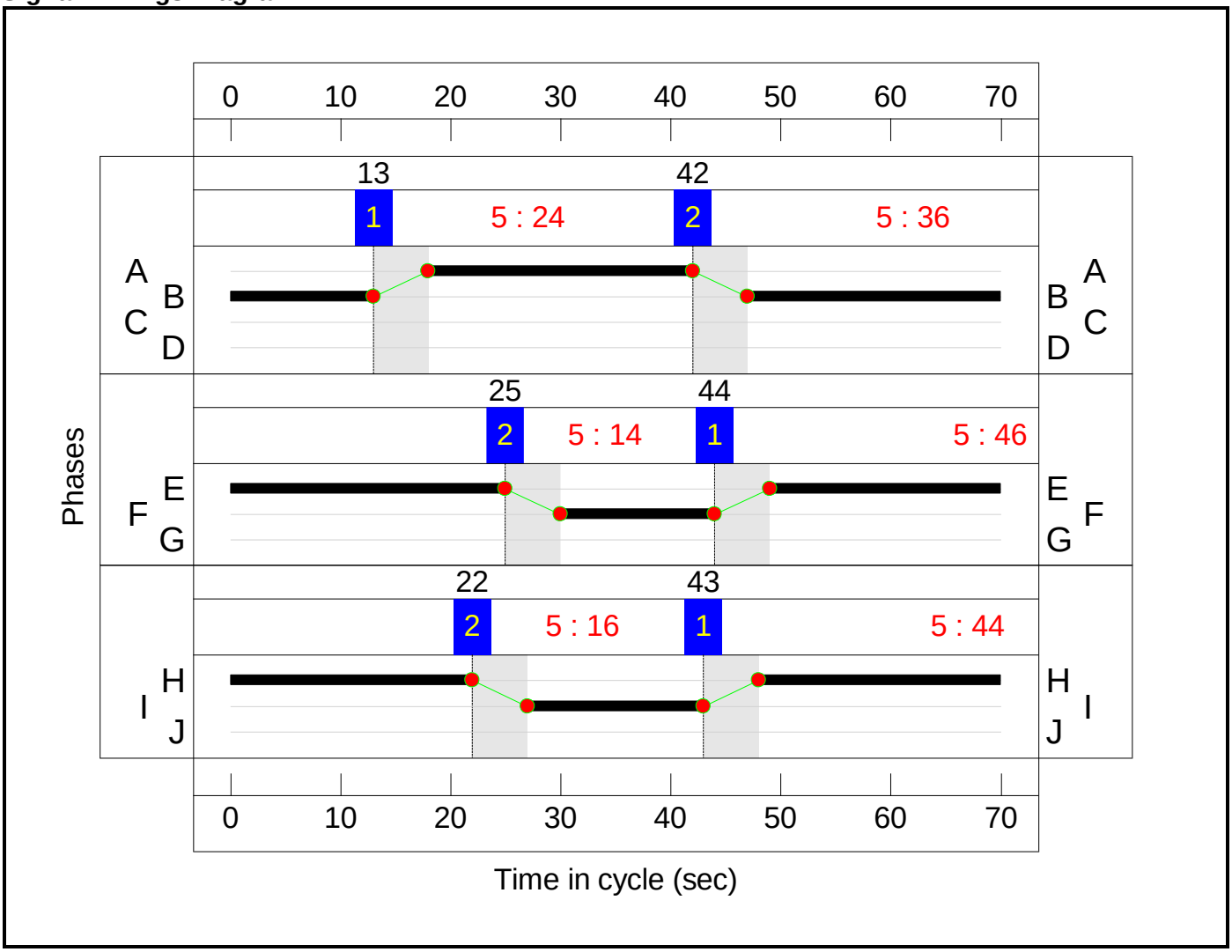
Stage	1	2
Duration	46	14
Change Point	44	25

Full Input Data And Results

Stage Stream: 3

Stage	1	2
Duration	44	16
Change Point	43	22

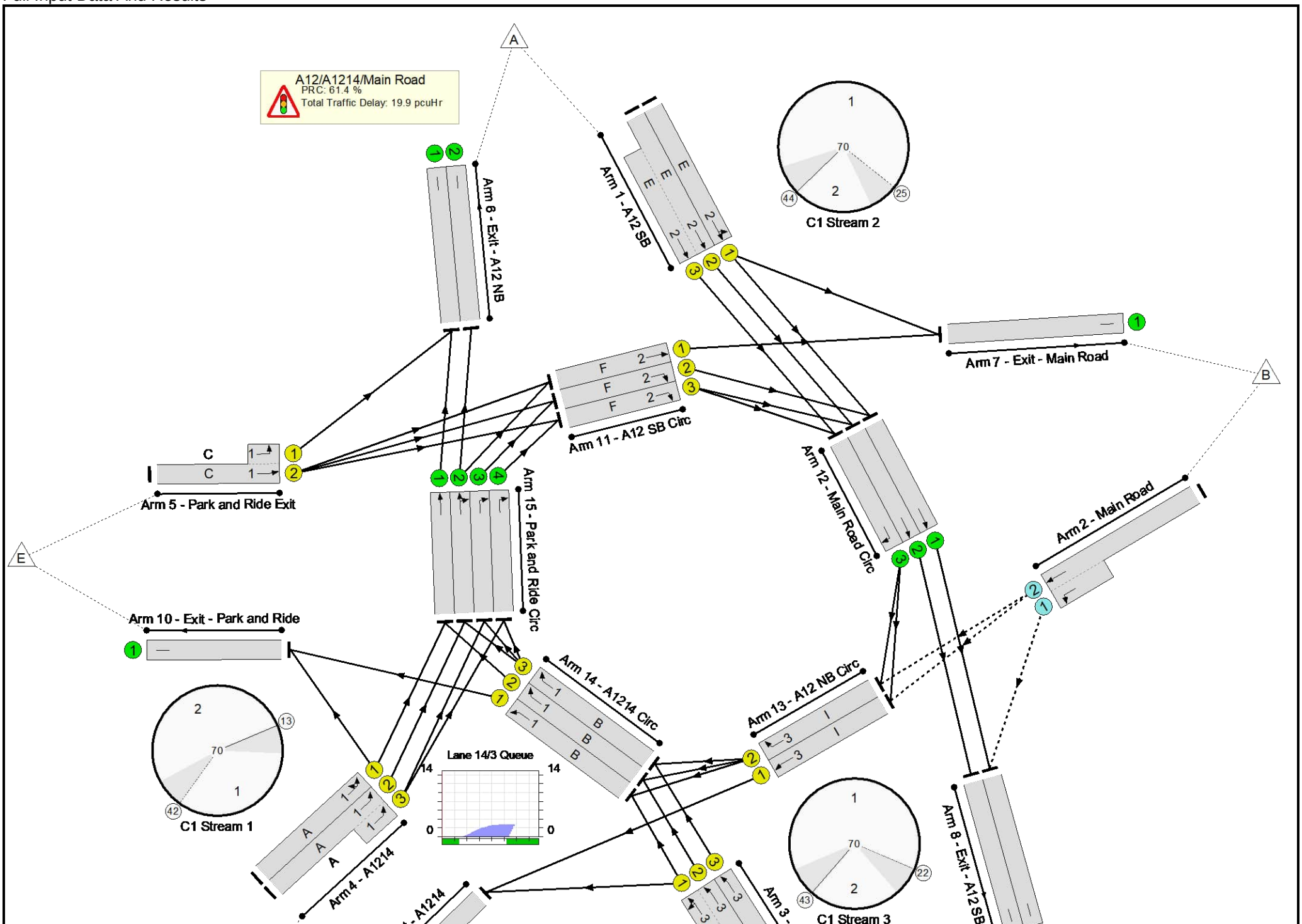
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

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	-	-	**N/A**	-	-		-	-	-	-	-	-	**55.8%**
A12/A1214/Main Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**55.8%**
1/1	A12 SB Left Ahead	U	2	N/A	E		1	46	-	441	1955	1313	33.6%
1/2+1/3	A12 SB Ahead	U	2	N/A	E		1	46	-	775	2105:1975	1712	45.3%
2/2+2/1	Main Road Left Ahead	O	N/A	N/A	-		-	-	-	184	2015:2015	784	23.5%
3/2+3/1	A12 NB Left Ahead	U	3	N/A	H		1	44	-	997	2115:1995	1831	54.4%
3/3	A12 NB Ahead	U	3	N/A	H		1	44	-	540	1985	1276	42.3%
4/1	A1214 U-Turn Left	U	1	N/A	A		1	24	-	228	2025	723	31.5%
4/2+4/3	A1214 Left	U	1	N/A	A		1	24	-	433	2165:2035	776	55.8%
5/2+5/1	Park and Ride Exit Left Ahead	U	1	N/A	C		0	0	-	0	2015:2025	0	0.0%
6/1	Exit - A12 NB	U	N/A	N/A	-		-	-	-	846	Inf	Inf	0.0%
6/2	Exit - A12 NB	U	N/A	N/A	-		-	-	-	476	Inf	Inf	0.0%
7/1	Exit - Main Road	U	N/A	N/A	-		-	-	-	173	Inf	Inf	0.0%
8/1	Exit - A12 SB	U	N/A	N/A	-		-	-	-	782	Inf	Inf	0.0%
8/2	Exit - A12 SB	U	N/A	N/A	-		-	-	-	673	Inf	Inf	0.0%
9/1	Exit - A1214	U	N/A	N/A	-		-	-	-	636	Inf	Inf	0.0%
10/1	Exit - Park and Ride	U	N/A	N/A	-		-	-	-	12	Inf	Inf	0.0%
11/1	A12 SB Circ Ahead	U	2	N/A	F		1	14	-	163	2105	451	36.1%
11/2	A12 SB Circ Right	U	2	N/A	F		1	14	-	230	2245	481	47.8%
11/3	A12 SB Circ Right	U	2	N/A	F		1	14	-	136	2085	447	30.4%

Full Input Data And Results

12/1	Main Road Circ Ahead	U	N/A	N/A	-		-	-	-	661	2055	2055	32.2%
12/2	Main Road Circ Ahead	U	N/A	N/A	-		-	-	-	673	2055	2055	32.7%
12/3	Main Road Circ Right	U	N/A	N/A	-		-	-	-	238	1995	1995	11.9%
13/1	A12 NB Circ Ahead	U	3	N/A	I		1	16	-	259	2055	499	51.9%
13/2	A12 NB Circ Right	U	3	N/A	I		1	16	-	42	2055	499	8.4%
14/1	A1214 Circ Ahead	U	1	N/A	B		1	36	-	8	2075	1097	0.7%
14/2	A1214 Circ Right	U	1	N/A	B		1	36	-	622	2195	1160	53.6%
14/3	A1214 Circ Right	U	1	N/A	B		1	36	-	572	2055	1086	52.7%
15/1	Park and Ride Circ Ahead	U	N/A	N/A	-		-	-	-	846	2105	2105	40.2%
15/2	Park and Ride Circ Ahead Right	U	N/A	N/A	-		-	-	-	639	2245	2245	28.5%
15/3	Park and Ride Circ Right	U	N/A	N/A	-		-	-	-	230	2245	2245	10.2%
15/4	Park and Ride Circ Right	U	N/A	N/A	-		-	-	-	136	2105	2105	6.5%

Full Input Data And Results

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	**-**	**-**	**368**	**0**	**0**	**13.4**	**6.5**	**0.0**	**19.9**	**-**	**-**	**-**	**-**
A12/A1214/Main Road	**-**	**-**	**368**	**0**	**0**	**13.4**	**6.5**	**0.0**	**19.9**	**-**	**-**	**-**	**-**
1/1	441	441	-	-	-	0.6	0.3	-	0.9	6.9	3.6	0.3	3.8
1/2+1/3	775	775	-	-	-	1.0	0.4	-	1.5	6.8	4.5	0.4	4.9
2/2+2/1	184	184	368	0	0	0.0	0.2	-	0.2	3.9	0.3	0.2	0.4
3/2+3/1	997	997	-	-	-	1.7	0.6	-	2.3	8.2	6.0	0.6	6.6
3/3	540	540	-	-	-	0.9	0.4	-	1.3	8.6	5.1	0.4	5.5
4/1	228	228	-	-	-	1.0	0.2	-	1.3	19.9	3.2	0.2	3.4
4/2+4/3	433	433	-	-	-	2.1	0.6	-	2.7	22.7	6.0	0.6	6.7
5/2+5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	846	846	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	476	476	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	173	173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	782	782	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	673	673	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	636	636	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	12	12	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	163	163	-	-	-	1.2	0.3	-	1.4	31.8	2.9	0.3	3.2
11/2	230	230	-	-	-	0.5	0.5	-	0.9	14.4	2.1	0.5	2.6
11/3	136	136	-	-	-	0.3	0.2	-	0.5	12.8	0.9	0.2	1.1
12/1	661	661	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	673	673	-	-	-	0.0	0.2	-	0.2	1.3	0.6	0.2	0.8
12/3	238	238	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	259	259	-	-	-	1.8	0.5	-	2.4	32.7	4.9	0.5	5.4
13/2	42	42	-	-	-	0.2	0.0	-	0.3	24.9	0.7	0.0	0.7
14/1	8	8	-	-	-	0.0	0.0	-	0.0	11.3	0.1	0.0	0.1

Full Input Data And Results

14/2	622	622	-	-	-	1.0	0.6	-	1.6	9.1	2.6	0.6	3.2
14/3	572	572	-	-	-	1.0	0.6	-	1.6	9.8	2.8	0.6	3.3
15/1	846	846	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
15/2	639	639	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
15/3	230	230	-	-	-	0.0	0.1	-	0.1	0.9	0.0	0.1	0.1
15/4	136	136	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	61.4	Total Delay for Signalled Lanes (pcuHr):	7.16	Cycle Time (s): 70
C1	Stream: 2 PRC for Signalled Lanes (%):	88.2	Total Delay for Signalled Lanes (pcuHr):	5.15	Cycle Time (s): 70
C1	Stream: 3 PRC for Signalled Lanes (%):	65.3	Total Delay for Signalled Lanes (pcuHr):	6.19	Cycle Time (s): 70
	PRC Over All Lanes (%):	61.4	Total Delay Over All Lanes(pcuHr):	19.87	

Appendix G Junction 6: A12/Newbourne Road ARCADY Results

East Anglia THREE Onshore Cable Works

Traffic and Transport Technical Note

ScottishPower Renewables

SLR Project No.: 404.05356.00006

15 November 2023

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693
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Filename: 20220120_A12_Foxhall_Road_2016_base revised v4.j10
Path: N:\Vectos Job Data\2023\VN232767
Report generation date: 11/08/2023 16:45:51

Summary of junction performance

	PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Base + Com Dev				
Arm 1	D1	215.8	393.39	1.21	F
Arm 2		8.3	91.16	0.94	F
Arm 3		249.9	431.93	1.22	F
Arm 4		6.2	60.53	0.89	F
	2024 Base + Com Dev + EA3 S1				
Arm 1	D2	219.2	400.53	1.21	F
Arm 2		8.5	93.20	0.94	F
Arm 3		326.0	551.61	1.27	F
Arm 4		6.7	65.42	0.90	F
	2024 Base + Com Dev + EA3 S2				
Arm 1	D3	216.6	395.19	1.21	F
Arm 2		8.4	92.40	0.94	F
Arm 3		273.5	472.25	1.24	F
Arm 4		6.4	62.35	0.89	F

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	A12/ Foxhall Road Roundabout
Location	Ipswich
Site number	
Date	13/01/2022
Version	1
Status	(new file)
Identifier	
Client	SPR
Jobnumber	404.05356.00006
Enumerator	SLR\llong
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024 Base + Com Dev	PM	ONE HOUR	16:45	18:15	15

2024 Base + Com Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A12/ Foxhall Road	Standard Roundabout		1, 2, 3, 4	368.21	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	368.21	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A12 N		
2	Newbourne Road		
3	A12 S		
4	Foxhall Road		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	6.09	7.72	1.0	43.3	72.9	16.0		
2	3.93	3.93	9.4	25.1	72.9	30.0		
3	7.72	7.86	3.0	23.5	72.9	23.0		
4	3.57	4.12	16.2	27.5	72.9	19.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.568	2069
2	0.420	1202
3	0.617	2452
4	0.443	1295

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	2112	100.000
2		✓	320	100.000
3		✓	2295	100.000
4		✓	360	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	109	1555	448
	2	132	0	117	71
	3	1879	86	0	330
	4	205	28	127	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	4	4
	2	1	0	2	2
	3	3	2	0	5
	4	2	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.21	393.39	215.8	F
2	0.94	91.16	8.3	F
3	1.22	431.93	249.9	F
4	0.89	60.53	6.2	F

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1590	179	1967	0.808	1573	4.1	9.124	A
2	241	1587	536	0.449	238	0.8	12.118	B
3	1728	485	2153	0.803	1712	4.0	8.158	A
4	271	1564	601	0.451	268	0.8	10.950	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1899	212	1948	0.975	1848	16.8	28.440	D
2	288	1865	419	0.686	283	2.0	25.878	D
3	2063	571	2099	0.983	2004	18.9	28.676	D
4	324	1832	482	0.671	319	1.9	22.026	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	2325	242	1931	1.204	1927	116.5	131.707	F
2	352	1962	379	0.930	334	6.6	64.699	F
3	2527	621	2069	1.221	2065	134.2	140.069	F
4	396	1906	449	0.882	383	5.3	47.910	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	2325	247	1929	1.206	1928	215.8	314.121	F
2	352	1967	377	0.935	345	8.3	91.156	F
3	2527	628	2065	1.224	2064	249.9	338.429	F
4	396	1910	448	0.885	393	6.2	60.528	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1899	223	1942	0.978	1933	207.2	393.391	F
2	288	1952	383	0.751	307	3.5	54.452	F
3	2063	605	2079	0.992	2079	246.0	431.932	F
4	324	1907	449	0.721	337	2.9	35.631	E

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1590	197	1957	0.813	1947	118.0	301.757	F
2	241	1944	387	0.623	248	1.8	27.516	D
3	1728	570	2100	0.823	2091	155.1	345.889	F
4	271	1893	455	0.595	276	1.6	21.171	C

Appendix H Junction 11: A12/B1438 ARCADY Results

East Anglia THREE Onshore Cable Works

Traffic and Transport Technical Note

ScottishPower Renewables

SLR Project No.: 404.05356.00006

15 November 2023

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693
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Filename: J10_2020.07.24_J26_Model_v16_new flows - v1.j10
Path: N:\Vectos Job Data\2023\VN232767\B1438
Report generation date: 11/08/2023 11:52:48

Summary of junction performance

	5-6 PM					
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS
	2023 Base + Comm Early Years					
A - A12 North	D15	39.0	105.8	81.76	1.04	F
B - A12 West		48.6	120.3	88.74	1.05	F
C - B1438 East		16.8	53.9	100.89	1.02	F
	2023 Base + Comm EA3 S1					
A - A12 North	D20	2.2	4.5	5.07	0.69	A
B - A12 West		54.8	127.6	96.38	1.06	F
C - B1438 East		19.0	56.4	111.41	1.04	F
	2023 Base + Comm EA3 S2					
A - A12 North	D30	1.8	3.5	4.34	0.65	A
B - A12 West		70.8	142.9	126.17	1.08	F
C - B1438 East		24.5	63.0	145.64	1.07	F

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	A12 / B1438
Location	52° 5'2.99"N, 1°17'16.92"E
Site number	26
Date	01/04/2019
Version	
Status	Skeleton Model
Identifier	
Client	
Jobnumber	
Enumerator	JV
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	mph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓					0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2023 Base + Comm Early Years	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D20	2023 Base + Comm EA3 S1	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D30	2023 Base + Comm EA3 S2	5-6 PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2023 Base + Comm Early Years, 5-6 PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout		A, C, B	87.69	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	87.69	F

Arms

Arms

Arm	Name	Description	No give-way line
A	A12 North		
B	A12 West		
C	B1438 East		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
A - A12 North	8.10	10.50	4.8	26.8	78.0	29.0		
B - A12 West	6.70	9.60	28.6	21.5	78.0	35.8		
C - B1438 East	2.90	8.30	25.8	20.6	78.0	42.0		

Exit Restrictions

Arm	Exit restriction present	Linked exit restriction present	Maximum capacity (PCU/hr)
A - A12 North	✓		1680
B - A12 West			
C - B1438 East			

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - A12 North	Direct	Please refer column "V" in "modelled vs Observed" worksheet in "Queue validation" spreadsheet	-150
B - A12 West	None		
C - B1438 East	Direct	Please refer column "V" in "modelled vs Observed" worksheet in "Queue validation" spreadsheet	-200

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A12 North	0.641	2627
B - A12 West	0.614	2649
C - B1438 East	0.481	1583

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2023 Base + Comm Early Years	5-6 PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1379	100.000
B - A12 West		ONE HOUR	✓	1548	100.000
C - B1438 East		ONE HOUR	✓	516	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	7	1211	161
	B - A12 West	1333	2	213
	C - B1438 East	214	302	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	6	2
	B - A12 West	4	0	2
	C - B1438 East	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.04	81.76	39.0	105.8	F	1265	1898
B - A12 West	1.05	88.74	48.6	120.3	F	1420	2131
C - B1438 East	1.02	100.89	16.8	53.9	F	474	711

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1038	260	162	2388	0.435	1035	1166	0.0	0.8	2.655	A
B - A12 West	1165	291	166	2448	0.476	1162	1136	0.0	0.9	2.791	A
C - B1438 East	389	97	916	1098	0.354	387	281	0.0	0.5	5.044	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1240	310	193	2369	0.523	1238	1395	0.8	1.1	3.182	A
B - A12 West	1392	348	198	2428	0.573	1390	1360	0.9	1.3	3.461	A
C - B1438 East	464	116	1095	1008	0.461	463	336	0.5	0.8	6.589	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1518	380	224	1507	1.008	1441	1616	1.1	20.5	37.288	E
B - A12 West	1704	426	229	1671	1.020	1611	1580	1.3	24.7	38.900	E
C - B1438 East	569	142	1274	588	0.967	534	390	0.8	9.4	50.678	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1518	380	224	1460	1.040	1444	1616	20.5	39.0	81.764	F
B - A12 West	1704	426	231	1621	1.051	1609	1585	24.7	48.6	88.742	F
C - B1438 East	569	142	1277	557	1.021	539	391	9.4	16.8	100.891	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1240	310	220	2352	0.527	1391	1586	39.0	1.1	4.413	A
B - A12 West	1392	348	226	2412	0.577	1580	1532	48.6	1.4	5.513	A
C - B1438 East	464	116	1230	940	0.494	528	380	16.8	1.0	10.148	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1038	260	162	2388	0.435	1040	1172	1.1	0.8	2.674	A
B - A12 West	1165	291	167	2447	0.476	1167	1143	1.4	0.9	2.816	A
C - B1438 East	389	97	919	1096	0.355	391	282	1.0	0.6	5.115	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.76	0.15	0.90	1.40	1.46			N/A	N/A
B - A12 West	0.90	0.14	0.95	1.50	1.51			N/A	N/A
C - B1438 East	0.54	0.54	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.09	0.03	0.30	1.57	5.32			N/A	N/A
B - A12 West	1.33	0.03	0.31	1.99	6.63			N/A	N/A
C - B1438 East	0.84	0.03	0.35	1.97	3.80			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	20.49	0.78	13.00	48.13	63.64			N/A	N/A
B - A12 West	24.68	1.16	17.37	54.86	70.74			N/A	N/A
C - B1438 East	9.38	0.17	4.29	24.16	33.84			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	38.99	3.15	29.22	83.44	105.77			N/A	N/A
B - A12 West	48.56	6.60	39.11	97.30	120.27			N/A	N/A
C - B1438 East	16.83	0.48	10.11	40.35	53.95			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.12	0.03	0.32	2.30	5.71			N/A	N/A
B - A12 West	1.38	0.03	0.32	2.77	7.13			N/A	N/A
C - B1438 East	0.99	0.03	0.33	2.22	4.91			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.77	0.03	0.29	1.22	3.36			N/A	N/A
B - A12 West	0.91	0.03	0.29	1.17	3.79			N/A	N/A
C - B1438 East	0.55	0.03	0.28	0.71	2.10			N/A	N/A

2023 Base + Comm EA3 S1, 5-6 PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout		A, C, B	61.10	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	61.10	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2023 Base + Comm EA3 S1	5-6 PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1418	100.000
B - A12 West		ONE HOUR	✓	1596	100.000
C - B1438 East		ONE HOUR	✓	516	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	1222	196
	B - A12 West	1354	0	242
	C - B1438 East	214	302	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	6	20
	B - A12 West	4	0	12
	C - B1438 East	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.69	5.07	2.2	4.5	A	1301	1952
B - A12 West	1.06	96.38	54.8	127.6	F	1465	2197
C - B1438 East	1.04	111.41	19.0	56.4	F	473	710

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1068	267	182	2316	0.461	1064	1176	0.0	0.8	2.868	A
B - A12 West	1202	300	160	2424	0.496	1198	1143	0.0	1.0	2.926	A
C - B1438 East	388	97	917	1097	0.354	386	329	0.0	0.5	5.048	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1275	319	217	2293	0.556	1273	1407	0.8	1.2	3.527	A
B - A12 West	1435	359	192	2405	0.597	1433	1368	1.0	1.5	3.695	A
C - B1438 East	464	116	1097	1007	0.461	463	393	0.5	0.8	6.597	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1561	390	250	2271	0.688	1558	1621	1.2	2.2	5.023	A
B - A12 West	1757	439	220	1706	1.030	1652	1652	1.5	27.9	41.677	E
C - B1438 East	568	142	1342	578	0.984	530	466	0.8	10.4	55.060	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1561	390	250	2271	0.688	1561	1621	2.2	2.2	5.071	A
B - A12 West	1757	439	221	1660	1.059	1650	1658	27.9	54.8	96.378	F
C - B1438 East	568	142	1345	549	1.035	534	466	10.4	19.0	111.407	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1275	319	250	2271	0.561	1278	1620	2.2	1.3	3.641	A
B - A12 West	1435	359	222	2387	0.601	1648	1415	54.8	1.5	6.656	A
C - B1438 East	464	116	1102	1005	0.462	536	427	19.0	0.9	8.969	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1068	267	183	2316	0.461	1069	1183	1.3	0.9	2.891	A
B - A12 West	1202	300	162	2423	0.496	1204	1150	1.5	1.0	2.957	A
C - B1438 East	388	97	921	1095	0.355	390	330	0.9	0.6	5.114	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.85	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.98	0.13	0.98	1.40	1.75			N/A	N/A
C - B1438 East	0.54	0.54	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.24	0.05	0.50	2.94	4.49			N/A	N/A
B - A12 West	1.46	0.03	0.31	2.33	7.38			N/A	N/A
C - B1438 East	0.84	0.03	0.34	1.95	3.87			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.16	0.03	0.27	2.16	2.16			N/A	N/A
B - A12 West	27.87	2.28	20.96	58.98	74.54			N/A	N/A
C - B1438 East	10.41	0.25	5.56	25.65	34.97			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.18	0.03	0.26	2.18	2.18			N/A	N/A
B - A12 West	54.77	9.81	45.86	104.88	127.57			N/A	N/A
C - B1438 East	18.96	0.97	12.63	43.21	56.40			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.29	0.17	1.17	1.95	2.56			N/A	N/A
B - A12 West	1.53	0.03	0.32	2.93	7.93			N/A	N/A
C - B1438 East	0.87	0.03	0.31	1.54	4.32			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.86	0.06	0.73	1.53	1.93			N/A	N/A
B - A12 West	0.99	0.03	0.28	1.06	3.88			N/A	N/A
C - B1438 East	0.55	0.03	0.28	0.55	1.93			N/A	N/A

2023 Base + Comm EA3 S2, 5-6 PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout		A, C, B	80.39	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	80.39	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2023 Base + Comm EA3 S2	5-6 PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1383	100.000
B - A12 West		ONE HOUR	✓	1603	100.000
C - B1438 East		ONE HOUR	✓	523	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	1222	161
	B - A12 West	1381	0	222
	C - B1438 East	217	306	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	6	2
	B - A12 West	4	0	2
	C - B1438 East	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.65	4.34	1.8	3.5	A	1269	1904
B - A12 West	1.08	126.17	70.8	142.9	F	1471	2206
C - B1438 East	1.07	145.64	24.5	63.0	F	480	720

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1041	260	167	2388	0.436	1038	1199	0.0	0.8	2.661	A
B - A12 West	1207	302	162	2458	0.491	1203	1146	0.0	1.0	2.861	A
C - B1438 East	394	98	917	1093	0.360	392	287	0.0	0.6	5.116	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1243	311	199	2368	0.525	1242	1434	0.8	1.1	3.192	A
B - A12 West	1441	360	195	2438	0.591	1439	1372	1.0	1.4	3.598	A
C - B1438 East	470	118	1097	1003	0.469	469	344	0.6	0.9	6.721	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1523	381	225	2352	0.647	1520	1620	1.1	1.8	4.312	A
B - A12 West	1765	441	218	1668	1.058	1627	1651	1.4	35.8	50.678	F
C - B1438 East	576	144	1343	562	1.024	526	402	0.9	13.3	66.508	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1523	381	225	2352	0.647	1523	1620	1.8	1.8	4.340	A
B - A12 West	1765	441	220	1630	1.083	1625	1656	35.8	70.8	126.172	F
C - B1438 East	576	144	1345	540	1.066	531	402	13.3	24.5	145.635	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1243	311	225	2352	0.529	1246	1620	1.8	1.1	3.262	A
B - A12 West	1441	360	220	1648	0.874	1625	1411	70.8	24.8	108.602	F
C - B1438 East	470	118	1101	549	0.856	530	370	24.5	9.5	124.349	F

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A12 North	1041	260	180	2380	0.438	1043	1300	1.1	0.8	2.694	A
B - A12 West	1207	302	178	2448	0.493	1302	1172	24.8	1.0	3.418	A
C - B1438 East	394	98	921	1091	0.361	429	302	9.5	0.6	5.741	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.77	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.96	0.10	0.93	1.48	1.82			N/A	N/A
C - B1438 East	0.56	0.07	0.73	1.35	1.42			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.10	0.05	0.63	2.42	3.49			N/A	N/A
B - A12 West	1.43	0.03	0.30	1.87	6.90			N/A	N/A
C - B1438 East	0.87	0.03	0.33	1.95	4.17			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.81	0.03	0.26	1.81	1.81			N/A	N/A
B - A12 West	35.82	6.63	30.07	67.65	81.98			N/A	N/A
C - B1438 East	13.35	0.85	9.09	29.55	38.20			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.82	0.03	0.26	1.82	1.82			N/A	N/A
B - A12 West	70.82	21.04	63.57	121.76	142.91			N/A	N/A
C - B1438 East	24.55	2.48	18.98	50.41	63.02			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.13	0.32	1.09	1.57	1.83			N/A	N/A
B - A12 West	24.78	15.36	23.81	32.14	34.80			N/A	N/A
C - B1438 East	9.49	3.85	8.53	13.88	15.72			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.78	0.08	0.81	1.41	1.41			N/A	N/A
B - A12 West	0.98	0.03	0.28	0.98	3.28			N/A	N/A
C - B1438 East	0.57	0.03	0.27	0.57	1.55			N/A	N/A

Appendix I Accident Data

East Anglia THREE Onshore Cable Works

Traffic and Transport Technical Note

ScottishPower Renewables

SLR Project No.: 404.05356.00006

15 November 2023

Accidents between dates **01/01/2020 and 30/04/2023** (40) months

Selection: **Notes:**

Selected using Manual Selection

20967772 15/07/2020 Wednesday Time 1120 Vehicles 3 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Dual 2 lanes

V1, V2 AND V3 WERE TRAVELLING ALONG A CARRIAGEWAY, V1 WAS IN ONE LANE, V2 AND V3 IN ANOTHER. V1 ATTEMPTED TO CHANGE LANES IN FRONT OF V2 CAUSING THEM TO BRAKE SHARPLY, THIS HAS RESULTED IN V3 COLLIDING INTO THE REAR OF V2. V1 FTS

Occurred on A14

Causation

	Factor:	Participant:	Confidence:
1st:	Exceeding speed limit	Vehicle 1	Very Likely
2nd:	Poor turn or manoevre	Vehicle 1	Very Likely
3rd:	Sudden braking	Vehicle 2	
4th:			
5th:			
6th:			

Vehicle Reference 1 Goods vehicle - unknown weight Changing lane to right
No skidding, jack-knifing or overturning
First point of impact Age of Driver Breath test Driver not contacted
Vehicle direction S to N

Journey Purpose: 6

Vehicle Reference 2 Car Stopping
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 33 Breath test Not requested
Vehicle direction E to W

Journey Purpose: 6

Casualty Reference: 1 Age: 33 Male Driver/rider Severity: Slight

Vehicle Reference 3 Goods vehicle - unknown weight Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 41 Breath test Not requested
Vehicle direction E to W

Journey Purpose: Journey as part of work

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

211080996 14/07/2021 Wednesday Time 1645 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Roundabout
V002 HAS STOPPED AT JUNCTION WITH ROUNDABOUT TO TURN LEFT ONTO EASTBOUND SLIP ROAD TO DUAL CARRIAGEWAY. DRIVER HAS LOOKED LEFT AND HAS BEGUN TO MOVE OFF, BEFORE STOPPING AGAIN, AT WHICH POINT V001 HAS GONE INTO THE REAR OF V002.

Occurred on IPSWICH ROAD NEAR JUNCTION WITH BRAMFORD ROAD (B1113)

Causation

	Factor:	Participant:	Confidence:
1st:	Junction restart	Vehicle 2	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 1	Possible
3rd:	Inexperienced or learner driver/rider	Vehicle 1	Possible
4th:	Inexperienced or learner driver/rider	Vehicle 2	Possible
5th:			
6th:			

Vehicle Reference 1 Car Waiting to turn left
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 29 Breath test Negative
Vehicle direction NE to S

Journey Purpose: Commuting to/from work

Vehicle Reference 2 Car Waiting to turn left
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 33 Breath test Negative
Vehicle direction NE to S

Journey Purpose: Commuting to/from work

Casualty Reference: 1 Age: 33 Female Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

211109363 09/11/2021 Tuesday Time 0755 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Wet/Damp Daylight
Special Conditions None Road Type Single 3 lanes

V2 HAS PULLED UP AT THE ROUNDABOUT WAITING TO TURN LEFT AND HEAD UP THE ON SLIP. V1 HAS PULLED UP BEHIND V2 WANTING TO GO THE SAME WAY. V2 HAS MOVED SLIGHTLY BUT THEN STOPPED AGAIN BECAUSE OF TRAFFIC. V1 HAS MOVED OFF LOOKING RIGHT FOR TRAFFIC AND NOT SE
EN V2 STOPPING AND HAS COLLIDED INTO THE REAR OF V2. D2 HAS THEN HIT HER HEAD ON THE STEERING WHEEL CAUSING A BRUISE TO RIGHT EYE.

Occurred on IPSWICH ROAD AT JUNCTION WITH A14

Causation

	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 48 Breath test
Vehicle direction S to N

Journey Purpose: Journey as part of work

Vehicle Reference 2 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 32 Breath test
Vehicle direction S to N

Journey Purpose: Journey as part of work

Casualty Reference: 1 Age: 32 Female Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221151161 25/01/2022 Tuesday Time 1737 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Darkness: street lights present and lit
Special Conditions None Road Type Single 2 lanes
V2 HAS BEEN SAT AT JUNCTION AT ROUNDABOUT. V1 HAS PREDICTED THAT V2 WOULD MOVE OFF FROM ROUNDABOUT AND MOVED FORWARD HITTING V2 IN THE REAR.

Occurred on IPSWICH ROAD

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Offside Age of Driver 49 Breath test Negative
Vehicle direction E to W

Journey Purpose: Other/Not known

Vehicle Reference 2 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 43 Breath test Negative
Vehicle direction E to W

Journey Purpose: Commuting to/from work

Casualty Reference: 1 Age: 43 Female Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221154309 16/03/2022 Wednesday Time 1232 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Roundabout

V001 HAS COMMITTED TO THE SLIP ROAD FROM A14 LANE 2 SUDDENLY, CUTTING ACROSS THE PATH OF V002. V002 HAS SOUNDED HIS HORN AS HE AS ALSO TAKEN THE OFFSLIP. V002 HAS BEEN IN THE LEFT LANE ON THE SLIP ROAS WHEN V001 HAS CUT ACROSS HIM AGAIN, CAUSING V002 TO
SWERVE TO AVOID HIM AND FAIL TO BRAKE FOR THE ROUNDABOUT IN TIME, CAUSING HIM TO HIT THE DIRECTIONAL SIGNS ON THE ROUNDABOUT. DRIVER OF V001 HAS STOPPED TO MAKE SURE DRIVER OF V002 WAS OK, AND HAS THEN CARRIED ON HIS JOURNEY

Occurred on A14 NEAR JUNCTION WITH BRAMFORD ROAD (B1113)

Causation

	Factor:	Participant:	Confidence:
1st:	Aggressive driving	Vehicle 1	Very Likely
2nd:	Junction overshoot	Vehicle 2	Very Likely
3rd:	Loss of control	Vehicle 2	Possible
4th:	Inexperienced or learner driver/rider	Vehicle 2	Possible
5th:	Swerved	Vehicle 1	Very Likely
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Did not impact Age of Driver Breath test Not applicable
Vehicle direction SE to W

Journey Purpose: 6

Vehicle Reference 2 Motor Cycle over 50 cc and up to 125cc Going ahead other
Skidded
First point of impact Front Age of Driver 19 Breath test Negative
Vehicle direction SE to W

Journey Purpose: 6

Casualty Reference: 1 Age: 19 Male Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221168058 15/04/2022 Friday Time 0001 Vehicles 1 Casualties 1 Slight
Fine without high winds Road surface Dry Darkness: no street lighting
Special Conditions None Road Type Single 3 lanes
V1 HAS BEEN TRAVELLING W/B WHEN AT THE OFFSLIP AREA A DEER HAS RAN OUT IN FRONT OF HIS VEHICLE, CAUSING HIM TO TAKE AVOIDING ACTION. THIS HAS RESULTED IN HIM LOSING CONTROL & SPINNING. OFF THE CARRIAGEWAY, ACROSS THE START OF THE OFFSLIP & INTO THE VER
GE AND TREES.

Occurred on A14 OFF SLIP, CLAYDON, SUFFOLK

Causation

	Factor:	Participant:	Confidence:
1st:	Animal or object in carriageway	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 46 Breath test Negative
Vehicle direction E to W

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 46 Male Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221186926 13/06/2022 Monday Time 0815 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Dual 2 lanes
HGV HAS NOT PAID ATTENTION TO WHAT WAS IN FRONT OF HIM. HE HAS ASSUMED THE VEHICLE IN FRONT HAS MOVED OFF AND COLLIDED WITH IT.

Occurred on BRAMFORD ROAD (B1113), CLAYDON, SUFFOLK

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Goods 7.5 tonnes mgw and over Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 40 Breath test Negative
Vehicle direction W to E

Journey Purpose: Journey as part of work

Vehicle Reference 2 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 23 Breath test Negative
Vehicle direction W to E

Journey Purpose: Taking pupil to/from school

Casualty Reference: 1 Age: 23 Female Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221242249 14/11/2022 Monday Time 0750 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Wet/Damp Daylight
Special Conditions None Road Type Single 3 lanes
V2 WAS WAITING TO JOIN THE ROUNDABOUT WHEN IT WAS STRUCK FROM THE REAR BY V1, WHICH HAD MOVED OFF, THINKING V2 HAD ALREADY MOVED OFF.

Occurred on A14 NEAR JUNCTION WITH BRAMFORD ROAD (B1113), CLAYDON, SUFFOLK

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Van or Goods 3.5 tonnes mgw and under Starting
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 33 Breath test Negative
Vehicle direction SE to NW

Journey Purpose: Journey as part of work

Vehicle Reference 2 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 44 Breath test Negative
Vehicle direction SE to W

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 44 Female Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221245255 17/11/2022 Thursday Time 1730 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Darkness: street lights present and lit
Special Conditions None Road Type Single 3 lanes
V2 STATIONARY WAITING AT ROUNDABOUT AND V1 COLLIDED WITH REAR OF V2, BOTH VEHICLES STOPPED AND EXCHANGED TELEPHONE NUMBERS, D1 ADDED NUMBER TO PHONE AND TEXT D2 AND STATED HE WOULD PAY FOR DAMAGE AND DIDN'T WANT TO GO THROUGH INSURANCE AND D1 HAS NOW
OCKED THE NUMBER.

Occurred on A14 NEAR JUNCTION WITH BRAMFORD ROAD (B1113), CLAYDON, SUFFOLK

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
3rd:	Careless/Reckless/In a hurry	Vehicle 1	
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 19 Breath test Driver not contacted
Vehicle direction E to W

Journey Purpose: Other/Not known

Vehicle Reference 2 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 35 Breath test Driver not contacted
Vehicle direction E to W

Journey Purpose: Journey as part of work

Casualty Reference: 1 Age: 35 Female Driver/rider Severity: Slight

Accidents between dates **01/01/2020** **and** **30/04/2023** (40) months

Selection:
Selected using Manual Selection

Notes:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	0	8	8
2-wheeled motor vehicles	0	0	1	1
Pedal cycles	0	0	0	0
Horses & other	0	0	0	0
Total	0	0	9	9

Casualties:

	Fatal	Serious	Slight	Total
Vehicle Driver	0	0	8	8
Passenger	0	0	0	0
Motorcyclist	0	0	1	1
Cyclist	0	0	0	0
Pedestrian	0	0	0	0
Other	0	0	0	0
Total	0	0	9	9

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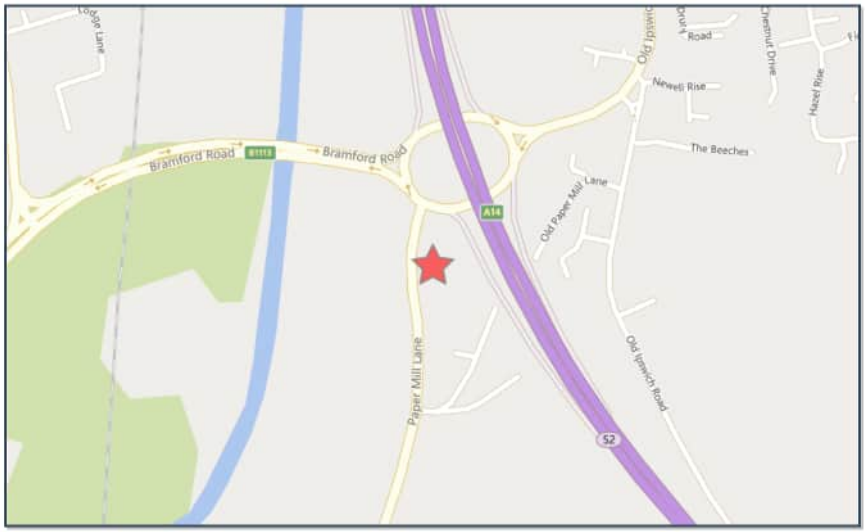
Validated Data

Crash Date:	Wednesday, November 09, 2016	**Time of Crash:**	10:43:00 PM	**Crash Reference:**	**2016370132278**
Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	1
Local Authority:	Mid Suffolk District			**OS Grid Reference:**	612880 249408
Weather Description:	Fine without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	70				
Light Conditions:	Darkness: street lights present and lit				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Dual carriageway				
Junction Control:	Not Applicable				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	15	Male	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Vehicle or pillion passenger	Female	36 - 45	Unknown or other	Unknown or other

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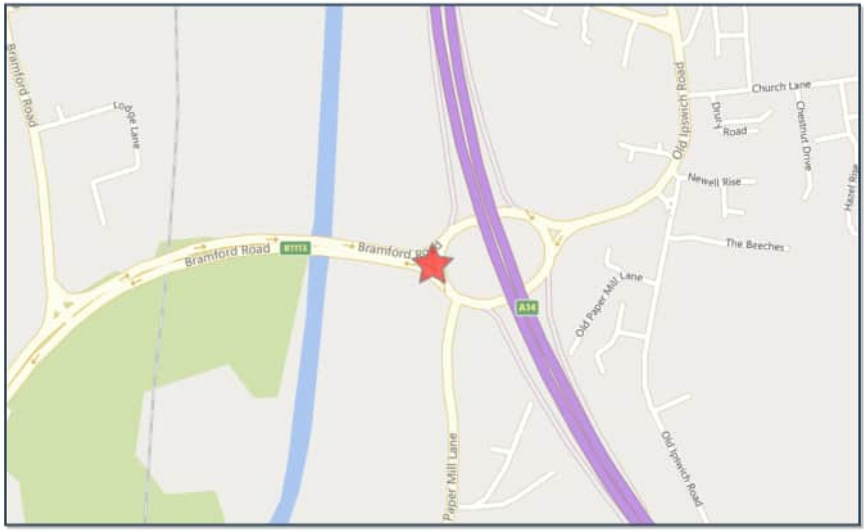
Validated Data

Crash Date:	Monday, August 21, 2017	**Time of Crash:**	5:50:00 PM	**Crash Reference:**	**2017370218598**

Highest Injury Severity:	Slight	**Road Number:**	B1113	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	4
Local Authority:	Mid Suffolk District			**OS Grid Reference:**	612819 249547
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	40				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Van or goods vehicle 3.5 tonnes mgw and under	10	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
2	Car (excluding private hire)	18	Male	16 - 20	Vehicle is slowing down or stopping	Front	Other	None	None
3	Car (excluding private hire)	12	Male	56 - 65	Vehicle is slowing down or stopping	Back	Other	None	None
4	Car (excluding private hire)	9	Female	26 - 35	Vehicle is slowing down or stopping	Back	Commuting to/from work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other

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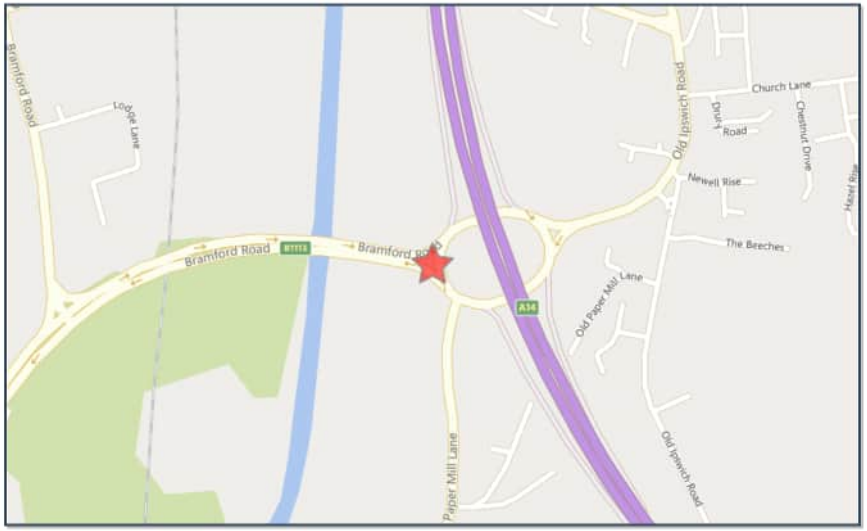
Validated Data

Crash Date:	Friday, July 20, 2018	**Time of Crash:**	7:26:00 AM	**Crash Reference:**	**2018370319130**

Highest Injury Severity:	Slight	**Road Number:**	B1113	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Mid Suffolk District			**OS Grid Reference:**	612819 249547
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Other junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	2	Male	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Front	Journey as part of work	None	Wall or fence
2	Agricultural vehicle	4	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Journey as part of work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	46 - 55	Unknown or other	Unknown or other

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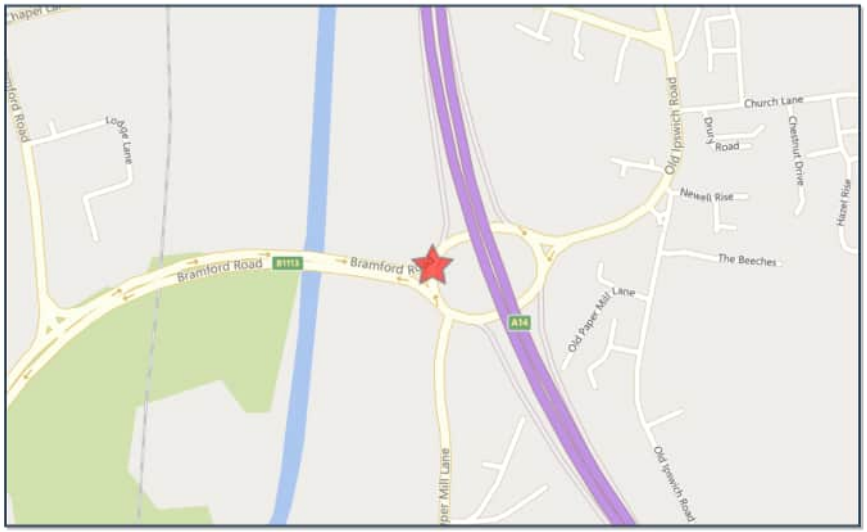
Validated Data

Crash Date:	Thursday, July 19, 2018	**Time of Crash:**	5:45:00 AM	**Crash Reference:**	**2018370336188**

Highest Injury Severity:	Serious	**Road Number:**	B1113	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	1
Local Authority:	Mid Suffolk District			**OS Grid Reference:**	612829 249569
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	70				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Dual carriageway				
Junction Control:	Give way or uncontrolled				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Motorcycle over 50cc and up to 125cc	11	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Commuting to/from work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Serious	Driver or rider	Male	36 - 45	Unknown or other	Unknown or other

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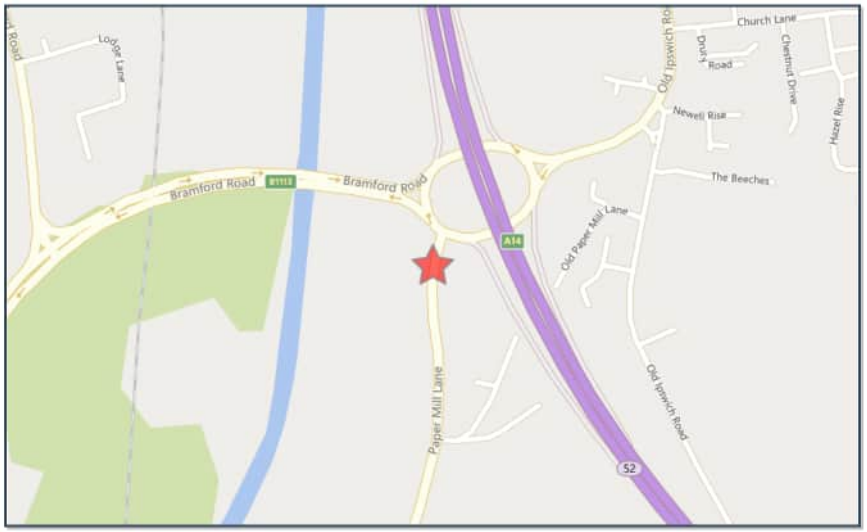
Validated Data

Crash Date:	Friday, October 05, 2018	**Time of Crash:**	8:27:00 AM	**Crash Reference:**	**2018370338860**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	2
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Mid Suffolk District			**OS Grid Reference:**	612846 249443
Weather Description:	Fine without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	60				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	11	Female	36 - 45	Vehicle is moving off	Front	Commuting to/from work	None	None
2	Car (excluding private hire)	14	Female	46 - 55	Vehicle is waiting to proceed normally but is held up	Back	Commuting to/from work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	36 - 45	Unknown or other	Unknown or other
2	2	Slight	Vehicle or pillion passenger	Male	36 - 45	Unknown or other	Unknown or other

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Validated Data

Crash Date:	Thursday, November 28, 2019	**Time of Crash:**	6:35:00 PM	**Crash Reference:**	**2019370927135**

Highest Injury Severity:	Slight	**Road Number:**	A1071	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Babergh District			**OS Grid Reference:**	612358 243647
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	30				
Light Conditions:	Darkness: street lights present and lit				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				

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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	3	Female	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Journey as part of work	None	None
2	Car (excluding private hire)	8	Male	46 - 55	Vehicle is in the act of turning right	Offside	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	26 - 35	Unknown or other	Unknown or other

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

211066775 24/05/2021 Monday Time 0630 Vehicles 2 Casualties 3 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Dual 2 lanes
LORRY HAS BEEN IN LEFT HAND LANE. HAS NEEDED TO BE IN THE RIGHT HAND LANE BUT HAS MISSED IT. HAS STOPPED IN LEFT LANE AND REVERSED TO TRY AND MAKE TURN. THIS HAS RESULTED IN LORRY HITTING FRONT OF CAR CAUSING DAMAGE TO BONNET AND CAUSING INJURY TO 3 P
ERSONS. ALL WITH NECK AND BACK PAIN.

Occurred on BRAMFORD ROAD (B1113)

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 2	Very Likely
2nd:	Careless/Reckless/In a hurry	Vehicle 2	Very Likely
3rd:	Illegal turn or direction of travel	Vehicle 2	
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 38 Breath test Negative
Vehicle direction NE to SW

Journey Purpose: Journey as part of work

Casualty Reference: 1 Age: 38 Male Driver/rider Severity: Slight

Casualty Reference: 2 Age: 40 Male Passenger Severity: Slight

Casualty Reference: 3 Age: 25 Male Passenger Severity: Slight

Vehicle Reference 2 Goods vehicle - unknown weight Reversing
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 42 Breath test Negative
Vehicle direction NE to NW

Journey Purpose: Journey as part of work

Accidents between dates **01/01/2020** **and** **30/04/2023** (40) months

Selection:
Selected using Manual Selection

Notes:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	0	1	1
2-wheeled motor vehicles	0	0	0	0
Pedal cycles	0	0	0	0
Horses & other	0	0	0	0
Total	0	0	1	1

Casualties:

	Fatal	Serious	Slight	Total
Vehicle Driver	0	0	1	1
Passenger	0	0	2	2
Motorcyclist	0	0	0	0
Cyclist	0	0	0	0
Pedestrian	0	0	0	0
Other	0	0	0	0
Total	0	0	3	3

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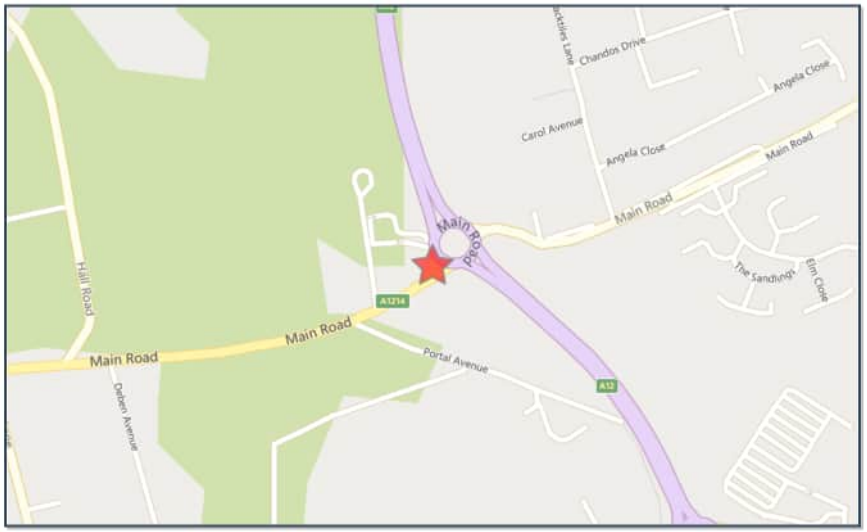
Validated Data

Crash Date:	Tuesday, January 10, 2017	**Time of Crash:**	4:45:00 PM	**Crash Reference:**	**2017370149550**

Highest Injury Severity:	Slight	**Road Number:**	A1214	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	624137 246267
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Darkness: street lights present and lit				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Roundabout				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	11	Female	21 - 25	Vehicle is moving off	Front	Unknown	None	None
2	Car (excluding private hire)	1	Female	26 - 35	Vehicle is waiting to proceed normally but is held up	Back	Unknown	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Female	26 - 35	Unknown or other	Unknown or other

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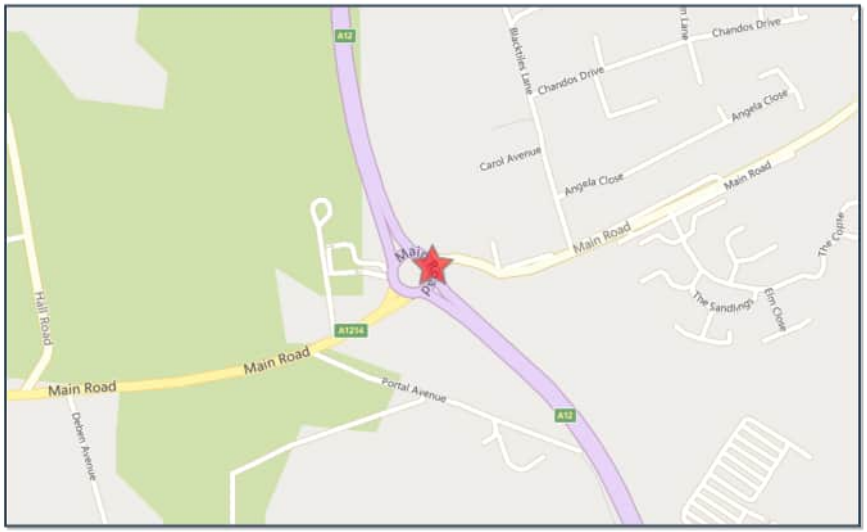
Validated Data

Crash Date:	Sunday, May 21, 2017	**Time of Crash:**	6:56:00 PM	**Crash Reference:**	**2017370202057**

Highest Injury Severity:	Slight	**Road Number:**	A12	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	624199 246316
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	50				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Dual carriageway				
Junction Control:	Give way or uncontrolled				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Van or goods vehicle 3.5 tonnes mgw and under	13	Male	66 - 75	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Other	Central island of roundabout	None
2	Van or goods vehicle 3.5 tonnes mgw and under	7	Male	21 - 25	Vehicle is moving off	Offside	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Male	21 - 25	Unknown or other	Unknown or other

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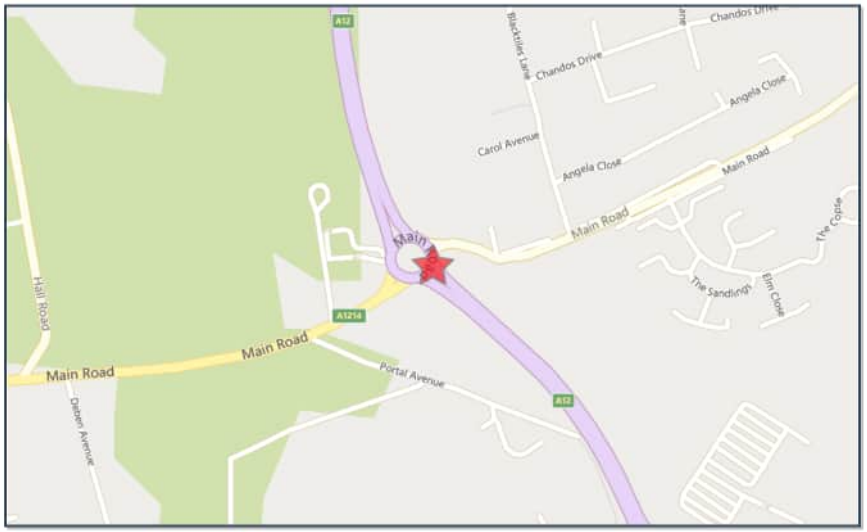
Validated Data

Crash Date:	Monday, July 08, 2019	**Time of Crash:**	8:08:00 AM	**Crash Reference:**	**2019370872127**

Highest Injury Severity:	Slight	**Road Number:**	A12	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	624203 246293
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	70				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Roundabout				
Junction Control:	Auto traffic signal				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Goods vehicle 7.5 tonnes mgw and over	1	Male	66 - 75	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Journey as part of work	None	None
2	Motorcycle over 500cc	10	Male	21 - 25	Vehicle proceeding normally along the carriageway, not on a bend	Front	Commuting to/from work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Male	21 - 25	Unknown or other	Unknown or other

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Validated Data

Crash Date:	Sunday, March 19, 2017	**Time of Crash:**	1:08:00 PM	**Crash Reference:**	**2017370168745**

Highest Injury Severity:	Serious	**Road Number:**	A12	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	624694 243880
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	70				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Unknown				
Junction Control:	Give way or uncontrolled				

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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	4	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Back	Unknown	None	None
2	Motorcycle over 500cc	10	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Back	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Serious	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other

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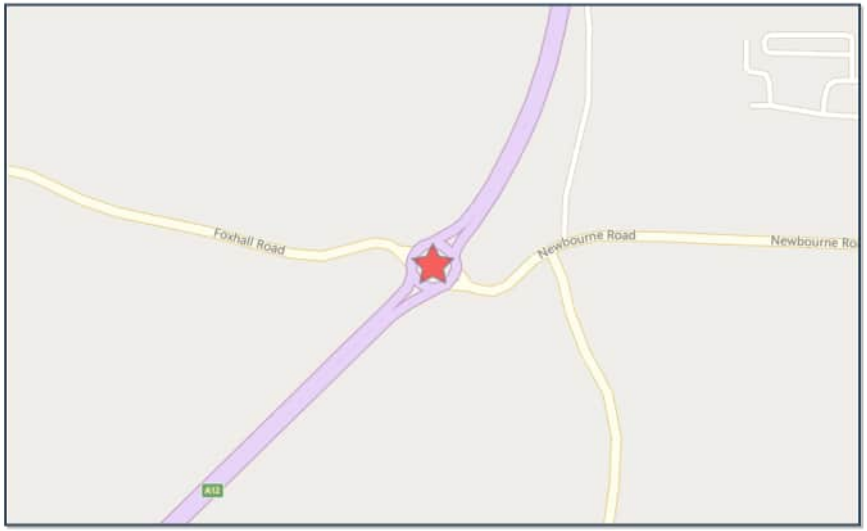
Validated Data

Crash Date:	Saturday, July 08, 2017	**Time of Crash:**	9:40:00 AM	**Crash Reference:**	**2017370205793**

Highest Injury Severity:	Slight	**Road Number:**	A12	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	624659 243903
Weather Description:	Unknown				
Road Surface Description:	Dry				
Speed Limit:	60				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Dual carriageway				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Other	None	None
2	Car (excluding private hire)	1	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other

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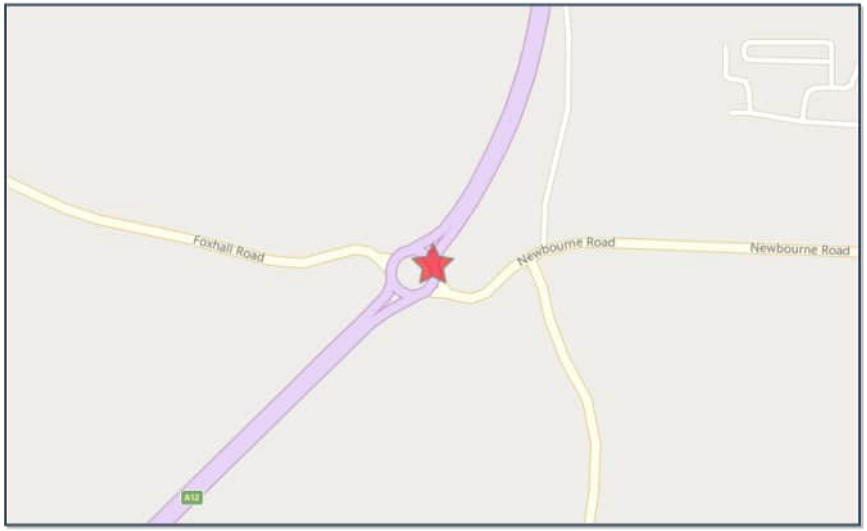
Validated Data

Crash Date:	Thursday, December 06, 2018	**Time of Crash:**	9:46:00 AM	**Crash Reference:**	**2018370353955**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	2
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	624690 243915
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	60				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Motorcycle of unknown engine capacity	-1	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Front	Journey as part of work	None	None
2	Car (excluding private hire)	5	Male	21 - 25	Vehicle proceeding normally along the carriageway, not on a bend	Back	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Vehicle or pillion passenger	Male	16 - 20	Unknown or other	Unknown or other
2	2	Slight	Vehicle or pillion passenger	Male	21 - 25	Unknown or other	Unknown or other

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Validated Data

Crash Date:	Wednesday, November 06, 2019	**Time of Crash:**	11:52:00 AM	**Crash Reference:**	**2019370922692**
Highest Injury Severity:	Slight	**Road Number:**	A12	**Number of Casualties:**	2
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	624625 243898
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	70				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Roundabout				
Junction Control:	Give way or uncontrolled				

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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	3	Female	66 - 75	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
2	Car (excluding private hire)	7	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Back	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Male	36 - 45	Unknown or other	Unknown or other
2	2	Slight	Vehicle or pillion passenger	Male	36 - 45	Unknown or other	Unknown or other

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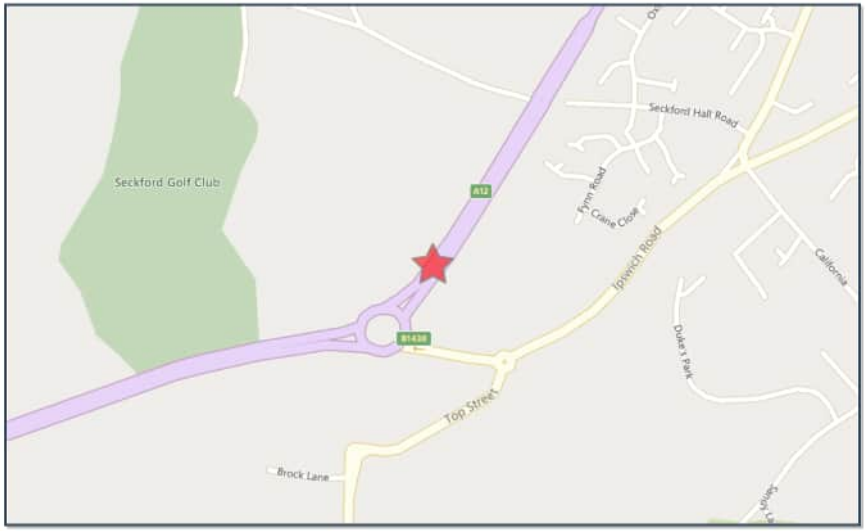
Validated Data

Crash Date:	Monday, October 23, 2017	**Time of Crash:**	1:05:00 PM	**Crash Reference:**	**2017370238221**

Highest Injury Severity:	Slight	**Road Number:**	A12	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	625448 248073
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	70				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Dual carriageway				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	0	Male	56 - 65	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
2	Car (excluding private hire)	1	Female	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Female	46 - 55	Unknown or other	Unknown or other

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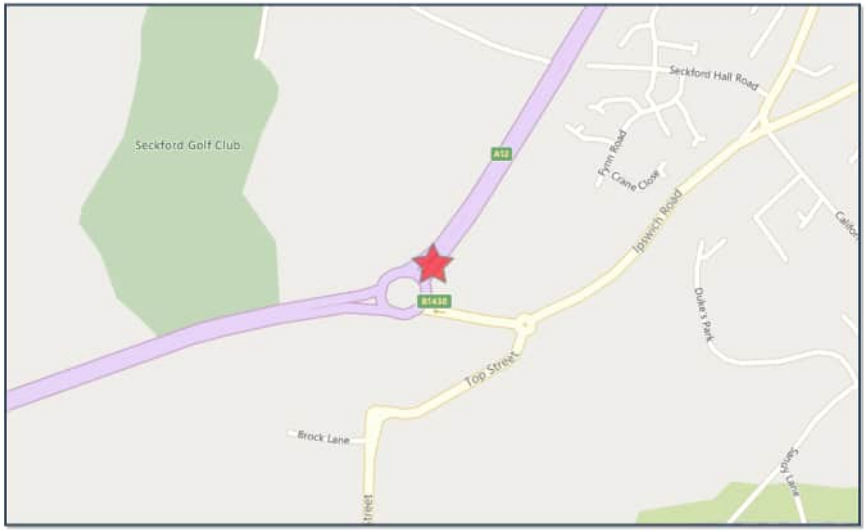
Validated Data

Crash Date:	Thursday, February 01, 2018	**Time of Crash:**	6:20:00 PM	**Crash Reference:**	**2018370265732**

Highest Injury Severity:	Serious	**Road Number:**	A12	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	625420 248015
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	70				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Dual carriageway				
Junction Control:	Not Applicable				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	3	Male	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Other	None	None
2	Motorcycle over 500cc	10	Male	56 - 65	Vehicle is in the act of turning right	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Serious	Driver or rider	Male	56 - 65	Unknown or other	Unknown or other

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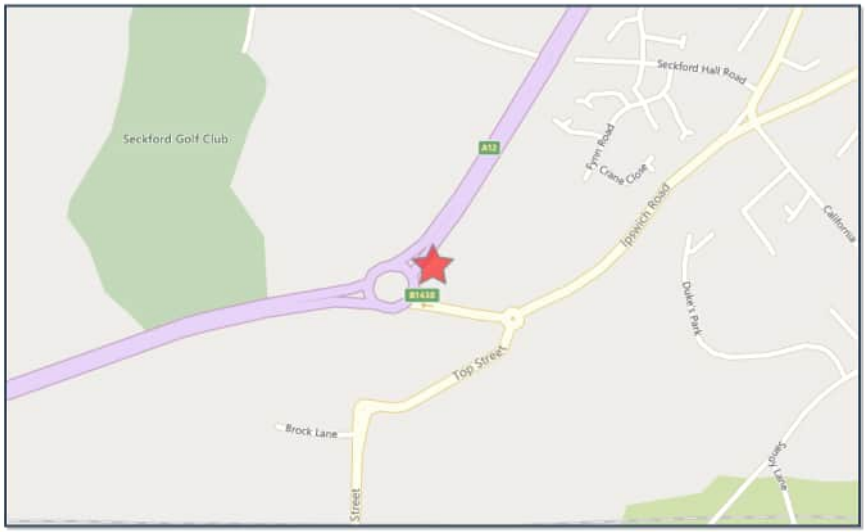
Validated Data

Crash Date:	Monday, May 14, 2018	**Time of Crash:**	3:48:00 PM	**Crash Reference:**	**2018370298289**

Highest Injury Severity:	Slight	**Road Number:**	A12	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	2
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	625438 248010
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	70				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Dual carriageway				
Junction Control:	Give way or uncontrolled				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Motorcycle over 500cc	15	Male	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
2	Car (excluding private hire)	3	Female	21 - 25	Vehicle proceeding normally along the carriageway, not on a bend	Back	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	46 - 55	Unknown or other	Unknown or other

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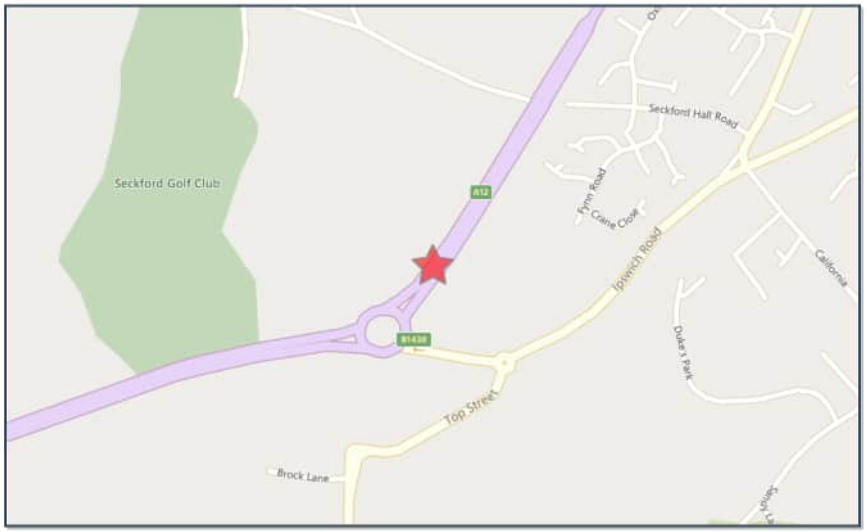
Validated Data

Crash Date:	Friday, June 29, 2018	**Time of Crash:**	4:46:00 PM	**Crash Reference:**	**2018370313189**

Highest Injury Severity:	Slight	**Road Number:**	A12	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	3
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	625448 248073
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	70				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Dual carriageway				
Junction Control:	Not Applicable				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	17	Female	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
2	Car (excluding private hire)	-1	Male	Over 75	Vehicle is slowing down or stopping	Back	Other	None	None
3	Car (excluding private hire)	3	Female	56 - 65	Vehicle is slowing down or stopping	Back	Unknown	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	46 - 55	Unknown or other	Unknown or other

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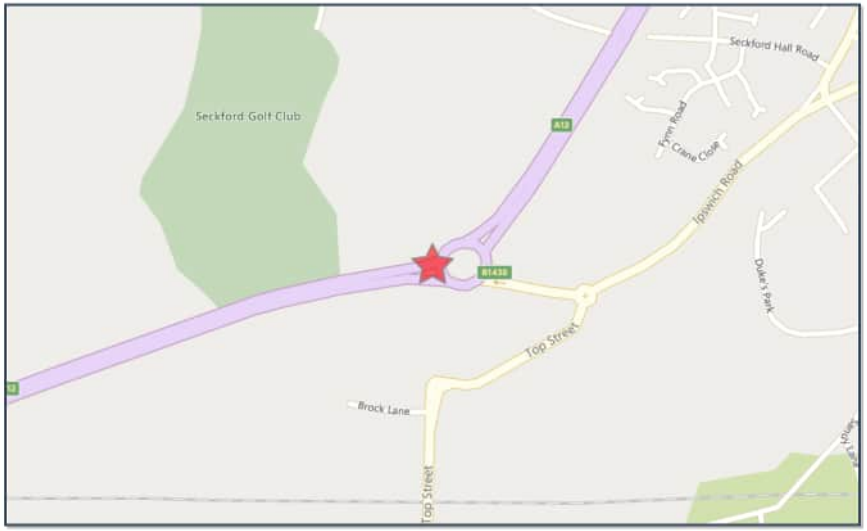
Validated Data

Crash Date:	Friday, May 10, 2019	**Time of Crash:**	4:20:00 PM	**Crash Reference:**	**2019370840842**

Highest Injury Severity:	Slight	**Road Number:**	A12	**Number of Casualties:**	1
Highway Authority:	Suffolk			**Number of Vehicles:**	3
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	625330 247969
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	60				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Dual carriageway				
Junction Control:	Give way or uncontrolled				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Van or goods vehicle 3.5 tonnes mgw and under	9	Male	21 - 25	Vehicle is slowing down or stopping	Front	Commuting to/from work	None	None
2	Car (excluding private hire)	5	Male	56 - 65	Vehicle is slowing down or stopping	Back	Other	None	None
3	Car (excluding private hire)	18	Male	26 - 35	Vehicle is slowing down or stopping	Back	Commuting to/from work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Vehicle or pillion passenger	Female	56 - 65	Unknown or other	Unknown or other

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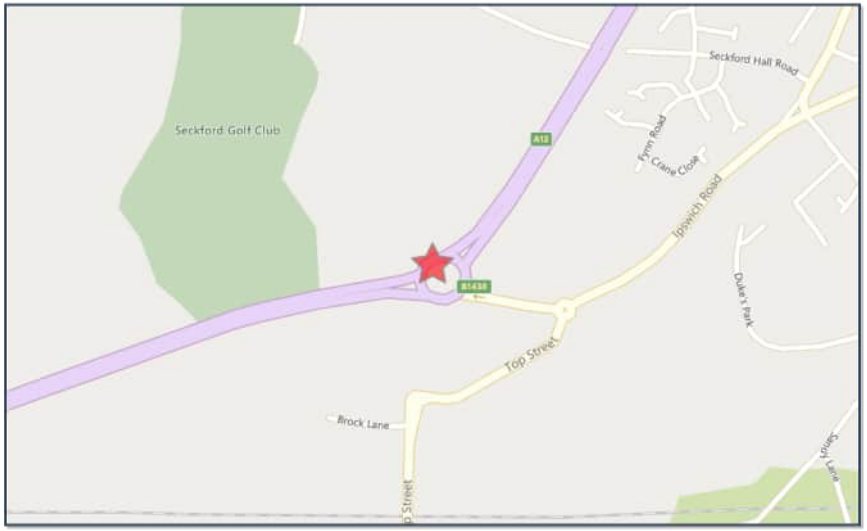
Validated Data

Crash Date:	Tuesday, June 25, 2019	**Time of Crash:**	11:18:00 PM	**Crash Reference:**	**2019370864420**

Highest Injury Severity:	Slight	**Road Number:**	A12	**Number of Casualties:**	2
Highway Authority:	Suffolk			**Number of Vehicles:**	1
Local Authority:	Suffolk Coastal District			**OS Grid Reference:**	625359 247994
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	70				
Light Conditions:	Darkness: street lights present and lit				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Roundabout				
Junction Control:	Give way or uncontrolled				



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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	14	Male	16 - 20	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	16 - 20	Unknown or other	Unknown or other
1	2	Slight	Vehicle or pillion passenger	Male	Unknown	Unknown or other	Unknown or other

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

20935970 18/01/2020 Saturday Time 1700 Vehicles 2 Casualties 2 Slight
Fine without high winds Road surface Dry Darkness: street lights present and lit
Special Conditions None Road Type Roundabout
V2 HAS STOPPED AT ROUNDABOUT AND APPLIED BREAKS, V1 HAS NOT SEEN THIS AND COLLIDED INTO THE BACK OF V2.

Occurred on A12

Causation

	Factor:	Participant:	Confidence:
1st:	Sudden braking	Vehicle 1	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
3rd:	Failed to look properly	Vehicle 1	
4th:			
5th:			
6th:			

Vehicle Reference 1 Other Vehicle Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver Breath test Driver not contacted
Vehicle direction N to S

Journey Purpose: 6

Vehicle Reference 2 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 23 Breath test Driver not contacted
Vehicle direction N to SE

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 23 Male Driver/rider Severity: Slight

Casualty Reference: 2 Age: 26 Female Passenger Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

20939891 05/03/2020 Thursday Time 1122 Vehicles 3 Casualties 2 Slight
Raining without high winds Road surface Wet/Damp Daylight
Special Conditions None Road Type Dual 2 lanes
V1 HAS NOT BRAKED IN TIME AND COLLIDED INTO THE REAR OF V2 NEAR A JUNCTION, SHUNTING IT FORWARD TO COLLIDE WITH V3

Occurred on A12 - 40 METRES FROM JUNCTION WITH A12

Causation

	Factor:	Participant:	Confidence:
1st:	Following too close	Vehicle 1	Very Likely
2nd:	Failed to look properly	Vehicle 1	Very Likely
3rd:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
4th:	Careless/Reckless/In a hurry	Vehicle 1	Very Likely
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 72 Breath test Negative
Vehicle direction S to N

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 72 Male Driver/rider Severity: Slight

Vehicle Reference 2 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 71 Breath test Negative
Vehicle direction S to N

Journey Purpose: Other/Not known

Casualty Reference: 2 Age: 71 Male Driver/rider Severity: Slight

Vehicle Reference 3 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 36 Breath test Negative
Vehicle direction S to N

Journey Purpose: Other/Not known

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

20940847 11/03/2020 Wednesday Time 0855 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Dual 2 lanes
V1 HAS COLLIDED WITH THE REA OF V2 THAT WAS STATIONARY ON APPROACH TO A ROUNDABOUT

Occurred on A12 - 25 METRES FROM JUNCTION WITH A12

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 1	Possible
2nd:	Failed to look properly	Vehicle 1	Possible
3rd:	Defective brakes	Vehicle 1	
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 51 Breath test Negative
Vehicle direction S to N

Journey Purpose: Other/Not known

Vehicle Reference 2 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 74 Breath test Negative
Vehicle direction S to N

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 74 Female Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

20949133 02/05/2020 Saturday Time 1120 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Single 2 lanes
V1 AND V2 WERE TRAVELLING ON FOXHALL ROAD TOWARDS THE ROUNDABOUT WITH THE A12. BOTH V1 AND V2 WERE STATIONARY AT THE ROUNDABOUT V1 HAS MISJUDGED WHEN V2 IS MOVING OFF TO JOIN THE A12 AND HAS STRUCK THE REAR OF V2.

Occurred on FOXHALL ROAD

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
2nd:	Failed to look properly	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Waiting to turn left
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 57 Breath test Negative
Vehicle direction W to E

Journey Purpose: Commuting to/from work

Vehicle Reference 2 Car Waiting to turn left
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 59 Breath test Negative
Vehicle direction W to E

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 59 Male Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

20950951 09/05/2020 Saturday Time 0905 Vehicles 1 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Dual 2 lanes
VEHICLE 1 (MOTORCYCLE) WAS TRAVELLING ON DUAL CARRIAGEWAY WHEN A MUNTJAC DEER HAS ENTERED CARRIAGEWAY AND COLLIDED WITH V1, CAUSING RIDER TO FALL OFF.

Occurred on A12 - 66 METRES FROM JUNCTION WITH A12

Causation

	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Motor Cycle over 50 cc and up to 125cc Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 17 Breath test Negative
Vehicle direction S to N

Journey Purpose: Commuting to/from work

Casualty Reference: 1 Age: 17 Male Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

20963890 12/07/2020 Sunday Time 1937 Vehicles 1 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Dual 2 lanes
RIDER HAS BEEN SEEN ACCELELORATING IN LANE TWO BEFORE PULLING A WHEELIE, WHILST ACCELORATING HARDER, AT WHICH POINT HE HAS LOST CONTROL OF THE BIKE AND FALLEN OFF. BIKE HAS SLID ALONG THE ROAD ON ITS N/S SPILLING FUEL ACROSS TWO LANES.

Occurred on A12

Causation

	Factor:	Participant:	Confidence:
1st:	Careless/Reckless/In a hurry	Vehicle 1	Very Likely
2nd:	Loss of control	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Motorcycle over 500cc Overtaking moving vehicle O/S
No skidding, jack-knifing or overturning
First point of impact Nearside Age of Driver 33 Breath test Negative
Vehicle direction S to N

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 33 Male Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

20974416 20/08/2020 Thursday Time 1515 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Roundabout
V2 WAS IN A QUEUE AT A ROUNDABOUT, V1 THEN COLLIDED INTO V2 RESULTING IN SLIGHT INJURIES BUT NO DAMAGE. BOTH DRIVERS HAVE EXCHANGED DETAILS

Occurred on FOXHALL ROAD - 21 METRES FROM JUNCTION WITH A12

Causation

	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car

First point of impact Age of Driver Breath test Driver not contacted
Vehicle direction to

Journey Purpose: 6

Vehicle Reference 2 Car

First point of impact Age of Driver 43 Breath test Driver not contacted
Vehicle direction to

Journey Purpose: 6

Casualty Reference: 1 Age: 43 Female Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

201015400 03/12/2020 Thursday Time 1817 Vehicles 1 Casualties 1 Slight
Raining without high winds Road surface Wet/Damp Darkness: street lights present and lit
Special Conditions None Road Type Single 2 lanes
VEHICLE 1 HAS STRUCK A PEDESTRIAN WHO WAS WALKING WITH HIS BACK TO TRAFFIC WHILE DRESSED ALL IN BLACK WITH NO REFLECTIVES. MINOR INJURIES WERE CAUSED TO THE PEDESTRIAN THOUGH HE REFUSED ANY MEDICAL ATTENTION. MINOR DAMAGE WAS CAUSED TO VEHICLE 1 INCLU
DING A CRACKED WINDSCREEN AND BUMPER.

Occurred on PORTAL AVENUE - 29 METRES FROM JUNCTION WITH UNCLASSIFIED ROAD

Causation

	Factor:	Participant:	Confidence:
1st:	Pedestrian wearing dark clothing at night	Casualty 1	Very Likely
2nd:	Rain, sleet, snow, or fog	Vehicle 1	Very Likely
3rd:	Failed to look properly	Casualty 1	
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 41 Breath test Negative
Vehicle direction W to E

Journey Purpose: Commuting to/from work

Casualty Reference: 1 Age: 17 Male Pedestrian Severity: Slight
Pedestrian Direction: E
Pedestrian Injured in the Course of 'On th Road' Work: Not Applicable

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

211038491 05/04/2021 Monday Time 2140 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Darkness: street lights present and lit
Special Conditions None Road Type Dual 2 lanes
V2 TRAVELLING NORTHBOUND ON DUAL CARRIAGEWAY. V2 STOPPED AT TRAFFIC LIGHT CONTROLLED ROUNDABOUT. V1 PULLED UP ALONGSIDE AND V2 DRIVER WAS SWORN AT. V2 MOVED OFF FROM TRAFFIC LIGHTS AND V1 PULLED IN FRONT OF V2 CAUSING V2 TO BRAKE SHARPLY CAUSING INJURY T
O LEFT LEG AND FOOT OF PASSENGER IN V2.

Occurred on A12

Causation

	Factor:	Participant:	Confidence:
1st:	Aggressive driving	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Did not impact Age of Driver Breath test Driver not contacted
Vehicle direction S to N

Journey Purpose: 6

Vehicle Reference 2 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Did not impact Age of Driver 50 Breath test Driver not contacted
Vehicle direction S to N

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 28 Female Passenger Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

211048482 27/04/2021 Tuesday Time 0826 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Roundabout
V2 JOINS THE ROUNDABOUT, V1 IS STATIONARY AT THE ROUNDABOUT. V1 HAS SEEN A RED CAR PASS AND CLEAR THE ROUNDABOUT AND BELIEVED IT WAS CLEAR AND STARTED TO PULL ONTO THE ROUNDABOUT INTO THE PATH OF V2 AND V2 HAS COLLIDED WITH THE F/O/S OF V1.

Occurred on IPSWICH ROAD (B1438) AT JUNCTION WITH TOP STREET

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Vehicle blind spot	Vehicle 1	Very Likely
3rd:	Failed to judge other persons path or speed	Vehicle 1	
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Starting
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 35 Breath test Negative
Vehicle direction W to E

Journey Purpose: Commuting to/from work

Vehicle Reference 2 Pedal Cycle Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 46 Breath test Not applicable
Vehicle direction S to E

Journey Purpose: Commuting to/from work

Casualty Reference: 1 Age: 46 Male Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

211050963 25/05/2021 Tuesday Time 1515 Vehicles 1 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Single 2 lanes
V1 HAS REVERSED INTO PEDESTRIAN. DRIVER HAS APOLOGISED AND DRIVEN OFF.

Occurred on BLACKTILES LANE

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Possible
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Reversing
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 71 Breath test Driver not contacted
Vehicle direction N to S

Journey Purpose: 6

Casualty Reference: 1 Age: 51 Male Pedestrian Severity: Slight
Pedestrian Direction: Unknown
Pedestrian Injured in the Course of 'On th Road' Work: Not Applicable

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

211101060 02/09/2021 Thursday Time 1615 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Roundabout

V002 HAS TRAVELLED ON FOXHALL ROAD AND APPROACHED JUNCTION WITH A12. IT HAS STOPPED AT JUNCTION DUE TO BUSY TRAFFIC. V001 HAS STOPPED BEHIND V002 AT THE ROUNDABOUT. V001 HAS MOVED FORWARD BELIEVING V002 WAS MOVING OFF BUT V002 REMAINED STATIONARY. V001
HAS SHUNTED V002 FROM BEHIND AT LOW SPEED CAUSING MINOR VEHICLE DAMAGE. DRIVER OF V002 HAS PRE-EXISITING BACK INJURY WHICH HAS BEEN AGGRAVATED, CAUSING PAIN.

Occurred on WALDRINGFIELD ROAD NEAR JUNCTION WITH A12

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 1	Possible
3rd:	Careless/Reckless/In a hurry	Vehicle 1	Possible
4th:	Following too close	Vehicle 1	Possible
5th:			
6th:			

Vehicle Reference 1 Car Starting
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 61 Breath test Negative
Vehicle direction E to W

Journey Purpose: Other/Not known

Vehicle Reference 2 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 50 Breath test Negative
Vehicle direction E to W

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 50 Male Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221185067 21/04/2022 Thursday Time 1647 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Dual 2 lanes
V2 WAS TRAVELLING TOWARDS THE ROUNDABOUT IN LANE 2, TO TAKE THE SECOND EXIT. TRAVELLED AROUND THE ROUNDABOUT BUT MISSED THE EXIT, SO CONTINUED AROUND ROUNDABOUT. AS V2 WAS TRAVELLING AROUND ANOTHER VEHICLE CAME AROUND THEIR O/S TO TAKE THE NEXT EXIT.
THIS CAUSED DRIVER OF V2 TO PANIC AND SHE SLAMMED ON HER BRAKES, WHICH CAUSED V1 TO HIT V2 IN THE REAR.

Occurred on A12

Causation

	Factor:	Participant:	Confidence:
1st:	Junction overshoot	Vehicle 1	Very Likely
2nd:	Poor turn or manoevre	Vehicle 1	Very Likely
3rd:	Sudden braking	Vehicle 1	
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 36 Breath test Negative
Vehicle direction E to W

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 42 Male Passenger Severity: Slight

Vehicle Reference 2 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 35 Breath test Not applicable
Vehicle direction E to W

Journey Purpose: Other/Not known

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221203380 17/06/2022 Friday Time 1805 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Roundabout
V2 WAS WAITING TO MOVE FORWARD AT ROUNDABOUT JUNCTION. V1 WAS BEHIND V2 AND SAW VEHICLES IN LANE 2 MOVING OFF AND SO PULLED OFF INTO THE BACK OF V2, WHICH HAD REMAINED STATIONARY, CAUSING MINOR INJURY TO DRIVER OF V2.

Occurred on A12

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Junction restart	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 33 Breath test Negative
Vehicle direction S to N

Journey Purpose: Other/Not known

Vehicle Reference 2 Car Going ahead but held up
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 54 Breath test Negative
Vehicle direction S to N

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 54 Female Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221198876 14/07/2022 Thursday Time 1610 Vehicles 1 Casualties 1 Serious
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Dual 2 lanes
V1 TRAVELLING A12 AT FOXHALL. V1 NEGOTIATES THE R/BOUT JUNCTION WITH FOXHALL ROAD, NEWBOURNE ROAD AND THE A12. V1 THEN JOINS THE A12 S/B AND CROSSES FROM LANE 1 TO LANE 2 AS V1 DOES SO IT LOSES CONTROL AND COLLIDES WITH THE CENTRAL RESERVATION BEFORE EJE
CTING THE RIDER WHO LANDED INBETWEEN LANES ONE AND TWO V1 COMES TO REST IN LANE 1.

Occurred on A12 - 81 METRES FROM JUNCTION WITH A12, FOXHALL, SUFFOLK

Causation

	Factor:	Participant:	Confidence:
1st:	Loss of control	Vehicle 1	Very Likely
2nd:	Poor turn or manoevre	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Motorcycle over 500cc Going ahead other
Skidded and overturned
First point of impact Front Age of Driver 56 Breath test Negative
Vehicle direction NE to SW

Journey Purpose: Commuting to/from work

Casualty Reference: 1 Age: 56 Male Driver/rider Severity: Serious

Accidents between dates **01/01/2020 and 30/04/2023** (40) months

Selection: **Notes:**

Selected using Manual Selection

221204622 29/07/2022 Friday Time 2208 Vehicles 2 Casualties 1 Slight
Fine without high winds Road surface Dry Darkness: no street lighting
Special Conditions None Road Type Dual 2 lanes

V1 & V2 TRAVELLING NORTHBOUND ON DUAL CARRIAGEWAY. V1 SUDDENLY VEERS ACROSS LANE 1 TOWARDS THE
CENTRE. V2 STEERS TO THE N/S TO TRY & AVOID CONTACT. V2 MAKES LIGHT CONTACT WITH RIDER OF V1, WHO DSIDE.

Occurred on A12, MARTLESHAM, SUFFOLK

Causation

	Factor:	Participant:	Confidence:
1st:	Impaired by alcohol	Vehicle 2	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Pedal Cycle Going ahead other
No skidding, jack-knifing or overturning
First point of impact Nearside Age of Driver 62 Breath test Not applicable
Vehicle direction S to N

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 62 Male Driver/rider Severity: Slight

Vehicle Reference 2 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Offside Age of Driver 23 Breath test Not requested
Vehicle direction S to N

Journey Purpose: Other/Not known

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221213395 29/08/2022 Monday Time 1420 Vehicles 2 Casualties 2 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Roundabout
V2 WAS TRAVELLING N ALONG THE A12 TOWARDS WOODBRIDGE AROUND PARK AND RIDE ROUNDABOUT, MARTLESHAM. V1 WAS TRAVELLING NORTH WEST EMERGING FROM A1214 MAIN ROAD, KESGRAVE. V1 HAS CONTRAVENED GIVE WAY MARKINGS AT THE JUNCTION OF A1214 MAIN ROAD ONTO THE ROUND ABOUT AND HAS COLLIDED WITH FRONT NEAR SIDE OF V2.

Occurred on OPPOSITE TO PARK AND RIDE ENTRANCE, APPROACHING MAIN ROAD (A12)N TOWARDS

Causation

	Factor:	Participant:	Confidence:
1st:	Disobeyed Give Way or Stop sign or markings	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead right bend
No skidding, jack-knifing or overturning
First point of impact Offside Age of Driver Breath test Not applicable
Vehicle direction S to N

Journey Purpose: 6

Vehicle Reference 2 Car Going ahead right bend
No skidding, jack-knifing or overturning
First point of impact Nearside Age of Driver 48 Breath test Negative
Vehicle direction SE to N

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 48 Male Driver/rider Severity: Slight

Casualty Reference: 2 Age: 50 Female Passenger Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221269812 26/11/2022 Saturday Time 1222 Vehicles 2 Casualties 3 Serious
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Dual 2 lanes
V1 HAS FAILED TO STOP WHEN APPROACHING THE ROUNDABOUT TRAVELLING S/B. V1 HAS THEN COLLIDED WITHTHE REAR END OF V2, AS IT WAS PULLING AWAY FROM THE JUNCTION ONTO THE ROUNDABOUT.

Occurred on A12

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Junction restart	Vehicle 1	Very Likely
3rd:	Dazzling sun	Vehicle 1	
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Starting
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 86 Breath test Not applicable
Vehicle direction N to S

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 86 Female Driver/rider Severity: Serious

Casualty Reference: 2 Age: 90 Male Passenger Severity: Slight

Vehicle Reference 2 Car Starting
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 25 Breath test Negative
Vehicle direction N to S

Journey Purpose: Other/Not known

Casualty Reference: 3 Age: 25 Male Driver/rider Severity: Slight

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221279105 26/12/2022 Monday Time 2128 Vehicles 2 Casualties 2 Serious
Fine without high winds Road surface Wet/Damp Darkness: street lights present and lit
Special Conditions None Road Type Roundabout
V1 WAS TRAVELLING NORTHBOUND, BELIEVED TO BE TRAVELLING AT EXCESSIVE SPEED AND HAS PLOUGHED INTO A STATIONARY CAR (V2) PARKED AT THE RED TRAFFIC LIGHTS AWAITING ENTRY ONTO THE ROUNDABOUT.

Occurred on MAIN ROAD (A12) NEAR JUNCTION WITH MAIN ROAD (A1214), MARTLESHAM, SUFFOLK

Causation

	Factor:	Participant:	Confidence:
1st:	Impaired by alcohol	Vehicle 1	Very Likely
2nd:	Exceeding speed limit	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 29 Breath test Positive
Vehicle direction N to S

Journey Purpose: 6

Casualty Reference: 1 Age: 29 Male Driver/rider Severity: Serious

Vehicle Reference 2 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Back Age of Driver 56 Breath test Negative
Vehicle direction N to S

Journey Purpose: Other/Not known

Casualty Reference: 2 Age: 56 Male Driver/rider Severity: Serious

Accidents between dates **01/01/2020 and 30/04/2023** (40) months
Selection: **Notes:**
Selected using Manual Selection

221258941 29/12/2022 Thursday Time 1105 Vehicles 1 Casualties 1 Slight
Fine without high winds Road surface Dry Daylight
Special Conditions None Road Type Single 2 lanes
V1 TRAVELLING SOUTHBOUND ON A SINGLE CARRIAGEWAY ROAD IN A RURAL AREA WITHIN NATIONAL SPEED LIMIT SECTION OF ROAD APPROACHING OFFSIDE BEND AND ENTRY TO 30MPH LIMIT AREA. V1 LEAVES CARRIAGEWAY TO NEARSIDE AND COLLIDES WITH SINGLE STORY RED BRICK STRUCTU
RE LOCATED ON GRASS VERGE THAT CONTAINS MAJOR GAS UTILITIES INFRASTRUCTURE. DRIVER PROVIDES ROADSIDE BREATH TEST READING OF 148 UGS.

Occurred on TOP STREET, MARTLESHAM, SUFFOLK

Causation

	Factor:	Participant:	Confidence:
1st:	Impaired by alcohol	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Going ahead other
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 58 Breath test Positive
Vehicle direction N to S

Journey Purpose: Other/Not known

Casualty Reference: 1 Age: 58 Male Driver/rider Severity: Slight

Accidents between dates **01/01/2020** **and** **30/04/2023** (40) months

Selection:
Selected using Manual Selection

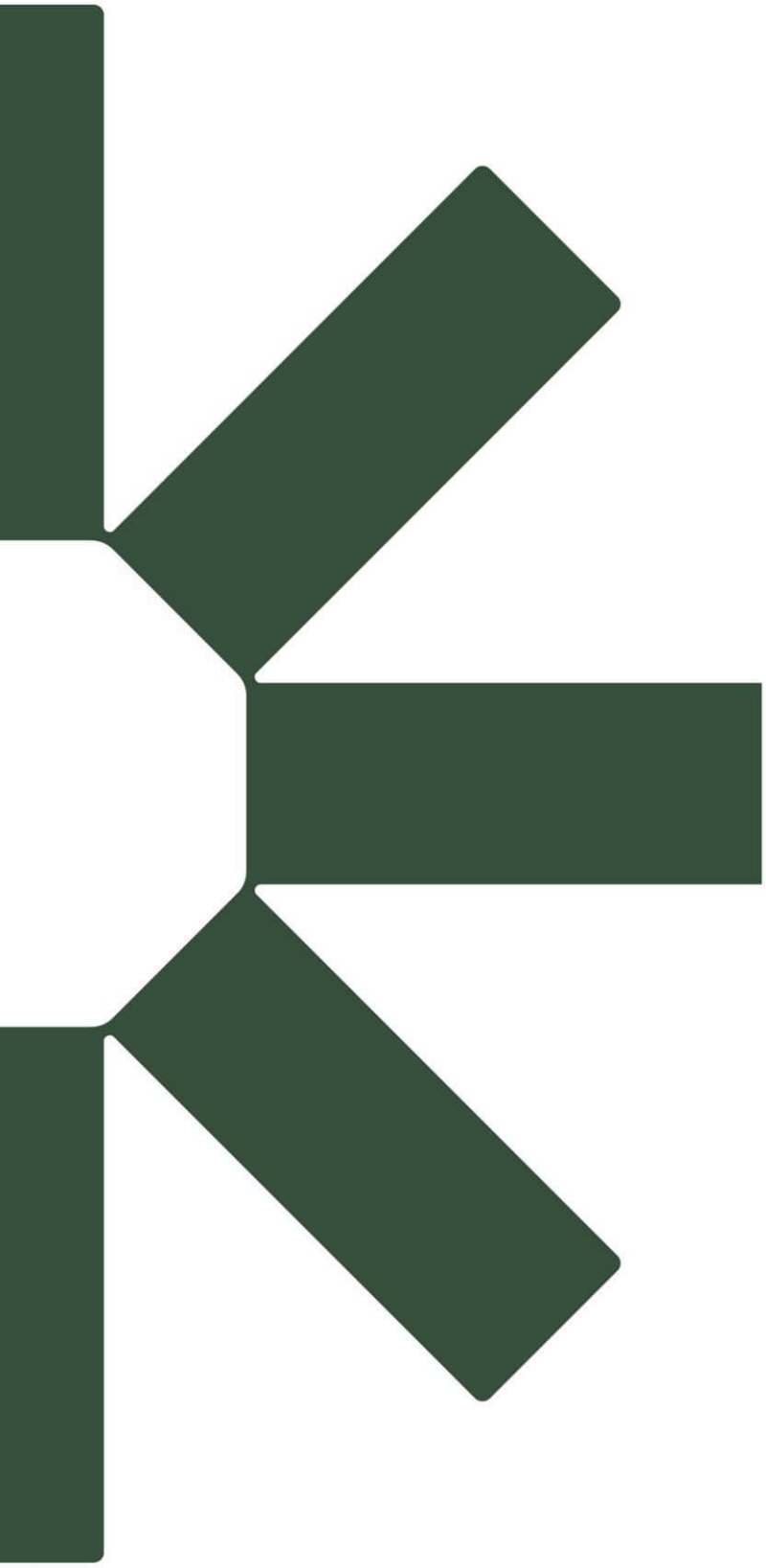
Notes:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	2	13	15
2-wheeled motor vehicles	0	1	2	3
Pedal cycles	0	0	2	2
Horses & other	0	0	0	0
Total	0	3	17	20

Casualties:

	Fatal	Serious	Slight	Total
Vehicle Driver	0	3	11	14
Passenger	0	0	5	5
Motorcyclist	0	1	2	3
Cyclist	0	0	2	2
Pedestrian	0	0	2	2
Other	0	0	0	0
Total	0	4	22	26



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609500 610000 610500 611000

246500 246000

TYE LANE
Track
Track
Track
HDD-1E
HDD-1W
HDD-21W
HDD-21E
AP-1
CP-01
JB 1/2
PRoW 1
Bullen Lane CCS
AP-2
BULLEN LANE
PRoW A
Path (um)
Path (um)
BULLEN LANE
Track
Inset Frame
IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Consolidated Construction Site Compound
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Stone Haul Road
- Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.1 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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610000 610500 611000 611500

247000 246500

N

Path (um)

BACK LANE (TRACK)

PRoW 2

Track

TYE LANE

TYE LANE

TYE LANE

Track

HDD-1E

HDD-1W

Track

PRoW 1

Track

Inset Frame

IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits

Public Right of Way

Horizontal Direct Drilling Duct Proving Platform

Top Soil Strip

Indicative Top Soil Bund

Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.2 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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610500 611000 611500 612000

248000 247500

Track
Track
Path (um)
SOMERSHAM ROAD
Track
Track
B 1113
SOMERSHAM ROAD
L'ORAINE WAY
BACK LANE (TRACK)
BACK LANE (TRACK)

Inset Frame
IPSWICH

HDD-2E
HDD-2W
AP-5
AP-4
AP-3
PRoW 3
JB 2/3
PRoW 2

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Public Right of Way
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Existing Track
HGV Turning
Stone Haul Road
Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.3 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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611000 611500 612000 612500

249000 248500

AP-8 AP-7 HDD-19E HDD-19W Inset Frame

Track Track B1113 BRAMFORD ROAD B1113 THE BEECHES GP GP POUND LANE Path (um) WB Path (um) SOMERSHAM ROAD Track LORAINE WAY Track

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- Stone Haul Road
- Trackway

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.4 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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612000 612500 613000 613500

249500 249000 248500

N

B 1113 BRAMFORD ROAD Track Path (um) A14 GROVE ORCHARD PAPER MILL LANE

Inset Frame

AP-8 AP-7 AP-9 AP-10

JB 3/4 JB 4/5

HDD-19E HDD-19W HDD-4W HDD-4E HDD-5W HDD-5E

CP-05

Paper Mill Lane CCS

PRoW 4

OLD IPSWICH ROAD Posts

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Consolidated Construction Site Compound
- Soil Storage
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.5 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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614000
614500
615000
249500
249000
Path (um)
Path (um)
Track
Track
Track
Path (um)
Track
Track
Track
Track
Track
Track
Track
Posts
JB 4/5
PRoW 4
Inset Frame
IPSWICH
Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Public Right of Way
Jointing Bay Hardstanding
Indicative Top Soil Bund
Indicative Subsoil Bund
Stone Haul Road

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.6 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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615500 616000 616500 617000

249500 249000

Track

HENLEY ROAD

AP-12

AP-11

JB 5/6

JB 6/7

PRoW 8

PRoW 9

Path (um)

SANDY LANE

Track

HENLEY ROAD

Path (um)

Inset Frame

IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Indicative Top Soil Bund
Indicative Subsoil Bund
HGV Turning
Stone Haul Road

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.7 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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617000 617500 618000 618500

249500 249000 248500

PRoW 8 JB 6/7 PRoW 9 PRoW 10 PRoW 11 JB 8/9 JB 7/8 CP-14

Path (um) Path (um) Path (um) Path (um) Path (um)

GOCKFIELD HALL LANE ROSE HILL B 1077 SANDY LANE LANE GOCKFIELD HALL LANE WITNESHAM Track Track Track Track Post

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Indicative Top Soil Bund
Indicative Subsoil Bund
HGV Turning
Stone Haul Road
Trackway

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.8 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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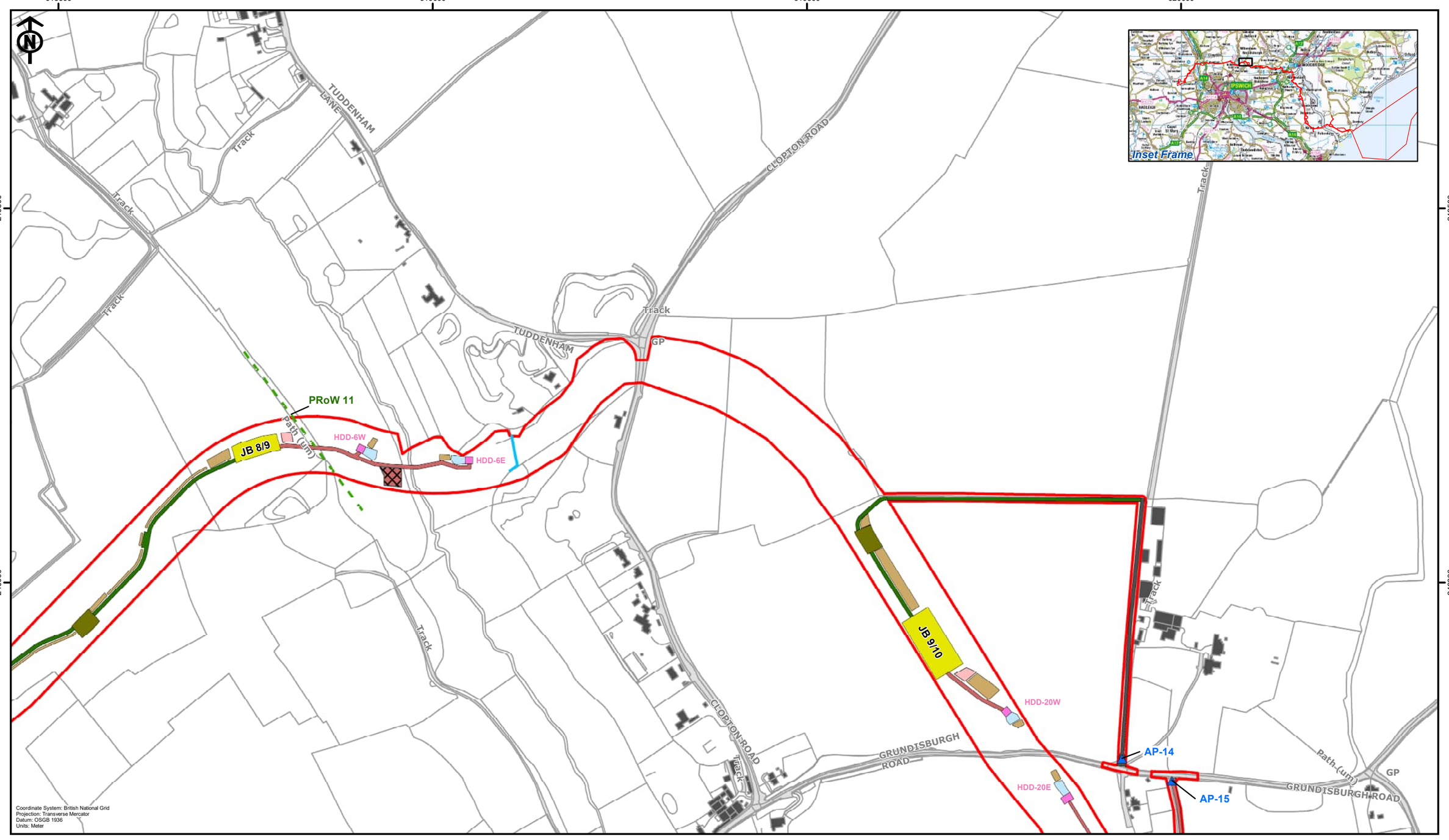
618500 619000 619500 620000

249500 249000



- EA THREE Development Order Limits
- Public Right of Way
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway
- Trackway Crane Pad

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.9 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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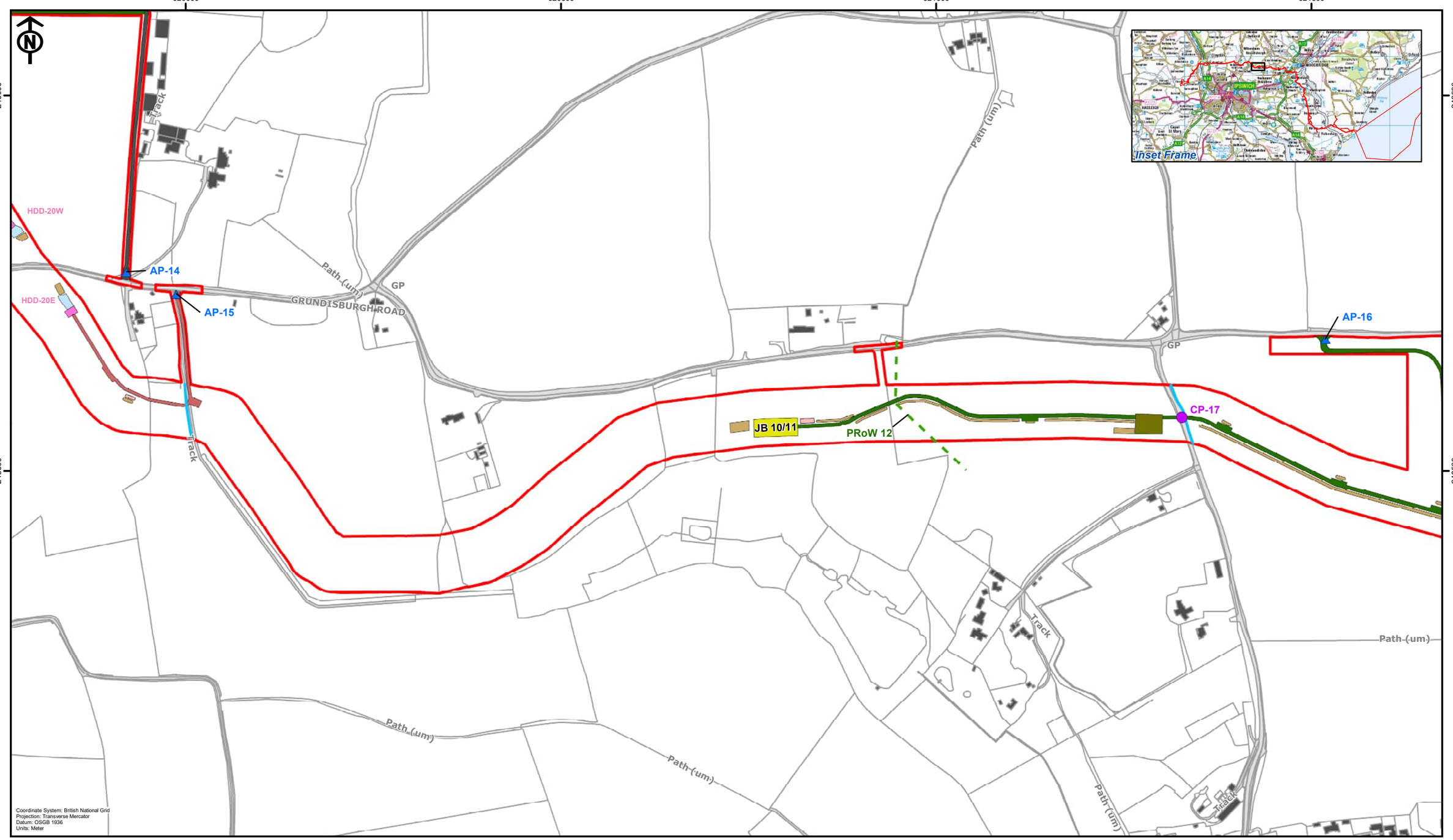
620000 620500 621000 621500

249000 248500



- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.10 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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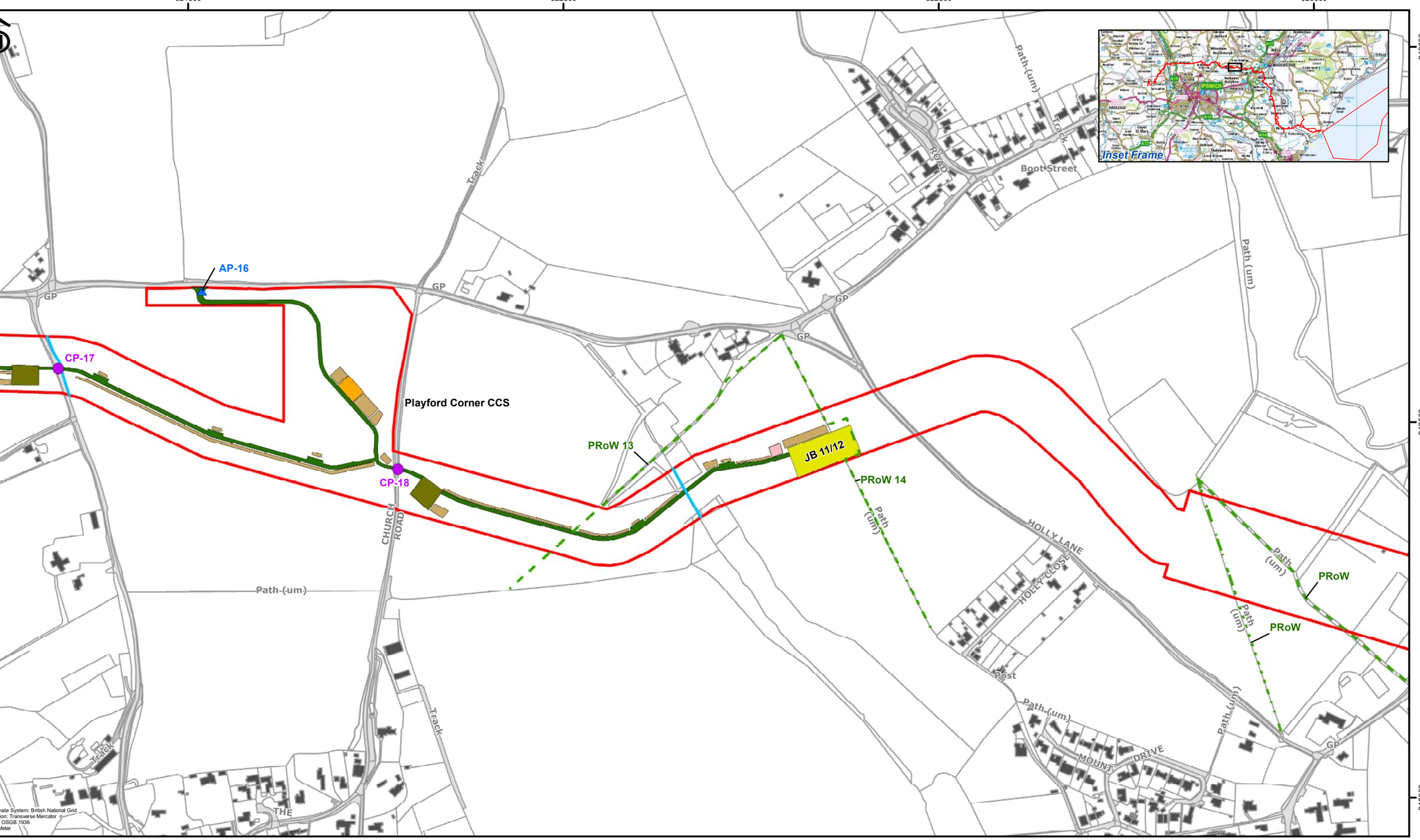
621500 622000 622500 623000

249000 248500 248000



- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Consolidated Construction Site Compound
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- HGV Turning
- Stone Haul Road

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.11 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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623500 624000 624500

249000 248500 248000

Track
Tk
GP
ROSERY LANE
Track
LOWER STREET
ORCHARD LANE
LODGE ROAD
ROSERY LANE
GP
GP
Track
AP-18
PRoW 18
AP-17
JB 13/14
HDD-7W
CP-22
HDD-7E
JB 12/13
PRoW
Path
Track
PRoW 19
PRoW 19
PRoW 20
Path
HDD-8W

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Existing Track
HGV Turning
Stone Haul Road
Trackway
Trackway Crane Pad

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.12 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

625000 625500 626000 626500

248000 247500

JB 13/14
PRoW 19
PRoW 19
HDD-8W
PRoW 20
CP-26
HDD-8E
PRoW 42
PRoW 21
JB 14/15
Top Street CCS
AP-19
HDD-9E
AP-20
HDD-10E
JB 15/16
AP-21
HDD-10W
PRoW 22
Inset Frame

A12
B 1438
IPSWICH ROAD
CHRISTCHURCH DRIVE
SECKFORD HALL ROAD
PINE ROAD
CLAYTON COURT
TURNER CLOSE
THE LANCERS
PINEWOOD MEADOW
BRIARWOOD ROAD
BROOMHEATH
CALIFORNIA
SANDY LANE
DUKE'S PARK
Path (um)
Track
Lay-by
Tunnel
BROCK
TOP STREET
THE STREET
BEALINGS ROAD

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Consolidated Construction Site Compound
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Stone Haul Road
Trackway

GoBe consultants

Rev	Date	By	Comment
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Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.13 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

625500 626000 626500 627000

247500 247000 246500

THE STREET
Track
Path (um)
Track
Track
Path (um)
Path (um)
PRoW 22
Path (um)
Inset Frame
IPSWICH
SCHOOL LANE
Path (um)
Track
HDD-11E
VIKING CLOSE
PRoW 23
Path (um)
Track
SCHOOL LANE
CHURCH LANE
Path (um)
PRoW 24
Track
Track
THREE STILES LANE (TRACK)
Lay-by
JB 16/17
PRoW 25
Track
Track
WALDRINGFIELD ROAD
Path (um)
PRoW 26
MILL LANE (TRACK)
Path (um)
Track

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Stone Haul Road
Trackway

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.14 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

626000 626500 627000 627500

246000 245500

AP-22
PRoW 26
AP-23
AP-24
CP-31
HDD-12W
HDD-12E
HDD-13W
HDD-13E
JB 17/18
JB 18/19
WALDRINGFIELD ROAD
NEWBOURNE ROAD
Path (um)
Track
IPSWICH
Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway

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Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.15 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

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627000
627500
628000
245500
245000
244500

N

JB 18/19
JB 19/20
AP-25

WAUDRINGFIELD ROAD
Path (um)
Track
WOODBRIDGE ROAD
FISHPOND ROAD
SANDY LANE
IPSWICH ROAD
NEWBOURNE ROAD
SULLIVAN PLACE
SCHOOL ROAD
SUNNYHILL
GP
DEBENHAM'S
CLIFF MEADOWS
CLIFF ROAD
MILL ROAD

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Jointing Bay Hardstanding
Indicative Top Soil Bund
Indicative Subsoil Bund
Stone Haul Road

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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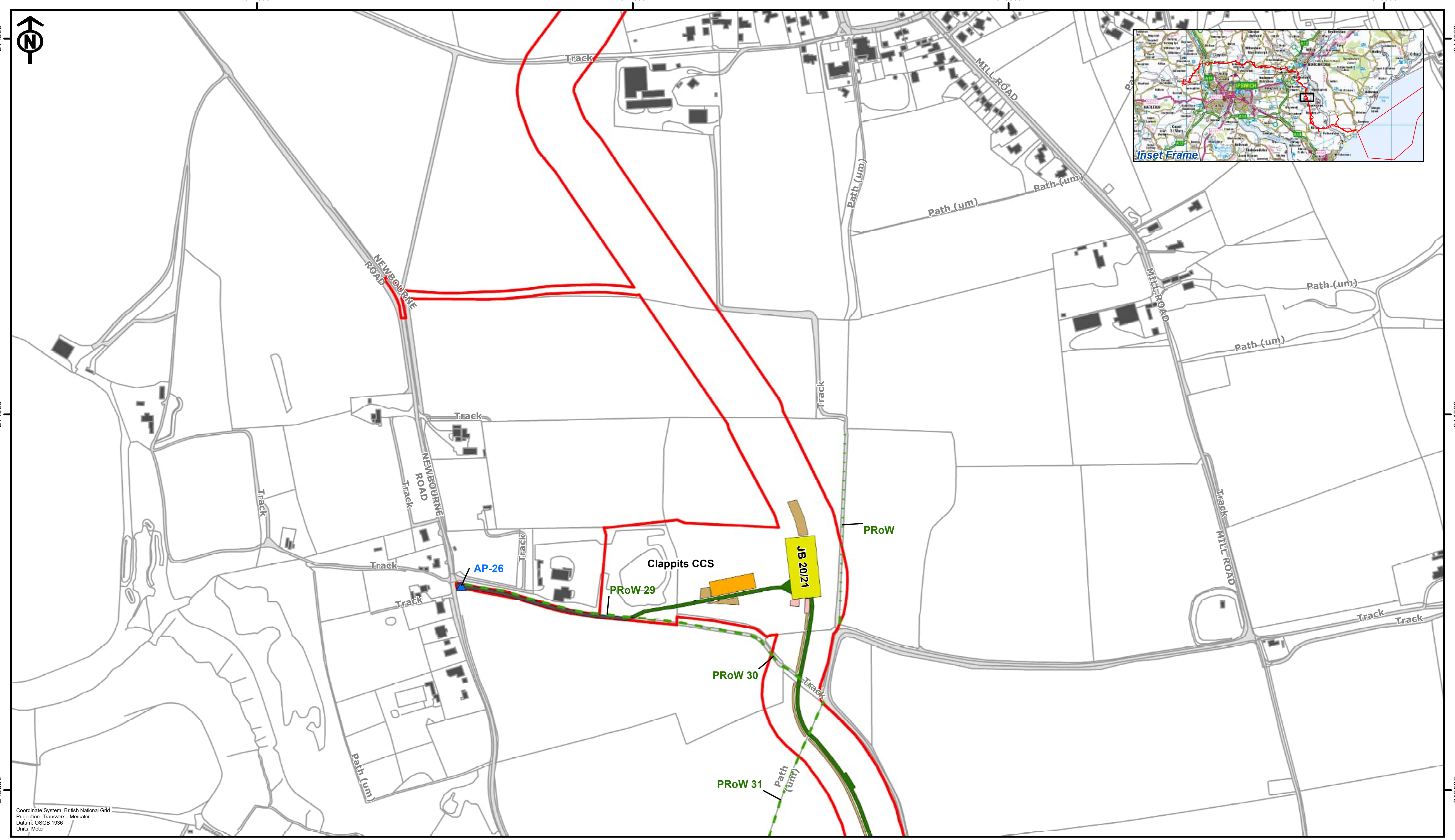
EA THREE Cable Route

FIGURE 1.16 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023.05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd



EA THREE Development Order Limits
Public Right of Way
Jointing Bay Hardstanding
Consolidated Construction Site Compound
Indicative Top Soil Bund
Indicative Subsoil Bund
Existing Track
Stone Haul Road

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.17 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

627500
628000
628500
243500
243000

PRoW 31
Path (um)
Path (um)
WOODBRIDGE ROAD
Track
FERN LANE
THE STREET
GP
CP-36
Guide Post
Track
IPSWICH ROAD
GP
Track
Track
Track
Track
Track
CHURCH LANE
Inset Frame
IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Public Right of Way
Indicative Top Soil Bund
HGV Turning
Stone Haul Road

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.18 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

627500
628000
628500
629000
242500
242000

Track
MILL ROAD
Track
Path (um)
PRoW 32
Track
CHURCH LANE
Track
Path
Track
Track
Track
JB 21/22
HDD-14W
Path (um)

Inset Frame
IPSWICH
WOODBRIDGE
HADLEIGH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Public Right of Way
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
HGV Turning
Stone Haul Road
Trackway

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Rev	Date	By	Comment
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Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

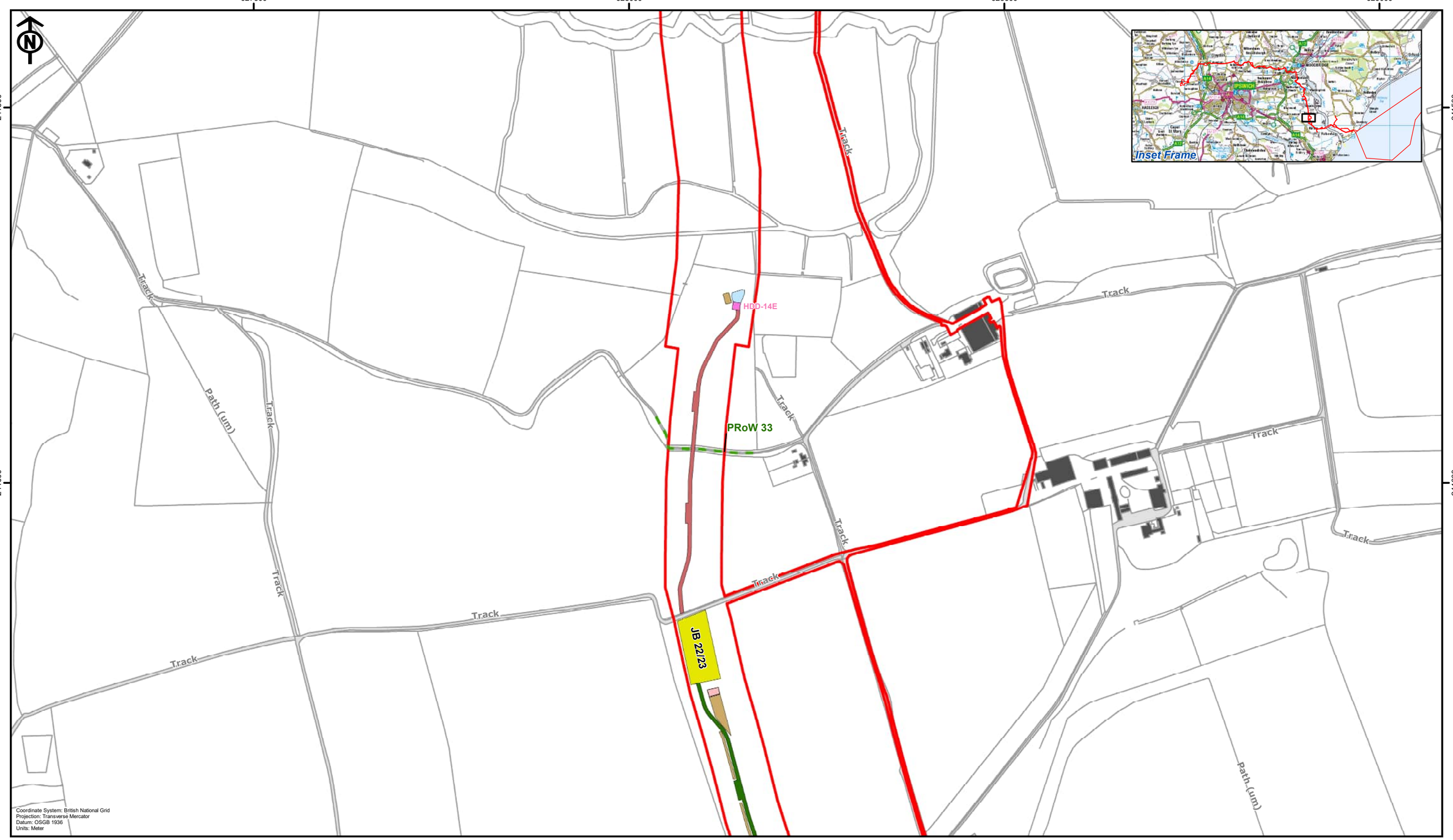
FIGURE 1.19 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

627500 628000 628500 629000

241500 241000



- EA THREE Development Order Limits
- Public Right of Way
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Stone Haul Road
- Trackway

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Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

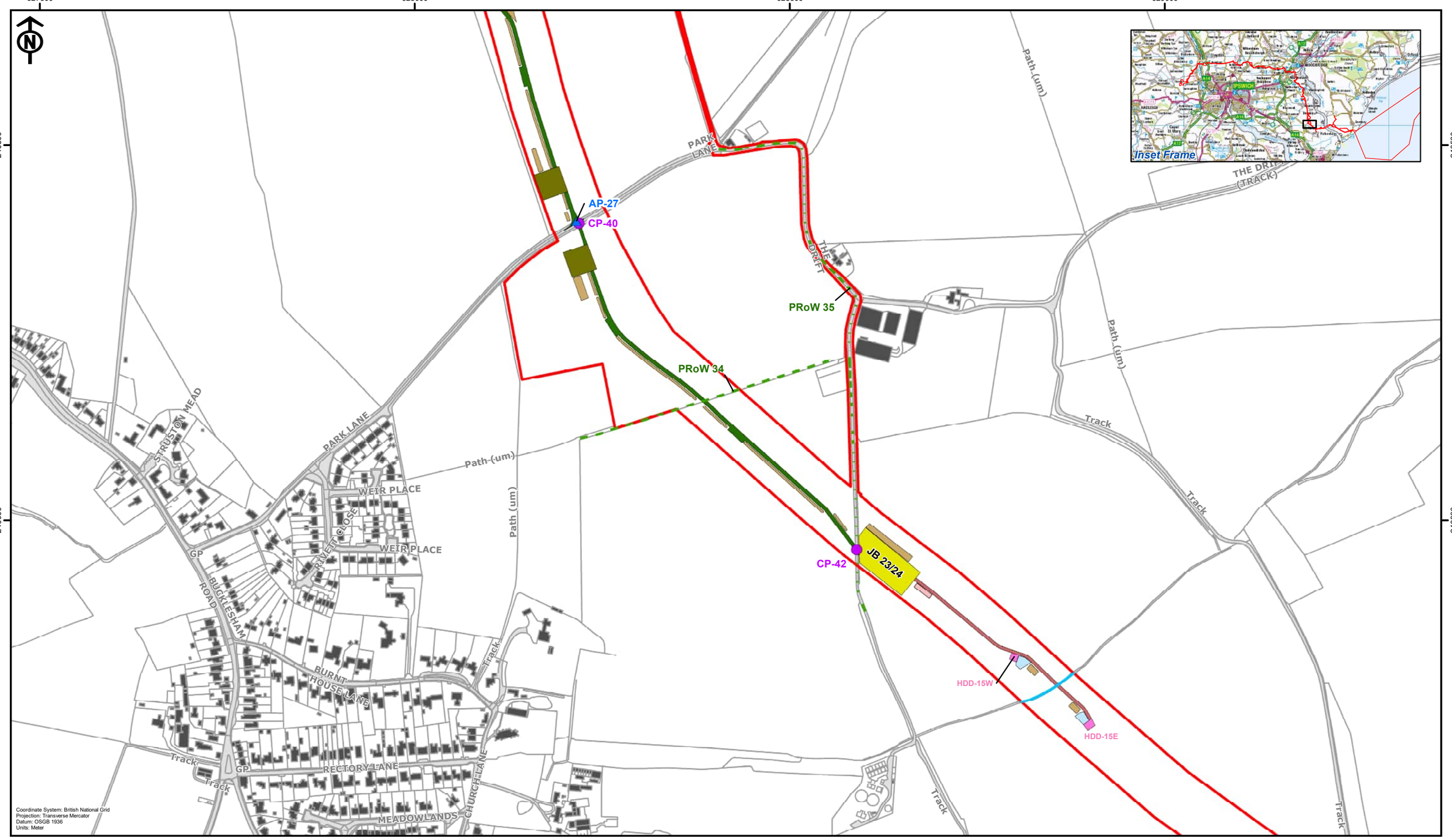
FIGURE 1.20 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

627500 628000 628500 629000

240500 240000



- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- HGV Turning
- Stone Haul Road
- Trackway

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Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.21 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

629000 629500 630000 630500

239500

239000

HDD-15W

HDD-15E

Track

PRoW 36

PRoW 37b

Track

Track

PRoW

HDD-16W

JB 24/25

DRUNKARDS LANE (TRACK)

Track

PRoW 37a

Path (um)

AP-28

LOWER FALKENHAM ROAD

FALKENHAM ROAD

FALKENHAM ROAD

Path (um)

Track

SHEEPGATE LANE

SHEEPGATE LANE

Inset Frame

IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Public Right of Way
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

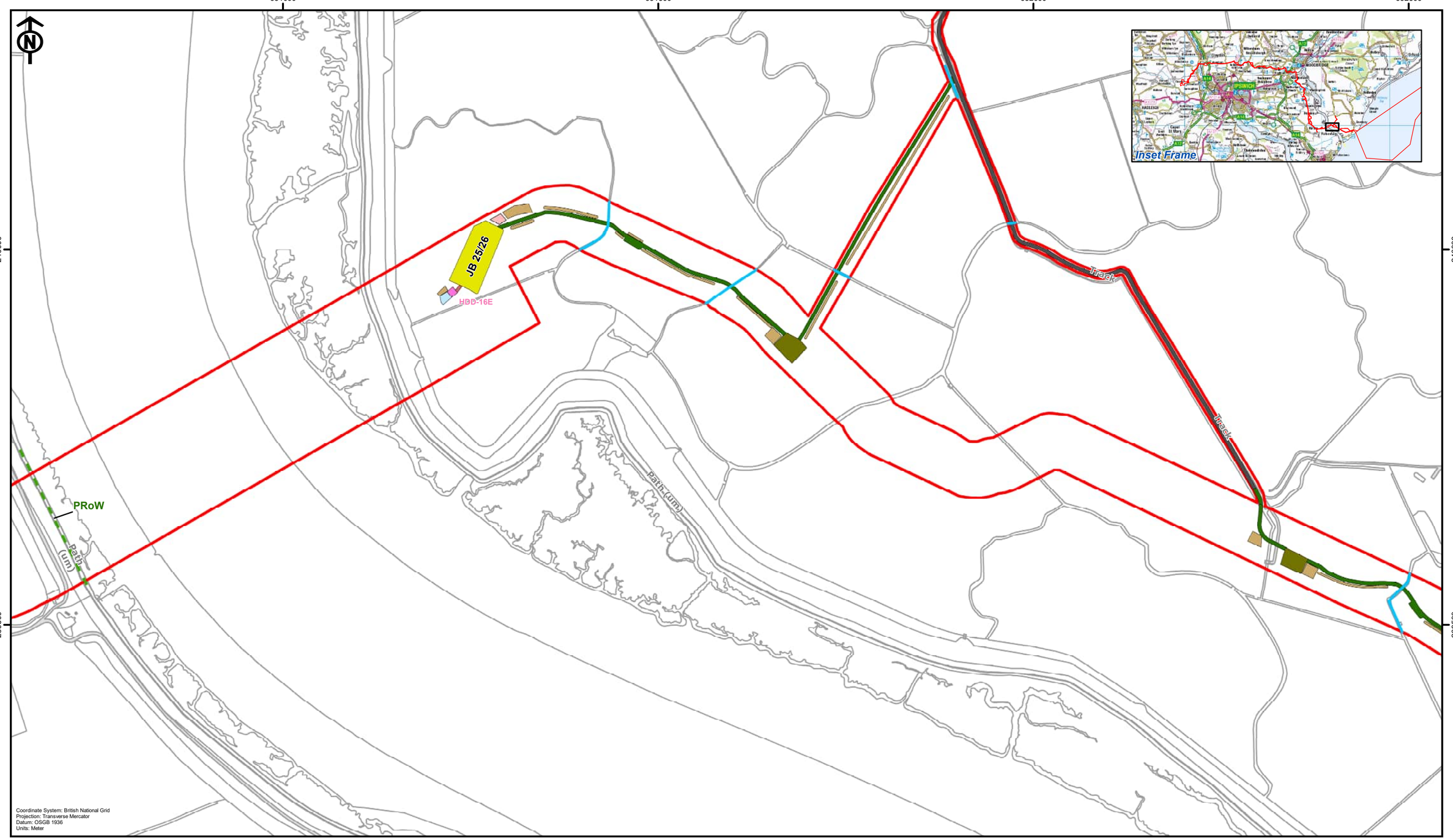
FIGURE 1.22 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

631000 631500 632000 632500

240000 239500



- EA THREE Development Order Limits
- Public Right of Way
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway

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Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.23 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

631500 632000 632500 633000

241000 240500

AP-29

GP

PRoW 39

Path (um)

Track

DUKE'S LANE (TRACK)

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits

Public Right of Way

Existing Track

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A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.24 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

632500 633000 633500 634000

239500 239000

JB 26/27

HDD-17W

HDD-17E

Track

Path (um)

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
HGV Turning
Stone Haul Road
Trackway

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A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.25 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

634000 634500 635000 635500

239500 239000

Track
FERRY ROAD
PRoW 41
AP-31
Track
Track
Landfall CCS
Transitional Jointing Bays
PRoW 40
Track
JB 27/28
CP-49
AP-30
FERRY ROAD
Path (um)

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Watercourse within the DOL
- Transition Jointing Bays
- Jointing Bay Hardstanding
- Consolidated Construction Site Compound
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway

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Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

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EA THREE Cable Route

FIGURE 1.26 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

610000 620000 630000 640000

250000 240000

Inset Frame

AP-1 AP-2 AP-3 AP-4 AP-5 AP-7 AP-8 AP-9 AP-10 AP-11 AP-12 AP-14 AP-15 AP-16 AP-17 AP-18 AP-19 AP-20 AP-21 AP-22 AP-23 AP-24 AP-25 AP-26 AP-27 AP-28 AP-29 AP-30 AP-31

Bullen Lane CCS
Playford Corner CCS
Top Street CCS
Clappits CCS
Landfall CCS

IPSWICH
FELIXSTOWE
HARWICH HARBOUR

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Transition Jointing Bays
Consolidated Construction Site Compound
Existing Track
HGV Turning
Stone Haul Road
Trackway
Trackway Crane Pad
Access Point
AP1 and AP2 5 km Buffer
AP11 and AP12 5 km Buffer
Paper Mill Lane CCS 5 km Buffer
Top Lane CCS 5 km Buffer
National Cycle Network
Link Route
National Cycle Route
Regional Cycle Route
Reclassified Cycle Route

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Rev	Date	By	Comment
A	20/11/2023	PW	First Issue

Original A3 Plot Scale 1:100,000

0 2 4 Kilometres

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EA THREE Cable Route

FIGURE 2 5 km Cycling Catchment

Drg No	404.5356.00006.0016.0
Rev	0
Date	20/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\14 Travel Plan\404.5356.00006.0016.0 5 km Cycling Catchment.mxd

610000 620000 630000

250000 240000

N

Inset Frame

Stowmarket
SUFFOLK
Wickham Market
Aldeburgh
Lavenham
Claydon
Woodbridge
Orford Ness
Ipswich
Hadleigh
Suffolk Coast and Heaths
Dedham Vale
Felixstowe
Manningtree
Harwich

8 9 10 11 7 6 5 4 3 2 1

WOODBRIDGE
IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

610000 620000 630000

EA THREE Development Order Limits

Route Section

11 Cable Route Section Reference

					Original A3 Plot Scale 1:75,000	0 1 2 Kilometres
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Rev	Date	By	Comment			© Crown copyright, All rights reserved. (2022) Licence number 0100031673.

EA THREE Cable Route

FIGURE 3 Sections of the Cable Route

Drg No	404.5356.00006.0017.0
Rev	0
Date	10/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\14 Travel Plan\404.5356.00006.0017.0 Sections fo the Cable Route.mxd