Paper Mill Lane Works

Travel Plan

DCO Requirement 27

(Applicable to Work Numbers 50 and 51)

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3	All	All	Amended in accordance with stakeholder comments (SCC, 17/02/22)

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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 and is live until 28 August 2022.

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). The application is currently in the consultation phase.

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.

1.2. Purpose and Scope

5. 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;*

6. The scope of this document relates to the Travel Plan associated with the construction of the Paper Mill Lane Works Stage (Work No.s 50 and 51),of the EA THREE construction works. The works are part 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). Separate Travel Plans have been produced for each stage of the onshore connection works and are provided under separate cover. Separate Port Travel Plans will also be prepared with regards to the ports to be used for the offshore construction works.

7. The Paper Mill Lane Works will be some of the first works to be undertaken along the cable route. These works have been designated as a stage in their own right to allow the works to commence at this location prior to works commencing along the cable route as a whole (i.e. the main cable works construction phase). The Construction Consolidation Site (CCS) and the access to it will be constructed in Summer 2022 and the HDD excavation access, the jointing bay installation, cable pull through and reinstatement will be undertaken as part of the main cable works construction phase.

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 Paper Mill Lane 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 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 Paper Mill Lane Works and, therefore, regular monitoring and review will be essential to ensuring that the document remains relevant.

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). 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 and road network offers 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 stretch target 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);
- The restriction of travel to the Primary CCS, converter station and onshore cable route section 8 by single occupancy cars; and
- The provision of minibus/crew bus transfer from the Primary CCS 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 Chapter 27 Traffic and Transport of the ES.

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
HVDC	High Voltage Direct Current
MSDC	Mid Suffolk District Council
MW	Megawatt
NG	National Grid
NPPF	National Planning Policy Framework
SCC	Suffolk County Council

3. CABLE CONSTRUCTION

3.1. Cable Works – Overview

19. 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. The cables will be pulled through pre-installed ducts laid during the onshore works for East Anglia ONE. The construction activity within each section along the onshore cable route will be as follows:

- Any minor temporary modifications to the public road network;
- Establish the Construction Consolidation Sites (CCSs);
- Establish accesses to, and temporary haul road to, the jointing bay locations;
- Establish temporary jointing bay compounds;
- Excavate jointing bay pit to locate the existing ducts at each of the compounds;
- Construct jointing bay;
- Transport of cables to site, pull cables through ducts and undertake jointing;
- Topsoil replacement and seeding;
- Remove temporary compounds (jointing bays and CCS); and
- Reinstate all disturbed land and permanent fences and hedges.

20. Some temporary modification of the existing road networks may be required such as localised widening, temporary widening or socketing of street signs and temporary moving of street furniture in order to allow larger vehicles than normal to access the jointing bays. This will be completed prior to the start of the main construction works within relevant sections of the cable corridor route.

21. EATL will require up to seven temporary construction compounds to aid in the construction of the proposed East Anglia THREE project. These have been designated as 'Primary Construction Consolidation Site' (PCCS) and 'Secondary Construction Consolidation Site' (SCCS) depending on their uses. Two PCCS and up to five SCCS will be installed, which will all be temporary and will be removed once construction is complete.

Table 3-1 – Construction Consolidation Site Locations

CCS Type	ID	Address
Secondary	A	Bullen Lane, Bramford, Ipswich, Suffolk IP8
Primary	B	Paper Mill Lane, Claydon, Ipswich, Suffolk IP6 0AP
Secondary	C	Witnesham Road, Ipswich, Suffolk IP6
Secondary	D	Playford Corner, Playford Mount, Ipswich, Suffolk IP6 9DS
Primary	E	Top Street, Martlesham, Suffolk IP12
Secondary	F	Clappits, Woodbridge Road, Newbourne, Woodbridge, Suffolk IP12 4PA
Secondary	G	Park Lane, Ipswich, Suffolk IP10

22. The PCCSs will:

- Form the main point of access onto the linear construction site;
- 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.

23. The SCCSs will act as hubs for the delivery of materials, equipment and resources along the route and will enable access to the cable route for construction. They will be of sufficient size to accommodate limited storage of materials, equipment and labour welfare facilities.

24. It is anticipated that 29 jointing bays will be required along the 37km cable route, in addition to a transition bay at the landfall. Each jointing bay will comprise a concrete box 10m long by 3m wide by 1.5m high buried so that the base is 2.5m below ground level. A jointing bay construction compound will be required adjacent to each jointing bay and will have hardstanding areas of up to 900m^2 within the compound which would typically measure 24m x 115m i.e. 2,760m^2.(in accordance with Requirement 12(11) which stipulates that the footprint must not exceed 3,740m^2). The compounds will have hardstanding and accommodate containers, drum

trailer movement, parking, and welfare. A typical layout is shown in Figure 2 of the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000065).

25. Existing accesses and farm tracks will be upgraded and used where possible to access the jointing bay locations. Once these accesses reach the cable corridor, the routes to connect to the jointing bays are referred to as 'haul road'. The length of haul road for the cable route is limited by Requirement 12(12) of the DCO to 18.05km.

26. In addition, the ducts to be used for EA THREE, which were installed during the EA ONE project construction works, will require to be 'proved' to ensure that they are intact and free of debris. This will be undertaken by the use of foam pigs which will be driven under pressure from jointing bay to jointing bay. Each stretch of duct that was installed using Horizontal Direct Drilling (HDD) will, however, require duct-proving excavations at each end of the HDD, to allow the use of different size foam pigs, due to a difference in the diameter of these compared to the ducting installed using open trench techniques.

3.2. Paper Mill Lane Works

27. Paper Mill Lane Works comprise a stage of the onshore connection works and cover Work No.s 50 and 51. The infrastructure within these work no.s comprises:

- The Paper Mill Lane PCCS in Work No. 51;
- Jointing Bay 4 in Work No. 50;
- Two new accesses with the public road (Paper Mill Lane) as follows:
  - Access AP-AF to the east of Paper Mill Lane, to access the PCCS and Jointing Bay 4; and
  - Access AP-AG to the west of Paper Mill Lane to access the ends of the HDD ducts;
- The access track/haul road required to access the PCCS and Jointing Bay 4;
- Two stretches of trackway to reach duct proving excavations at the ends of the HDD ducts in the Work No.s to the east and west of the Paper Mill Lane Works; and
- Turning circle and HGV parking area in Work No 51 to allow HGV movements to be safely coordinated.

28. These works are shown on Figure 1.

29. Paper Mill Lane PCCS and the two accesses from Paper Mill Lane were used as part of the EA ONE construction works and have now been reinstated, other than part of the access to the east which has been partially reinstated, and so will need to be constructed again under the EA THREE DCO. There are no public rights of way within the site.

3.2.1. Accesses AP-AF and AP-AG, Access Track, Haul Road and Trackway (Work No. 50)

30. Paper Mill Lane PCCS and the Jointing Bay will be accessed from Paper Mill Lane using Access AP-AF. This access was used for the EA ONE project and has now been partially reinstated. Planning permission has been granted for the access that remains (Reference DC/20/05669). From Access AP-AF, a new temporary vehicular access track of 180m length and 5.5m width will be used to access the Paper Mill Lane PCCS and also reach the edge of the cable corridor (Work No. 50), where 90m of 5.5m wide haul road will link to the jointing bay. From here, 140m of 5.5m wide trackway will be installed to reach the excavation point on the HDD ducts in Work No. 49. Of this trackway, 90m will be within Work No. 49 and is not part of the Paper Mill Lane Works.

31. An access (Access AP-AG) will also be required on the west side of Paper Mill Lane, along with a 185m length of trackway to reach the proposed HDD duct proving excavation in Work No. 52 during the main cable works. Only 33m of this trackway will be within the Paper Mill Lane Works.

32. No watercourse crossings will be required for the Paper Mill Lane Works.

33. The construction methodologies associated with the access, access track and haul roads are typically as follows:

- Set out the access and track/haul road with the use of Global Positioning Systems (GPS) Real Time Kinematic (RTK) equipment;
- Locate, divert and cap any existing field drains;
- Set out and install drainage features the length of track to be constructed;
- Remove vegetation, then remove and locally store topsoil material over the working width; seeding topsoil if it is to be stored for longer than 6 months;
- Excavate to formation level and store any excess material;

- Under-track drainage will be installed where necessary and in accordance with drainage requirements;
- Place a geotextile onto existing subsoil to improve the bearing capacity of the sub-soil, depending on ground conditions, programme and landowner requirements;
- Place imported stone in accordance with the design to form the track structure; and
- For the trackway, following the setting out of the route using GPS RTK, the trackmatting would be installed directly on the existing ground surface.

3.2.2. Primary Construction Consolidation Site (Work No. 51)

34. The Paper Mill Lane PCCS (CCS B) will be a designated storage and delivery facility and also the main administrative compound for the onshore cable works. The dimensions of the PCCS at Paper Mill Lane will be 90m long by 40m wide covering a surface area of 3,600m^2, this is in accordance with Requirement 12(9)(a) which limits the size of each PCCS to 3,600m^2. The Paper Mill Lane PCCS will also be within the area previously used for the EA ONE PCCS in this location.

35. The construction of the PCCSs involves stripping of topsoil, importing and laying stone for the compound base and installing cabins and welfare facilities. Construction of the Paper Mill Lane PCCS will take approximately 3 weeks and the methodology will be as follows:

- The extent of PCCS will be marked out with the use of GPS RTK equipment;
- Any existing field drains will be located, diverted and capped;
- Drainage features will be set out and installed as required;
- Security fencing will be erected around the perimeter of the PCCS;
- Once vegetation has been removed, topsoil material over the PCCS area will be removed and locally stored and seeded if it is to be stored for longer than 6 months;
- Any excess material will be excavated to formation level and stored; and
- Imported stone will be placed in accordance with the design of the PCCS base structure.

36. An HGV queuing area (195m^2), turning circle (303m^2) and parking up area (447m^2) will also be required adjacent to the PCCS. This will enable a key part of the EA THREE traffic strategy which requires any HGVs arriving via the strategic road network during peak hours to park up at the Primary CCS, as HGVs will only be permitted to enter the local road network during permitted delivery windows (generally 9am-4.30pm (see Table 6-2 of the Traffic Management Plan (EA3 LDC-CNS-REP-IBR-000039)).

37. The Paper Mill Lane PCCS will be constructed first in summer 2022, with the duct proving, jointing bay and cable pull through occurring at a later date (anticipated in 2024). It is intended that the PCCS will provide an early onsite presence for the onshore cable construction works and will be used as a base for mitigation and survey works being undertaken as well as for the construction team to visit site during the later stages of the planning and design process. It will also be used for stakeholder and other site meetings.

38. The Paper Mill Lane PCCS will remain in situ for the duration of the onshore cable works, prior to being restored as described in Section 3.2.4.

3.2.3. Jointing Bay 4 (Work No. 51)

39. The jointing bay will be located within Work No. 50, 150m to the south east of the PCCS at OS Grid Reference 613067, 248933.

40. Once the location of the jointing bay compound has been established (using GPS RTK equipment), creation of the compound will commence with erection of temporary security fencing, removal of topsoil layer and installation of hardstanding areas.

41. The jointing bay 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 uncovered and concrete slabs constructed to provide a level working area. Two sump pits will be included to facilitate drainage and dewatering and water will be treated, where necessary, before being discharged. Installation and jointing of the cables will then take place, along with installation of earthing link boxes and fibre optic cable chambers, before the area is back filled with subsoil.

42. The creation of the jointing bay compound and excavation of the jointing bay will each take a week.

3.2.3.1. Cable Installation

43. The electrical transmission cables will be delivered to the CCS, from where they will be transferred to the jointing bay compound when needed. The cable drums will comprise abnormal loads and their delivery will be managed as set out in the Traffic Management Plan (EA3-LDC-ONCS-REP-IBR-000032). Two cable lengths of approximately 1,260m will be required to pull through between each pair of jointing bays. The cable ducts will be proved before the cable is pulled through. Once the cables are received at the jointing bay compound, they will be temporarily stored on the hardstanding area prior to installation in the pre-installed ducts.

44. Installation of the cables into the ducts between Jointing Bay 4 and Jointing Bay 3 (not part of the Paper Mill Lane Works) will begin with a cable pulling system being installed into the bay. A steel bond and winching system with free spinning rollers will be installed along the bottom of the bay. Hydraulic jacks will raise the cable drum off the ground and a winch will be used to pull in cable using a pulling rope. A dynamometer will ensure the maximum pulling tension is not exceeded. Tension on the cable will be reduced using a biodegradable water-based lubricant. This process will be repeated for the second cable being installed in the duct. The cables will then be jointed once 2 cable sections (4 cables) have been installed.

45. It is expected that pulling and jointing operations would take approximately 2.5 weeks, typically spread over a three to four week period, with approximately five workers for each jointing bay. These works will then be repeated to install the cables between Jointing Bays 4 and 5.

3.2.4. Reinstatement

46. Following installation and jointing of the cables, the jointing bay, jointing bay compound, access and haul road will be reinstated with the stored topsoil and subsoil following trenching. If necessary, the subsoil will be 'ripped' prior to placement if compaction had occurred. Topsoil will be spread in such a way as to ensure that it does not become compacted. The topsoil will then be cultivated and reseeded (if required) and suitable hedgerow species replanted during the first appropriate planting season, in accordance with the Landscape Management Pan (EA3- LDC-ONCS-REP-IBR-000064). Temporary fencing around any new planting would be removed once reinstatement was established.

47. Trackway will be removed following installation of the cables in the adjacent Work No.s.

48. The PCCS will remain in situ for the duration of the cable works and will then be removed and reinstated as outlined above.

4. LOCAL COMMUNITY LIAISON

49. 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-000065), 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.

50. 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-000065). 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 and SCC within 48 hours.

51. The CLO will liaise with 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.

52. Parish Councils, District Councillors and County Councillors including Ward Members and Portfolio Holders, in the area 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.

53. As part of the Paper Mill Lane Works Traffic Management Plan (EA3-LDC-CNS-REP-IBR-000032), all transport related to the construction of these works will be registered and issued with a unique vehicle identification code. 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-000032)). This scheme shall be submitted to and approved by SCC. Details of the scheme will also be shared with MSDC. 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

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

55. 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.

56. 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

57. 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 Paper Mill Lane Construction Works. The following text sets out the salient guidance.

5.2.1. National Travel Plan Guidance

58. 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, July 2021, 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

5.2.2. Local Travel Plan Guidance

59. 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

60. The access to the Paper Mill Lane PCCS is described within the Access Management Plan (EA3-LDC-CNS-REP-IBR-000023), summarised in Table 5.1 and shown on Figure 1.

Table 5-1 Temporary Infrastructure Access Locations

ID	Address/Location	Easting	Northing	Access ID
AP-AF	Paper Mill Lane, Claydon, Ipswich, Suffolk IP6 0AP	612843	249077	Access to CCS site and cable route east from Paper Mill Lane
AP-AG	Paper Mill Lane, Claydon, Mid Suffolk, Suffolk, IP8 4DE	612805	248970	To be used to access HDD-04 in Work No. 52

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

- Primary CCS B - located on Paper Mill Lane approximately 1km south-west of Claydon to access Sections 9 to 10 of the cable route (see Figure 3) i.e. Jointing Bays 2 to 5 via Accesses AP-AE to AP-AK;
- Primary CCS E - located on Top Street, approximately 0.5km south from the outskirts of Woodbridge to access Secondary CCS locations D, F, and G and jointing bays 10 to 29 and the landfall i.e. Sections 1 to 7 of the cable route.

62. The PCCS locations will be the focus of deliveries and workers, with efficient means of onwards transport to serve SCCS locations and the jointing bays. 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 Primary CCS as a hub (see Figure 3).

- Accesses AP-AC (on Witnesham Road (B1077)) in Section 8 of the cable route to access CCS C and Jointing Bays 8 and 9 (and also HDD 6);
- Access AP-AD (on Henley Road) in Section 8 of the cable route to access Jointing Bays 6 and 7; and
- Section 11 of the cable route in order to reach Jointing Bay 1, the HDD excavations in Work No 62 and CCS A. This access will be taken from the existing access to the EA ONE substation rather than Access AL.

63. The construction works at the CCS, and jointing bay at Paper Mill Lane Works are likely to require 10 staff on average, with a peak workforce of 30 personnel. However, following its installation, the PCCS is to be used as a .transport hub, of the order of 40 personnel may travel to the site before being bussed to their working locations. The construction of the CCS is anticipated to commence in Summer 2022, with the works at the jointing bay compound commencing in 2024 and being spread over a period of the order of 6 months duration. 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.

64. 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;

(e) daily start up or shut down;

(f) electrical installation; and

(g) non-destructive testing.

65. Further information is provided in Section 5.5 of the CoCP (EA3-OND-CNS-REP-IBR-000065).

66. 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.

67. 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. This 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).

68. 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.

69. 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.

70. 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 Converter Station and Paper Mill Lane 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 construction of the Paper Mill Lane Works, the Converter Station Stage and also the nearby cable works in order to consider all project-related traffic on the road network to be used for the Paper Mill Lane Works.

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

- A summary of the assessment assumptions and resulting vehicle numbers associated with the construction of the Converter A summary of the assessment assumptions and resulting vehicle numbers associated with the construction of the Paper Mill Lane Works, the Converter Station Stage and also relevant cable works as identified in the ES;
- A summary of the assessment of vehicular impact associated with the construction of these EA THREE works, on the highway network in the ES;
- A summary of the potential assessment requirements of vehicular impact associated with the construction of these EA THREE connection works on the highway network, following the issue of the DCO;
- A summary of the difference between the vehicle movements identified in the ES and the actual vehicle movements identified by NKT and Siemens Energy, based on a lower car occupancy (1.5) than presented in the ES (2.5), for a robust assessment;
- A summary of the anticipated total vehicle movements associated with the construction of these EA THREE works including the revised vehicle movements, at the locations potentially requiring assessment on the highway network;
- A review of the likely impacts at the sensitive junctions on the highway network that are likely to be used by traffic associated with the construction of the Paper Mill Lane Works and Converter Station Stage (including for relevant cable works).

- A junction capacity assessment is included of the identified sensitive junction (Junction 1: A14/B1113 Claydon Interchange) to test the impact of the confirmed EA THREE traffic data at this junction, using the most recent baseline traffic data available and incorporating vehicle movements associated with various committed developments. The assessment confirmed there would be no capacity issues at the junction with the addition of the EA THREE vehicle movements.
- A review of road safety on the routes that would be used by the construction traffic associated with the construction of the Paper Mill Lane Works, the Converter Station Stage and the relevant cable installation works (Sections 8 to 11) shows there are no road safety issues that would be exacerbated by an increase in traffic flows and that no additional traffic management measures are required.

72. The maximum daily and evening peak vehicle movements presented in Appendix 1 are summarised in Table 5-2.

Table 5-2 Confirmed Maximum Figures (Siemens Energy and NKT)

	Employees				HGV Movements	
	Number		Vehicle Movements			
	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak
Paper Mill Lane Works including relevant cable installation works (Sections 8 to 11)	60	60	80	40	20	2
Converter Station Stage	130	130	174	87	68	8
	190	**190**	**254**	**127**	**88**	**10**

73. Table 5-2 details that there could be a peak of 60 employees per day associated with the construction of the Paper Mill Lane Works/use of the PCCS. With the application of an employee to vehicle ratio of 1.5, the number of daily employee vehicle arrivals would be 40 for these works. As noted in paragraph 69, it has been confirmed that this number of vehicles, when combined with those associated with the converter station and nearby cable works and including HGVs would not result in capacity issues at the identified sensitive junction (Claydon Interchange).

74. 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 and SCC, as set out in Section 10.

75. 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.

6. ACCESS BY SUSTAINABLE TRAVEL MODES

6.1. Walking

76. 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.

77. Paper Mill Lane Works are 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 PRoW that would enable pedestrian access.

6.2. Cycling

78. Cycling is generally an acceptable mode of travel for journeys up to 5km . Figure 2 illustrates the potential catchment area of 5km radius for workers to cycle to the permitted access point.

79. A cycle distance of 5km from Primary CCS B 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 Route (NCR) 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. An 'on-road not part of the National Cycle Network' (formerly Regional Cycle Route (RCR) 48) forms part of this route.

6.3. Public Transport — Bus

80. The closest bus stops to Paper Mill Lane Works are at 'The Greyhound' and 'The Crown' on Ipswich Road in Claydon approximately 1km away and there are no buses that route past Primary CCS B that could stop if required.

Table 6-1 Bus timetable for bus stops at Claydon

Service No	Route	Approximate two-way frequencies					
		Monday to Friday			Saturdays		
		First Service	Typical Freq	Last Service	First Service	Typical Freq	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

81. '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 CCS B.

6.4. Public Transport – Train

82. The nearest railway stations to Primary CCS B 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 Primary CCS B, employees would need to make a linked trip by cycle.

6.5. Summary

83. A review of the transport network within the project study area 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 site from across Ipswich and Woodbridge as well as places further afield.

84. The Paper Mill Lane PCCS has 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.

85. 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

86. This Travel Plan forms a framework for further detailed initiatives to be drawn up between EATL and contractors/subcontractors, once appointed. 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 will be incorporated into agreements drawn up between EATL and the Principal Contractor.

7.2. Travel Plan Co-ordinator

87. Management of the Travel Plan will be achieved through the identification of a suitable person as the Travel Plan Co-ordinator. 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 Contractor's 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 MSDC and SCC Highways Authority prior to commencement of the works. Any changes in Travel Plan Co-ordinator will be notified to MSDC and SCC. The Travel Plan Co-ordinator will report to a senior member of the Principal Contractor's construction team.

88. 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.

89. 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.

90. The Travel Plan Co-ordinator will be responsible for setting up and launching the Travel Plan in accordance with the schedule set out in Table7-1.

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

Timescale	Action
	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
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

91. 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

92. 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.

93. 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.

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

8. TARGETS

95. 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.

96. 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

97. 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.

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

Target Type	Target	Indicator	Monitoring Method
Average Vehicle Occupancy	Minimum of 1.5 persons and where possible to meet a stretch target of 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
Daily Worker Vehicle Movements (Two Way) including relevant cable installation works (Sections 8 to 11)	Maximum of 80[4]	Number of vehicles	Completion of sign in sheets

8.2. Actions – Milestone Targets

98. 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.

99. 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

100. 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.

101. 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

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

[4] In accordance with Table 5-2 of this document

103. 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.

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

- A map showing the location of the CCSs 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".

105. 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.

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

9.2. Travel Database

107. 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.

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

9.3. Public Transport Information

109. 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

110. The contractor will provide a minibus/crew bus collection service that will transport construction workers from pre-arranged points to the CCS. 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 CCS. The minibus/crew bus pick up locations will be further developed when details of locations of accommodation of workers are available.

111. Pick up points will be established on the A14 north and south, and near the A12 north and south, to intercept longer distance journeys. All pick up points would be carefully located with safe off-road parking and 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).

112. 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.

113. In addition, during the main construction phase, those workers arriving at Primary CCS B will be transported to Secondary CCS C and Jointing Bays X and Y, those arriving at Primary CCS E will be transported to relevant Secondary CCSs at D, F and G and Jointing Bays X to Y via minibus/crew bus using the public road connections. This will reduce the number of vehicle movements travelling on the local road network. Mini-buses will also be allocated to service the converter station work area.

9.5. Cycling

114. 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 CCS A, B, C and E;
- Provide changing facilities 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/our-blog/get-active/?location=null&theme=null);
- 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 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

115. 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.

9.7. Car Parking Management

116. 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 CCS and jointing bay compound. 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.

117. 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.

118. 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.

119. It is currently anticipated that the electrical supplies to the Primary CCS 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. No electric vehicle charging facilities are proposed at the SCCS.

120. 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).

121. Access to Paper Mill Lane PCCS 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.

122. 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 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.

123. 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

124. 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. The majority of worker movements will take place in the morning, as workers arrive and in the evenings as workers leave site. Peak hours on the network are considered to be 08:00-09:00 and 17:00-18:00. As the majority of EA THREE construction workers will travel to site before the morning peak stats at 08.00, the updated transport assessment focuses on a PM peak hour assessment. The Traffic and Transport Technical Note gives details of the maximum peak hour construction vehicle movements (HGV and construction workers).. As noted in paragraph 69, the Traffic and Transport Technical Note confirmed that the anticipated maximum number of vehicles (both employee and HGV) will not result in either capacity issues at the identified sensitive junction (the Claydon Interchange) nor will additional traffic management measures be required with respect to road safety. No additional traffic management measures are, therefore, considered necessary.

9.9. Welfare and Catering Facilities

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

9.10. Road Safety

126. 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 SCC and ESC (see Section 10.1).

127. The Travel Plan Co-ordinator will retain records of all incidents and submit to SCC within 48 hours Highways Authority upon request. 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

128. Travel Plan measures relating to movements of port workers associated with the Marshalling and Base Ports will be detailed within a relevant Port Travel Plan(s) which will be provided under separate cover.

9.13. Summary of Measures

9.13.1. Definite Measures

Table 9-1 Measures to be implemented

Measures to be Implemented	
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 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 Traffic and Transport Technical Note (Appendix 1).
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.

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
Public Transport	Potential for additional or revised minibus/crew bus pick-up points following feedback from monitoring and staff

Measures to be Investigated	
Cycling	Monitor cycle parking use and increase provision if necessary Investigate potential for bike hire

10. MONITORING AND ENFORCEMENT

10.1. Monitoring

130. The Travel Plan Co-ordinator will monitor travel on a monthly basis throughout the construction period and will report to MSDC and SCC every three months (within 4 weeks of the end of that reporting period). The monitoring of the Travel Plan is important for the following reasons:

- It will demonstrate to MSDC 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.

131. 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.

132. 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.

133. 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.

134. 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.

135. 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.

136. 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

137. The Travel Plan Co-ordinator will produce a quarterly monitoring report. A typical structure for a 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;

- 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 and Complaints– setting out details of any identified Travel Plan breaches and complaints received (if any) and corrective or follow up actions;
- 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 the Travel Plan for the next period to include any specific outcomes or desired results with any additional measures that are to be included to remediate action.

138. The monitoring reports will provide an evidence base to identify the need to undertake corrective action. The contents of the monitoring reports and the system for their review and discussion will be agreed with MSDC and SCC during the development of the Travel Plan by the Travel Plan Co-ordinator, prior to commencement on site.

10.3. Enforcement

10.3.1. Introduction

139. 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

140. 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 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

141. On receipt of a report of a potential breach, the Travel Plan Co-ordinator would investigate the circumstances and compile a report for MSDC 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;
- 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.

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

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

144. Further corrective actions would be discussed and agreed with MSDC 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/

APPENDIX 1 EAST ANGLIA THREE CONVERTER STATION AND PAPER MILL LANE WORKS TRAFFIC AND TRANSPORT TECHNICAL NOTE

EAST ANGLIA THREE CONVERTER STATION AND PAPER MILL LANE WORKS

Traffic and Transport Technical Note

Prepared for: **ScottishPower Renewables**

SLR Ref: 404.05356.00006
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CONTENTS

DOCUMENT REFERENCES

TABLES

1.0 Introduction

1.1 Background

SLR Consulting Ltd. (SLR) has been commissioned by ScottishPower Renewables (SPR) to undertake a review and analysis of the anticipated vehicle movements associated with the construction of the East Anglia THREE (EA3) Converter Station and Paper Mill Lane Works, as per the Development Consent Order (DCO) dated 7th August 2017.

The forecast vehicle movements (personnel and Heavy Goods Vehicles (HGV)) for the construction of the EA3 Converter Station and cable works were set out 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, Siemens Energy, who are the appointed Principal Contractor and will be responsible for construction of the EA3 Converter Station, has now confirmed the vehicle movements for the construction programme. NKT, the Principal Contractor for the EA3 cable route works, has provided confirmed vehicle movements associated with the Paper Mill Lane Works. These revised vehicle movements have been incorporated into the analysis presented in this Note.

Whilst this note relates to the construction vehicles associated with the Converter Station and Paper Mill Lane Works, it is acknowledged that during the main construction phase for the cable route in 2024, construction vehicles associated with the wider cable works will also be using the same road network. These vehicle movements, have also, therefore, been incorporated into the analysis presented in this note.

It should be noted that the ES referred to the construction of a substation; however, the proposal is now to construct a converter station. Therefore, all references to the converter station in this note are assumed to replace the references to the substation in the ES.

1.2 Purpose of the Report

The objective of this Technical Note is to provide Suffolk County Council (SCC) with an overview of the changes to the vehicle numbers associated with the construction of the EA3 Converter Station and Paper Mill Lane Works. Vehicle numbers and movements were discussed with SCC at a meeting on the 16th November 2021 and an initial draft of this note was provided following the meeting. The matter was discussed at the EA3 Traffic Working Group meeting on the 15th December 2021 and this note has been updated following the meeting and further discussions with SCC.

This Technical Note therefore sets out the following:

- A summary of the assessment assumptions and resulting vehicle numbers associated with the construction of the EA3 Converter Station, Paper Mill Lane Works and also relevant cable works identified in the ES;
- A summary of the assessment of vehicular impact associated with the construction of EA3, on the highway network in the ES;
- A summary of the potential assessment requirements of vehicular impact associated with the construction of EA3 on the highway network, following the issue of the DCO;
- A summary of the difference between the vehicle movements identified in the ES and the actual vehicle movements identified by Siemens Energy and NKT, based on a lower car occupancy than presented in the ES, for a robust assessment;

- A summary of the anticipated total vehicle movements associated with the construction of EA3 including the revised vehicle movements, at the locations potentially requiring assessment on the highway network;
- A review of the likely impacts at the sensitive junctions on the highway network that are likely to be used by traffic associated with the construction of the EA3 Converter Station and Paper Mill Lane Works (including for relevant cable works); and
- A summary of the above and a conclusion on assessment requirements for the consideration of SCC.

2.0 DCO Submission EA3 Converter Station and Paper Mill Lane Works 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 EA3 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 daytime 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 (in this case Paper Mill Lane Works) would be spread over a ten hour period, whilst onward deliveries to Secondary CCSs or points of access would be scheduled to avoid 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 Trip Generation

The maximum number of employee, employee vehicle movements and HGV movements associated with the construction of the EA3 Converter Station, Paper Mill Lane Works and also relevant cable works identified in the ES as identified in Chapter 27 'Traffic and Transport', are set out in **Table 2-1** below:

Table 2-1
EA3 Converter Station, Paper Mill Lane Works
and relevant cable works Trip Generation (DCO Submission)

	Employees				HGV Movements	
	Number		Vehicle Movements			
	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak
EA3 Converter Station	75	75	60	30	26	3
Paper Mill Lane Works and relevant cable works	150	150	120	60	131	13
Total	**225**	**225**	**180**	**90**	**157**	**16**

2.3 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 construction traffic generation (EA3 Converter Station and Cable Route Sections 1 to 11) 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 EA3 (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 (OCTMP), prepared for the EA3 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;
- Junction 11: Roundabout junction of the A12 and B1438; and
- Junction 12: Roundabout junction of the A14 and A12 (south)

The maximum vehicle movements (EA3 Converter Station and total EA3) in the evening peak hour at each of the junctions above (1, 5, 6, 8, 11 and 12) as identified in *Table 27.17 Peak Hour Traffic Flows through Sensitive Junctions* of Chapter 27 'Traffic and Transport', are set out in **Table 2-2**

Table 2-2
Forecast Evening Peak (17:00 – 18:00) Junction Impacts (DCO Submission)

Junction		Total EA3			EA3 Converter Station		
		Cars/LGVs	HGVs	Total	Cars/LGVs	HGVs	Total
1	A14/B1113	80	16	96	30	3	33
5	A12/A1214	88	22	110	0	0	0
6	A12/Newbourne Road	48	22	70	0	0	0
8	B1079/Manor Road	15	0	15	0	0	0
11	A12/B1438	134	22	156	0	0	0
12	A14/A12	52	24	76	11	1	12

As **Table 2-2** shows, vehicle movements associated with the construction of the EA3 Converter Station only impact at Junction 1: A14/B1113 Claydon Interchange and Junction 12: A14/A12.

Capacity assessments were not undertaken at any of the junctions listed above (in Chapter 27 and the OCTMP) 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 Traffic Management Plan, 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.

3.0 Revised EA3 Converter Station and Paper Mill Lane Works Traffic Data

3.1 Introduction

In the context of the strategy set out in **Section 2.3,** and using the assessment assumptions in Chapter 27 'Traffic and Transport', the following text sets out the revised vehicle movements for the construction of EA3 as a result of the EA3 Converter Station vehicle movements anticipated by Siemens Energy and the Paper Mill Lane Works (and relevant cable installation works) vehicle movements anticipated by NKT.

Following discussion and written feedback from SCC provided on the 13th December 2021, the focus of the assessment is at Junction 1: A14/B1113 Claydon Interchange.

The assessment is based on the worst case, which is during the two-week concrete pour for the EA3 Converter Station, when there are a higher number of daily HGVs. The average number of daily HGVs associated with the construction of the EA3 Converter Station is anticipated to be two for the majority of the construction period, which is significantly less than that for the two-week concrete pour period.

3.2 Trip Generation

The revised maximum (daily and evening peak) number of employee, employee vehicle movements and HGV movements associated with the construction of the EA3 Converter Station, Paper Mill Lane Works and the relevant cable installation works (i.e. Sections 8 to 11 of the cable route – see Figure 1 of the Outline Access Management Plan) are set out in **Table 3-1.**

Table 2-1This is based on a car occupancy of 1.5, which has been identified from lessons learnt from the EA2 / EA1N ES and Examination, advice from SCC and through discussions with Siemens Energy, who has suggested that a 2.5 car occupancy is unlikely to be achievable.

Table 3-1
EA3 Confirmed Maximum Figures (Siemens Energy and NKT)

Construction Phase	Employees				HGV Movements	
	Number		Vehicle Movements			
	Daily	PM Peak	Daily	PM Peak	Daily	PM Peak
Converter Station	130	130	174	87	68	8
Paper Mill Lane Works including relevant cable Installation works (Sections 8 to 11)	60	60	80	40	20	2
Total	**190**	**190**	**254**	**127**	**88**	**10**

3.3 Trip Distribution

The data presented in **Table 3-1** has been distributed at Junction 1: A14/B1113 Claydon Interchange) based on the assessment in the ES, which is summarised as follow:

- 97% of employee vehicles using Junction 1;

- 100% of HGVs using Junction 1;
- 78% of employee vehicles from / to A14 South;
- 19% of employee vehicles from / to A14 Nouth;
- 70% of HGVs from / to A14 South; and
- 30% of HGVs from / to A14 North.

Therefore, the maximum number of vehicle movements associated with the construction of the EA3 Converter Station (Siemens Energy data), Paper Mill Lane Works and the relevant cable installation works (Sections 8 to 11) (NKT data) in the evening peak hour at Junction 1 is set out in **Table 3-2.**

Table 3-2
Forecast 17:00 – 18:00 Junction Impacts (Junction 1)

Arm	Converter Station (Siemens Energy)			Paper Mill Lane - Works (and relevant cable installation works (Sections 8 to 11) (NKT)		
	Cars/LGVs	HGVs	Total	Cars/LGVs	HGVs	Total
B1113	84	8	92	0	0	0
A14 North	0	2	2	0	1	1
Ipswich Road	0	0	0	0	0	0
A14 South	0	6	6	0	1	1
Paper Mill Lane	0	0	0	39	2	41

Whilst SCC has confirmed that Junction 1: A14/B1113 Claydon Interchange was not considered a sensitive junction at the time of the DCO submission, there have been a number of consented planning applications since 2015 that have vehicular movements impacting the junction. Therefore, SCC has requested that a capacity assessment is undertaken at Junction 1: A14/B1113 Claydon Interchange to assess the potential impact of the EA3 construction traffic, based on the confirmed vehicle movement data provided by Siemens Energy and NKT, which is set out in **Section 4.0**.

4.0 Assessment of Likely Impacts

4.1 Introduction

This section presents a capacity assessment of Junction 1: A14/B1113 Claydon Interchange to assess the potential impact of the EA3 construction traffic, based on the confirmed vehicle movement data provided by Siemens Energy and NKT.

4.2 Assessment Parameters

The assessment has been based on the following parameters:

- Evening Peak (17:00 to 18:00);
- 2023 assessment year derived from the capacity assessment output in the Transport Assessment submitted in support of the planning application for the extension to Port One Business and Logistics Park (Ref: DC/20/01175);
- Addition of committed development traffic (see **Appendix 01**); and
- Confirmed vehicle movement data provided by Siemens Energy and NKT as set out in **Table 3-2**

4.3 Traffic Flows

The resulting traffic flows for the following assessment scenarios are provided in **Appendix 02:**

- 2023 base + committed development; and
- 2023 base + committed development + EA3

4.4 Capacity Assessment

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 03** and summarised in **Table 4-1** below.

Table 4-1
ARCADY Results (17:00 to 18:00)

Arm	2023 Base + Committed Development		2023 Base + Committed Development + EA3	
	RFC	Maximum Queue	RFC	Maximum Queue
Ipswich Road	0.41	0.7	0.44	0.8
A14 Northbound Off-slip	0.41	0.7	0.43	0.7
Paper Mill Lane	0.10	0.1	0.13	0.2
B1113 Bramford Road	0.64	1.7	0.72	2.5
A14 Southbound Off-slip	0.24	0.3	0.26	0.3

As **Table 4-1** shows, the junction operates well within its theoretical capacity in the base plus committed development scenario and continues to operate within its theoretical capacity with the addition of the EA3 vehicle movements, with negligible queues and spare capacity for additional vehicle movements.

5.0 Road Safety Assessment Review

5.1 Introduction

SCC also requested that the assessment of road safety presented in the ES be updated for the B1113 corridor and Paper Mill Lane, to ascertain if any additional mitigation measures are required and the review is presented in this section.

5.2 Scope

The Crashmap database[1] has been used to compare the number of accidents and any clusters, for the five year period prior to the DCO application (2011 to 2015) and the most recent five year period available excluding 2020 as traffic levels will have been unrepresentative of typical conditions due to the Covid-19 pandemic (2015 to 2019), at the following locations:

- A14/B1113 Claydon Interchange;
- B1113/Somersham Road;
- B1113/Bullen Lane;
- B1113/A1071; and
- Paper Mill Lane

As the images in **Appendix 04** show, there has been a reduction or no change in the number of accidents that have occurred during each five year period at all locations, with the exception of Paper Mill Lane. A further analysis has been provided below.

5.3 Analysis

5.3.1 A14/B1113 Claydon Interchange

The number of accidents at the junction within the most recent five year period is significantly less than the number of accidents in the five year period prior to the submission of the DCO application with a noticeable reduction on the Ipswich Road arm, which will be used by some NKT vehicles accessing Cable Route Section 8:

- 2011 to 2015 - 24 accidents; and
- 2015 to 2019 – 9 accidents

There have been three accidents on the B1113 arm in each of the five year periods. A review of the 2015 to 2019 data shows the three accidents (see the Crashmap reports in **Appendix 05**), which were in the vicinity of the give way line, were due to three separate causation factors; one with no other vehicles involved, one involving an agricultural vehicle and one involving four vehicles, which appears to have been a shunt. Therefore, it can be concluded that there is not a deficiency in the highway layout that an increase in vehicles associated with the construction of EA3 would exacerbate.

5.3.2 B1113/Somersham Road

There has been a reduction in the number of accidents in the vicinity of the B1113/Somersham Road junction, with none occurring in the most recent five year period:

[1] www.crashmap.co.uk

- 2011 to 2015 – 3; and
- 2015 to 2019 – 0

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 EA3 would exacerbate.

5.3.3 B1113/Bullen Lane

There have been no accidents at the B113/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 EA3 would exacerbate.

5.3.4 B1113/A1071

The number of accidents at the junction within the most recent five year period is half the number of accidents in the five year period prior to the submission of the DCO application:

- 2011 to 2015 – 8; and
- 2015 to 2019 – 4

All four accidents in the most recent five year period occurred in different locations at the junction and therefore there is unlikely to be any deficiencies in the highway layout that an increase in vehicles associated with the construction of EA3 would exacerbate.

Whilst there has been one accident in each five year period that involved a cyclist, given the reduction in the total number of accidents and since only 3% of employee vehicles are forecast to use this junction and no HGVs are permitted to use 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 EA3 would exacerbate.

5.3.5 Paper Mill Lane

The number of accidents at the junction within the most recent five year period has increased from the five year period prior to the submission of the DCO application:

- 2011 to 2015 – 0; and
- 2015 to 2019 – 2

A review of the 2015 to 2019 data (see the reports in **Appendix 05**) shows the accidents occurred in different locations; one accident was a shunt and one involved no other vehicles. Given the low number of accidents and separate locations and causation factors, it can be concluded that there are no road safety issues at this junction that an increase in vehicles associated with the construction of EA3 would exacerbate.

5.4 Summary

The review of road safety in this section would indicate that, in general, there has not been any worsening of road safety since the submission of the DCO application, with a significant improvement 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 EA3 Converter Station, Paper Mill Lane Works and the relevant cable installation works (Sections 8 to 11) in the evening peak hour at Junction 1: A14/B1113 Claydon Interchange using confirmed data from Siemens Energy and NKT. The assessment is based on a lower (and more realistic) car occupancy of 1.5 employees, compared to the car occupancy of 2.5 used in the ES for the DCO application.

A junction capacity assessment has been undertaken to test the impact of the confirmed EA3 traffic data at Junction 1: A14/B1113 Claydon Interchange, using the most recent baseline traffic data available and incorporating vehicle movements associated with various committed developments. The assessment confirmed there would be no capacity issues at the junction with the addition of the EA3 vehicle movements.

A review of road safety on the routes that would be used by the construction traffic associated with the construction of the EA3 Converter Station, Paper Mill Lane Works and the relevant cable installation works (Sections 8 to 11) 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 EA3 Traffic Management Plan are required.

6.2 Conclusion

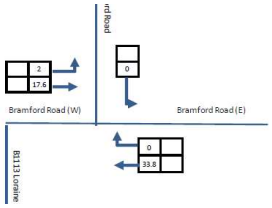
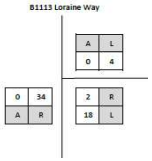
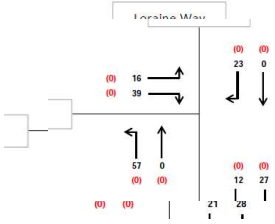
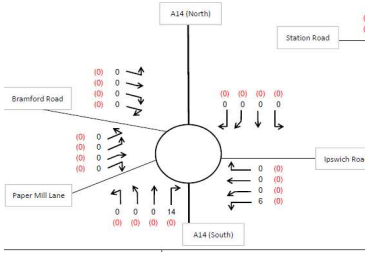
As demonstrated, the impact of the revised EA3 Converter Station and Paper Mill Lane Works construction works traffic data is such that there would be no capacity issues at Junction 1: A14/B1113 Claydon Interchange and no impacts on road safety on the routes used by construction traffic.

In, conclusion, no further assessments on the highway network should be required prior to the commencement of construction associated with the EA3 Converter Station and Paper Mill Lane Works.

A separate Technical Note has been prepared to consider the impact on the highway network of the EA3 Works at Playford Corner and Clappits based on the confirmed traffic data provided by NKT.

APPENDIX 01

Committed Development Traffic Flows

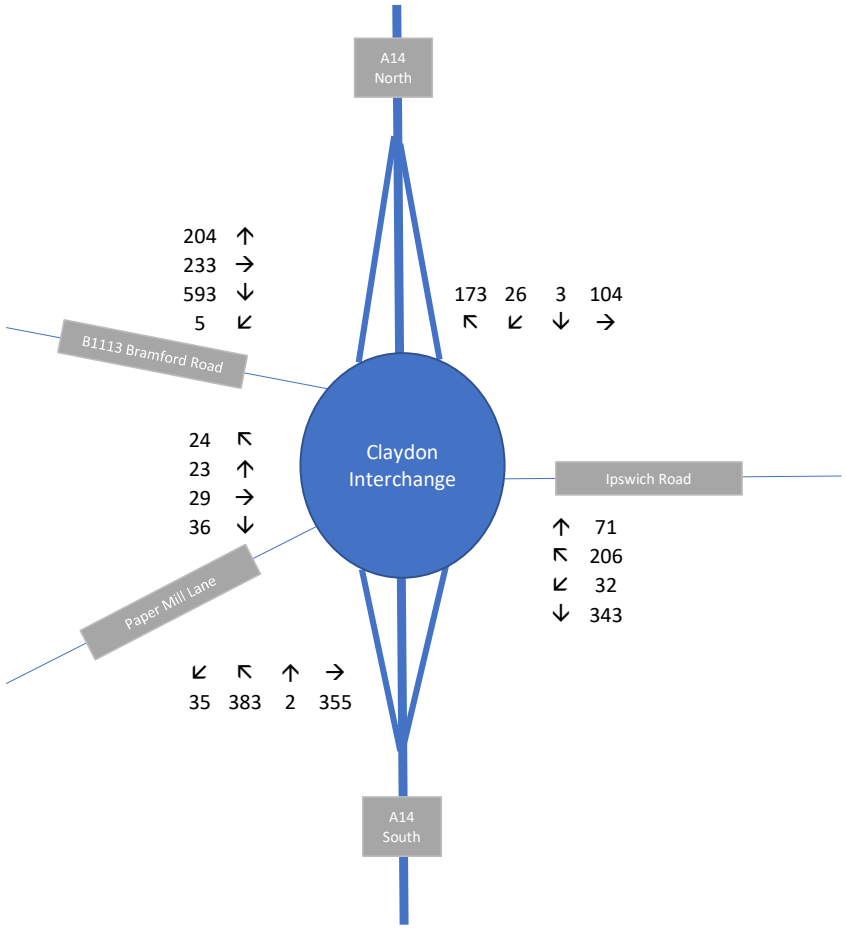
Reference	Comments	Include?	PM Peak Flows
DC/21/04711	Transport and Access Report. No HGVs during peak hours and construction personnel staggered (and not included in the assessment)	No	n/a
DC/21/00060	TMP - negligible vehicle movements	No	n/a
DC/19/01601	Same as DC/21/00060	No	n/a
DC/17/05331	No traffic 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 vehice 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

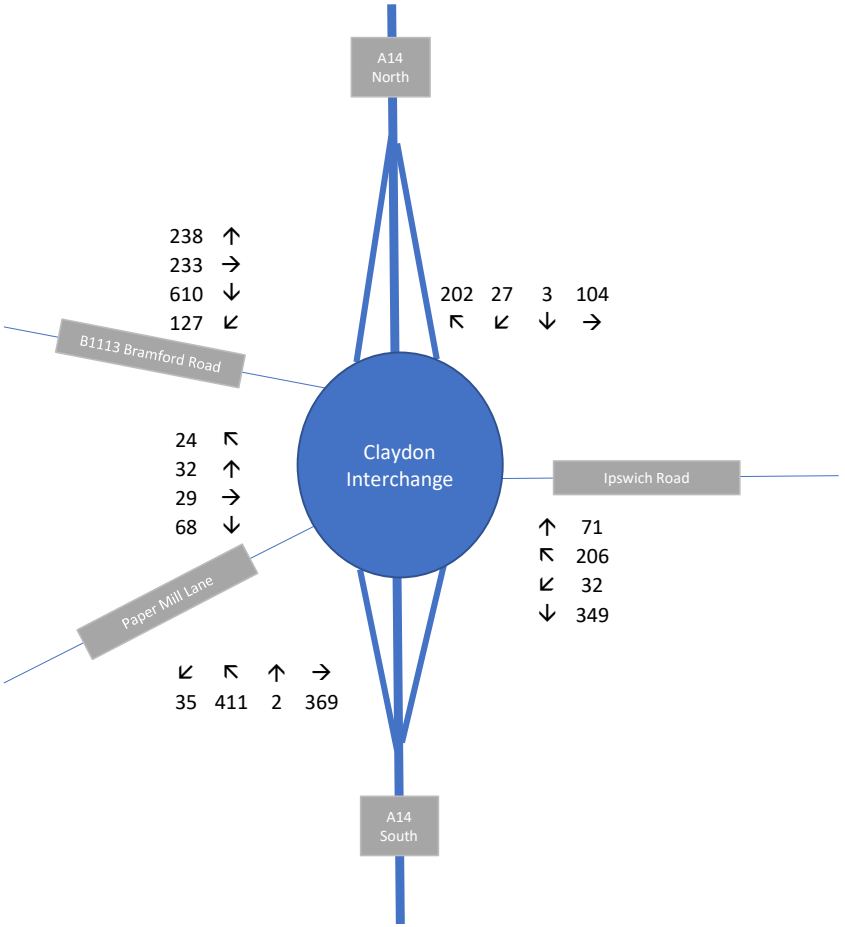
APPENDIX 02

Assessment Scenario Traffic Flows

2023 Base + Committed Development (17:00 to 18:00)

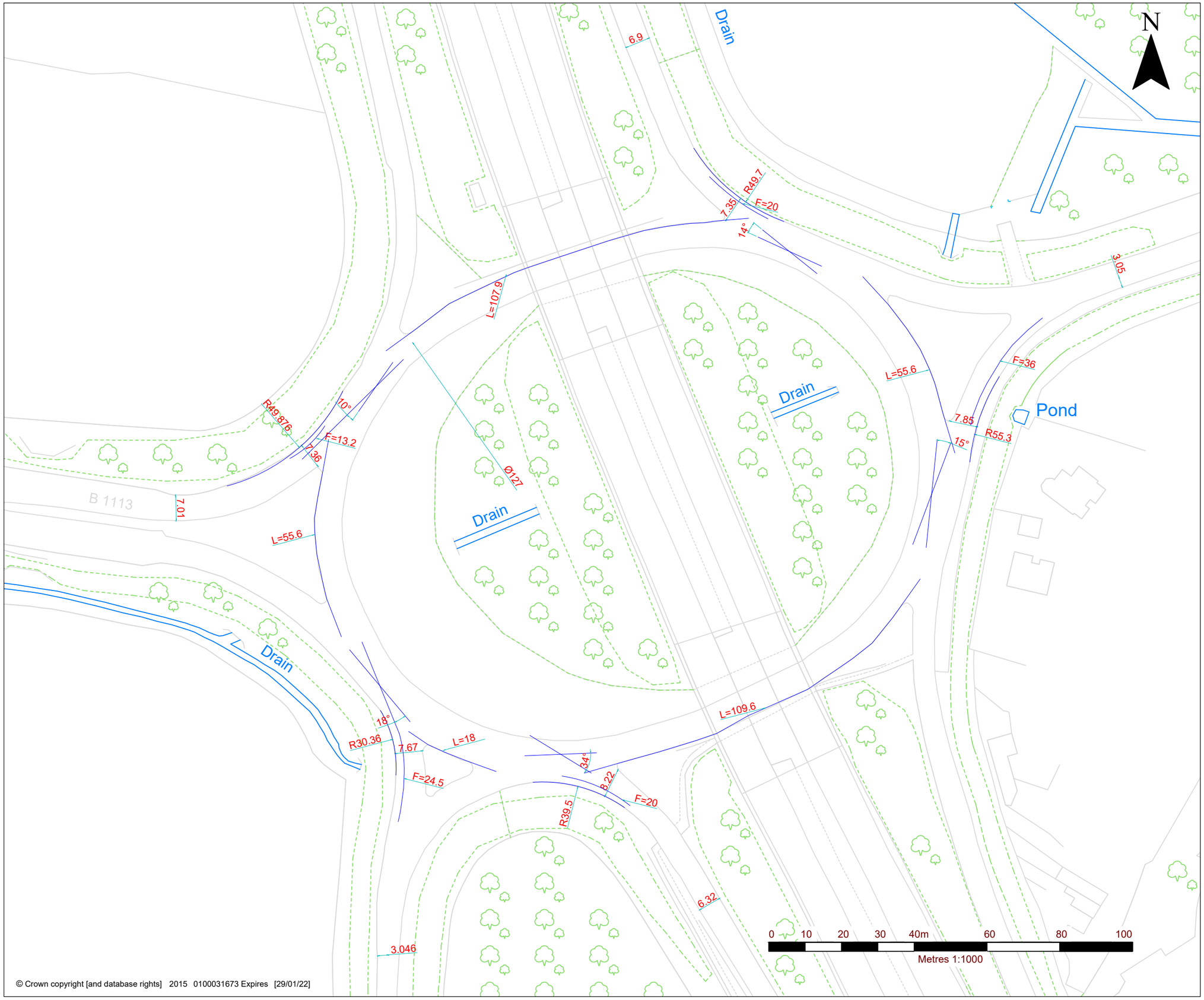


2023 Base + Committed Development + EA3 (17:00 to 18:00)



APPENDIX 03

ARCADY Results



406.05356.00001.14.SK01.0.dwg

NOTES

LEGEND

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CLAYDON INTERCHANGE

EAST ANGLIA THREE

ARCADY MEASUREMENTS

SK01

Scale 1:1,000 @ A3

Date FEBRUARY 2022

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

Filename: 20220208_A14_Claydon_PM_B1113_Single_Lane.j9
Path: \\euafs\SHEFS\SHE\AMA Sheffield\Projects\Scottish Power Renewables - 00481\404.05356.00006 - East Anglia offshore wind farms\EA3\B1113 Corridor TAs
Report generation date: 08/02/2022 13:57:42

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									
Arm 1						D4	0.8	3.89	0.44	A
Arm 2							0.7	3.14	0.43	A
Arm 3							0.2	3.26	0.13	A
Arm 4							2.5	10.12	0.72	B
Arm 5							0.3	3.72	0.26	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	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

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	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 Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Ipswitch 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)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	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)	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 Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	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 Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	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, 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	5.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	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	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	✓	771	100.000
3		ONE HOUR	✓	153	100.000
4		ONE HOUR	✓	823	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	36	364	2
	3	29	68	0	24	32
	4	204	497	122	0	0
	5	104	3	27	170	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	4	0	17	3
	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	0.44	3.89	0.8	A	598	897
2	0.43	3.14	0.7	A	707	1061
3	0.13	3.26	0.2	A	140	211
4	0.72	10.12	2.5	B	755	1133
5	0.26	3.72	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	665	1935	0.254	490	530	0.0	0.3	2.488	A
2	580	145	467	2211	0.263	579	688	0.0	0.4	2.203	A
3	115	29	883	1597	0.072	115	163	0.0	0.1	2.429	A
4	620	155	429	1410	0.440	616	569	0.0	0.8	4.522	A
5	229	57	966	1686	0.136	228	79	0.0	0.2	2.467	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	796	1812	0.323	586	634	0.3	0.5	2.933	A
2	693	173	559	2120	0.327	693	823	0.4	0.5	2.522	A
3	138	34	1056	1460	0.094	137	195	0.1	0.1	2.722	A
4	740	185	513	1347	0.549	738	681	0.8	1.2	5.895	A
5	273	68	1157	1524	0.179	273	94	0.2	0.2	2.877	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	972	1647	0.436	717	775	0.5	0.8	3.866	A
2	849	212	683	1995	0.425	848	1006	0.5	0.7	3.134	A
3	168	42	1293	1272	0.132	168	238	0.1	0.2	3.260	A
4	906	227	628	1262	0.718	901	833	1.2	2.5	9.849	A
5	335	84	1414	1306	0.256	334	115	0.2	0.3	3.703	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	976	1643	0.437	718	777	0.8	0.8	3.891	A
2	849	212	685	1994	0.426	849	1010	0.7	0.7	3.143	A
3	168	42	1295	1271	0.133	168	239	0.2	0.2	3.264	A
4	906	227	629	1261	0.719	906	835	2.5	2.5	10.123	B
5	335	84	1419	1301	0.257	335	116	0.3	0.3	3.723	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	802	1807	0.324	587	637	0.8	0.5	2.956	A
2	693	173	561	2118	0.327	694	828	0.7	0.5	2.532	A
3	138	34	1059	1458	0.094	138	196	0.2	0.1	2.727	A
4	740	185	514	1346	0.550	745	683	2.5	1.2	6.037	A
5	273	68	1164	1518	0.180	274	95	0.3	0.2	2.896	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	669	1931	0.254	491	532	0.5	0.3	2.503	A
2	580	145	469	2209	0.263	581	692	0.5	0.4	2.213	A
3	115	29	886	1594	0.072	115	164	0.1	0.1	2.435	A
4	620	155	430	1409	0.440	621	571	1.2	0.8	4.583	A
5	229	57	973	1681	0.136	229	79	0.2	0.2	2.479	A

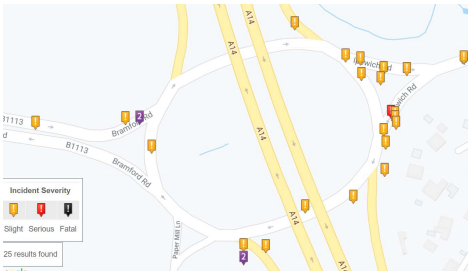
APPENDIX 04

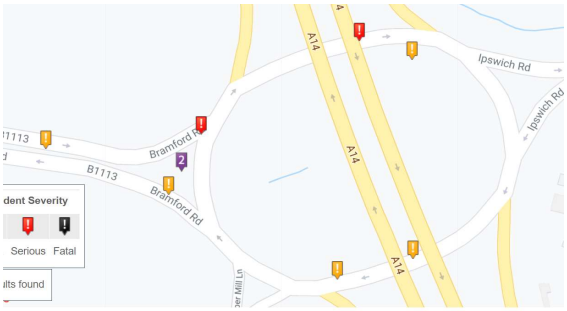
Crashmap Screenshots

2011 - 2015

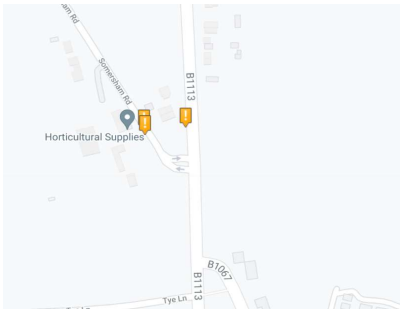
2016 -2020

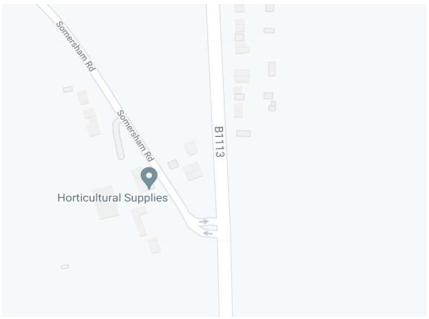
Claydon Interchange





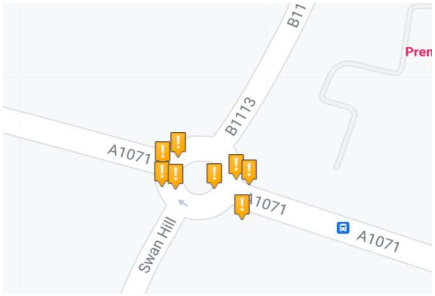
B1113 / Somersham Road

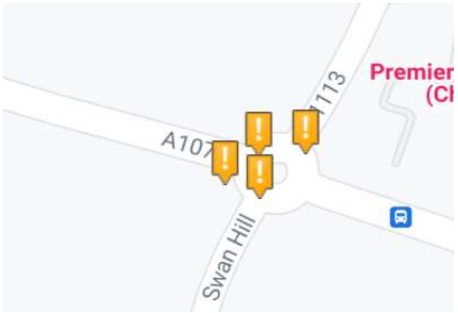




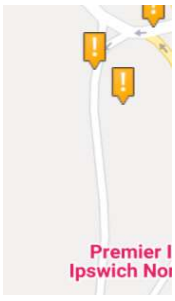
B1113 / Bullen Lane

B1113 / A1071

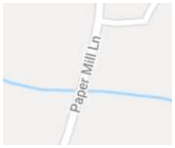




Paper Mill Lane




Paper Mill Ln


Paper Mill Ln

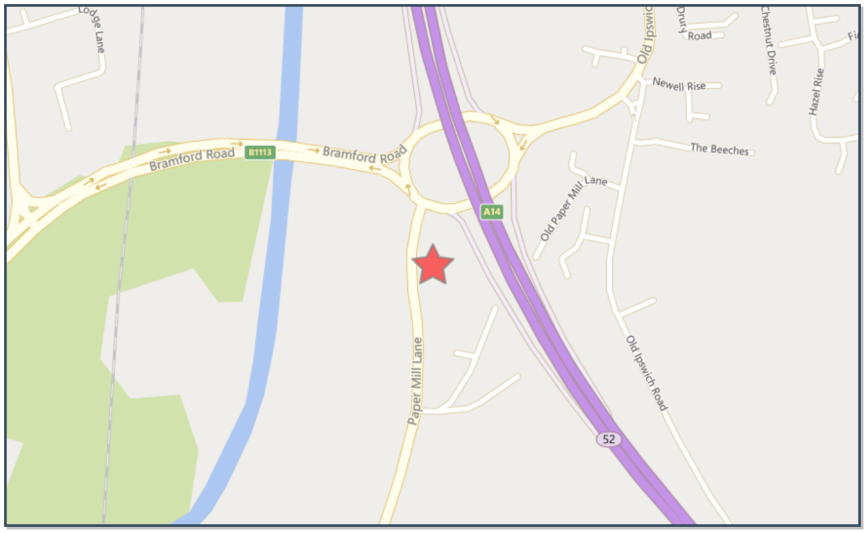
APPENDIX 05

Crashmap Reports

crashmap.co.uk

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

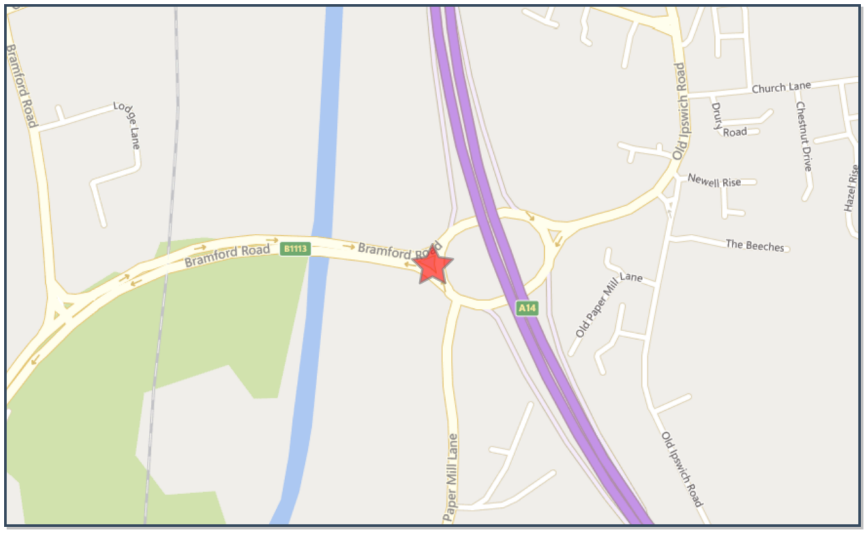
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Vehicle or pillion passenger	Female	36 - 45	Unknown or other	Unknown or other

crashmap.co.uk

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

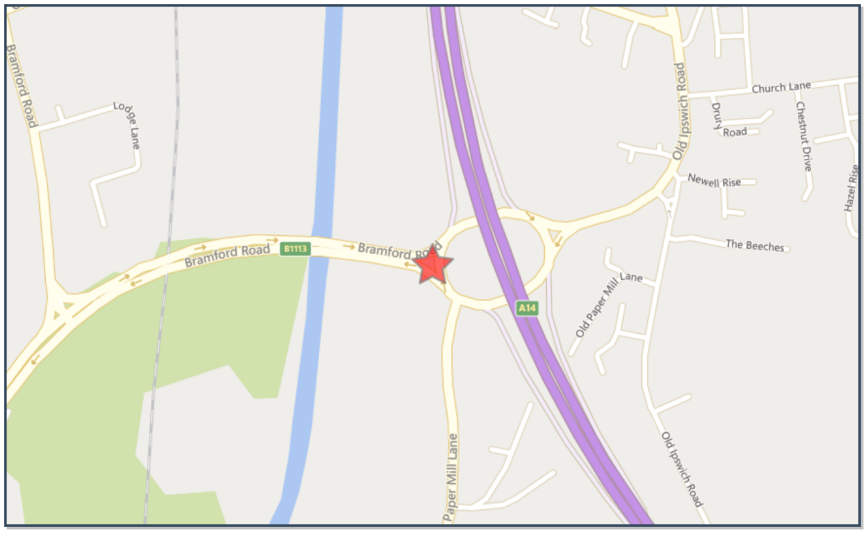
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other

crashmap.co.uk

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

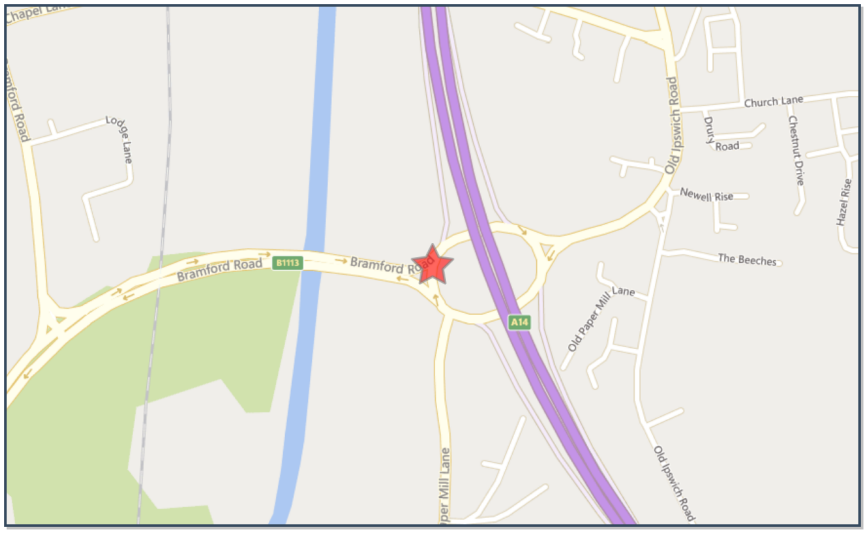
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	46 - 55	Unknown or other	Unknown or other

crashmap.co.uk

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

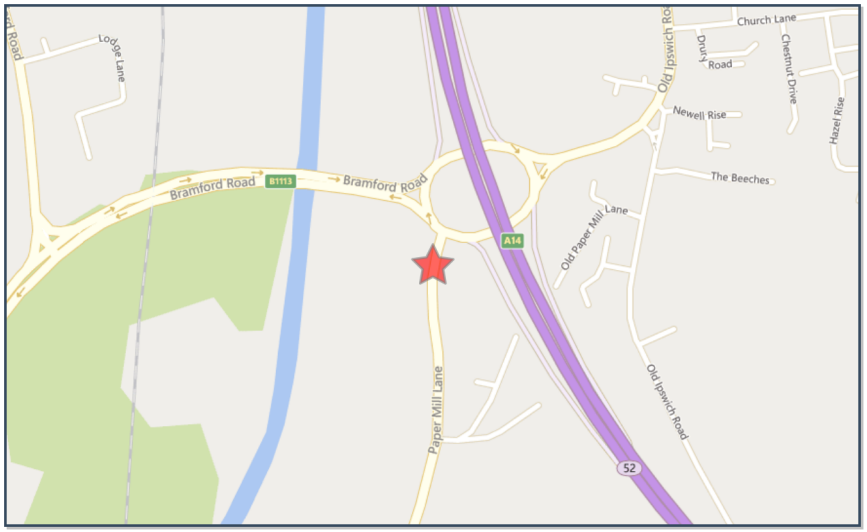
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Serious	Driver or rider	Male	36 - 45	Unknown or other	Unknown or other

crashmap.co.uk

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

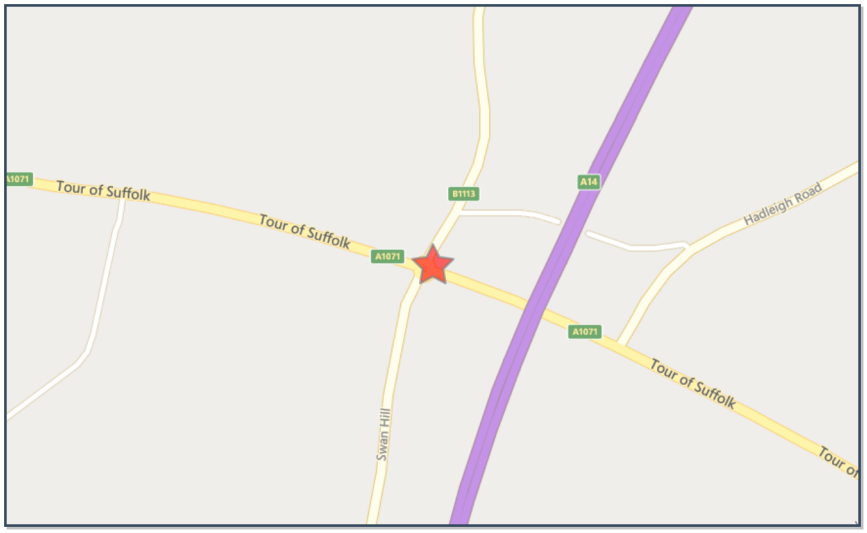
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	36 - 45	Unknown or other	Unknown or other
2	2	Slight	Vehicle or pillion passenger	Male	36 - 45	Unknown or other	Unknown or other

crashmap.co.uk

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				



For more information about the data please visit: *www.crashmap.co.uk/home/Faq*
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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

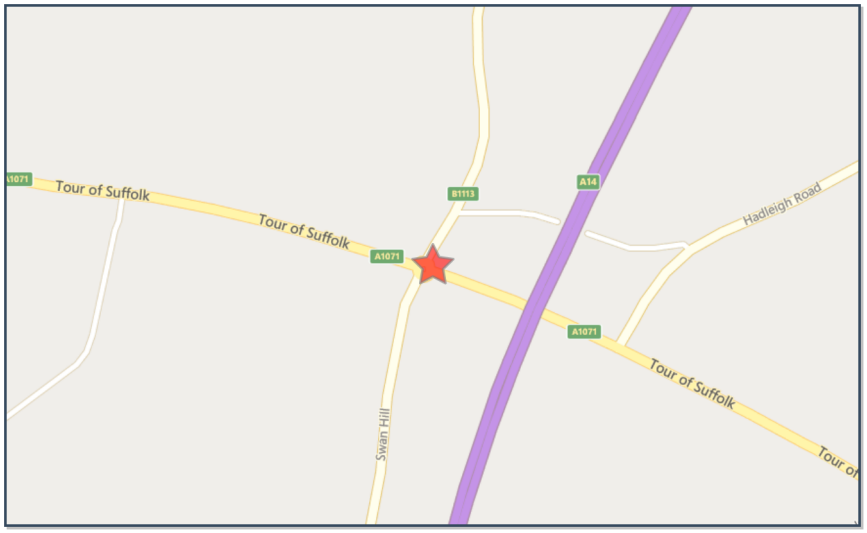
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	26 - 35	Unknown or other	Unknown or other

crashmap.co.uk

Validated Data

Crash Date:	Sunday, November 08, 2020	**Time of Crash:**	12:00:00 PM	**Crash Reference:**	**2020371003468**

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:**	612360 243642
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:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Roundabout				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: *www.crashmap.co.uk/home/Faq*
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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)	8	Male	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
2	Pedal cycle	-1	Male	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	Male	46 - 55	Unknown or other	Unknown or other

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613000

249000

Paper Mill Lane PCCS

Acess AP-AF

Access AP-AG

Jointing Bay 4

A14

OLD IPSWICH ROAD

Works No.s Overview

51

50

River Gipping

Meckbeggars Hall

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE DCO Corridor
Primary Construction Consolidation Site
Jointing Bay Compound
Top Soil
HGV Turning, Cleaning and Washing
Trackway
Access Track
Haul Road
EA THREE Existing Cable Ducts
EA ONE Existing Cable Ducts

Works No.s
50
51

GoBe consultants

Rev	Date	By	Comment
B	05/04/2022	PW	Second Issue
A	31/03/2022	JRS	First Issue

Original A3 Plot Scale 1:2,500

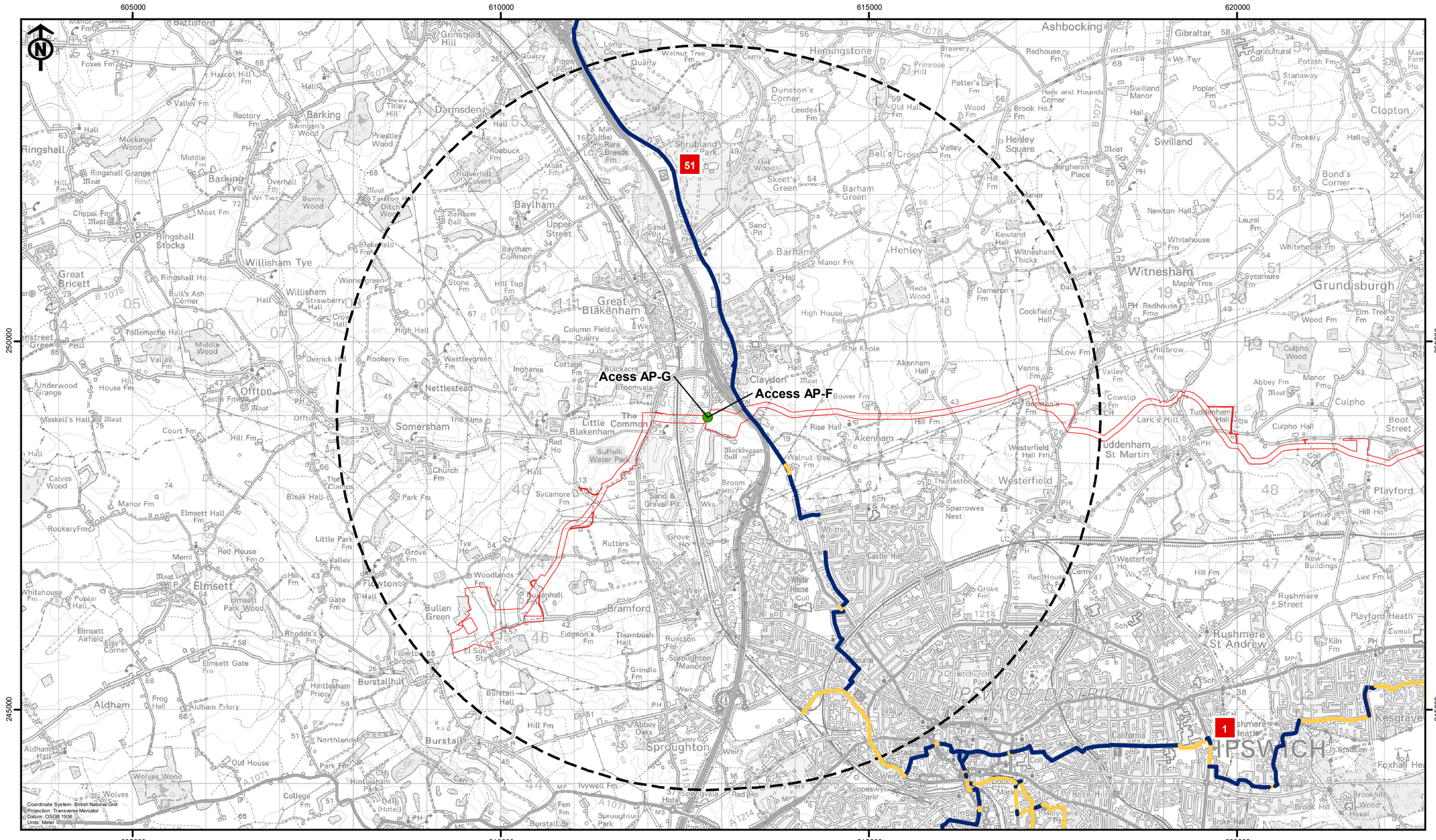
0 50 100 Metres

Paper Mill Lane Works Stage

Figure 1: Site Context Plan

Drg No	05356.00006.12.0021.1 Site Context Plan
Rev	2
Date	05/04/2022
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\Onshore Substation\ONCS and Commencement Master\5356.00006.12.0021.1 Works Site Context.mxd



EA THREE DCO Corridor

Commencement Works Access Point

5km Access Point Buffer

Cycle Routes within 5 km of Access Point

On-Road route on the National Cycle Network

Traffic Free Route on the National Cycle Route Link

Traffic Free route on the National Cycle Network

11 Cycle Route Number

Rev	Date	By	Comment
A	11/04/2022	PW	First Issue

Original A3 Plot Scale 1:50,000

0 1 2 Kilometres

Paper Mill Lane Works Stage

Figure 2: 5 km Cycling Catchment

Drg No	05356.00006.12.0078.0 5km Cycling Catchment
Rev	1
Date	11/04/2022
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\Onshore Substation\Doc Ref EA3-GRD-CON-PLN-IBR-000118\5356.00006.12.0081.0 CW 5km Radius Cycling Catchment.mxd

610000 620000 630000

250000 240000

N

WOODBRIDGE IPSWICH KESGRAVE

9 8 7 6 10 5 4 11 3 2 1

AH AF AE AD AB AC AA Z Y X W V U T R Q S P O N M L K I H G F E D C B A AK AJ AI AG AL

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

610000 620000 630000

EA THREE DCO Corridor

Route Section

Access Point (Red Label Indicates Access Reference)

11 Cable Route Section Reference

Rev	Date	By	Comment
A	11/04/2022	JRS	Initial Issue

Original A3 Plot Scale 1:75,000

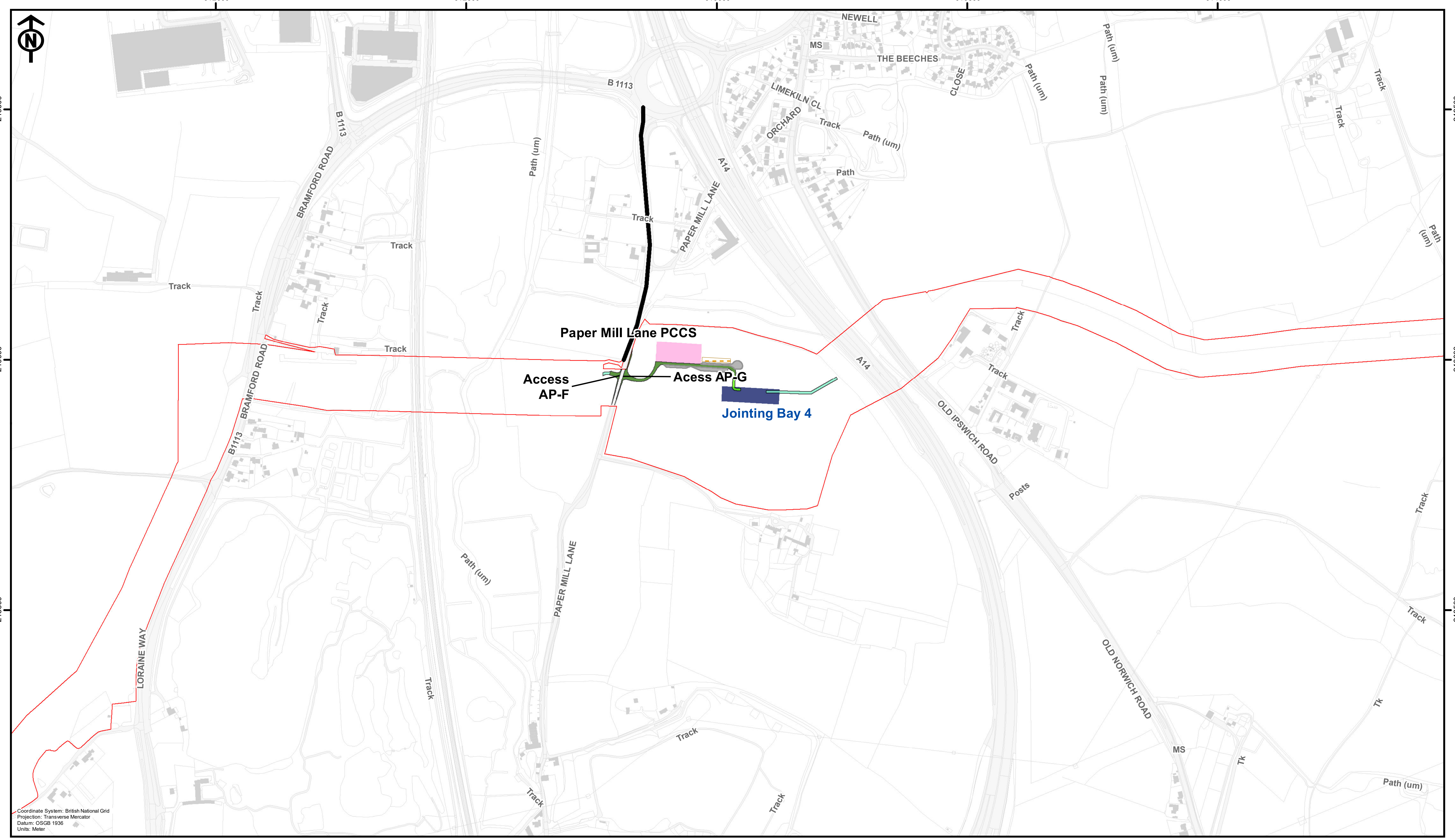
0 1 2 Kilometres

East Anglia Three

Figure 3: Sections of the Cable Route

Drg No	05356.00006.12.0079.0 Sections of Cable Route
Rev	1
Date	11/04/2022
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\Onshore Substation\Doc Ref EA3-GRD-CON-PLN-IBR-000118\5356.00006.12.0079.0 Sections of the Cable Route.mxd



EA THREE DCO Corridor
Primary Construction Consolidation Site
Jointing Bay Compound
HGV Turning, Cleaning and Washing
Trackway
Access Track
Haul Road
Top Soil
Construction Access Route

GoBe consultants

Rev	Date	By	Comment
B	12/04/2022	PW	Second Issue
A	31/01/2022	PW	First Issue

Original A3 Plot Scale 1:7,500

0 150 300 Metres

Paper Mill Lane Works Stage

Figure 4: Construction Access Route

Drg No	05356.00006.12.0078.1 Construction Access Route
Rev	2
Date	11/04/2022
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\Onshore Substation\Doc Ref EA3-GRD-CON-PLN-IBR-000118\5356.00006.12.0078.1 CW Construction Access Route.mxd