



**East Pye Solar
Environmental Statement
Volume 3: Appendix 11.1 - Transport Assessment**

**Revision 1
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1 Introduction

- 1.1.1 This Transport Assessment (TA) has been prepared on behalf of East Pye Solar Ltd (the ‘Applicant’) in relation to an application for a Development Consent Order (DCO) for East Pye Solar (hereafter referred to as the ‘Scheme’).
- 1.1.2 The Scheme is situated within the jurisdiction of Norfolk County Council (NCC) as Local Highway Authority (LHA) and South Norfolk Council as the Local Planning Authority (LPA) and Host Authority for the DCO.

1.2 The Scheme

- 1.2.1 The Scheme comprises the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) electricity generating station with a total capacity exceeding 100 megawatts (MW) and associated development including a Battery Energy Storage System (BESS), up to three 132 kV Project Substations and up to three 400kV Project Substations, Grid Connection Infrastructure and a new National Grid Substation.
- 1.2.2 The Solar PV electricity generating stations are located across Sites 1,2,3,4,5,7,8,9 and 10 of the Scheme. Site 6 does not contain an energy generation station, instead being retained for habitat management (refer to **ES: Figure 4.1 Indicative Masterplan [EN0110014/APP/6.2.4.1]**).
- 1.2.3 Cable Route Corridors [1-14] are the area in which export connection cables would be located to connect the Sites to the National Grid Substation.
- 1.2.4 Highway Works are sections of the highway network that will contain localised improvements, such as improvements to deteriorated road edges or temporary highway and traffic works required to safely accommodate the Abnormal Indivisible Load (AIL) deliveries to construct the Scheme. These areas will support the movement of construction vehicles on narrower sections of the local highway networks within parts of the construction vehicle routes to the Site (refer to **ES: Chapter 11- Transport and Access [EN0110014/APP/6.1.11]**).

1.3 Transport Assessment

- 1.3.1 This TA provides an overview of the potential effects of the Scheme in transport and access terms and has been prepared in accordance with the guidance on preparing TAs provided within Government guidance ‘Travel Plans, Transport Assessments and Statement’ (Ref 1-1) 2014 and it should be read in conjunction with **ES: Chapter 11- Transport and Access [EN0110014/APP/6.1.11]**.
- 1.3.2 The TA covers the construction, operation and maintenance, and decommissioning of the Scheme. The construction phase is anticipated to be

the most intensive in terms of transport and access, and therefore will be the primary focus of this document.

- 1.3.3 It is expected that during the 60-year operational phase of the Scheme, there will be very few traffic movements generated on a day-to-day basis. During the panel replacement period, which is expected to occur once during the operational phase, traffic will be increased in comparison to normal operational traffic movements, however the transport effects of the Scheme will be greatest during the temporary construction phase. This TA is therefore supported by an **Outline CTMP [EN0110014/APP/7.6]** and **Outline PRoW Management Plan [EN0110014/APP/7.8]**.

1.4 Consultation

- 1.4.1 Consultation information including issues raised in the EIA Scoping Opinion; statutory consultation and relevant responses to the Preliminary Environmental Impact Report (PEIR); and targeted consultation are summarised within **Consultation Report Appendix 10 Section 47 Applicant Response Table [EN0110014/APP/5.11]** and **Consultation Report Appendix 11 Section 42 Applicant Response Table [EN0110014/APP/5.12]**. Consultation information specific to transport and access, including further stakeholder engagement undertaken, is detailed in **ES: Chapter 11 Transport and Access [EN0110014/APP/6.1.11]**.

1.5 Report Structure

- 1.5.1 The remainder of this report is set out as follows:
- Section 2 – describes the existing context of the Order Limits;
 - Section 3 – sets out references for relevant national and local policies;
 - Section 4 – sets out the Scheme proposals;
 - Section 5 – sets out the vehicle trip generation of the Scheme during the construction and operation and maintenance phases;
 - Section 6 – distributes the vehicle trip generation on the local highway network;
 - Section 7 – sets out the process for Abnormal Indivisible Load (AIL) movements;
 - Section 8 – describes how the construction phase of the Scheme will be managed;
 - Section 9 – sets out the effects of the Scheme on the local highway network;

- Section 10 – assesses the cumulative effects of the Scheme on the local highway network;
- Section 11 – provides a summary and conclusion;
- Section 12 – provides a list of references;
- Section 13 – provides a list of TA appendices.

2 Baseline Conditions

2.1.1 This section summarises the existing context of the Order Limits and its surrounding area from a transport and access point of view.

2.2 Order Limits Overview

2.2.1 The Order Limits comprise a total area of 1,212.3 hectares (ha) of land located within the administrative areas of South Norfolk Council as LPA; and Norfolk County Council as LHA.

2.2.2 A full list of the Sites including their respective size and National Grid Reference (NGR) is detailed in **Table 2.1**.

Table 2.1: The Sites

Site Group	Sub-Site Name	Approximate Site Area (ha)	NGR
1A-D	Site 1A	8	TM1667889158
	Site 1B	48	TM1709189199
	Site 1C	14	TM1667688715
	Site 1D	4	TM1733889722
2A-C	Site 2A	40	TM1833087840
	Site 2B	43	TM1853688946
	Site 2C	16	TM1897789499
3	Site 3	58	TM2442091879
4A	Site 4A	41	TM2008494668
4B	Site 4B	60	TM2059594193
5A-B	Site 5A	50	TM2245593844
	Site 5B	40	TM2283393694
6	Site 6	18	TM2528593820
7A-C	Site 7A	19	TM2129895641
	Site 7B	9	TM2275294861
	Site 7C	75	TM2265295494
7D-F	Site 7D	44	TM2357296146
	Site 7E	23	TM2428895610
	Site 7F	51	TM2440095943
7G-J	Site 7G	21	TM2520395321
	Site 7H	14	TM2577195136
	Site 7I	10	TM2593795685
	Site 7J	14	TM2624595355
7K-L	Site 7K	26	TM2695095514
	Site 7L	22	TM2724095489
8A-B	Site 8A	30	TM2607196727
	Site 8B	26	TM2604997502
9	Site 9	58	TM2807298075
10A-E	Site 10A	24	TM3013194753

Site Group	Sub-Site Name	Approximate Site Area (ha)	NGR
	Site 10B	64	TM3064095210
	Site 10C	39	TM2980295552
	Site 10D	1	TM3082295585
	Site 10E	17	TM3109196292
BESS Site	BESS Site	23	TM1722488509

2.2.3 The landscape within and surrounding the Sites comprises predominantly agricultural fields and rural villages and hamlets. Sites 1 and 2 are located southeast of Great Moulton. Site 3 is located south of Lundy Green. Sites 4 and 5 are northeast of Long Stratton. Site 6 is east of Hempnall. Site 7 is located to the east of Tasburgh, north of Hempnall and south of Saxlingham Nethergate. Sites 8 and 9 are southwest of Brooke. Site 10 is northeast of Woodton.

2.2.4 The Cable Route Corridor (CRC) runs between the 10 Sites and comprises the following sections:

- CRC 1 – Links Sub-Site 1B to the BESS Site;
- CRC2 – Links the BESS Site to Site 2B and runs through a number of fields;
- CRC 3 – Links Sub-Site 2A to Sub-Site 2B and runs through a number of fields;
- CRC4 – Links Site 2 with Sites 4 and 5 to the north and east of Long Stratton. CRC4 comprises numerous fields and accommodates some highway infrastructure including the A140;
- CRC5 – Links Sub-Site 7H with Sub-Site 7J and crosses a single field;
- CRC6 – Situated to the south of Hempnall and links Site 3 to Sites 5 and 6. It comprises a number of fields and accommodates some highway infrastructure;
- CRC7 – Links Site 5 to Site 7. CRC7 comprises a number of fields, woodland and a Statutory Main River;
- CRC8 – Links CRC6, Site 6 and parts of Site 7 together. CRC7 comprises numerous fields and accommodates some highway infrastructure;
- CRC9 – Links with CRC8 to connect Site 10 with the Scheme. CRC9 comprises numerous fields and accommodates some highway infrastructure;

- CRC10, 11 and 12 – Links various parts of Site 7 together and connects the Scheme to Site 8. CRC10, 11 and 12 comprise a number of fields. CRC 10 accommodates some highway infrastructure;
- CRC 13 – Links Site 8 to Site 9 and comprises a number of fields and accommodates some highway infrastructure; and
- CRC 14 – Links Sub-Site 10D to Sub-Site 10E and comprises two fields.

2.2.5 The key areas and elements of the Scheme, including the Sites and CRC are illustrated in **ES: Figure 1.1 Location Plan [EN0110014/APP/6.2.1.1]** and the **Works Plan [EN0110014/APP/2.3]**. The full description of the Order Limits is detailed in **ES: Chapter 3 The Order Limits [EN0110014/APP/6.1.3]**.

2.3 Cycle, Pedestrian and Equestrian Infrastructure

National Cycle Network

- 2.3.1 National Cycle Network (NCN) routes 30 and 40 run to the south of the Scheme, roughly on a south-west to north-east direction. NCN route 30 runs from Thetford, roughly following A1066 and A143 via Diss, Harleston, Bungay and Beccles. The route continues in a roughly circular direction along the Norfolk Coast. NCN route 40 runs further south and roughly parallel to route 30 between Bungay and Eye, before travelling south to Framlingham.
- 2.3.2 NCN route 1 runs east of the Scheme in a roughly north to south direction from Norwich to Beccles via Loddon, continuing south towards London and north-west towards Northern England and Scotland.

Trails

- 2.3.3 Boudicca Way is a long-distance trail which passes through South Norfolk, running for approximately 58km between Norwich and Diss, roughly parallel to A140 and adjacent to Sub-Site 7A on Fairstead Lane. The trail also interacts with CRC11.
- 2.3.4 Another long-distance trail, Angles Way, runs to the south of the Scheme on a 150km route following the country boundary of Norfolk and Suffolk from Great Yarmouth to Thetford. The closest site to the trail is Sub-Site 10A which is located approximately 4km to the north.

Public Rights of Way and Permissive Paths

- 2.3.5 There are a number of PRow that are within the Order Limits. A total of 84 PRow have been identified, consisting of:
- 71 footpaths;

- 9 restricted byways; and
- 4 bridleways.

2.3.6 Permissive paths are incorporated into the Scheme design and will contribute to the wider network of footpaths and bridleways in the local area. The locations of PRow and NCN routes are shown in **ES: Figure 11.9 – 11.13 Public Rights of Way, National Cycle Network and Bus Stops [EN0110014/APP/6.2.11.9-11.13]**.

2.3.7 Existing PRow are described in detail, in addition to the design and implementation of the permissive paths which is set out in the **Outline PRow Management Plan [EN0110014/APP/7.8]**.

2.4 Public Transport

Bus

2.4.1 The key bus corridors within the vicinity of the Sites and CRC are summarised in **Table 2.2**. Bus stops located within the Study Area are shown in **ES: Figure 11.9 – 11.13 Public Rights of Way, National Cycle Network and Bus Stops [EN0110014/APP/6.2.11.9-11.13]**.

Table 2.2: Bus Services

Service Number	Route	Nearest Sites	Frequency, Mon-Sat (approx.)	Operating Hours, Mon-Sat (approx.)
82	Norwich - Roydon	2A-C, 7A	Every hour (Mon-Sat)	09:00-22:00 (Mon-Sat)
84	Norwich – Hempnall – Long Stratton / Wacton / Harleston	6, 7D-F	Every 2 hours (Mon-Sat)	08:00-18:00 (Mon-Sat)
41 / 41A / X41 / 941	Norwich – Brooke – Woodton – Ditchingham – Bungay / Halesworth	10C	Every 30 mins (Mon-Sat)	08:00-23:00 (Mon-Sat)
1 / 1A	Norwich – Long Stratton / Burston / Tivetshall - Diss	1A-D, 7A	Every 3-4 hours (Mon-Sat)	08:00-16:00 (Mon-Sat)
36 / 36A / 36B	Horsford – Norwich – Long Stratton / Harleston	7A, CRC4	Every 30 mins (Mon-Sat)	06:00-23:00 (Mon-Sat)

Train

2.4.2 The Great Eastern Main Line runs approximately 6km west of Hempnall and 300m west of Sub-Site 1A, running north to south from Norwich to London. The nearest railway station to the northern extent of the Scheme is Norwich, which is located approximately 14km north of Hempnall (or 10km north of Site 9). The nearest railway station to the south-western extent of the Order Limits is Diss, which is located approximately 10km south-west of the A140 / B1134 roundabout (or 9.5km south-west of Sub-Site 2A. **Table 2.3** summarises the train services available from both railway stations.

Table 2.3: Rail Services

Railway Station	Destination	Frequency, Mon-Sat (approx.)	Operating Hours, Mon-Sat (approx.)
Norwich	Lowestoft	Hourly (Mon-Sat)	05:30 – 23:00 (Mon-Fri)
	Great Yarmouth	Hourly (Mon-Fri)	05:30 – 22:30 (Sat)
	London Liverpool Street / Ipswich	Twice-hourly (Sat)	05:00 – 23:00 (Mon-Fri)
	Cambridge / Stansted Airport	Twice-hourly (Mon-Sat)	05:30 – 23:00 (Sat)
	Sheringham / Cromer	Hourly (Mon-Sat)	05:00 – 23:00 (Mon-Fri)
	Liverpool Lime Street / Manchester Piccadilly / Nottingham / Sheffield	Hourly (Mon-Sat)	05:00 – 22:00 (Sat)
Diss	Norwich	Hourly (Mon-Sat)	05:30 – 22:30 (Mon-Sat)
	London Liverpool Street / Ipswich	Twice-hourly (Mon-Sat)	05:00 – 23:00 (Mon-Sat)

2.5 Local Highway Network

2.5.1 The Study Area for this TA is shown in **ES Figure 11.1 Indicative Transport and Access Study Area [EN0110014/APP/6.2.11.1]** and identifies the highway network likely to be affected by the Scheme. The Study Area has been identified based on the likely vehicle route options to access the Site from the Major Road Network (MRN) and Strategic Road Network (SRN). The Study Area has been identified for assessment with relevant industry guidance and consideration of sensitive receptors. The final Study Area has been agreed with the LHA.

2.5.2 The Study Area consists of the following links (listed alphabetically):

- A140 Norwich Road / Ipswich Road;
- Alburgh Road / Spring lane;
- B1332 Norwich Road;
- B1134 Station Road;
- B1527 (between A140 and B1332);
- Boylandhall Lane;
- Brick Kiln Lane;
- Bussey’s Loke / The Green;
- Cargate Lane;
- Church Lane;

- Edge's Lane;
 - Fairstead Lane;
 - Field Lane;
 - Fylands Road;
 - Hall Lane / Mill Road;
 - Harvey Lane / Upgate Road;
 - Heath Road / Brooke Road / Honeypot Lane;
 - Littlebeck Lane / Mill Lane;
 - Lodge Road / Frith Way;
 - Long Stratton Bypass;
 - Lundy Green;
 - Market Lane;
 - Mill Lane / Norwich Road;
 - Parker's Lane;
 - Shotesham Road / Woodton Road / Baxter's Lane;
 - The Krons;
 - The Street (Hempnall) / Broaden Lane / Church Lane / Church Hill / The Street (Saxlingham Nethergate);
 - The Street (south of B1527); and
 - Wood Lane / Common Road.
- 2.5.3 The road network surrounding the Sites and CRC consist of two main north to south links A140 and B1332, and one main east to west link, B1527. These three links comprise the key arterial connectors for construction traffic associated with the Scheme. B1134 Station Road runs west of A140 and will be the key link for access to the National Grid Substation, Project Substation in BESS Site and Project Substation in Sub-site 1B. Access to the Project Substation in Sub-Site 5A is accessed from B1527.
- 2.5.4 The remaining links within the Scheme Study Area comprise more rural roads with intermittent road markings and varying carriageway widths. **Table 2.4** summarises the attributes of the highway network within the Study Area.

Table 2.4: Highway Network Description

List (Alphabetical)	Description	Speed Limit	Notes
A140 Norwich Road / Ipswich Road	Single carriageway	60mph	Key arterial road with varied speed limit, carriageway width suitable for large vehicles to pass and good forward visibility. Avoids construction related vehicles travelling through Long Stratton, following completion of Long Stratton bypass. Passes through some residential and commercial areas.
Alburgh Road / Lundy Green / Spring Lane	Single carriageway, single track at points	50mph (Swainsthorpe)	Varying road width on Lundy Green, overall good visibility, passes through some built-up residential areas.
B1134 Station Road	Single carriageway	40mph (Newton Flotman)	Good overall visibility, some varying road widths, level crossing to the west.
B1332 Norwich Road	Single carriageway	50mph (Upper Tasburgh)	Arterial road with good forward visibility. Passes through some residential and commercial areas.
B1527 (between A140 and B1332)	Single carriageway	30-50mph (Long Stratton)	Hempnall village with on-street parking, varying road width and alignment, some narrow footways. Carriageway width suitable for large vehicles to pass and good forward visibility along remainder of link eastbound and westbound to/from Hempnall.
Bussey's Loke / The Green	Single carriageway, single track	60mph	7.5T weight restriction except for loading. Some overhanging trees and varying road widths, potentially challenging for two-way vehicle movements.
Cargate Lane	Single carriageway, single track at points	40mph (Hempnall Green)	Good forward visibility with varying street widths and provision of vehicle passing points.
Fairstead Lane	Single carriageway, single track	60mph	Good forward visibility with some overhanging trees, potentially challenging for two-way vehicle movements.
Fylands Road	Single carriageway, single track	60mph	Good forward visibility with some overhanging trees, potentially challenging for two-way movements, provision of some vehicle passing points.
Hall Lane	Single carriageway	60mph	Good forward visibility with some overhanging trees, suitable for two-way traffic, road width narrows at points, provision of some vehicle passing points.
Harvey Lane / Uppgate Road	Single carriageway	40mph (Ditchingham)	Varying road widths, existing crossover points and good overall visibility.
Heath Road / Brooke Road	Single carriageway	60mph	Varying road widths although suitable for two-way traffic, good forward visibility with some overhanging trees. Provision of vehicle passing points.

List (Alphabetical)	Description	Speed Limit	Notes
Honeypot Lane	Single carriageway	30mph (west of Hempnall)	Varying road widths although suitable for two-way traffic, good forward visibility with some overhanging trees. Provision of vehicle passing points.
Littlebeck Lane / Mill Lane	Single carriageway, single track	20-30mph (Hempnall)	Varying road width, potentially challenging for two-way vehicle movements.
Lodge Road / Frith Way	Single carriageway, single track	60mph	Single track with varying road widths.
Mill Lane / Norwich Road	Single carriageway, single track	60mph	7.5T weight restriction except for loading (Mill Lane). Shotesham Ford located on Mill Lane, potential flooding and consequent inaccessibility by vehicles. Varying width and hedgerows on either side of the carriageway.
Shotesham Road / Woodton Road / Baxter's Lane	Single carriageway, single-track, one-way access at some junctions	60mph	7.5T weight restriction except for loading (Shotesham Road). Varying road widths and one-way access at some junctions. Potentially challenging for two-way vehicle movements.
The Krons	Single carriageway, single-track at points	60mph	Crosses two bridges over minor water passages, although no signage visible for weight restrictions. Varying road widths with overhanging trees.
The Street (Hempnall) / Broaden Lane / Church Hill / The Street (Saxlingham Nethergate)	Single carriageway	60mph	Hempnall Primary School and Saxlingham Primary School located along route. On-street parking along Hempnall section. Overhanging building in Hempnall with speed restriction.
The Street (south of B1527)	Single carriageway	60mph	Good forward visibility with some overhanging trees.
Wood Lane / Common Road	Single carriageway	60mph	Good forward visibility, varying road width, provision of vehicle passing points.

2.6 Baseline Flows

- 2.6.1 A combination of Automatic Traffic Count (ATC) surveys, Manual Classified Count (MCC) surveys and Department for Transport (DfT) Manual Count Point (MCP) data has been collected within the Study Area and potential access junctions.
- 2.6.2 The ATC and MCC surveys were undertaken between Friday 1 November 2024 and Thursday 7 November 2024. Ten further ATCs were commissioned to supplement the baseline data and were undertaken between Saturday 26 April 2025 and Friday 2 May 2025. All ATC surveys were collected for a 7-day, 24-hour period and the MCC survey was for a one-day, 24-hr period on Thursday 7 November 2024.

2.6.3 The survey locations and recorded traffic flows in Annual Average Daily Traffic (AADT) and percentage composition of Heavy Goods Vehicles (HGV (Ref 1-3)) are summarised in **Table 2.5**. ATCs are numbered from 01 to 30 and visualised in **ES: Figure 11.14-11.17 Traffic Survey Locations [EN0110014/APP/6.2.11.14-11.17]**.

Table 2.5: ATC Baseline Flows

ATC Location	AADT (7-day)	AADT % HGV
01 - A140 (N-B1527)	19,731	14%
02 - B1527	5,078	12%
03 - A140 (S-B1527)	20,145	15%
04 - Bungay Rd	2,577	15%
05 - Fairstead Ln (W)	82	17%
06 - Norwich Rd	1,220	9%
07 - Broaden Ln	1,229	8%
08 - Littlebeck Ln	103	22%
09 - Shotesham Rd	134	19%
10 - B1332 (North)	7,051	15%
11 - Harvey Ln	435	20%
12 - B1527 (Woodton)	903	18%
13 - B1332 (South)	7,393	14%
14 - Alburgh Rd	1,077	19%
15 - The Street	1,398	12%
16 - Lodge Rd	172	23%
17 - B1134	2,936	18%
18 - The Green	67	32%
19 - Wash Ln	67	32%
20 - Baxter's Ln	139	19%
21 - A140 (S-B1134)	14,104	19%
22 - Spring Lane	729	18%
23 - The Krons	910	15%
24 - Fairstead Ln (E)	1,391	15%
25 - Fylands Rd	121	19%
26 - Bussey's Loke	53	13%
27 - Heath Rd	383	15%
28 - Market Ln	31	13%
29 - Wood Ln	738	20%
30 - Edge's Ln	41	15%

2.6.4 **Figure 2.1** displays the baseline turning movements from the MCC survey at Hempnall Roundabout. This is representative of all vehicles over the 24-hr survey period. As shown, a large proportion of movements move in a north to south direction along A140.

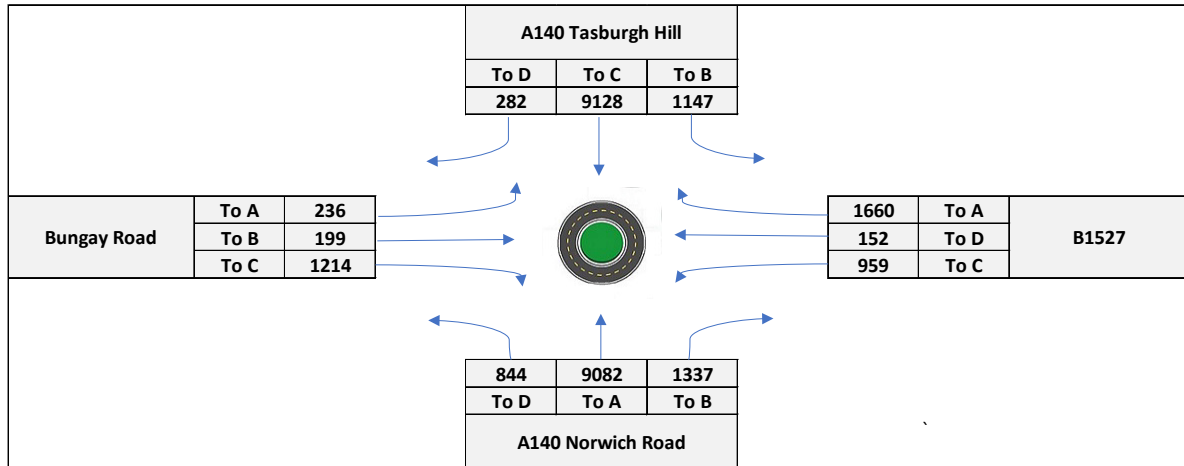


Figure 2.1: MCC Baseline Flows - Hempnall Roundabout (24hr, all vehicles)

2.6.5 **Table 2.6** outlines the MCP locations within the Study Area and their respective AADT. The latest year that data was collected or estimated for these points was 2019 and there has been no MCP data recorded since then. They have been included as they provide a pre-Covid baseline which provide a comparator to the ATC surveys.

Table 2.6: Manual Count Points

MCP	Road Section	Latest Estimated / Manual Count Year	AADT	% HGV
941724	B1527 east of A140 / B1527 roundabout	2019 (estimated)	3,472	3%
807192	Broaden Lane north of Hempnall	2018 (manual count)	2,038	0%
806210	Field Lane south of B1527 Hempnall	2019 (manual count)	552	1%
802270	Low Road north of Hardwick	2019 (estimated)	863	0%
941771	B1527 north of Woodton	2018 (manual count)	901	4%
806756	Triple Plea Road south of Hempnall Road	2019 (estimated)	290	1%
951638	B1332 north-west of Ditchingham	2018 (manual count)	6,080	5%

2.7 Road Safety

2.7.1 Accident records from September 2019 to August 2024 have been obtained from NCC. The data evidences a total of 100 accidents on the LRN and MRN in the study area during this period. 72 were recorded as ‘sight’, 26 were recorded as ‘serious’, and 2 were recorded as ‘fatal’. The large majority of these accidents occurred on A140 and B1332, as visualised in **Appendix A**.

2.7.2 It was noted during engagement with NCC that the Hempnall Roundabout, which is located at the junction of A140 and B1527, was constructed in November 2019 following safety concerns over the previous crossroads located there. The Hempnall Roundabout impacts on safety improvement is therefore reflected in the road safety records from November 2024 onwards.

2.7.3 **Table 2.7** summarises the accident records split by time period. A full analysis of accident records is shown in **Appendix A**.

Table 2.7: Road Safety Records - 2019 to 2024

Severity	Midnight – 4am	4am – 8am	8am – Noon	Noon – 4pm	4pm – 8pm	8pm – Midnight
Slight	3	6	23	17	18	5
Serious	0	6	9	7	3	1
Fatal	0	0	0	1	0	1
Total	3	12	32	25	21	7

2.7.4 The analysis of accident records for the five-year period identified the following key findings:

- Majority of accidents (72%) recorded as ‘slight’;
- No notable peak in records by time of month. November had the most accidents recorded, followed by July and May/October;
- Majority of accidents (57%) occurred during 8am-noon and noon-4pm; and
- Both fatal accidents occurred in December.

2.7.5 The volume of accidents, most of which occurred on A140 and B1332, are not considered to be high given the high baseline traffic flows on these links (see **Table 2.5**). The findings of the accident records therefore suggests that there are no existing highway safety concerns that would result in an increased propensity for collisions to take place as a consequence of the construction, operation or decommissioning of the Scheme. It is therefore not considered that the Scheme would result in adverse impacts on collisions or driver safety. This is further prevalent given the temporary nature of construction traffic and low operational traffic volumes.

3 Policy Review

- 3.1.1 An overview of the legislation, planning policy and guidance against which the Scheme will be considered for the transport and access assessment is summarised in **ES: Chapter 11 Transport and Access [EN0110014/APP/6.1.11]**.and detailed in **ES: Appendix 2.3 Legislation, Planning Policy and Guidance [EN0110014/APP/6.3.2.3]**.

4 The Scheme

- 4.1.1 The Scheme comprises the construction, operation and maintenance, and decommissioning of the Solar PV generation station and associated infrastructure. The full Scheme description is shown in **ES: Chapter 4 The Scheme [EN0110014/APP/6.1.4]**.

The Sites

- 4.1.2 The Solar PV electricity generating stations are located across Sites 1,2,3,4,5,7,8,9 and 10 of the Scheme. A description of the Order Limits is provided in **ES: Chapter 3 The Order Limits [EN0110014/APP/6.1.3]**.
- 4.1.3 The key equipment associated with the solar PV aspect of the Scheme comprise: solar PV panels; mounting structures; conversion units; and electric cabling.

Energy Storage Facility

- 4.1.4 An Energy Storage Facility, also referred to as a BESS will be located within the BESS Site. The BESS is designed to support peak power generation and maintain grid stability by storing surplus energy either produced by the Solar PV panels or drawn from the grid, and released when demand requires.

Substations

- 4.1.5 400kV and 132 kV Project Substations will be provided at Sub-Sites 4B, 7F, 10C, 5A, 1B, and the BESS Site and will consist of electrical infrastructure such as transformers, switchgear and metering equipment to facilitate the export of electricity from the respective Sites.

Grid Connection and CRC

- 4.1.6 A new National Grid Substation will be located within Sub-Site 1B and will export electricity generated by the Scheme. Grid Connection Infrastructure will be required between the National Grid Substation and the existing 400kV overhead line.
- 4.1.7 Cable Route Corridors 1-14 are the areas in which export connection cables would be located to connect the Sites to the new National Grid Substation.

- 4.1.8 The CRC will be routed through open countryside and will require crossings of watercourses, utilities, PRow and the public highway.
- 4.1.9 The exact location of the Grid Connection Cables within the Cable Route Corridor will be determined at the detailed design stage. The construction working width will typically be 25 m wide and will narrow at hedgerow crossings. The voltage of the cables and the number of circuits will affect the width and number of the cable trenches required. The width and spacing of the cable trenches will depend on environmental constraints, engineering requirements, or crossing third party apparatus. This includes separation distances where multiple cables are running in parallel within the same trench or within multiple trenches.
- 4.1.10 For the purpose of this TA, the placing of the cable anywhere within the CRC has been considered, however includes the avoidance of environmentally sensitive locations.

4.2 Construction Programme

- 4.2.1 The construction of the Scheme is anticipated to commence in 2028 for a period of approximately 24 months. On this basis, it is expected that the Scheme could be completed by 2030 and energised in 2031. However, the construction period will vary depending on detailed layout design and potential environmental constraints on the timing of construction activities. Additionally, the construction period may vary across the Order Limits as larger Sub-Sites will have multiple construction activities overlapping at the same time.
- 4.2.2 An indicative construction programme is shown in **Figure 4.1**. The programme is based on worker schedule data provided by the Applicant and has been ordered sequentially rather than in site order.

Associated Site / Works	Construction Period (Month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
400kV POC works	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
400kV substation (1A)	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
400kV substation (5A)	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
1A	█	█	█	█													
10A	█	█	█	█													
4A	█	█	█	█	█												
7F	█	█	█	█	█	█											
BESS(1A)	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
1B		█	█	█	█	█	█	█	█								
CRC			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
7A			█	█	█	█	█	█	█								
10B			█	█	█	█	█	█	█	█							
7G				█	█	█	█	█	█								
4B				█	█	█	█	█	█	█							
7B					█	█	█	█	█								
7H						█	█	█	█	█	█						
2A							█	█	█	█	█	█	█				
7C								█	█	█	█	█	█	█	█		
7I									█	█	█	█	█	█			
5A									█	█	█	█	█	█			
10C									█	█	█	█	█	█			
Interconnection works										█	█	█	█	█	█	█	█
7J										█	█	█	█	█			
2B										█	█	█	█	█	█		
10D-E											█	█	█	█	█		

Figure 4.1: Indicative Construction Programme

4.2.3 The core construction working hours (not including start-up and shut-down works) are defined as:

- Monday to Friday from 07:00 to 18:00 (daylight hours permitting);
- Saturday from 08:00 to 13:30 (daylight hours permitting); and
- No Sunday or Bank Holiday working unless crucial to construction (for example, for HDD which must be continuous activity) or in an emergency.

4.2.4 Where practicable, construction deliveries would be coordinated to avoid HGV movements during the traditional road network peak morning (08:00-09:00) and peak afternoon (17:00-18:00) hours. Some activities may be required outside of these times such as the delivery of AILs, concrete pours for foundations, night working for cable construction works in public highways and/or HDD activities.

4.3 Access Arrangements

- 4.3.1 There are 65 access and crossing points proposed for the Scheme to be utilised for the Sites, CRC, National Grid Substation, and BESS. Most of the access points provide direct access to the public highway.
- 4.3.2 Where possible, existing agricultural accesses have been utilised, with appropriate widening and formalisation undertaken where necessary. Access will be retained post-construction phase to be utilised as accesses for the operational and maintenance phase. Some, or all, accesses will be utilised for the decommissioning phase.
- 4.3.3 The full list of accesses are shown in **Table 4.1** and indicates the associated highway links, access type and anticipated use.
- 4.3.4 Concept site access design drawings for each access have been prepared based on the legal maximum sized vehicle (16.5m articulated HGV). Site access drawings, visibility splays and swept-path analysis (including the BESS compound) is detailed in **Appendix C**.

Table 4.1: Site Access and Crossing Points

ID	Access to	Highway Link	Access Type	Use
A01	1A	B1134 Station Road	Highway access	Construction + Operation
A02	BESS, 1A, 1B, 1C, 1D, CRC1, CRC2,	B1134 Station Road	Highway access	Construction + Operation
A03	1A, 1B, 1D	Frith Way	Highway access	Construction + Operation
A04	1D	Frith Way	Highway and crossing	Construction + Operation
A05	2B, CRC2	Lodge Road	Highway and crossing	Construction + Operation
A06	CRC2	Lodge Road	Highway access	Construction
A07	2A, CRC3	A140 Ipswich Road	Highway access	Construction + Operation
A08	2B, CRC4 (west of A140)	A140 Ipswich Road	Highway access	Construction + Operation
A09	CRC4 (east of A140)	A140 Ipswich Road	Highway access	Construction
A10	2C	A140 Ipswich Road	Highway access	Construction + Operation
A11	CRC4	Common Road	Highway and crossing	Construction
A12	CRC4	Wood Lane	Crossing only	Construction
A13	CRC4	Parker's Lane	Crossing only	Construction
A14	CRC4	Hall Lane	Highway access	Construction
A15	CRC4	Parker's Lane	Crossing only	Construction
A16	CRC4	Mill Road	Crossing only	Construction
A17	CRC4	Edge's Lane	Crossing only	Construction

ID	Access to	Highway Link	Access Type	Use
A18	CRC4	Church Lane	Highway and crossing	Construction
A19	4A	A140 Ipswich Road	Highway access	Construction + Operation
A20	4B	B1527 Hempnall Road	Highway access	Construction + Operation
A21	CRC4	Brick Kiln Lane	Crossing only	Construction
A22	CRC4	Boylandhall Lane	Crossing only	Construction
A23	5A, 5B	B1527 Hempnall Road	Highway access	Construction + Operation
A24	5A, 5B	B1527 Hempnall Road	Highway access	Construction + Operation
A25	5A, 5B, CRC6	The Street	Highway and crossing	Construction + Operation
A26	5A, 5B	The Street	Highway access	Construction + Operation
A27	CRC7	B1527 Hempnall Road	Highway access	Construction
A28	7A-F, CRC11	Fairstead Lane	Highway access	Operation
A29	7B, CRC7	Fairstead Lane	Highway and crossing	Construction + Operation
A30	7B	Private lane	Highway access	Construction
A31	7C	Fairstead Lane	Highway access	Construction + Operation
A32	CRC6	Field Lane	Crossing only	Construction
A33	CRC6	Lundy Green	Crossing only	Construction
A34	3B, CRC6	Spring Lane	Highway access	Construction + Operation
A35	6	Alburgh Road	Highway access	Construction + Operation
A36	CRC6	Alburgh Road	Crossing only	Construction
A37	6, CRC6	B1527 Bungay Road	Highway and crossing	Construction
A38	CRC6	B1527 Bungay Road	Highway access	Construction
A39	7D, CRC12	The Green	Highway access	Operation
A40	7D, 7F, CRC12	Broaden Lane	Highway and crossing	Construction + Operation
A41	7F	Broaden Lane	Highway access	Construction + Operation
A42	7D	Broaden Lane	Highway access	Construction + Operation
A43	7E	Broaden Lane	Highway access	Construction + Operation
A44	7G, 7H	Bussey's Loke	Highway access	Construction + Operation
A45	7I, 7J	Fylands Road	Highway access	Construction + Operation
A46	CRC10	The Green	Crossing only	Construction
A47	CRC10	Wash Lane	Crossing only	Construction

ID	Access to	Highway Link	Access Type	Use
A48	8A	Wash Lane	Highway access	Construction + Operation
A49	8A	Market Lane	Highway access	Construction + Operation
A50	8A-B	Market Lane	Highway access	Construction
A51	8B	Brooke Road	Highway access	Construction + Operation
A52	8B, CRC13	Baxter's Lane	Highway and crossing	Construction + Operation
A53	CRC13	Woodton Road	Highway access	Construction
A54	CRC13	Mill Lane	Highway access	Construction
A55	9	Mill Lane	Highway access	Construction
A56	9	Littlebeck Lane	Highway access	Construction + Operation
A57	7K	Woodton Road	Highway access	Construction + Operation
A58	7L	Woodton Road	Highway access	Construction + Operation
A59	CRC9	Shotesham Road	Crossing only	Construction
A60	CRC9	B1332 Norwich Road	Highway access	Construction
A61	10A, 10B, 10C, 10D, CRC14	Harvey's Lane	Highway access	Construction + Operation
A62	10A, 10B, 10C, 10D, CRC14	Harvey's Lane	Highway access	Construction + Operation
A63	-	Harvey's Lane	Crossing only	Construction
A64	CRC14	Uppgate Road	Highway access	Construction
A65	10E, CRC14	Uppgate Road	Highway access	Construction + Operation

4.4 Construction Compounds

4.4.1 Temporary construction compounds will be utilised across the Sites and the CRC and will include accommodations for equipment storage, construction worker parking, and welfare facilities. More detail of temporary construction compounds and laydown areas can be found in the **Outline CTMP [EN0110014/APP/7.6]**. Locations of compounds are set out in **ES: Figure 4.2 Indicative Temporary Construction Compound Locations [EN0110014/APP/6.2.4.2]**.

4.5 Internal Access Tracks and Haul Routes

4.5.1 There are several proposed internal haul routes to connect the Sites and will be temporary for construction. These are shown in **ES: Figure 11.2-11.8 Likely and Suitable Routes to the Scheme [EN0110014/APP/6.2.11.2 - 11.8]**.

4.5.2 The internal haul routes have been proposed in response to consultation feedback from stakeholders to minimise impacts on the LRN. Three internal

haul routes will be utilised to connect Sub-Site groups 7A-F, 7G-L and 8A-B. The methodology in approach to the internal haul routes are detailed in Technical Notes provided in **Appendix B**.

- 4.5.3 The final alignment of the internal haul routes will be confirmed through detailed design and presented in the CTMP secured by DCO Requirement.

5 Trip Generation

5.1.1 This section sets out the trip generation associated with the construction, operation and maintenance and decommissioning phases of the Scheme. The decommissioning phase is anticipated to be no worse than the construction phase, as detailed in **Section 5.6**.

5.2 Methodology

5.2.1 Several data sources have been used to forecast construction vehicle movement profiles:

- Solar PV HGV: calculated using an average trip rate extracted from trip generation estimates from two consented comparable solar schemes: Cottam and West Burton (which are other projects proposed by the Applicant). The trip rate was subsequently scaled to the Scheme size based on Solar PV Site area;
- BESS: additional contingency added to account for larger volumes of vehicles. Extracted from HGV and Waste estimates provided by the Applicant;
- National Grid Substation: additional contingency added to account for larger volumes of vehicles. Extracted from trip generation estimates from comparable substation scheme: Wanlass Beck Substation (National Grid);
- Cars, LGVs and shuttles: derived from the construction worker schedule provided by the Applicant;
- CRC: assumption on trip generation per CRC compound derived from comparable solar scheme: Green Hill (which is another project proposed by the Applicant).

5.2.2 A range of vehicle types will access the Scheme for construction, which may include:

- Service vans – plant maintenance, PPE, fixings, sundry items for site office services and deliveries, canteen supplies, courier / post and small parcel deliveries;
- Two axle rigid HGVs and LGVs – site services deliveries building materials, waste skips, waste paper recycling, sundry items, PPE, fixings, courier and parcel deliveries;
- Three axle rigid HGVs – plant deliveries, access platforms, building materials, refuse collection, ready mixed cement;
- Four axle rigid HGVs – residual excavated material, aggregate supplies, ready mixed cement, building materials;

- Multi axle articulated HGVs – material deliveries, rebar, plant deliveries, piling rig, access platforms; and
- Abnormal Indivisible Loads ('AIL') – are required for the delivery of transformers and cable drums, further information on AIL movements and management can be found in Section 7.

5.3 Construction Phase: Sites

5.3.1 For the construction of the Sites including the BESS, Project Substations and National Grid Substation, it is expected that there will be the following average vehicle trip generation profile:

Average Daily Total

- 47 HGVs (47 arrivals + 47 departures); and
- 116 cars, LGVs¹ and shuttles (116 arrivals + 116 departures).

5.3.2 It is recognised that there will not be a flat profile for the duration of the construction programme. Therefore, the following peak vehicle trip generation profile is estimated:

Peak Daily Total

- 69 HGVs (69 arrivals + 69 departures); and
- 205 cars, LGVs and shuttles (205 arrivals + 205 departures)

5.3.3 The peak vehicle trip generation profile is based on an approximately 50% uplift on average daily estimates.

5.3.4 Car, LGV and shuttle estimates are derived from the following staff forecasts:

Worker Estimates

- Average daily workers: 278;
- Peak month – average daily workers: 505; and
- Peak single day workers: 720

5.3.5 Worker vehicle trip generation is based on an assumption of 50% of workers travelling to site by private car or LGV (assuming 1.5 people per vehicle) and 50% of workers travelling by shuttle (assuming 12 people per vehicle).

5.3.6 For the purposes of assessing a reasonable worst-case scenario, it has been assumed that all construction activity will occur simultaneously. In

¹ Light Goods Vehicles are defined as goods vehicles with a Gross Vehicle Weight not exceeding 3.49 tonnes.

reality, activities will be staggered across the duration of the construction programme.

5.3.7 **Table 5.1** summarises the peak daily arrivals and departures, split by site group.

Table 5.1: Peak Daily Vehicles - Sites

Site Area	Peak Daily HGVs*		Peak Daily Cars / Shuttles / LGVs*	
	Arrive	Depart	Arrive	Depart
Sites 1A-D	14	14	14	14
BESS	5	5	16	16
Sites 2A-C	5	5	18	18
Site 3	3	3	11	11
Site 6	1	1	4	4
Site 4A	2	2	8	8
Site 4B	3	3	11	11
Sites 5A-B	5	5	16	16
Sites 7A-C	5	5	18	18
Sites 7D-F	6	6	21	21
Sites 7G-J	3	3	11	11
Sites 7K-L	3	3	9	9
Site 8A	2	2	6	6
Site 8B	2	2	5	5
Site 9	3	3	11	11
Sites 10A-E	7	7	26	26
TOTAL	69	69	205	205

* Figures are rounded

5.4 Construction Phase: Cable Route Corridor

5.4.1 **Table 5.2** displays the construction phase trip generation for the CRC.

Table 5.2: Peak Daily Vehicles - CRC

CRC Section	Peak Daily HGVs		Peak Daily LGVs		Peak Daily Cars / Shuttles	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
Compound 1: A140	11	11	5	5	10	10
Compound 2: Hall Lane	11	11	5	5	10	10
Compound 3: B1527	11	11	5	5	10	10
Total	33	33	15	15	30	30

5.5 Operation and Maintenance Phase

- 5.5.1 During the operation and maintenance phase there will be a small number of daily vehicle trips, with additional staff attending when required for maintenance and cleaning activities.
- 5.5.2 Those arriving to undertake general operational maintenance activities would generally be expected to travel by car, appropriate 4x4 type vehicle or light van. The frequency of maintenance visits would reasonably be expected to be up to five visits per month to the Sites. HGVs may be required for the ad-hoc replacement of batteries, inverters and transformers associated with the substation and BESS.
- 5.5.3 There will be no transport-related impacts from the installed CRC as these will be buried underground. Occasional access for maintenance may be required, however this is expected to occur only once or twice per year.
- 5.5.4 During the operational and maintenance phase, defective panels or breakages will be replaced as needed. These activities will take place on an ad-hoc basis and these are anticipated to generate a negligible number of HGV movements on a day-to-day basis.
- 5.5.5 During the anticipated 60-year operational life of the Scheme, it is expected that there will be a requirement for the periodic replacement of some of the electrical infrastructure. An **Outline OTMP [EN0110014/APP/7.7]** has been prepared and provides more detail on replacement activities and mitigation measures.
- 5.5.6 For the replacement period, it is expected that there will be the following average vehicle trip generation profile:

Average Daily Total

- 50 HGVs (50 arrivals + 50 departures); and
 - 49 cars, LGVs and shuttles (49 arrivals + 49 departures).
- 5.5.7 The majority of deliveries will be undertaken by 16.5m articulated vehicles or 8-10m rigid vehicles, however a small number of AIL deliveries associated with the substations will be required. AIL movements are detailed in Section 7.
- 5.5.8 As with the construction phase, for the purpose of assessing a reasonable worst-case scenario, it has been assumed that all construction activity will occur simultaneously. In reality, activities will be staggered across the duration of the replacement programme.
- 5.5.9 The anticipated number of HGV movements for the replacement period is evidenced to be below the peak number of HGVs associated with the construction phase (as shown in **Table 5.1** and **Table 5.2**). During the period

of programmed replacement expected to occur once during the operation and maintenance phase, traffic will be increased compared to normal operational traffic movements. It is however evidenced that the transport effects of the Scheme will be greatest during the temporary construction phase, and therefore no further assessment of the operation and maintenance phase has been undertaken.

5.6 Decommissioning Phase

- 5.6.1 Decommissioning is expected to occur after the 60-year design life of the Scheme in 2091 and take between 12 and 24 months. An **Outline DEMP [EN0110014/APP/7.3]** has been prepared and submitted with the draft DCO Application. This sets out the general principles to be followed in the decommissioning phase of the Scheme.
- 5.6.2 The effects of decommissioning are expected to be similar or of a lesser magnitude than construction effects. The specific method of decommissioning in the Scheme at the end of its design life is uncertain at present, as the engineering approaches to the decommissioning would evolve over the design life of the Scheme. This could include leaving the distribution and grid connection cabling in place, reducing the activities along the CRCs. The impact assessment and estimated trip generation for the decommissioning phase has therefore been assumed to not exceed the traffic volumes set out for the construction phase (as shown in **Table 5.1** and **Table 5.2**).

5.7 Construction Vehicle Timings

- 5.7.1 Construction deliveries and collections by HGV will be scheduled to arrive and depart between 09.30 and 16.30 to avoid peak traffic periods of 08.00–09.00 and 17.00–18.00. To help achieve this, HGV deliveries will be coordinated through a vehicle booking management system.
- 5.7.2 Construction workers will arrive to site between 06:30-08:00 and depart between 16:30-19:00 therefore avoiding the morning peak period and with a staggered departure in the afternoon peak period.

6 Trip Distribution

- 6.1.1 This section details the proposed routing and trip distribution associated with construction vehicles. Construction vehicle routes have been selected with the principal aim for avoiding routing vehicles through local villages wherever possible including the villages of Great Moulton, Long Stratton, Hempnall, Saxlingham Nethergate and Brooke. The selected routes are considered the most appropriate to each access and have been prepared based on engagement with NCC and National Highways (NH).
- 6.1.2 Further information on construction site access arrangements are detailed in the **Outline CTMP [EN0110014/APP/7.6]**.

6.2 Construction Vehicle Routeing

Sites

- 6.2.1 The proposed construction vehicle routeing for access to the Sites is summarised in **Table 6.1**. Routeing maps are also shown in **ES: Figure 11.2-11.8 Likely and Suitable Routes to the Scheme [EN0110014/APP/6.2.11.2-11.8]**.

Table 6.1: Construction Vehicle Routeing - Sites

Site Group	Accesses Used	Proposed Access Route
1A-D and BESS	<u>A01</u> , <u>A02</u>	From A140/B1134 roundabout: westbound on B1134, northbound on <u>A01/A02</u> . Depart on same route in reverse.
2A-C	<u>A07</u> , <u>A08</u> , <u>A10</u>	From A140 (for vehicles from south): northbound on A140, access on <u>A07/A08/A10</u> via existing laybys. Depart site: northbound on A140, execute u-turn on roundabout at Long Stratton Bypass / Parker's Lane, southbound on A140. From A140 (for vehicles from north): southbound on A140 Norwich Road, execute u-turn on A140/B1134 roundabout, northbound on A140, access on <u>A07/A08/A10</u> via existing laybys. Depart travelling northbound on A140.
3	<u>A34</u>	From B1332: westbound on B1527, southbound on Alburgh Road and Spring Lane, west onto <u>A34</u> .
4A	<u>A19</u>	From Hempnall Roundabout: south-west off exit of roundabout onto <u>A19</u> . Depart on same route in reverse.
4B	<u>A20</u>	From Hempnall Roundabout: eastbound on B1527, south onto <u>A20</u> . Depart on same route in reverse.
5A-B	<u>A23</u> , <u>A24</u> , <u>A25</u> , <u>A26</u>	From Hempnall Roundabout: eastbound on B1527, south onto <u>A23/A24</u> , for <u>A25/A26</u> continue eastbound on B1527, southbound on The Street and west onto <u>A25/A26</u> . Depart on same route in reverse.
7A-F	<u>A29</u> , <u>A30</u> , <u>A31</u> , <u>A40</u> , <u>A42</u>	From A140: south on Hempnall Roundabout onto Site 4A via <u>A19</u> , <i>await call-forward to site</i> , eastbound on Hempnall Roundabout and B1527, northbound on The Krons, westbound on Fairstead Lane, north onto <u>A29/31</u> . Internal haul route to Sites 7A-F – cross Broaden Lane via <u>A40</u> for access to 7E-F. For southern portion of 7D, southbound on Broaden Lane and west onto <u>A42</u> . Depart on same route in reverse.

Site Group	Accesses Used	Proposed Access Route
7G-H	<u>A44</u> , <u>A45</u> , <u>A57</u>	From B1332: westbound on B1527, northbound on Shotesham Road and Woodton Road, west onto <u>A57</u> , internal haul route through 7K and 7J, exit on <u>A45</u> , southwest on Fylands Road, Bussey's Loke east/west on <u>A44</u> . Depart on same route in reverse.
7I-J	<u>A45</u> , <u>A57</u>	From B1332: westbound on B1527, northbound on Shotesham Road and Woodton Road, west onto <u>A57</u> , internal haul route through 7K and 7J, cross on <u>A45</u> for access to 7I. Depart on same route in reverse.
7K-L	<u>A57</u> , <u>A58</u>	From B1332: westbound on B1527, northbound on Shotesham Road and Woodton Road, west onto <u>A57/A58</u> . Depart on same route in reverse.
8A-B	<u>A52</u> , <u>A50</u> , <u>A49</u>	From B1332: westbound on B1527, northbound on Shotesham Road and Woodton Road, westbound on Heath Road, southbound on Baxter's Lane, west on <u>A52</u> . For access to 8A, west on internal haul route through 8B, exit off <u>A50</u> onto Market Lane, south onto <u>A49</u> . Depart on same route in reverse
9	<u>A56</u>	From B1332: westbound on Littlebeck Lane, north onto <u>A56</u> . Depart on same route in reverse.
10A-E	<u>A61</u> , <u>A62</u> , <u>A65</u>	From B1332: eastbound on Harvey Lane, south onto <u>A61/A62</u> , for <u>A65</u> continue eastbound on Harvey Lane, northbound on Seething Road, west onto <u>A65</u> . Depart on same route in reverse.

Internal Haul Routes

6.2.2 There are three proposed internal haul routes to connect Sites which will be temporary for construction. These are as described in **Table 6.1** and will be utilised to connect Sub-Site groups 7A-F including using CRC 11 and 12, 7G-L and 8A-B. The internal haul routes are shown in **ES: Figure 4.1 Indicative Masterplan [EN0110014/APP/6.2.4.1]**.

Cable Route Corridor

6.2.3 The proposed construction vehicle routeing for access to the CRC is summarised in **Table 6.2**. Routeing maps are also shown in **ES: Figure 11.2-11.8 Likely and Suitable Routes to the Scheme [EN0110014/APP/6.2.11.2-11.8]**.

Table 6.2: Construction Vehicle Routeing - CRC

CRC Compound	Accesses Used	Proposed Access Route
Compound 1: A140	<u>A09</u>	<p>From A410 (for vehicles from south): northbound on A140, execute u-turn on roundabout at Long Stratton Bypass / Parker's Lane, southbound on A140, east onto <u>A09</u>. Depart travelling southbound on A140.</p> <p>From A140 (for vehicles from north): southbound on A140, east onto <u>A09</u>. Depart travelling southbound on A140, execute u-turn on A140/B1134 roundabout, northbound on A140.</p>

CRC Compound	Accesses Used	Proposed Access Route
Compound 2: Hall Lane	<u>A14</u>	From Ipswich Road: eastbound on Hall Lane, south onto <u>A14</u> . Depart on same route in reverse.
Compound 3: B1527	<u>A37</u> , <u>A38</u>	From B1332: westbound on B1527, north onto <u>A37A38</u> . Depart on same route in reverse.

6.3 Trip Distribution

6.3.1 **Table 6.3** summarises the trip distribution across the LRN and MRN, based on the peak daily construction vehicle movements set out in Section 5 and the routeing proposals set out in Section 6.2. ATC links which have no construction vehicles routed along them are not shown.

Table 6.3: Trip Distribution - Peak Daily Construction

ATC Ref / Highway Link	HGV*		Car / LGV / Shuttle*	
	Arrive	Depart	Arrive	Depart
01 - A140 (N-B1527)	34	34	114	114
02 - B1527	19	19	66	66
03 - A140 (S-B1527)	34	34	77	77
05 - Fairstead Ln (W)	11	11	39	39
08 - Littlebeck Ln	3	3	11	11
09 - Shotesham Rd	10	10	31	31
10 - B1332 (North)	3	3	63	63
11 - Harvey Ln	7	7	26	26
12 - B1527 (Woodton)	25	25	61	61
13 - B1332 (South)	35	35	33	33
14 - Alburgh Rd	4	4	15	15
15 - The St	3	3	8	8
17 - B1134	19	19	30	30
21 - A140 (S-B1134)	34	34	38	38
22 - Spring Lane	3	3	11	11
23 - The Krons	11	11	39	39
25 - Fylands Rd	2	2	11	11
26 - Bussey's Loke	2	2	11	11
27 - Heath Rd	4	4	11	11
28 - Market Ln	2	2	6	6

* Numbers are rounded

6.3.2 **Table 6.3** indicates that A140 and B1332 will be the busiest links for construction traffic and are provided as key arterial links to connect to the SRN. HGV movements will be managed via a booking system; more detailed construction management measures are outlined in the **Outline CTMP [EN0110014/APP/7.6]**.

7 Abnormal Indivisible Loads

- 7.1.1 There will be Abnormal Indivisible Load (AIL) movements associated with the construction of the Scheme. These are as follows:
- Sub-Site 1B – for the transportation of transformers for the National Grid Substation and 400kV Project Substation;
 - BESS Site – for the transportation of transformers for the 400kV Project Substation;
 - Sub-Site 4B – for the transportation of transformers for the 132kV Project Substation;
 - Sub-Site 5A – for the transportation of transformers for the 400kV Project Substation;
 - Sub-Site 7F – for the transportation of transformers for the 132kV Project Substation;
 - Sub-Site 10C – for the transportation of transformers for the 132kV Project Substation; and
 - CRC Compounds 1-3 – for the transportation of 132kV and 400kV cable drums.
- 7.1.2 The Principal Contractor (PC) could specify large plant which might be transported as an AIL. Those movements would be the subject of standard notification and consenting by the affected Police, Highways Authorities and structures' owners.
- 7.1.3 The final number of AIL movements will be confirmed in the CTMP secured by DCO Requirement. Initial AIL routeing analysis has been carried out and can be found as standalone AIL Reports in **Appendix D**.

7.2 AIL Routeing

- 7.2.1 AILs for transformers and cable drums will be delivered by sea to ports at Felixstowe or Kings Lynn. The final port of entry is still under consideration based on routeing analysis and will be confirmed in the detailed CTMP.
- 7.2.2 AIL movements will utilise the SRN to reach the Sites only using the MRN and LRN for the final part of the journey. The anticipated routes on the MRN / LRN are as follows:
- Sub-Sites 1A-D and BESS – north or southbound (subject to confirmation) on A140, westbound on B1134 Station Road, north onto access A02. Depart on same route in reverse;

- Sub-Site 4B – north or southbound on A140, eastbound on B1527, south onto A20. Depart on same route in reverse;
- Sub-Sites 5A-B – north or southbound on A140, eastbound on B1527, south onto A23 or A24. Depart on same route in reverse;
- Sub-Site 7F – southbound on B1332, westbound on Stoke Road, Poringland Road, Long Lane, south on Norwich Road, The Street, Broaden Lane, east on A40. Depart on same route in reverse;
- Sub-Site 10C – southbound on B1332, eastbound on Harvey Lane, south onto A61. Depart on same route in reverse;
- CRC Compound 1 (A140) – north or southbound on A140, east onto A09. Depart on same route in reverse;
- CRC Compound 2 (Hall Lane) – north or southbound on A140, Norwich Road, The Street, Ipswich Road, east on Hall Lane, south onto A14. Depart on same route in reverse;
- CRC Compound 3 (B1527) – southbound on B1332, west on B1527, north onto A37/A38. Depart on same route in reverse.

7.3 Highway Mitigation

7.3.1 To accommodate the proposed AIL movements for transformer and cable drum movements, temporary mitigation will be required at certain locations along the AIL routes. These form part of the Highway Works as identified in the **Works Plans [EN0110014/APP/2.3]**. The areas are labelled as:

- Land at Station Road 1 – LSR1;
- Land at Station Road 2 – LSR2;
- Land at Station Road 3 – LSR3;
- Land at Station Road 4 – LSR4;
- Land at Ipswich Road – LIR;
- Land at Hall Lane – LHL; and
- Land at Church Hill – LCH.

7.3.2 These are areas that have provisionally been identified where the AIL vehicle may overrun or oversail land outwith the carriageway. This may require temporary removal of street furniture, pruning or removal of vegetation or the introduction of temporary protection measures to protect existing assets.

7.4 AIL Management Measures

7.4.1 All AIL movements will be managed by a specialist haulage contractor to ensure safety and compliance. Traffic management arrangements will be agreed in advance with National Highways, LHA, and other relevant local highway authorities, structures' owners and the Police where necessary before any AIL movements take place. These arrangements may include:

- Notification to the local highway authority, structures' owners and Police prior to each movement;
- Planning and approval of the route with relevant authorities;
- Advance communication with stakeholders along the route regarding timing and details of the movement;
- Use of appropriate vehicle markings, plates, and lighting for visibility and safety;
- Escorting vehicles to the site where required; and
- Implementation of rolling road closures if necessary to maintain safe passage.

7.4.2 These measures will help ensure that AILs are transported efficiently while minimising disruption to the SRN, MRN and LRN.

7.4.3 These measures are secured in the **Outline CTMP [EN0110014/APP/7.6]**.

8 Mitigation and Management

8.1 Construction Traffic

- 8.1.1 An appointed PC will introduce measures to minimise impacts associated with construction activities. It will be the responsibility of the PC to oversee the implementation of the mitigation and management measures.
- 8.1.2 A full list of proposed construction traffic mitigation and management measures is detailed in the **Outline CTMP [EN0110014/APP/7.6]** and includes the following categories:
- Safety and environmental standards programmes;
 - Adherence to designated routes;
 - Delivery scheduling and monitoring;
 - Waiting points and call forward;
 - Retiming deliveries;
 - Signage;
 - Temporary traffic management;
 - Parking provision and management;
 - Wheel cleaning facility;
 - Noise reduction and air quality;
 - Site security;
 - Road condition survey;
 - PRow protection and management; and
 - Community engagement.
- 8.1.3 A Framework Construction Worker Travel Plan (FCWTP) has been prepared to promote sustainable transport for workers during the Scheme's construction phase, as detailed in Section 8 of the **Outline CTMP [EN0110014/APP/7.6]**. The FCWTP will be developed following the appointment of a PC and the final construction programme and workforce requirements are confirmed. A final CWTP will be incorporated into the CTMP secured by DCO Requirement.

PRoW

- 8.1.4 The anticipated duration of PRoW closures has been categorised into short-term and medium-term periods. No PRoW are expected to require long-term closures. The durations are indicative and subject to change following detailed design and the appointment of a PC.
- 8.1.5 The PRoW that are within the Scheme and which will need to be crossed by internal access tracks and construction vehicles, the indicative duration of their closure, and respective management measures are presented in the **Outline PRoW Management Plan [EN0110014/APP/7.8]**.

8.2 Operational and Maintenance Traffic

- 8.2.1 An **Outline OTMP [EN0110014/APP/7.7]** has been prepared and provides a framework for the management of vehicle movements to and from the Scheme during periods of scheduled replacement, repair activities and general activities associated with the operational phase.
- 8.2.2 Section 6 of the **Outline OTMP [EN0110014/APP/7.7]** details the proposed mitigations for impacts associated with traffic during the operational phase. The measures include the following categories:
- Access points;
 - Delivery management;
 - Wheel cleaning;
 - Traffic management;
 - PRoW management;
 - Noise reduction and air quality;
 - Site security; and
 - Community engagement and monitoring.

9 Effects on the Local Highway Network

9.1.1 This section summarises the effect of the Scheme on the LRN and MRN.

9.2 Construction Phase

9.2.1 The construction phase is anticipated to take 24 months. The assessment of effects on the construction phase is based on peak daily vehicle trip generation and distribution, as set out in Sections 5 and 6. Baseline traffic flows are summarised in **Table 2.5**.

9.2.2 Construction traffic is anticipated to peak in 2029. TEMPro² growth factors have been applied to the observed baseline traffic flows to provide a future baseline from which peak construction traffic effects can be measured. ATC locations 01-20 were undertaken in 2024 and so have been extrapolated from 2024-2029. ATC locations 21-30 were undertaken in 2025 and so have been extrapolated from 2025-2029.

9.2.3 The 2029 future baseline flows are summarised in **Table 9.1**.

Table 9.1: Future Baseline (2029) Flows

ATC Location	AADT 2029 (7-day)*	AADT 2029 % HGV*
01 - A140 (N-B1527)	20,872	14%
02 - B1527	5,372	12%
03 - A140 (S-B1527)	21,310	15%
04 - Bungay Rd	2,726	15%
05 - Fairstead Ln (W)	87	17%
06 - Norwich Rd	1,290	9%
07 - Broaden Ln	1,300	8%
08 - Littlebeck Ln	109	22%
09 - Shotesham Rd	141	19%
10 - B1332 (North)	7,458	15%
11 - Harvey Ln	461	20%
12 - B1527 (Woodton)	955	18%
13 - B1332 (South)	7,820	14%
14 - Alburgh Rd	1,139	19%
15 - The Street	1,478	12%
16 - Lodge Rd	182	23%
17 - B1134	3,106	18%
18 - The Green	71	32%
19 - Wash Ln	71	32%
20 - Baxter's Ln	147	18%

² TEMPro stands for Trip End Model PROgram and is a software tool used in the UK to view and analyse data from the National Trip End Model (NTEM), which provides projections of trip origin and destination growth for use in transport modelling. This model helps forecast the impacts of transport related projects.

ATC Location	AADT 2029 (7-day)*	AADT 2029 % HGV*
21 - A140 (S-B1134)	14,837	19%
22 - Spring Lane	767	18%
23 - The Krons	957	15%
24 - Fairstead Ln (E)	1,463	15%
25 - Fylands Rd	127	20%
26 - Bussey's Loke	56	13%
27 - Heath Rd	403	15%
28 - Market Ln	33	12%
29 - Wood Ln	776	20%
30 - Edge's Ln	43	14%

* Numbers are rounded

9.2.4 Peak daily development construction flows on the LRN and MRN for the Sites and CRC (see **Table 5.1** and **Table 5.2**) have been added to 2029 future baseline flows to calculate a percentage change in vehicles. This is shown in **Table 9.2**. Links where a percentage change is equivalent to 0% (i.e. no development flows anticipated on the link) are not shown.

Table 9.2: Percentage Impact: Peak Daily Construction Flows

ATC Location	AADT 2029 (All Vehicles, 7-Day)*	Plus Dev*	% Change	
			Total Vehicles	HGVs
01 - A140 (N-B1527)	20,872	21,167	1.41%	2.27%
02 - B1527	5,372	5,542	3.16%	5.70%
03 - A140 (S-B1527)	21,310	21,531	1.04%	2.07%
05 - Fairstead Ln (W)	87	187	115.51%	146.67%
08 - Littlebeck Ln	109	137	25.62%	25.00%
09 - Shotesham Rd	141	223	57.98%	74.07%
10 - B1332 (North)	7,458	7,589	1.76%	0.53%
11 - Harvey Ln	461	527	14.33%	15.56%
12 - B1527 (Woodton)	955	1,127	18.01%	29.24%
13 - B1332 (South)	7,820	7,956	1.73%	6.45%
14 - Alburgh Rd	1,139	1,177	3.34%	3.70%
15 - The Street	1,478	1,499	1.42%	2.73%
17 - B1134	3,106	3,204	3.16%	6.95%
21 - A140 (S-B1134)	14,837	14,980	0.96%	2.40%
22 - Spring Lane	767	795	3.65%	4.41%
23 - The Krons	957	1,057	10.45%	15.38%
25 - Fylands Rd	127	152	19.62%	12.00%
26 - Bussey's Loke	56	81	44.76%	42.86%
27 - Heath Rd	403	433	7.44%	13.33%
28 - Market Ln	33	49	48.48%	100.00%

* Numbers are rounded

- 9.2.5 Guidelines for the environmental assessment of transport and access are published by IEMA (the IEMA Guidelines)³ (Ref 1-2). Within the IEMA Guidelines, two general rules⁴ are suggested that can be used as the criteria to assess the scale and extent of the environmental assessment.
- 9.2.6 **Table 9.2** indicates that some links exceed IEMA Guidance thresholds, including Fairstead Lane, Shotesham Road, Bussey's Loke and Market Lane. These links are rural roads (see **Table 2.4**) with low baseline flows, which therefore result in a higher percentage increase from development traffic.
- 9.2.7 There will not be a significant percentage change in daily vehicle trips on key arterial routes such as A140 and B1332, which sit below a 2% change in all vehicle flows.
- 9.2.8 A full assessment of percentage impact, in alignment with the IEMA Guidelines (Ref 1-2), is detailed in **ES: Chapter 11 Transport and Access [EN0110014/AP/6.1.19]**.

Hempnall Roundabout

- 9.2.9 Development traffic is anticipated to use Hempnall Roundabout to route to/from the SRN and the road network outwith the Study Area. The development traffic utilising the roundabout includes:
- Sites 1A-D, 2A-C, 4A-B, 5A-B, 7A-F;
 - BESS Site – adjacent to Sub-Sites 1A-B;
 - CRC compound 1 (east of A140, opposite Sub-Site 2C); and
 - CRC compound 2 (north of Mill Road).
- 9.2.10 The anticipated turning movements associated with peak daily construction traffic flows are shown in **Figure 9.1** and include an indication of turning movements in/out of Sub-Site 4A which is accessed via a private access on Hempnall Roundabout. All vehicles are shown in bold, and HGVs indicated in italics.

³ Note that IEMA has been renamed and is referred to as Institute of Sustainability and Environmental Professionals (ISEP).

⁴ Rule 1: Include highway links where traffic flows would increase by more than 30% (or the number of HGVs would increase by more than 30%); and Rule 2: Include highway links of high sensitivity where traffic flows have increased by 10% or more.

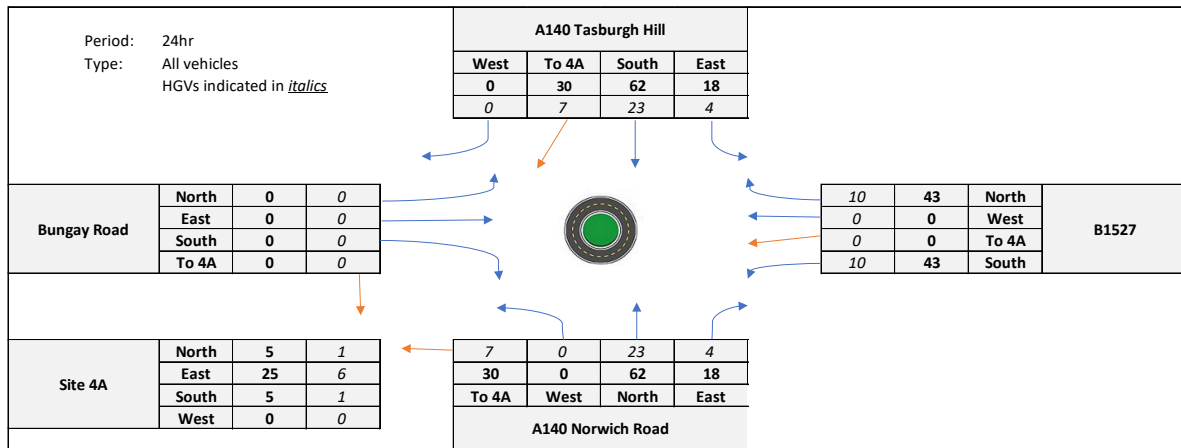


Figure 9.1: Peak Daily Construction Flows - Turning Movements: Hempnall Roundabout

9.2.11 **Figure 9.2** summarises the percentage change in traffic flows for turning movements at Hempnall Roundabout, based on percentage change from 2029 future baseline figures which have been calculated using the same methodology using TEMPro.

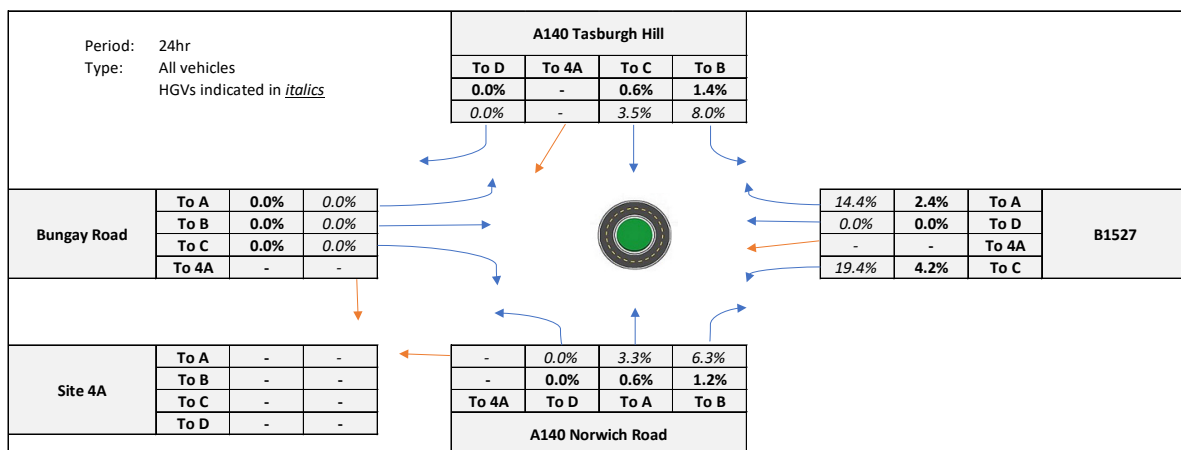


Figure 9.2: Percentage Impact, Peak Daily Construction Flows - Turning Movements: Hempnall Roundabout

9.2.12 Impacts associated with turning movements is not directly detailed in the IEMA Guidance, however there are no points at which traffic flows are expected to exceed defined thresholds. Percentage increase in all traffic is imperceptible, however there are increases over 19% for movements to/from B1527. This is attributed to vehicles accessing Sub-Sites 7A-F and 5A-B, however this increase is not considered significant.

9.2.13 A full assessment of impacts on Hempnall Roundabout, alongside an assessment of transport and access proposals for Sub-Sites 7A-F is detailed in **Appendix B**.

9.3 Peak Hour Traffic Flows

- 9.3.1 Construction deliveries and collections by HGV will be scheduled to arrive and depart between 09.30 and 16.30 to avoid peak traffic periods of 08.00–09.00 and 17.00–18.00. Construction workers will arrive to site between 06:30-08:00 and depart between 16:30-19:00 therefore avoiding the morning peak period and with a staggered departure in the afternoon peak period.

9.4 Operation and Maintenance Phase

- 9.4.1 As stated in Section 5, during the operation and maintenance phase there is anticipated to be around five visits per month for maintenance purposes. The planned replacement period will occur once during the operation and maintenance phase and is anticipated to generate fewer HGV movements on the LRN compared to the construction phase. Trip generation associated with the replacement period is detailed in Section 5.5.
- 9.4.2 Given that the construction phase will generate a greater volume of vehicles compared to the operation and maintenance phase, an assessment of percentage impact for the operation and maintenance phase has not been undertaken.
- 9.4.3 The principles contained within the **Outline CTMP [EN0110014/APP/7.6]** will be applied for the replacement period, including measures such as adherence to designated HGV routes. The **Outline OTMP [EN0110014/APP/7.7]** provides additional detail on the operation and maintenance phase.

9.5 Decommissioning Phase

- 9.5.1 As stated in Section 5, the effects of decommissioning are expected to be similar or of a lesser magnitude than construction effects. The impact assessment and estimated trip generation for the decommissioning phase has therefore been assumed to not exceed the traffic volumes set out for the construction phase. An **Outline DEMP [EN0110014/APP/7.3]** has been prepared and submitted with the DCO Application.

10 Cumulative Effects

10.1.1 A number of cumulative schemes are proposed in the local area. These are identified and presented in full in **ES: Appendix 2.4 Cumulative Schemes [EN0110014/APP/6.3.2.4]**.

10.2 Construction Phase

10.2.1 The cumulative schemes detailed in **Table 10.1** have been considered to potentially have an effect on transport and access during the Construction Phase of the Scheme. These cumulative schemes were agreed with NCC and are not inherent within the current TEMPro growth factors used to establish the future baseline year in Section 9.

Table 10.1: Cumulative Schemes not Inherent within TEMPro

Ref	Name	Description	Potential Cumulative Impact
2023/1386	Land south of Church Road – Woodton, Norfolk	Residential development for 50 dwellings with parking, landscaping and open space.	Operational phase of the cumulative scheme will align with construction phase of the Scheme. Main impact anticipated to be on B1527 north of Woodton and B1332.
2025/1689	Land north of Carr Lane – Great Moulton, Norfolk	Erection of a BESS and associated infrastructure including access, drainage, landscaping and other incidental works.	Construction phase of the cumulative scheme will align with the construction phase of the Scheme. Main impact anticipated on A140.
EN010109	Sheringham and Dudgeon Extension Projects	Sheringham and Dudgeon Extension Projects have a maximum installed capacity of 317MW and 402MW respectively. Scheme includes joint export cable system, offshore and onshore, connecting to national grid transmission network at Norwich Main Substation.	Construction phase of the cumulative scheme will align with the construction phase of the Scheme. Main impact anticipated on A140 between A47 / Mangreen Way and A47.
EN020027	Norwich to Tilbury	Proposal to reinforce 400kV high voltage power network in East Anglia to include a new 400kV connection substation in the Tendring district.	Construction phase of the cumulative scheme will align with the construction phase of the Scheme. Main impact anticipated on A140 and A47.

10.2.2 The Sheringham and Dudgeon Extension Projects (EN010109) is forecast to generate construction traffic to the north of the Scheme, on A140 between A47 and Mangreen Lane, A47 and A11. As such, this cumulative development is not anticipated to have an impact on the highway links within the Study Area with which ATC surveys have been undertaken. The trip-generation associated with this cumulative scheme is therefore not

considered in the following calculations in this section. Information regarding development and cumulative impacts on A47 and A11 which form part of the SRN managed by National Highways are detailed in **Appendix B**.

10.2.3 It should also be noted that the development flows obtained for EN020027 – Norwich to Tilbury is for the developments peak construction year of 2028. The peak construction year for the Scheme is identified as 2029. Therefore, the cumulative development flows can be considered a worst case scenario as the peak construction years do not overlap and will in reality be lower than those set out below.

10.2.4 **Table 10.2** summarises the estimated peak daily traffic distribution associated with the cumulative schemes. ATC links which have no cumulative scheme vehicles routed along them are not shown.

Table 10.2: Trip Distribution – Peak Daily Cumulative Development

ATC Ref / Highway Link	HGV		Car / LGV / Shuttle	
	Arrive	Depart	Arrive	Depart
01 – A140 (N-B1527)	369	369	177	177
02 – B1527	0	0	75	75
03 – A140 (S-B1527)	369	369	177	177
10 – B1332 (North)	0	0	38	38
13 – B1332 (South)	0	0	38	38
21 – A140 (S-B1134)	369	369	139	139

10.2.5 More information on transport and access cumulative developments and impact on the MRN and LRN is detailed in **ES: Chapter 11 Transport and Access [EN0110014/APP/6.1.11]**.

10.2.6 **Table 10.3** details the percentage impact on the MRN and LRN, including development construction vehicles (see **Table 6.3**) as well as cumulative development flows as shown in **Table 10.2**. Links where a percentage change is equivalent to 0% (i.e. no development flows anticipated on the link) are not shown.

Table 10.3: Percentage Impact - Peak Daily Development + Cumulative Flows

ATC Location	AADT 2029 (All Vehicles, 7-Day)*	Plus Dev + Cumulative*	% Change	
			Total Vehicles	HGVs
01 - A140 (N-B1527)	20,872	22,259	6.64%	27.28%
02 - B1527	5,372	5,692	5.96%	5.70%
03 - A140 (S-B1527)	21,310	22,623	6.16%	24.95%
05 - Fairstead Ln (W)	87	187	115.51%	146.67%
08 - Littlebeck Ln	109	137	25.62%	25.00%
09 - Shotesham Rd	141	223	57.98%	74.07%
10 - B1332 (North)	7,458	7,664	2.76%	0.53%

ATC Location	AADT 2029 (All Vehicles, 7-Day)*	Plus Dev + Cumulative*	% Change	
			Total Vehicles	HGVs
11 - Harvey Ln	461	527	14.33%	15.56%
12 - B1527 (Woodton)	955	1,127	18.01%	29.24%
13 - B1332 (South)	7,820	8,031	2.69%	6.45%
14 - Alburgh Rd	1,139	1,177	3.34%	3.70%
15 - The Street	1,478	1,499	1.42%	2.73%
17 - B1134	3,106	3,204	3.16%	6.95%
21 - A140 (S-B1134)	14,837	15,997	7.81%	28.88%
22 - Spring Lane	767	795	3.65%	4.41%
23 – The Krons	957	100	10.45%	15.38%
25 - Fylands Rd	127	152	19.62%	12.00%
26 - Bussey's Loke	56	81	44.76%	42.86%
27 - Heath Rd	403	433	7.44%	13.33%
28 - Market Ln	33	49	48.48%	100.00%

* Numbers are rounded

10.2.7 **Table 10.3** evidences an increase in percentage change on A140, B1527 (north of Woodton) and B1332 associated with cumulative schemes. The percentage changes do not, however, exceed IEMA Guidance (Ref 1-2) thresholds. Other links such as Fairstead Lane are above thresholds however this is as a result of the Scheme development traffic and not cumulative flows. Given the temporary nature of the construction period, and percentage change remaining below thresholds, it is concluded that cumulative development will not have a significant impact on the MRN and LRN from a transport and access perspective.

10.2.8 As set out Section 8 a range of construction vehicle mitigation and management measures are proposed and are detailed in the **Outline CTMP [EN0110014/APP/7.6]**

10.2.9 A full assessment of percentage impact and cumulative development impact, in alignment with the IEMA Guidelines (Ref 1-2), is detailed in **ES: Chapter 11 Transport and Access [EN0110014/AP/6.1.11]**.

10.3 Operation and Maintenance Phase

10.3.1 As stated in Section 5, during the operation and maintenance phase there is anticipated to be around five visits per month for maintenance purposes. The planned replacement period will occur once during the operational phase, and is anticipated to generate fewer HGV movements on the LRN compared to the construction phase. This will not result in any material cumulative effect on the LRN. Refer to the **Outline OTMP [EN0110014/APP/7.7]** for more detail of the operational and maintenance phase.

10.4 Decommissioning Phase

- 10.4.1 As stated in Section 5, the effects of decommissioning are expected to be similar or of a lesser magnitude than construction effects. The impact assessment and estimated trip generation for the Decommissioning Phase has therefore been assumed to not exceed the traffic volumes set out for the Construction Phase. An **Outline DEMP [EN0110014/APP/7.3]** has been prepared and submitted with the DCO Application.

11 Summary and Conclusions

- 11.1.1 This TA has provided an overview of the potential effects of the Scheme in relation to transport and access. It should be read in conjunction with:
- **ES: Chapter 11 Transport and Access [EN0110014/APP/6.1.11];**
 - **Outline CTMP [EN0110014/APP/7.6];**
 - **Outline PRow Management Plan [EN0110014/APP/7.8];** and
 - **Outline OTMP [EN0110014/APP/7.7].**
- 11.1.2 The Scheme comprises the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) electricity generating station with a total capacity exceeding 100 megawatts (MW) and associated development including a Battery Energy Storage System (BESS), up to three 132 kV Project Substations and up to three 400kV Project Substations, Grid Connection Infrastructure and a new National Grid Substation
- 11.1.3 There will be a total of 65 access and crossing points proposed for the Scheme to be utilised for the Sites, CRC, National Grid substation and Bess. Concept site access design drawings for each access have been prepared based on the legal maximum sized vehicles. Site access drawings, visibility splays and swept-path analysis (including the BESS compound) is detailed in **Appendix C**.
- 11.1.4 On a peak day during the construction phase of the Sites, BESS and National Grid Substation, the following movements are anticipated:
- 69 HGVs (69 arrivals + 69 departures); and
 - 205 cars, LGVs and shuttles (205 arrivals + 205 departures).
- 11.1.5 On a peak day during the construction phase of the CRC, the following movements are anticipated:
- 33 HGVs (33 arrivals + 33 departures); and
 - 45 cars, LGVs and shuttles (45 arrivals + 45 departures).
- 11.1.6 There are anticipated to be around five visits to each Solar PV Site per month for maintenance purposes. There will be no operational transport-related impacts from the installed Grid Connection Cables (within the CRC). Occasional access for maintenance may be required, however this is expected to occur only once or twice per year. Defective panels or breakages will be replaced as needed during the operational phase, and activities will take place on an ad-hoc basis with an anticipated negligible number of HGV movements on a day-to-day basis.

- 11.1.7 For the replacement period, it is expected that there will be the following average daily movements:
- 50 HGVs (50 arrivals + 50 departures); and
 - 49 cars, LGVs and shuttles (49 arrivals + departures).
- 11.1.8 The number of vehicles associated with the operational and maintenance, and replacement period is not anticipated to exceed the traffic volumes set out for the construction phase.
- 11.1.9 The Scheme is anticipated to have an operational life of 60 years, by which point it will be decommissioned. The number of vehicles associated with decommissioning are not anticipated to exceed the traffic volumes set out for the Construction Phase.
- 11.1.10 A range of management and mitigation measures will be implemented to minimise effects on the LRN, MRN and SRN. These include the following categories for the construction phase:
- Safety and environmental standards programmes;
 - Adherence to designated routes;
 - Delivery scheduling and monitoring;
 - Waiting points and call forward;
 - Retiming deliveries;
 - Signage;
 - Temporary traffic management;
 - Parking provision and management;
 - Wheel wash facility;
 - Noise reduction and air quality;
 - Site security;
 - Road condition survey;
 - PRow protection and management; and
 - Community engagement.
- 11.1.11 The anticipated impacts during the construction phase are temporary and short-term in nature, limited to the duration of works. The operational and maintenance phase is additionally not considered to exceed the traffic volumes associated with construction and decommissioning. Effects will be

managed and mitigated through the comprehensive set of measures introduced in this TA and detailed in accompanying Management Plans.

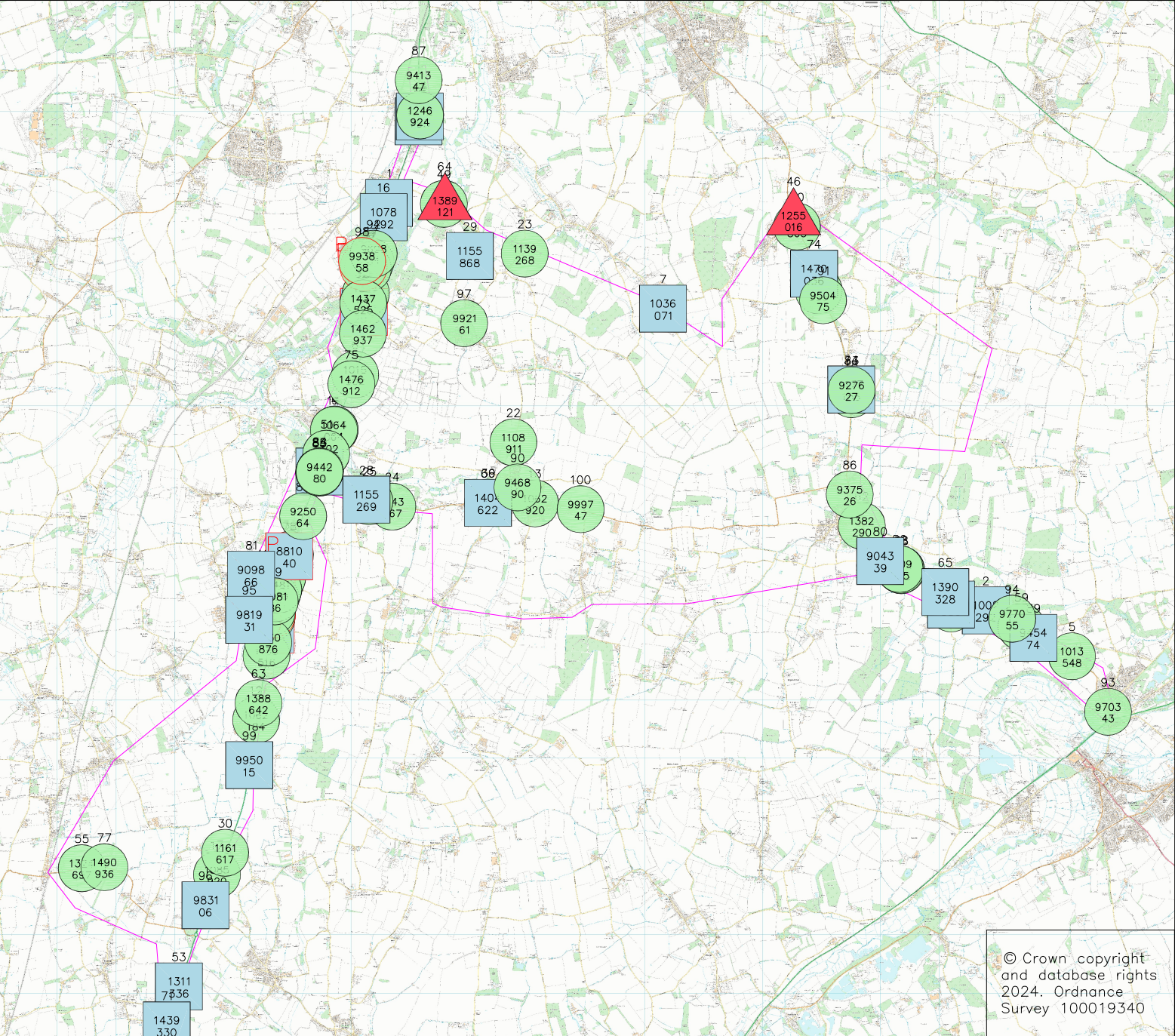
- 11.1.12 Given the temporary nature of the construction phase, localised extent of activities and implementation of management and mitigation measures, the impact of the Scheme in relation to transport and access is not considered significant to the safe and efficient operation of the road network and PRow network. No further mitigation would be required beyond that set out within this TA and its accompanying Management Plans.
- 11.1.13 Based on the information contained within this TA and accompanying documents, it is concluded that the Scheme is acceptable from a transport and access perspective.

12 References

- Ref 1-1. Ministry of Housing, Communities and Local Government (2014) 'Guidance: Travel Plans, Transport Assessments and Statements', <[Travel Plans, Transport Assessments and Statements - GOV.UK](#)>, accessed December 2025.
- Ref 1-2. Institute of Environmental Management and Assessment (2023) 'Environmental Assessment of Traffic and Movement', <[iema-report-environmental-assessment-of-traffic-and-movement-rev07-july-2023.pdf](#)>, accessed December 2025.
- Ref 1-3. Heavy Goods Vehicles are defined as goods vehicles with a Gross Vehicle Weight exceeding 3.5 tonnes.

Appendix A Accident Data Records 2019 to 2024

5 year accident locations: East Pye Solar DCO: 01/09/2019 - 31/08/2024



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Accident Data Records

01 September 2019 to 31 August 2024

Table 1: Summary of Accidents, 5-Years

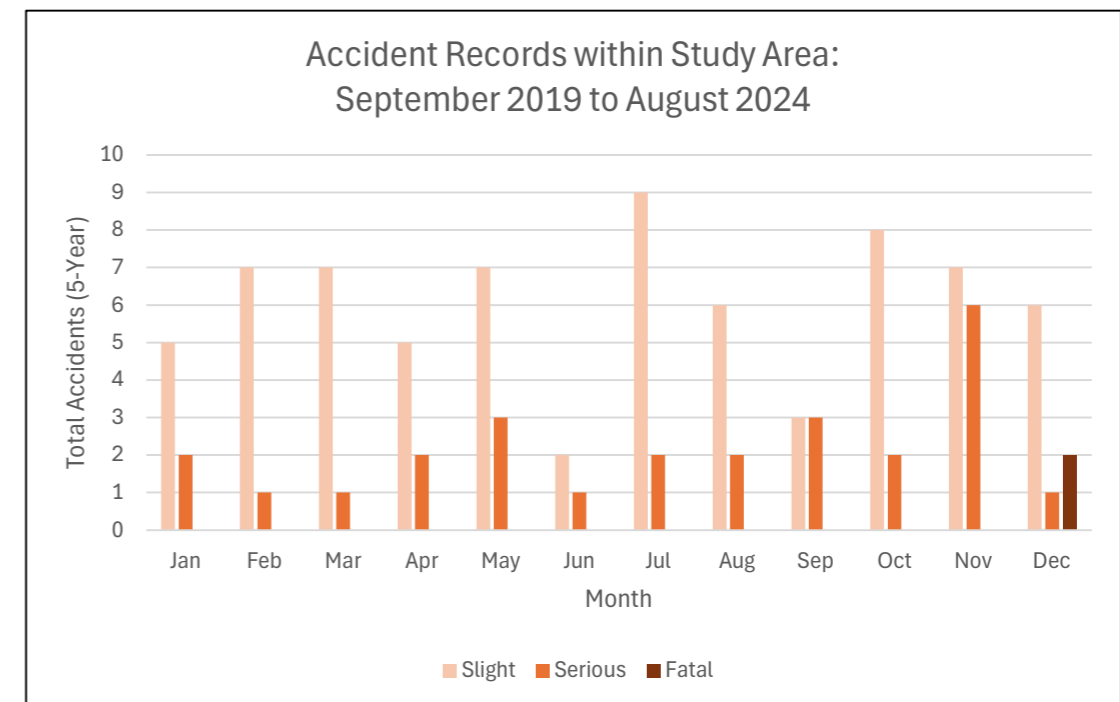
Ref	Severity	No. Casualties	Day of Week	Month	Month	Year	Time (24hr)	Time Period	Grid Ref: Easting	Grid Ref: Northing
1000193	Serious	1	5	11	Nov	2020	0850	8am - Noon	621644	299448
1002292	Serious	2	2	11	Nov	2020	0550	4am - 8am	631797	292517
1004524	Serious	1	5	11	Nov	2020	0720	4am - 8am	619632	292191
1007918	Slight	1	6	11	Nov	2020	1719	4pm - 8pm	620722	295591
1013548	Slight	1	7	11	Nov	2020	1930	4pm - 8pm	633263	291737
1015902	Slight	1	6	12	Dec	2020	1923	4pm - 8pm	621069	296529
1036071	Serious	1	3	4	Apr	2021	0629	4am - 8am	626307	297650
1043935	Slight	1	6	3	Mar	2021	1257	Noon - 4pm	628955	297958
1046921	Slight	1	6	5	May	2021	1455	Noon - 4pm	620721	295593
1048311	Slight	2	7	4	Apr	2021	1936	4pm - 8pm	619752	292833
1058968	Slight	1	1	5	May	2021	1719	4pm - 8pm	620458	294858
1062184	Slight	3	2	5	May	2021	2125	8pm - Midnight	619384	290651
1062920	Slight	1	4	6	Jun	2021	0700	4am - 8am	624129	294337
1064064	Slight	1	2	7	Jul	2021	0640	4am - 8am	620708	295585
1077798	Serious	1	2	7	Jul	2021	1730	4pm - 8pm	620462	294878
1078492	Serious	3	2	8	Aug	2021	1402	Noon - 4pm	621554	299205
1085920	Slight	1	2	7	Jul	2021	1141	8am - Noon	618719	288022
1094861	Slight	1	5	7	Jul	2021	1035	8am - Noon	629514	296195
1099581	Serious	1	7	10	Oct	2021	1058	8am - Noon	622148	300836
1107620	Slight	1	5	10	Oct	2021	0820	8am - Noon	619651	292471
1108675	Slight	3	1	11	Nov	2021	1150	8am - Noon	621299	298373
1108911	Slight	1	6	10	Oct	2021	1545	Noon - 4pm	623761	295376
1139268	Slight	1	6	1	Jan	2022	0943	8am - Noon	623954	298586
1143267	Slight	1	6	2	Feb	2022	1448	Noon - 4pm	621702	294282
1145571	Slight	1	4	1	Jan	2022	1610	4pm - 8pm	621310	294374
1152269	Slight	2	5	2	Feb	2022	1100	8am - Noon	620475	294898
1152292	Slight	1	5	1	Jan	2022	1322	Noon - 4pm	619803	293007
1155269	Serious	1	6	2	Feb	2022	0722	4am - 8am	621261	294401
1155868	Serious	1	2	3	Mar	2022	1234	Noon - 4pm	623021	298545
1161617	Slight	2	3	3	Mar	2022	0724	4am - 8am	618858	288393
1161907	Slight	1	3	3	Mar	2022	1333	Noon - 4pm	619764	292888
1164292	Slight	1	5	3	Mar	2022	1558	Noon - 4pm	619960	293464
1173015	Slight	1	4	4	Apr	2022	1715	4pm - 8pm	619827	293068
1177156	Serious	2	7	5	May	2022	1303	Noon - 4pm	629508	296274
1188516	Slight	1	5	6	Jun	2022	0619	4am - 8am	619561	291747
1195138	Slight	2	1	5	May	2022	1546	Noon - 4pm	631208	292550
1207721	Slight	1	6	8	Aug	2022	1359	Noon - 4pm	621240	297878
1209941	Slight	1	3	8	Aug	2022	1330	Noon - 4pm	630358	293201
1216649	Slight	1	3	7	Jul	2022	0843	8am - Noon	623331	294349

Table 2: Accident Severity

Severity	Total Accidents	%	Total Casualties	%
Slight	72	72%	97	69%
Serious	26	26%	41	29%
Fatal	2	2%	3	2%
Total	100		141	

Table 4: Accidents by Month

Month	Slight	Serious	Fatal	Total	% Total
Jan	5	2	0	7	7%
Feb	7	1	0	8	8%
Mar	7	1	0	8	8%
Apr	5	2	0	7	7%
May	7	3	0	10	10%
Jun	2	1	0	3	3%
Jul	9	2	0	11	11%
Aug	6	2	0	8	8%
Sep	3	3	0	6	6%
Oct	8	2	0	10	10%
Nov	7	6	0	13	13%
Dec	6	1	2	9	9%



1217803	Slight	1	7	9	Sep	2022	1049	8am - Noon	628585	299046
1231518	Slight	1	4	10	Oct	2022	0317	Midnight - 4am	619470	292972
1233928	Slight	1	6	9	Sep	2022	1250	Noon - 4pm	621308	298391
1242795	Serious	3	3	11	Nov	2022	1312	Noon - 4pm	622168	300919
1246924	Slight	1	7	11	Nov	2022	1120	8am - Noon	622174	300937
1253219	Slight	1	5	12	Dec	2022	1045	8am - Noon	619647	292390
1255016	Fatal	2	4	12	Dec	2022	1446	Noon - 4pm	628527	299173
1267356	Serious	4	3	1	Jan	2023	1745	4pm - 8pm	631205	292616
1281003	Slight	1	6	2	Feb	2023	1030	8am - Noon	630351	293206
1285360	Slight	1	1	1	Jan	2023	1056	8am - Noon	622578	299432
1289600	Slight	1	5	3	Mar	2023	1233	Noon - 4pm	619653	292440
1302528	Slight	1	1	4	Apr	2023	2133	8pm - Midnight	620577	295181
1309065	Slight	1	6	5	May	2023	0220	Midnight - 4am	630331	293222
1311336	Serious	2	5	5	May	2023	0810	8am - Noon	618071	286120
1318297	Serious	1	3	6	Jun	2023	1525	Noon - 4pm	621219	297593
1324697	Slight	1	7	7	Jul	2023	0850	8am - Noon	616420	288131
1347817	Slight	1	3	8	Aug	2023	1500	Noon - 4pm	621252	297912
1355978	Slight	1	3	9	Sep	2023	0740	4am - 8am	621332	298450
1360970	Slight	1	2	10	Oct	2023	0809	8am - Noon	621285	298332
1365213	Slight	2	6	10	Oct	2023	1335	Noon - 4pm	632402	292235
1370147	Serious	1	6	11	Nov	2023	0820	8am - Noon	619646	292771
1375321	Slight	1	4	11	Nov	2023	1650	4pm - 8pm	621212	298356
1382290	Slight	2	2	12	Dec	2023	1019	8am - Noon	629688	293956
1388642	Slight	1	6	12	Dec	2023	1030	8am - Noon	619426	290938
1389121	Fatal	1	4	12	Dec	2023	2237	8pm - Midnight	622597	299428
1390328	Serious	1	3	12	Dec	2023	1630	4pm - 8pm	631108	292828
1404622	Serious	1	4	1	Jan	2024	0700	4am - 8am	623329	294345
1404960	Slight	1	4	1	Jan	2024	1800	4pm - 8pm	619653	292493
1420866	Slight	1	6	3	Mar	2024	0007	Midnight - 4am	619412	292345
1430876	Slight	1	5	3	Mar	2024	0755	4am - 8am	619591	291972
1437525	Slight	1	2	4	Apr	2024	1743	4pm - 8pm	621208	297739
1439330	Serious	2	1	5	May	2024	1150	8am - Noon	617863	285457
1445725	Slight	2	3	5	May	2024	1624	4pm - 8pm	619717	292724
1462937	Slight	4	3	7	Jul	2024	0815	8am - Noon	621202	297225
1470036	Serious	2	7	7	Jul	2024	0638	4am - 8am	628876	298243
1476912	Slight	5	3	7	Jul	2024	1356	Noon - 4pm	621005	296364
1481020	Slight	1	5	8	Aug	2024	2115	8pm - Midnight	619761	292869
1490936	Slight	1	3	8	Aug	2024	0840	8am - Noon	616804	288148
881040	Serious	1	5	9	Sep	2019	1137	8am - Noon	619950	293438
898186	Slight	4	6	11	Nov	2019	1747	4pm - 8pm	619701	292671
904339	Serious	3	1	11	Nov	2019	1104	8am - Noon	630001	293356
909866	Serious	1	6	9	Sep	2019	1546	Noon - 4pm	619299	293121
925064	Slight	4	3	10	Oct	2019	1400	Noon - 4pm	620185	294118
927627	Slight	1	1	12	Dec	2019	1155	8am - Noon	629514	296263
929192	Slight	1	6	12	Dec	2019	1911	4pm - 8pm	620467	294882
929901	Slight	1	2	2	Feb	2020	1710	4pm - 8pm	620460	294862
937526	Slight	1	3	2	Feb	2020	0945	8am - Noon	629482	294489

Table 3: Total Accidents by Time Period

Severity	Midnight - 4am	4am - 8am	8am - Noon	Noon - 4pm	4pm - 8pm	8pm - Midnight
Slight	3	6	23	17	18	5
Serious	0	6	9	7	3	1
Fatal	0	0	0	1	0	1
Total	3	12	32	25	21	7
% Total	3%	12%	32%	25%	21%	7%

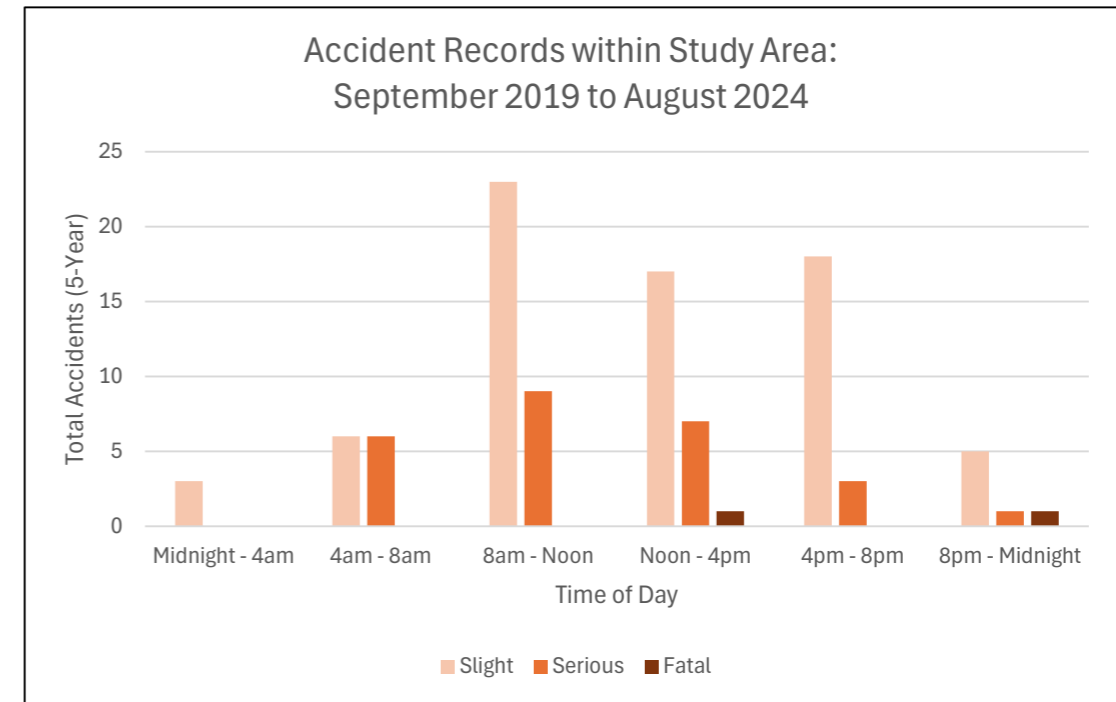


Table 5: Accidents by Year

Year	Slight	Serious	Fatal	Total	% Total
2019	4	3	0	7	7%
2020	15	7	0	22	22%
2021	12	4	0	16	16%
2022	19	4	1	24	24%
2023	13	5	1	19	19%
2024	9	3	0	12	12%

941347	Slight	2	5	2	Feb	2020	1645	4pm - 8pm	622150	301536
944280	Slight	1	3	2	Feb	2020	1000	8am - Noon	620464	294873
945474	Serious	1	6	4	Apr	2020	1138	8am - Noon	632606	292050
946890	Slight	1	7	4	Apr	2020	2326	8pm - Midnight	623831	294609
950475	Slight	1	3	5	May	2020	0850	8am - Noon	629029	297792
969834	Slight	1	2	7	Jul	2020	1057	8am - Noon	621385	298583
970343	Slight	1	4	7	Jul	2020	1620	4pm - 8pm	633876	290792
977055	Slight	1	2	8	Aug	2020	1845	4pm - 8pm	632246	292375
981931	Serious	1	5	9	Sep	2020	0830	8am - Noon	619267	292357
983106	Serious	1	3	8	Aug	2020	1330	Noon - 4pm	618523	287501
992161	Slight	1	6	10	Oct	2020	2317	8pm - Midnight	622924	297402
993858	Slight	1	5	10	Oct	2020	1459	Noon - 4pm	621187	298460
995015	Serious	2	4	10	Oct	2020	2225	8pm - Midnight	619268	289884
999747	Slight	1	1	11	Nov	2020	1700	4pm - 8pm	624906	294237

Appendix B Transport and Access Technical Notes: Transport and Access Proposals – Hempnall Roundabout, Sites 7-9, National Highways

Job Name: East Pye Solar DCO
Job No: 333101678
Version: v0.6
Date: February 2026
Prepared By: [REDACTED], Transport Planner
Reviewed By: [REDACTED], Senior Associate
[REDACTED], Director
Subject: TA Appendix B.1 Transport and Access Proposals Sites 7A-F

1. Introduction

1.1 This Technical Note is provided to inform the analysis of traffic impact of the construction period for the East Pye Solar DCO development. It focuses on two aspects of the transport and access study area, namely:

- The traffic changes at A140 / B1527 roundabout (hereafter referred to as the 'Hempnall Roundabout'); and
- The proposed access strategy for Sub-Sites 7A-F.

1.2 This Note has been prepared in response to ongoing consultation and feedback from Norfolk County Council (NCC), as the Local Highway Authority (LHA). Due to the potential interlinkage between the subset of land parcels Sub-Sites 7A-F, the proposed access strategy for those parcels is to consider an internal haul route which has its connection at Fairstead Lane via A140. In turn the operation of construction traffic on Fairstead Lane is expected to have a direct interaction with the Hempnall Roundabout. On that basis the analysis of construction traffic effects is being considered in tandem within this note.

1.3 The note sets out:

- The 2029 forecast baseline traffic flows at the Hempnall Roundabout and Fairstead Lane;
- The methodology and assumptions used as the basis for the analysis of effects;
- Details on the proposed access strategy and justification for routeing proposals – following feedback during engagement with NCC;
- An impact assessment for percentage changes in traffic flow on the Fairstead Lane access to Sub-Sites 7A-F and Hempnall Roundabout; and
- An outline of potential secondary mitigation measures.

2. Baseline Conditions

2.1 A combination of Automatic Traffic Count (ATC) and Manual Classified Count (MCC) surveys were commissioned to support the assessment of traffic and transport impacts on routes within the Local Road Network (LRN) that have been deemed as potentially affected by the construction and operation of the proposed East Pye Solar facility.

- 2.2 The empirical data of the ATC surveys were collected in November 2024 and April / May 2025, covering a 7-day, 24-hr period. The MCC survey was undertaken in November 2024 for a 1-day, 24-hr period on a Thursday.
- 2.3 Baseline traffic flows have been factored using TEMPro¹ to accommodate for any potential traffic growth between the survey date (2024 and 2025) to the peak construction year (2029). The 2029 forecast future baseline flows relevant to Sub-Sites 7A-F and Hempnall Roundabout are summarised in Table 1.

Table 1: Relevant ATC Future Baseline Flows

ATC Ref	Description	Annual Average Daily Traffic (AADT) ² (2029)	% Heavy Goods Vehicle (HGV) ³
01	A140 Tasburgh Hill, north of Hempnall Roundabout	20,872	14%
02	B1527 Bungay Road, east of Hempnall Roundabout	5,732	12%
03	A140 Norwich Road, south of Hempnall Roundabout	21,310	15%
04	Bungay Road, west of Hempnall Roundabout	2,726	15%
05	Fairstead Lane	87	17%
21	A140 Norwich Road, south of B1134 Station Road Roundabout	14,837	19%
23	The Krons	957	15%

- 2.4 The road network relevant to Hempnall Roundabout and Sub-Sites 7A-F consist of:
- Major A-roads (A140) – key arterial road with a range of speed limits reflecting local setting; carriageway width suitable for standard large vehicles to pass without opposition; good forward visibility; and passes through some residential areas;
 - B-roads (B1527) – road with a range of speed limits; varying road width and alignment (including locations of on-street parking); narrow footways within Hempnall; carriageway width suitable for standard large vehicles to pass without opposition; and good visibility for link eastbound and westbound to/from Hempnall;
 - Local roads (Fairstead Lane, The Krons) – road with good forward visibility; and some overhanging trees and narrow road width with potential challenges for two-way vehicle movements.
- 2.5 The 2029 future baseline turning movements established from the MCC survey at Hempnall Roundabout is summarised in Figure 1. This figure is representative of all vehicles over a 24-hr period (i.e. the forecast AADT), and have been factored to the 2029 peak construction year

¹ TEMPro (Trip End Model Presentation Program) -DfT software that allows traffic flow forecasting from the National Trip End Model

²Annual Average Daily Traffic (AADT) represents the averaged number of vehicles observed or calculated to pass a point on a road each day over the course of a year – including weekends and traffic in both directions.

³ Heavy Goods Vehicle (HGV) is a goods vehicle with a gross vehicle weight greater than 3.5 tonnes.

using TEMPro. No additional cumulative development or construction traffic has been included in these forecast flows.

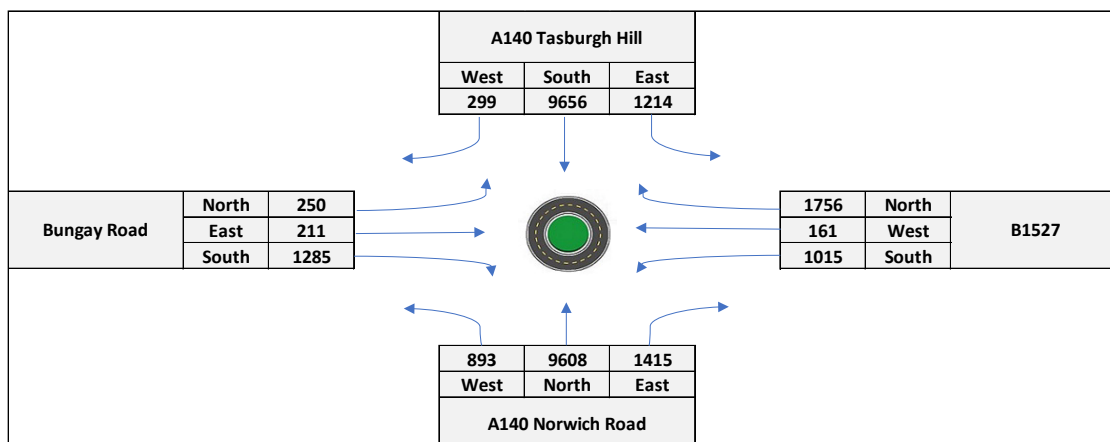


Figure 1: 2029 Future Baseline Flows

3. Trip Generation

3.1 This Section outlines the trip generation associated with Hempnall Roundabout and Sub-Sites 7A-F. The trip generation forecasts are continuing to be refined as the Scheme progresses, and therefore the figures outlined within this Note are subject to change. Any changes in trip generation figures will not however have an impact on the overall assessment.

3.2 There are two potential option scenarios for vehicles accessing Sub-Sites 7A-F, these are:

- **Scenario 1:** All vehicles, including staff utilise the proposed internal haul route to reach Sub-Sites 7A-F (see Figures 4 and 5) with entry and exit via The Krons and Fairstead Lane and access through Sub-Site 7B; and
- **Scenario 2:** All construction vehicles use the internal haul route but staff vehicles (cars, minibuses) access each site independently and not via the internal haul route. This would result in vehicles accessing Sub-Sites 7D-F via The Krons, Fairstead Lane, and Broaden Lane.

4. Hempnall Roundabout

4.1 Development traffic which is expected to use Hempnall Roundabout to route to/from the Strategic Road Network (SRN) and the road network outwith the study area includes:

- Sub-Sites 1A-D, 2A-C, 4A-B, 5A-B, 7A-F;
- Battery Energy Storage System (BESS) – south of Sub-Sites 1A-B;
- Cable Route Corridor (CRC) compound 1 (C1) – east of A140, opposite Sub-Site 2C; and
- CRC compound 2 (C2) – north of Mill Road.

4.2 The peak daily development traffic associated with the above sites, and their respective distribution on roads approaching Hempnall Roundabout is summarised in Table 2. In order to assess a worst-case scenario, this table is representative of all sites being active simultaneously. However, in reality, it is likely that site activity will be staggered across the construction programme.

Table 2: Peak Daily Development Flows – Hempnall Roundabout ATC Locations

ATC Ref	Description	Peak Daily Movements*					
		Total		HGV		Cars + Shuttle	
		Arrive	Depart	Arrive	Depart	Arrive	Depart
01	A140 Tasburgh Hill, north of Hempnall Roundabout	148	148	34	34	114	114
02	B1527 Bungay Road, east of Hempnall Roundabout	85	85	19	19	66	66
03	A140 Norwich Road, south of Hempnall Roundabout	111	111	34	34	77	77
04	Bungay Road, west of Hempnall Roundabout	0	0	0	0	0	0

* Numbers are rounded

- 4.3 Figure 2 shows an indicative map of vehicle routes which will interact with Hempnall Roundabout. Vehicles using Hall Lane and A140 through Long Stratton are for AIL access to a CRC compound exclusively and all other vehicles will be routed via the Long Stratton Bypass. Neither Long Stratton nor Hempnall will be used as a through-route for construction vehicles. This figure is based on the Scenario 1 option for vehicles accessing Sub-Sites 7A-F (i.e. all vehicles including staff to access via the internal haul route).

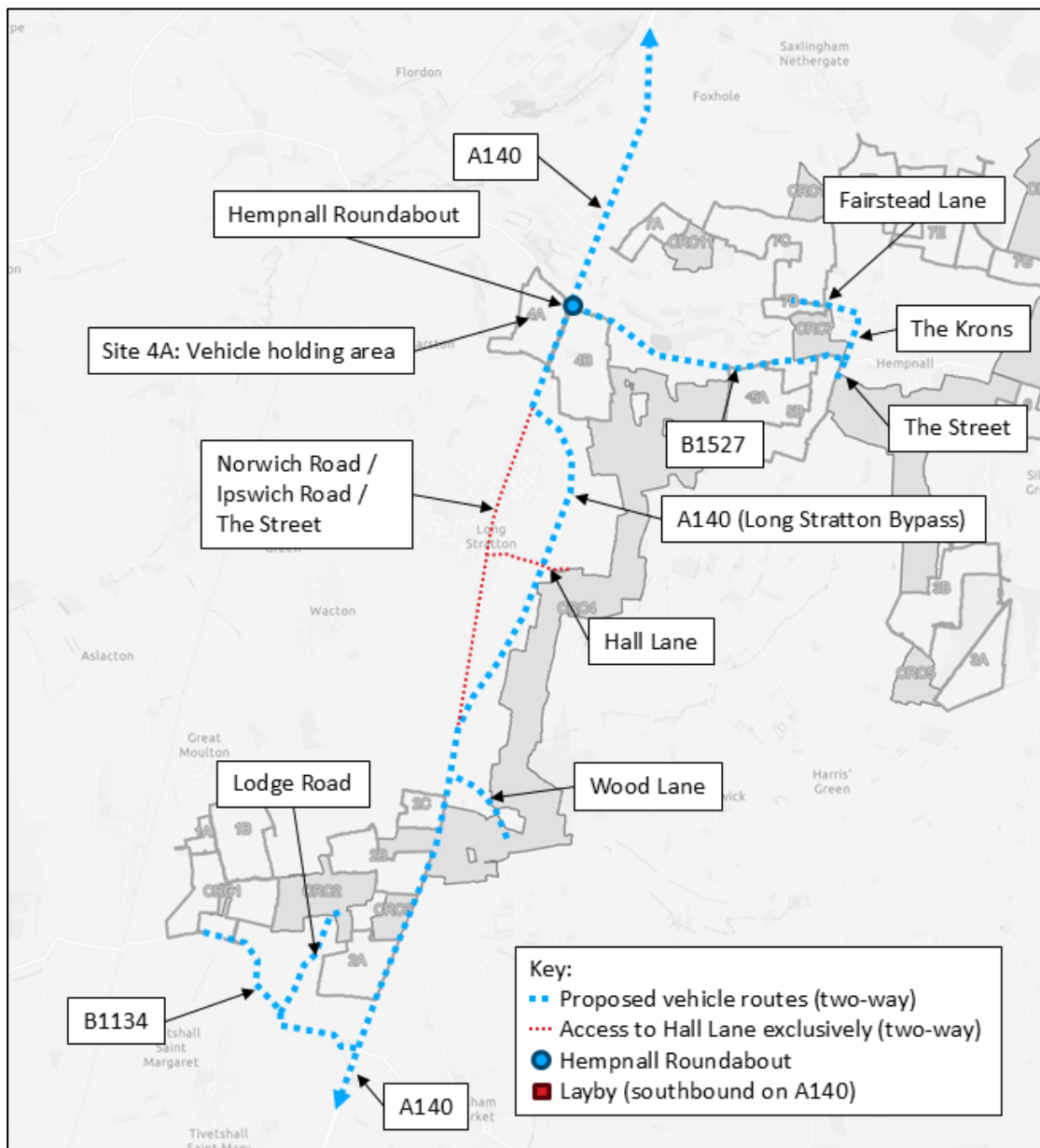


Figure 2: Proposed Vehicle Routing – Sites via Hempnall Roundabout

4.4 The turning movements forecast on Hempnall Roundabout are shown in Figure 3 and include an indication of turning movements in/out of Site 4A, which is accessed via a private access on Hempnall Roundabout. All vehicles are shown in black, and HGVs are indicated in italics.

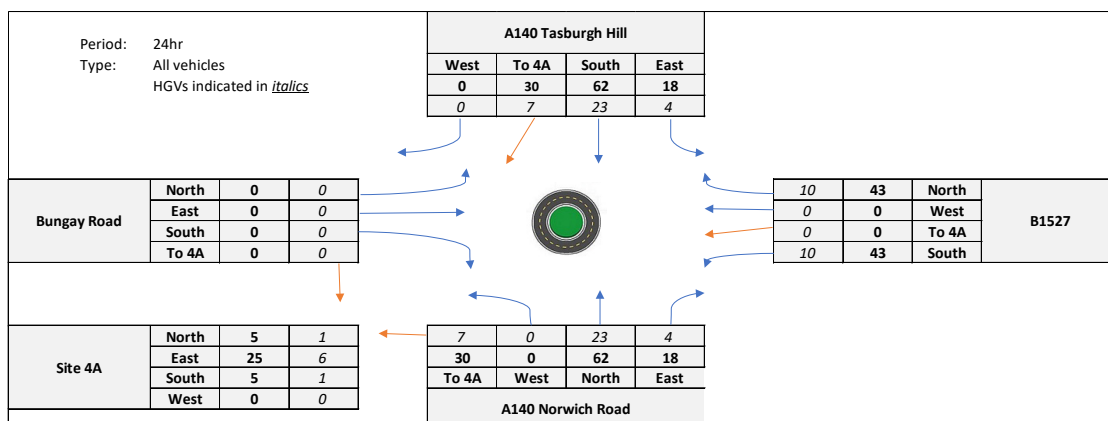


Figure 3: Peak Daily Development Turning Movements – Hempnall Roundabout

- 4.5 It is recognised that the construction programme will not have a flat daily profile, and vehicle movements at Hempnall Roundabout will change throughout the typical working day. In order to minimise traffic impacts during the peak morning and afternoon periods, there is proposed to be no HGV movements arriving to/departing from site between the hours of 08:00-09:30 and 16:30-18:00.
- 4.6 The hourly profile of peak daily development movements is summarised in Table 3. During Monday to Friday operating hours, staff will arrive to site between 06:30-08:00 and depart between 16:30-19:00. All HGV arrivals/departures will be restricted to between the hours of 09:30-16:30. Saturday operating hours are anticipated to be between 08:00-13:30, however peak daily vehicle movements are forecast to be during the weekday.
- 4.7 As stated previously, these figures are representative of all sites being active simultaneously, whereas in reality construction will be staggered across the programme. These figures are also based on the Scenario 1 option for access to Sub-Sites 7A-F, which proposes all vehicles including staff to access using the internal haul route.

Table 3: Hourly Profile – Development Flows

Time	Peak Daily Flows*							
	01: A140 North of Roundabout		02: B1527 East of Roundabout		03: A140 South of Roundabout		04: Bungay Rd West of Roundabout	
	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart
05:00 - 06:00	0	0	0	0	0	0	0	0
06:00 - 07:00	57	0	33	0	33	0	0	0
07:00 - 08:00	57	0	33	0	44	0	0	0
08:00 - 09:00	0	0	0	0	0	0	0	0
09:00 - 10:00	3	3	2	2	3	3	0	0
10:00 - 11:00	4	4	2	2	4	4	0	0
11:00 - 12:00	5	5	3	3	5	5	0	0
12:00 - 13:00	5	5	3	3	5	5	0	0
13:00 - 14:00	5	5	3	3	5	5	0	0

Time	Peak Daily Flows*							
	01: A140 North of Roundabout		02: B1527 East of Roundabout		03: A140 South of Roundabout		04: Bungay Rd West of Roundabout	
	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart
14:00 - 15:00	5	5	2	2	5	5	0	0
15:00 - 16:00	4	4	2	2	4	4	0	0
16:00 - 17:00	3	41	2	27	3	33	0	0
17:00 - 18:00	0	38	0	25	0	25	0	0
18:00 - 19:00	0	38	0	16	0	22	0	0
19:00 - 20:00	0	0	0	0	0	0	0	0
Total	148	148	85	85	111	111	0	0

* Numbers are rounded

5. Sub-Sites 7A-F

- 5.1 The proposed routing plans for Sub-Sites 7A-F have been adapted since the Preliminary Environmental Information Report (PEIR)⁴ stage to minimise impacts on the LRN and, where possible, reduce the requirement for vehicles to be routed along rural roads. The current routing proposals are now based on internalising movements between Sub-Sites 7A-F, with all vehicles leaving and accessing the LRN via B1527, The Krons and Fairstead Lane.
- 5.2 Alternative access options were explored for access to Sub-Sites 7A-F, however due to the constraints of the LRN and surrounding area, the most feasible option for access is considered to be via The Krons and Fairstead Lane. Access from B1527 via CRC7 is not feasible due to environmental constraints on CRC7 including the presence of Hempnall Beck watercourse, the wooded area being designated as a county wildlife site and other ecology constraints. This means HDD along this section of CRC is likely to be used, and a haul route is not possible.
- 5.3 To help proactively manage construction vehicle movements it is proposed to utilise Sub-Site 4A as a primary compound and be used for construction vehicles arriving to Sub-Sites 7A-F. The use of a primary compound as a waiting area rather than vehicles heading direct to Site 7A-F will help manage the flow of construction vehicles and reduce the potential for vehicle conflict on The Krons and Fairstead Lane and multiple vehicles arriving at the same time.
- 5.4 Only one HGV construction vehicle at a time would be allowed to travel to site to avoid multiple vehicles using The Krons and Fairstead Lane at the same time. Equally traffic marshals would only release construction vehicles one at a time when departing site. The traffic marshal would also check for on coming vehicles before releasing the construction vehicle on to B1527, The Krons and Fairstead Lane and use a Stop Works board to hold westbound vehicles on Fairstead Lane. This would avoid multiple westbound vehicles travelling along the stretch of road from the site to the B157 and A140 at the same time.
- 5.5 The proposed routing is therefore as follows:

⁴ The PEIR presents early findings from an Environmental Impact Assessment (EIA) to inform stakeholders during pre-application consultation for major infrastructure projects.

- Vehicles arriving to Site from A140 – exit onto Sub-Site 4A from Hempnall Roundabout, *await call-forward to Site*, depart eastbound on B1527, northbound on The Krons, westbound on Fairstead Lane, north onto Site access;
- Vehicles departing Site onto A140 – eastbound on Fairstead Lane, southbound on The Krons, westbound on B1527, north/southbound on A140.

5.6 The daily development traffic associated with the peak construction period at Sub-Sites 7A-F and distribution on the LRN is summarised in Table 4. This is based on the assumption of 50% of vehicles accessing from the north (via A47) and 50% accessing from the south (via A140 / A143). These figures are based on the Scenario 1 option for access to Sub-Sites 7A-F (i.e. all vehicles including staff accessing using the internal haul route).

Table 4: Development Flows and Distribution, Sub-Sites 7A-F – Peak Construction

ATC	Peak Daily Flows*					
	7A-C		7D-F		Total	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
01: A140 North of Roundabout	16	16	19	19	35	35
03: A140 South of Roundabout	7	7	9	9	16	16
05: Fairstead Lane	23	23	27	27	50	50
21: A140 South of B1134 Roundabout	7	7	9	9	16	16

* Numbers are rounded

5.7 The hourly profile of daily development movements for the peak construction period at Sub-Sites 7A-F is summarised in Table 5. Operating hours are as stated in paragraph 4.6.

Table 5: Hourly Profile – Development Flows Sub-Sites 7A-F

Time	Peak Daily HGVs*		Peak Daily Cars + Shuttles*		Total Vehicles*	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
05:00 - 06:00	0	0	0	0	0	0
06:00 - 07:00	0	0	19	0	19	0
07:00 - 08:00	0	0	20	0	20	0
08:00 - 09:00	0	0	0	0	0	0
09:00 - 10:00	1	0	0	0	1	0
10:00 - 11:00	2	2	0	0	2	2
11:00 - 12:00	2	2	0	0	2	2
12:00 - 13:00	1	1	0	0	1	1
13:00 - 14:00	1	1	0	0	1	1
14:00 - 15:00	2	2	0	0	2	2
15:00 - 16:00	2	2	0	0	2	2
16:00 - 17:00	0	1	0	14	0	15
17:00 - 18:00	0	0	0	14	0	14
18:00 - 19:00	0	0	0	11	0	11
19:00 - 20:00	0	0	0	0	0	0
Total	11	11	39	39	50	50

* Numbers are rounded

6. Impact Assessment

6.1 The effects of traffic during the construction and decommissioning phases of the Scheme are considered in this section. Within the IEMA Guidelines⁵, two general rules are suggested that can be used as the criteria to assess the scale and extent of the environmental assessment:

- Rule 1: Include highway links where traffic flows would increase by more than 30% (or the number of HGVs would increase by more than 30%); and
- Rule 2: Include highway links of high sensitivity where traffic flows have increased by 10% or more.

6.2 There are no links on the immediate approaches to Hempnall Roundabout, or links accessing Sub-Sites 7A-F, which are scored as having high sensitivity.

⁵ Institute of Environmental Management and Assessment (IEMA) Guidelines (July 2023) Accessed September 2025

The impact assessment is based on all sites being active simultaneously, whereas in reality construction will be staggered across the programme. For the purpose of this assessment however, this is considered an appropriate worst-case scenario.

7. Hempnall Roundabout

7.1 Table 6 summarises the percentage change in traffic flows at Hempnall Roundabout based on peak development flows, split on an hourly basis and split by all vehicles and HGVs. Percentage change is calculated based on average hourly future baseline flows, plus peak development flows. The figures are based on the Scenario 1 option for access to Sub-Sites 7A-F (i.e. all vehicles including staff accessing via the internal haul route). For ease of viewing, any percentage impacts equal to 0% are not shown.

Table 6: Percentage Impact – Hourly Flows, Hempnall Roundabout

Time	Percentage Change							
	ATC 01: A140 North of Roundabout		ATC 02: B1527 East of Roundabout		ATC 03: A140 South of Roundabout		ATC 04: Bungay Rd West of Roundabout	
	All	HGV	All	HGV	All	HGV	All	HGV
05:00 - 06:00	-	-	-	-	-	-	-	-
06:00 - 07:00	7.5%	-	22.3%	-	4.2%	-	-	-
07:00 - 08:00	3.9%	-	8.6%	-	3.0%	-	-	-
08:00 - 09:00	-	-	-	-	-	-	-	-
09:00 - 10:00	0.4%	3.0%	1.1%	9.1%	0.4%	2.8%	-	-
10:00 - 11:00	0.5%	3.9%	1.1%	9.1%	0.5%	3.6%	-	-
11:00 - 12:00	0.7%	4.8%	1.6%	13.0%	0.7%	4.4%	-	-
12:00 - 13:00	0.7%	4.9%	1.6%	13.0%	0.7%	4.5%	-	-
13:00 - 14:00	0.7%	5.2%	1.7%	14.0%	0.7%	4.7%	-	-
14:00 - 15:00	0.7%	4.9%	1.0%	8.2%	0.7%	4.4%	-	-
15:00 - 16:00	0.5%	3.6%	0.9%	7.0%	0.5%	3.3%	-	-
16:00 - 17:00	2.6%	2.5%	6.1%	6.8%	2.1%	2.3%	-	-
17:00 - 18:00	2.4%	-	5.8%	-	1.5%	-	-	-
18:00 - 19:00	3.5%	-	5.7%	-	1.9%	-	-	-
19:00 - 20:00	-	-	-	-	-	-	-	-

7.2 As shown, there are no points at which the percentage change in traffic flows are expected to exceed the 30% threshold stated in the IEMA Guidance. The highest percentage increase for all vehicles is seen between 06:00-07:00 on B1527, with a 22.3% increase. The highest percentage increase for HGVs is during the interpeak period on B1527, with up to a 14.0% increase.

7.3 Figure 6 summarises the percentage change in traffic flows for turning movements at Hempnall Roundabout. All vehicles are shown in black, and HGVs are indicated in italics. Turning movements to/from Sub-Site 4A cannot be indicated as a percentage change as baseline flows for these movements are not available.

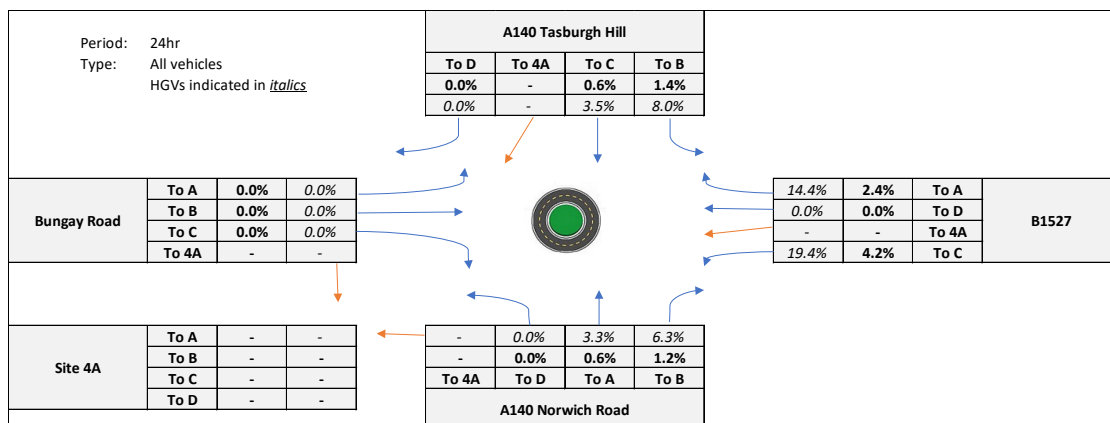


Figure 6: Percentage Impact – Turning Movements, Hempnall Roundabout

7.4 Impacts associated with turning movements is not directly detailed in the IEMA Guidance, however there are no points at which traffic flows are expected to exceed the 30% threshold identified for two-way flows. Percentage increase in all traffic is imperceptible, however there are increases over 19% for movements from B1527. This is attributed to vehicles accessing Sub-Sites 5A-B and 7A-F.

8. Fairstead Lane - Sub-Sites 7A-F Access

8.1 Table 7 summarises the percentage change on Fairstead Lane, which will be utilised for access to Sub-Sites 7A-F. An indication for all vehicles and HGVs is provided. Where future baseline flows are equal to zero, a 100% increase in traffic flows is recorded. This is the case for hours 06:00-07:00 and 07:00-08:00 for all vehicles. The figures are based on the Scenario 1 option for access to Sub-Sites 7A-F (i.e. all vehicles including staff accessing via the internal haul route). For ease of viewing, percentage changes equal to zero are not shown.

Table 7: Percentage Impact – Hourly Flows, Fairstead Lane

Time	Fairstead Lane (Percentage Change)	
	All	HGV
05:00 - 06:00	-	-
06:00 - 07:00	100.0%	-
07:00 - 08:00	100.0%	-
08:00 - 09:00	-	-
09:00 - 10:00	12.5%	100.0%
10:00 - 11:00	57.1%	400.0%
11:00 - 12:00	44.4%	200.0%
12:00 - 13:00	40.0%	200.0%
13:00 - 14:00	40.0%	200.0%

14:00 - 15:00	50.0%	400.0%
15:00 - 16:00	66.7%	400.0%
16:00 - 17:00	150.0%	50.0%
17:00 - 18:00	175.0%	-
18:00 - 19:00	220.0%	-
19:00 - 20:00	-	-

- 8.2 Whilst Fairstead Lane records high percentage changes throughout the day (well in excess of IEMA Guidelines thresholds) it should be noted that these results are reflective of very low existing flows on the link, which in turn produce high percentage changes.
- 8.3 Table 8 displays the eastbound and westbound flows along Fairstead Lane along with arrivals (eastbound) and departures (westbound) to Sub-Sites 7A-F and is working on the Scenario 1 option for all vehicles including staff to access Sub-Sites 7A-F via Fairstead Lane / The Krons / B1527 and the internal haul route. A conflict probability is calculated based on the percentage chance per minute of a vehicle coming into conflict with another vehicle travelling in the opposite direction.

Table 8: Scenario 1 Conflict Probability – Fairstead Lane

Time	2029 Future Base Flows*			Base + Peak Development Flows*		
	Eastbound	Westbound	Conflict Probability	Eastbound	Westbound	Conflict Probability
05:00 - 06:00	0	0	0.0%	0	0	0.0%
06:00 - 07:00	0	0	0.0%	19	0	0.0%
07:00 - 08:00	0	0	0.0%	20	0	0.0%
08:00 - 09:00	2	1	1.4%	2	1	1.4%
09:00 - 10:00	5	3	10.4%	6	3	12.5%
10:00 - 11:00	4	3	8.3%	6	5	20.8%
11:00 - 12:00	5	4	13.9%	7	6	29.2%
12:00 - 13:00	3	2	4.2%	4	3	8.3%
13:00 - 14:00	3	2	4.2%	4	3	8.3%
14:00 - 15:00	4	4	11.1%	6	6	25.0%
15:00 - 16:00	4	3	8.3%	6	5	20.8%
16:00 - 17:00	5	5	17.4%	5	20	69.4%
17:00 - 18:00	4	3	8.3%	4	17	47.2%
18:00 - 19:00	3	2	4.2%	3	13	27.1%
19:00 - 20:00	2	2	2.8%	2	2	2.8%

* Numbers are rounded

- 8.4 The 2029 future baseline average conflict probability between the hours of 06:00-19:00 is 7.1%, with the highest probability of a conflict being between 16:00-17:00 with an 17.4% chance. The average conflict probability of the future baseline plus peak development flows between 06:00-19:00 is 20.8%, an increase of 13.7%. The period with the highest conflict probability is between 16:00-17:00 with a 69.4% probability, a 52.1% increase.
- 8.5 Table 9 shows the conflict probability for the Scenario 2 option for access to Sub-Sites 7A-F, where staff access each site independently resulting in staff to Sub-Sites 7D-F accessing via The Krons, Fairstead Lane and Broaden Lane.

Table 9: Scenario 2 Conflict Probability – Fairstead Lane, excluding Staff for Sub-Sites 7D-F

Time	Base + Peak Development Flows*			
	Eastbound	Westbound	Conflict Probability	Change from Base
05:00 - 06:00	0	0	0.0%	0.0%
06:00 - 07:00	9	0	0.0%	0.0%
07:00 - 08:00	9	0	0.0%	0.0%
08:00 - 09:00	2	1	1.4%	0.0%
09:00 - 10:00	6	3	12.5%	2.1%
10:00 - 11:00	6	5	20.8%	12.5%
11:00 - 12:00	7	6	29.2%	15.3%
12:00 - 13:00	4	3	8.3%	4.2%
13:00 - 14:00	4	3	8.3%	4.2%
14:00 - 15:00	6	6	25.0%	13.9%
15:00 - 16:00	6	5	20.8%	12.5%
16:00 - 17:00	5	12	41.7%	24.3%
17:00 - 18:00	4	9	25.0%	16.7%
18:00 - 19:00	3	6	12.5%	8.3%
19:00 - 20:00	2	2	2.8%	0.0%

* Numbers are rounded

- 8.6 The average conflict probability between 06:00-19:00 using this access strategy scenario is 15.8%, an increase of 8.8% from the 2029 future baseline. In this scenario, the period with the highest probability of a conflict is 16:00-17:00, with a percentage chance of 41.7%, a 24.3% increase from future baseline.

9. Management Measures and Mitigation

- 9.1 Proposed management measures to reduce traffic impacts on Hempnall Roundabout, and for pro-actively managing construction vehicle movements on Fairstead Lane to access the internal haul route for Sub-Sites 7A-F, include:
 - Restricting construction vehicles movements to between 09.30 and 16.30;

- Use of Site 4A for vehicle holding area and call-forward to Site;
- Only one construction vehicle at a time would be allowed to travel to site to avoid multiple vehicles using Fairstead Lane at the same time.
- The Traffic Marshal would only release construction vehicles one at a time when departing site.
- The Traffic Marshal would check for on coming vehicles before releasing the construction vehicle from site on to Fairstead Lane and use a Stop Works board to hold westbound vehicles on Fairstead Lane.
- Use of shuttle buses to reduce private vehicle usage for staff travel to Site.

9.2 Table 10 provides a summary of different potential intervention scenarios to manage construction vehicle movements on Fairstead Lane.

Table 10: Fairstead Lane Management Scenarios for access to Sub-Sites 7A-F

Scenario	Advantages	Challenges	Risk	Outcome
A - No intervention	No alterations to current controls on Fairstead Lane. Allows uncontrolled operations of construction traffic.	No provision for management of conflict between construction traffic and other traffic.	Minor risk of occasional conflict between construction traffic and other users – inbound and outbound.	Propose fuller management
B – Restrict construction traffic from sites in network peak hours.	Avoids interaction with network peak periods on Fairstead Lane. Reduces period of potential conflict between construction traffic and other users.	Condense construction traffic movements to fewer hours. Fairstead Lane exhibits limited peaking in traffic flow.	Construction traffic must plan journeys around restricted windows. Minor risk of occasional conflict between construction traffic and other users – inbound and outbound.	Consider introduction
C – Use layby on A140 and Site 4A as vehicle waiting and call forward points with traffic marshal using 'stop works' controls at site entrance.	Allows management of arrivals at site and short-term management of other users to minimise potential for conflict from A140 to site entrance.	Requires remote management of construction vehicles. Minimal intervention with public road users at site access.	Very occasional minor delays to public road users. Minimal opportunity of conflict between construction traffic and other users.	Consider introduction for Site 4A. Reject use of A140 layby.
D – Scenario C + localised passing place	Allows opportunity for conflicting vehicles to pass in narrower section – passing place to be located within existing Highway limits. Low key infrastructure and could be retained as legacy item.	Requires confirmation of Highway limits and creation of passing place. Disruption to network during construction (and removal) of passing place.	Mis-use of passing place for on-street parking.	Consider introduction or keep in reserve should vehicle conflicts occur.
E – Scenario C + part-time access controls on Fairstead Lane	Allows flexible use of Fairstead Lane outside construction hours. Largely removes opportunities for conflict between construction traffic and other traffic.	Non-typical street controls could cause confusion and low compliance. Access within controls must be retained.	Potential disregard of intended controls by non-construction traffic.	Retain for possible future consideration.
F – Scenario B + one-way or full closure of Fairstead Lane to general traffic during HGV movement hours	Robust control to remove potential for vehicle flow conflicts.	Presents long diversions for public traffic and requires all associated construction traffic to travel to The Krons and B1527	Strong stakeholder opposition. Potential disregard of one way working by non-construction traffic.	Reject
G – Scenario E + widening of Quaker Lane	Provides alternative route to controlled section of Fairstead Lane.	Widening of sensitive lane unpopular and could create unwanted alternative route.	Strong stakeholder opposition. Environmental impact.	Reject

10. Summary and Conclusion

- 10.1 This Technical Note provides a forecast of traffic impacts with the construction phase of the East Pye Solar DCO development, focusing on the Hempnall Roundabout and access strategy for Sub-Sites 7A-F. Using traffic survey data and future projections for the peak construction year (2029), the report outlines expected vehicle movements and assesses their impact on the LRN.
- 10.2 The analysis demonstrates that based on a reasonable worst-case scenario where all sites are active simultaneously, traffic increases at the Hempnall Roundabout remain below the thresholds set out in the IEMA Guidelines. While Fairstead Lane shows high percentage increases in traffic, these are attributed to its low baseline volumes and do not indicate significant capacity issues. Conflict probabilities rise during peak hours but remain manageable.
- 10.3 To support vehicle management and minimise disruption, a range of mitigation measures are proposed. These include identifying places for construction vehicles to wait and call forward to site, restrictions on vehicle movement hours and turning movements, and the use of shuttle buses to reduce private car usage for staff travel. The access strategy and mitigation proposals will continue to be refined in consultation with NCC to ensure effective traffic control throughout the construction programme.

Document Control				
Version	Date	Description	Prepared	Approved
v0.3	October 2025	Second draft	FL	AN/TH
v0.4	November 2025	Updated version following meeting with NCC on 26 November 2025	FL	AN/TH
v0.5	January 2026	Revised access strategy proposals to Sites 7A-F	FL	AN/TH
v0.6	February 2026	Final revision of access strategy	FL	AN/TH

Job Name: East Pye Solar DCO
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Date: February 2026
Prepared By: [REDACTED], Transport Planner
Reviewed By: [REDACTED], Senior Associate
Subject: TA Appendix B.2 Transport and Access Proposals Sites 7G-L, 8A-B, 9 (Part One)

1.1 Introduction

- 1.1.1 This Technical Note is provided to inform the analysis of traffic impact of the construction period for the East Pye Solar DCO development. It focuses on the proposed access strategy for Sites 7G-L, 8A-B and 9.
- 1.1.2 This Note has been prepared in response to ongoing consultation and feedback from Norfolk County Council (NCC), as the Local Highway Authority (LHA). Due to the potential interlinkage between the subset of land parcels Sites 7G-L and 8A-B, the emerging access strategy for those parcels is to consider two key internal haul route corridors which have connections at Woodton Road, Fylands Road, Bussey's Loke for 7G-L and between Baxter's Lane and Market Lane for 8A-B.
- 1.1.3 The note sets out:
- The 2029 (peak construction year) forecast baseline traffic flows on links utilised for access to Sites 7G-L, 8A-B and 9;
 - The methodology and assumptions used as the basis for the analysis of effects;
 - An impact assessment for percentage changes in traffic flows on the links utilised for access to Sites 7G-L, 8A-B and 9; and
 - An outline of potential secondary mitigation measures.

1.2 Baseline Conditions

- 1.2.1 A combination of Automatic Traffic Count (ATC) and Manual Classified Count (MCC) surveys were commissioned to support the assessment of traffic and transport impacts on routes within the Local Road Network (LRN) that have been deemed as potentially affected by the construction and operation of the proposed East Pye Solar facility.
- 1.2.2 The empirical data of the ATC surveys were collected in November 2024 and April/May 2025, covering a 7-day, 24-hr period. The MCC survey was undertaken in November 2024 for a 1-day, 24-hr period on a Thursday.
- 1.2.3 Baseline traffic flows have been factored using TEMPro¹ to accommodate for any potential traffic growth between the survey date (2024 and 2025) to the peak construction year (2029).

¹ TEMPro (Trip End Model Presentation Program) -DfT software that allows traffic flow forecasting from the National Trip End Model.

The 2029 forecast future baseline flows relevant to Sites 7G-L, 8A-B and 9 are summarised in Table 1.

Table 1: Relevant ATC Future Baseline Flows

ATC Ref	Description	Annual Average Daily Traffic (AADT) ² (2029)	% Heavy Goods Vehicle (HGV) ³
08	Littlebeck Lane	109	22%
09	Shotesham Road	141	19%
10	B1332 (north of B1527)	7,458	15%
12	B1527 (Church Road)	955	18%
13	B1332 (south of B1527)	7,820	14%
19	Wash Lane	71	32%
25	Fylands Road	127	20%
26	Bussey's Loke	56	13%
27	Heath Road	403	15%
28	Market Lane	33	12%

1.2.4 The road network relevant to sites 7G-L, 8A-B and 9 consist of:

- B-roads (B1527) - road with variable speed limits, on-street parking / variable road width and alignment and narrow footways between Hempnall section, carriageway width suitable for large vehicles to pass and good visibility for remainder of link eastbound and westbound to/from Hempnall;
- B-roads (B1332) – arterial road with good forward visibility, passes through some residential and commercial areas;
- Local roads (Littlebeck Lane, Shotesham Road, Wash Lane, Baxter's Lane, Fylands Road, Bussey's Loke, Heath Road, Market Lane) – rural roads with varying road widths and overhanging trees at points, 7.5T weight restrictions except for loading at points (Bussey's Loke, Shotesham Road / Baxter's Lane), potentially challenging for two-way movements.

1.3 Trip Generation and Distribution

1.3.1 This Section outlines the trip generation and distribution associated with Sites 7G-L, 8A-B and 9. The trip generation forecasts will be refined as the Scheme progresses, and will be confirmed in a final Construction Traffic Management Plan (CTMP) secured by DCO Requirement. Any changes in trip generation figures are not considered to have an impact on the overall assessment.

² Annual Average Daily Traffic (AADT) represents the averaged number of vehicles observed or calculated to pass a point on a road each day over the course of a year – including weekends and traffic in both directions.

³ Heavy Goods Vehicle (HGV) is a goods vehicle with a gross vehicle weight greater than 3.5 tonnes.

- 1.3.2 There are two potential options for vehicles for Sites 7G-L and 8A-B. These are:
- All vehicles, including staff to utilise the proposed internal haul route to reach Sites 7G-L and 8A-B (see Figure 1) with entry and exit via Woodton Road and Baxter's Lane; and
 - All construction vehicles use the internal haul route but staff vehicles (cars, minibuses) access each site independently and not via the internal haul route. This would result in staff vehicles accessing Sites 7G-J via Fylands Road and Site 8A via Wash Lane.
- 1.3.3 The proposed routeing plans for Sites 7G-L, 8A-B and 9 have been adapted since the Preliminary Environmental Information Report (PEIR)⁴ stage to minimise the impacts on the LRN and where possible reduce the requirement for vehicles to be routed along rural roads. The current routeing proposals are now based on internalising movements between Sites 7G-L and 8A-B respectively.
- 1.3.4 Alternative access options were explored for access to Sites 7G-L, 8A-B and 9 including routeing construction vehicle CRCs. However, due to the environmental constraints on CRC 8, 9 and 13 including the presence of veteran trees and hedgerows within field boundaries it is not considered possible to use these CRCs as haul routes.
- 1.3.5 The proposed HGV routeing is as follows:
- **Sites 7K-L:** Vehicles travelling from B1132 (arriving to site) – westbound on B1527 Church Road; northbound on Shotesham Road and Woodton Road to reach site accesses. Departing from site along same route in reverse;
 - **Sites 7I-J:** Vehicles travelling from B1132 (arriving to site) – westbound on B1527 Church Road; northbound on Shotesham Road and Woodton Road to reach site access to Site 7K and south-westbound on internal haul route for access to 7J; cross Fylands Road for access to 7I. Departing from site along same route in reverse;
 - **Sites 7G-H:** Vehicles travelling from B1332 (arriving to site) – westbound on B1527 Church Road; northbound on Shotesham Road and Woodton Road to reach site access to Site 7K and south-westbound on internal haul route; exit internal haul route and westbound on Fylands Road and The Green; southbound on Bussey's Loke; east (7H) and west (7G) onto site accesses. Departing from site along same route in reverse;
 - **Site 8A-B:** Vehicles travelling from B1332 (arriving to site) – westbound on B1527 Church Road; northbound on Shotesham Road and Woodton Road; westbound on Honeypot Lane and Heath Road; southbound on Baxter's Lane; westbound on access to Site 8B; westbound on internal haul route and Market Lane for access to Site 8A. Departing from site along same route in reverse; and
 - **Site 9:** Vehicles travelling from B1332 (arriving to site) – westbound on Littlebeck Lane; northbound onto site access. Departing from site along same route in reverse.
- 1.3.6 The proposed HGV routeing plan for Sites 7G-J, 8A-B and 9 are shown in Figure 1.

⁴ The PEIR presents early findings from an Environmental Impact Assessment (EIA) to inform stakeholders during pre-application consultation for major infrastructure projects.

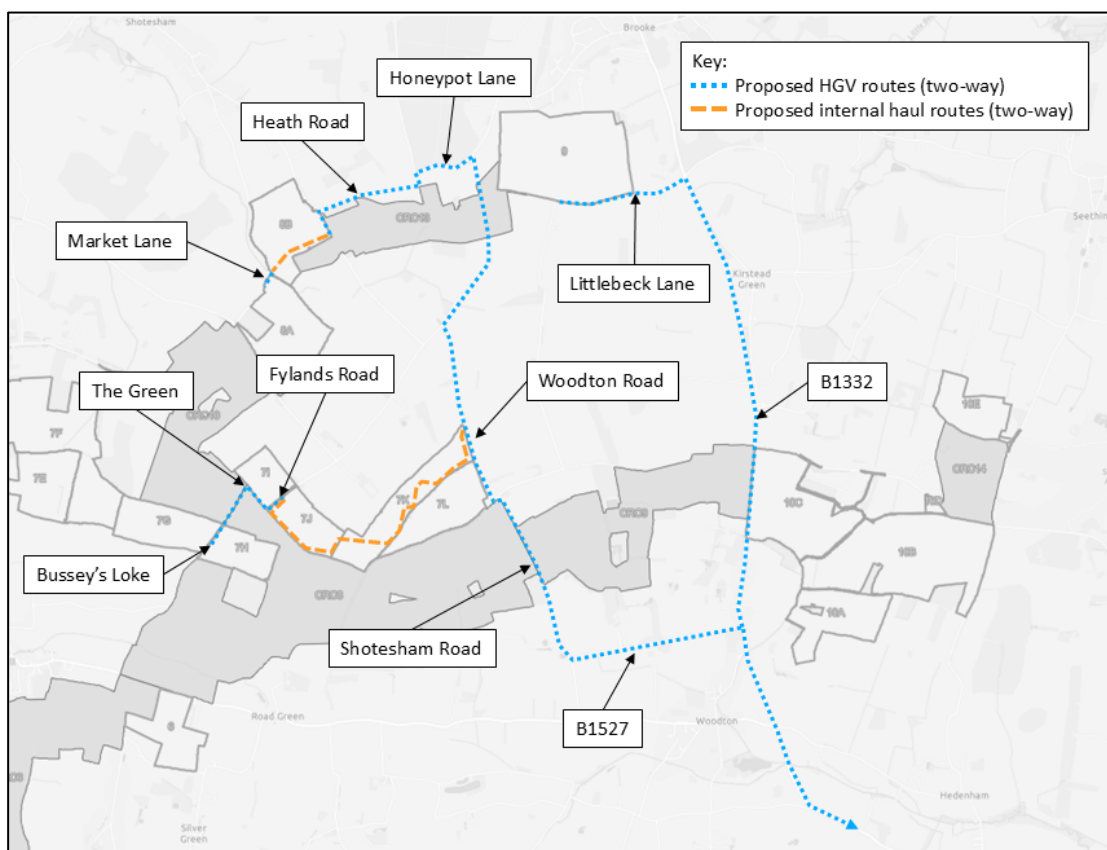


Figure 1: Proposed HGV Routing – Sites 7G-L, 8A-B and 9

1.3.7 The daily development HGV traffic associated with the peak construction period at Sites 7G-L, 8A-B and 9 and distribution on the LRN is summarised in Table 2. The same values for all vehicles is summarised in Table 3. These are based on the following distribution assumptions on B1332:

- HGV – 50% accessing from the north (via A146 / A47) and 50% accessing from the south (via A143); and
- Staff (car and minibus) – 75% accessing from the north (via A146 / A47) and 25% access from the south (via A143).

1.3.8 In order to assess a worst-case scenario, the data within this Note is representative of all sites being active simultaneously, however in reality it is likely that site activity will be staggered across the construction programme.

Table 2: Peak Daily HGVs – Sites 7G-L, 8A-B and 9 (HGVs only)

ATC	Peak Daily HGVs (two-way)					Total Arrivals	Total Departures
	7G-J	7K-L	8A	8B	9		
08: Littlebeck Lane	0	0	0	0	6	3	3
09: Shotesham Road	6	6	4	4	0	10	10
10: B1332 (north of B1527)	0	0	0	0	6	3	3
12: B1527 (Church Road)	6	6	4	4	0	10	10
13: B1332 (south of B1527)	6	6	4	4	6	13	13
25: Fylands Road	3	0	0	0	0	2	2

26: Bussey's Loke	3	0	0	0	0	2	2
27: Heath Road	0	0	4	4	0	4	4
28: Market Lane	0	0	4	0	0	2	2

* numbers are rounded

Table 3: Peak Daily All Vehicles – Sites 7G-L, 8A-B and 9 (All Vehicles)

ATC	Peak Daily All Vehicles (two-way)					Total Arrivals	Total Departures
	7G-J	7K-L	8A	8B	9		
08: Littlebeck Lane	0	0	0	0	28	14	14
09: Shotesham Road	28	24	16	14	0	41	41
10: B1332 (north of B1527)	17	14	3	3	12	24	24
12: B1527 (Church Road)	28	24	16	14	0	41	41
13: B1332 (south of B1527)	12	11	16	14	12	32	32
25: Fylands Road	25	0	0	0	0	13	13
26: Bussey's Loke	25	0	0	0	0	13	13
27: Heath Road	0	0	16	14	0	15	13
28: Market Lane	0	0	16	0	0	8	15

* numbers are rounded

- 1.3.9 As shown in Table 2 the anticipated peak daily HGV arrivals and departures on the links associated with the Sub-Sites are low. Table 3 then indicates total vehicles which includes HGVs and staff (cars and shuttles). The arrival and departure totals are higher but still considered to be acceptable and manageable.
- 1.3.10 The hourly profile of daily development movements for the peak construction period at Sites 7G-L, 8A-B and 9 are summarised in Table 4. During Monday to Friday operating hours, staff will arrive to site between 06:30-08:00 and depart between 16:30-19:00. All HGV arrivals / departures will be restricted to between the hours of 09:30-16:30 to help minimise and mitigate potential effects. Saturday operating hours are anticipated to be between 08:00-13:00, however peak daily vehicle movements are forecast to be during the weekday.

Table 4: Hourly Profile of Arrivals and Departures – Sites 7G-L, 8A-B and 9

Time	Peak Daily HGVs*		Peak Daily Cars + Shuttles*		Total Vehicles*	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
05:00 - 06:00	0	0	0	0	0	0
06:00 - 07:00	0	0	21	0	21	0
07:00 - 08:00	0	0	21	0	21	0
08:00 - 09:00	0	0	0	0	0	0
09:00 - 10:00	1	0	0	0	1	0
10:00 - 11:00	2	2	0	0	2	2
11:00 - 12:00	2	2	0	0	2	2
12:00 - 13:00	2	2	0	0	2	2
13:00 - 14:00	2	2	0	0	2	2
14:00 - 15:00	2	2	0	0	2	2
15:00 - 16:00	2	2	0	0	2	2

16:00 - 17:00	0	1	0	15	0	16
17:00 - 18:00	0	0	0	15	0	15
18:00 - 19:00	0	0	0	12	0	12
19:00 - 20:00	0	0	0	0	0	0
Total	13	13	42	42	55	55

* numbers are rounded

1.4 Impact Assessment

1.4.1 The effects of traffic during the construction and decommissioning phases of the Scheme are considered in this section. Within the IEMA Guidelines⁵, two general rules are suggested that can be used as the criteria to assess the scale and extent of the environmental assessment:

- Rule 1: Include highway links where traffic flows would increase by more than 30% (or the number of HGVs would increase by more than 30%); and
- Rule 2: Include highway links of high sensitivity where traffic flows have increased by 10% or more.

1.4.2 The only link relevant to Sites 7G-L, 8A-B and 9 which is scored as having high sensitivity is B1332 near the junction with B1527 Church Road, which passes Woodton Primary School. The remainder of the relevant link sections are scored as having low or negligible sensitivity.

1.4.3 Table 5 summarises the percentage change in traffic flows on the relevant links, based on peak development flows, split on an hourly basis and split by all vehicles and HGVs. Percentage change is calculated based on average hourly future baseline flows, plus peak development flows. For ease of viewing, any percentage impacts equal to 0% are not shown.

Table 5: Percentage Impact (Hourly Flows) – Sites 7G-L, 8A-B and 9

ATC Ref	Description	Base AADT (2029)	Peak Daily Development Flows (Two-Way)*	Base + Development (Two-Way)	% Change
08	Littlebeck Lane	109	28	137	25.6%
09	Shotesham Road	141	82	223	58.0%
10	B1332 (north of B1527)	7,458	42	7,500	0.6%
12	B1527 (Church Road)	955	82	1,037	8.6%
13	B1332 (south of B1527)	7,820	64	7,884	0.8%
25	Fylands Road	127	25	152	19.6%
26	Bussey's Loke	56	25	81	44.8%
27	Heath Road	403	30	433	7.4%
28	Market Lane	33	16	49	48.5%

* Numbers are rounded

⁵ Institute of Environmental Management and Assessment (IEMA) Guidelines (July 2023) Accessed September 2025

1.4.4 As shown, Shotesham Road, Bussey's Loke and Market Lane exceed the 30% threshold identified in the IEMA Guidelines. It should be noted however that these results are a consequence of very low baseline flows on the links, which in turn produce high percentage changes.

1.4.5 As a result of the high percentage impact on the LRN, additional management measures are proposed to be implemented to manage construction traffic and reduce impacts for existing road users. This is summarised in the following section.

1.5 Management Measures and Mitigation

1.5.1 Proposed management measures to reduce traffic impacts for links accessing sites 7G-L, 8A-B and 9, will include, but is not limited to, the following:

- Restricting construction vehicles movements to between 09.30 and 16.30.
- Use of Site 10C for vehicle holding area and call-forward to Site.
- Only one construction vehicle at a time would be allowed to travel to each Sub-Site to avoid multiple vehicles using the same part of the LRN at the same time.
- Restricting construction vehicle sizes for deliveries to site 7G-H and 8A-B.
- The Traffic Marshal would only release construction vehicles one at a time when departing site.
- The Traffic Marshal would check for on coming vehicles before releasing the construction vehicle from site on to the LRN using a Stop Works board to hold vehicles on the LRN.
- Use of shuttle buses to reduce private vehicle usage for staff travel to Site.

1.5.2 Table 6 provides a summary of different potential intervention scenarios to manage construction vehicle movements on the LRN in the vicinity of Sites 7G-L, 8A-B and 9.

TECHNICAL NOTE



Table 6: Fairstead Lane Management Scenarios for access to Sites 7G-L, 8A-B and 9

Scenario	Advantages	Challenges	Risk	Outcome
A - No intervention	No alterations to current controls on the LRN particularly at Site accesses. Allows uncontrolled operations of construction traffic.	No provision for management of conflict between construction traffic and other traffic.	Minor risk of occasional conflict between construction traffic and other users – inbound and outbound.	Reject - propose fuller management
B – Restrict construction traffic from sites in network peak hours.	Avoids interaction with network peak periods on LRN in the vicinity of Sub-Sites. Reduces period of potential conflict between construction traffic and other users.	Condense construction traffic movements to fewer hours. LRN i.e. Shotesham and Woodton Rd exhibit limited peaking in traffic flow.	Construction traffic must plan journeys around restricted windows. Minor risk of occasional conflict between construction traffic and other users – inbound and outbound.	Consider introduction
C – Scenario B + Use Site 10C as vehicle waiting and call forward points with traffic marshal using ‘stop works’ controls at site entrance.	Allows management of arrivals at site and short-term management of other users to minimise potential for conflict on LRN particularly at Site accesses.	Requires remote management of construction vehicles. Minimal intervention with public road users at site access.	Very occasional minor delays to public road users. Minimal opportunity of conflict between construction traffic and other users.	Consider introduction
D – Scenario C + restricting construction vehicle sizes for deliveries to site 7G-H and 8A-B	Reduces impact on LRN, enhances vehicle manoeuvring and minimises potential for vehicle overrun on verges.	Requires management of construction vehicle sizes and potential transfer of materials and equipment to required vehicle size at Site 10C before vehicle proceeds to site.	Potential minor increase in construction vehicle movements associated with reduced payload of smaller vehicles.	Consider introduction
E – Scenario D + localised passing places	Allows opportunity for conflicting vehicles to pass in narrower sections of the LRN – passing place to be located within existing Highway limits. Low key infrastructure and could be retained as legacy item.	Requires confirmation of Highway limits and creation of passing place. Disruption to network during construction (and removal) of passing place.	Mis-use of passing place for on-street parking.	Consider introduction or keep in reserve should vehicle conflicts occur
F – Scenario E + one-way or full closure of parts of LRN i.e. Shotesham Rd to general traffic during HGV movement hours except for access	Robust control to remove potential for vehicle flow conflicts.	Presents long diversions for general traffic and potentially difficult to enforce.	Strong stakeholder opposition. Potential disregard of one way working by non-construction traffic.	Reject



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Job Name: East Pye Solar DCO
Job No: 333101678
Version: v0.1
Date: February 2026
Prepared By: [REDACTED], Transport Planner
Reviewed By: [REDACTED], Senior Associate
Subject: TA Appendix B.3 Transport and Access Proposals Sites 7G-L, 8A-B, 9 (Part Two)

1.1 Introduction

1.1.1 This Technical Note is provided to inform the analysis of traffic impact of the construction period for the East Pye Solar DCO development. It focuses on the proposed access strategy for Sites 7G-L, 8A-B and 9, including a summary of trip generation and distribution, anticipated construction duration and the provision of vehicle passing places on the Local Road Network (LRN).

1.2 Trip Generation and Distribution

1.2.1 The proposed HGV routing plan for Sites 7G-J, 8A-B and 9 are shown in Figure 1.

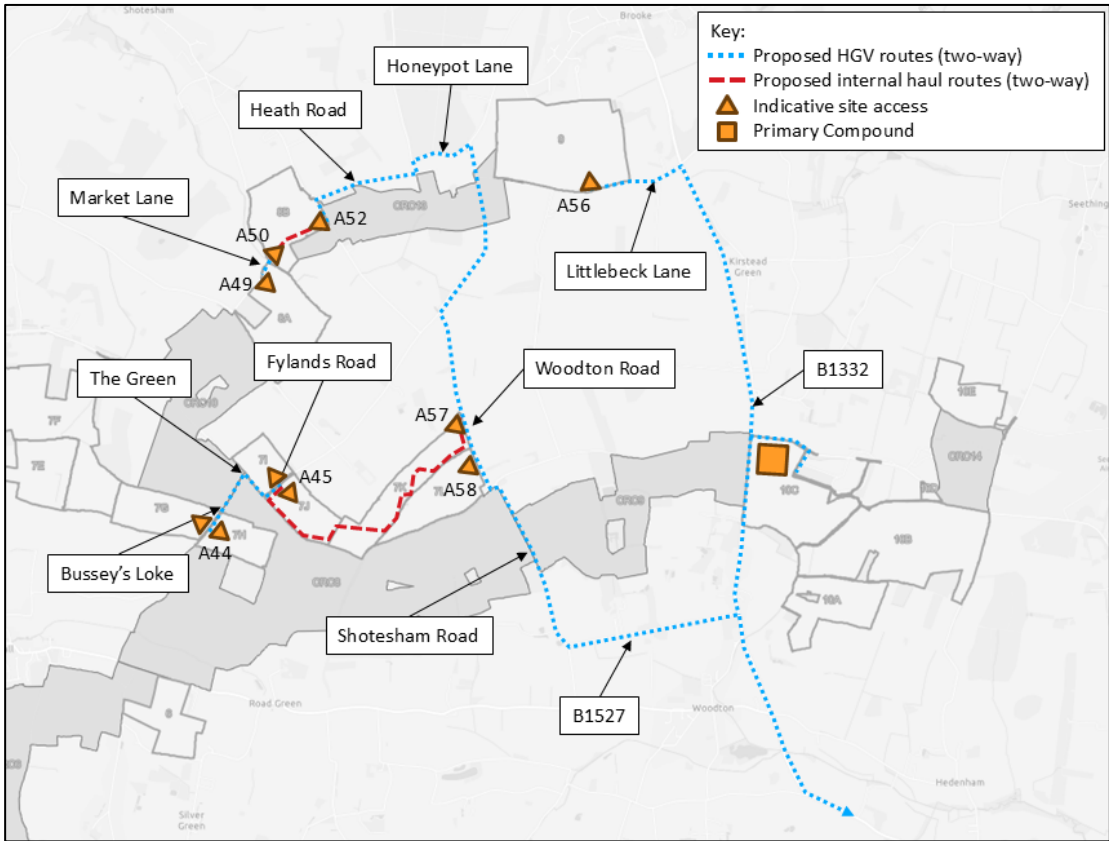


Figure 1: Proposed HGV Routing – Sites 7G-L, 8A-B and 9

1.2.2 Figure 2 visualises the peak daily vehicle generation associated with access to Sub-Sites 7G-L, 8A-B and 9 during the construction phase. Full trip generation details including methodology is detailed in TN3.1.

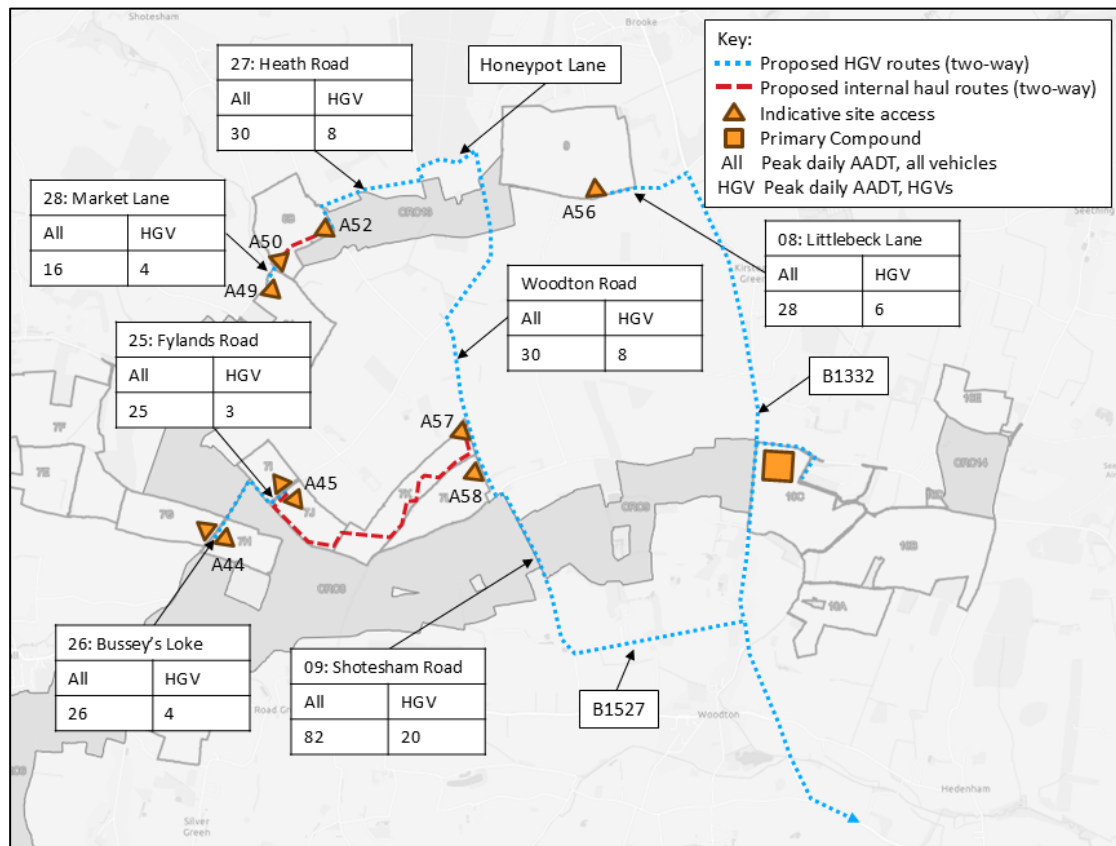


Figure 2: Peak Daily Development Vehicle Trip Generation – Sub-Sites 7G-L, 8A-B, 9

1.3 Indicative Construction Duration

1.3.1 The indicative duration for the construction period is summarised for the following Sub-Sites:

- Sub-Sites 7G-L: Approx. 3-4 months per Sub-Site – it is likely there will be overlap in construction activities i.e. 7G, 7H, 7I, 7L constructed simultaneously followed by 7J and 7K. Therefore, total indicative construction duration for these sites could be 7-9 months.
- Sub-Sites 8A-B: Approx. 3 months combined;
- Site 9: Approx. 3-4 months.

1.4 Impact Assessment

1.4.1 Figure 3 visualises the percentage impact on the LRN associated with construction vehicles accessing Sub-Sites 7G-L, 8A-B and 9.

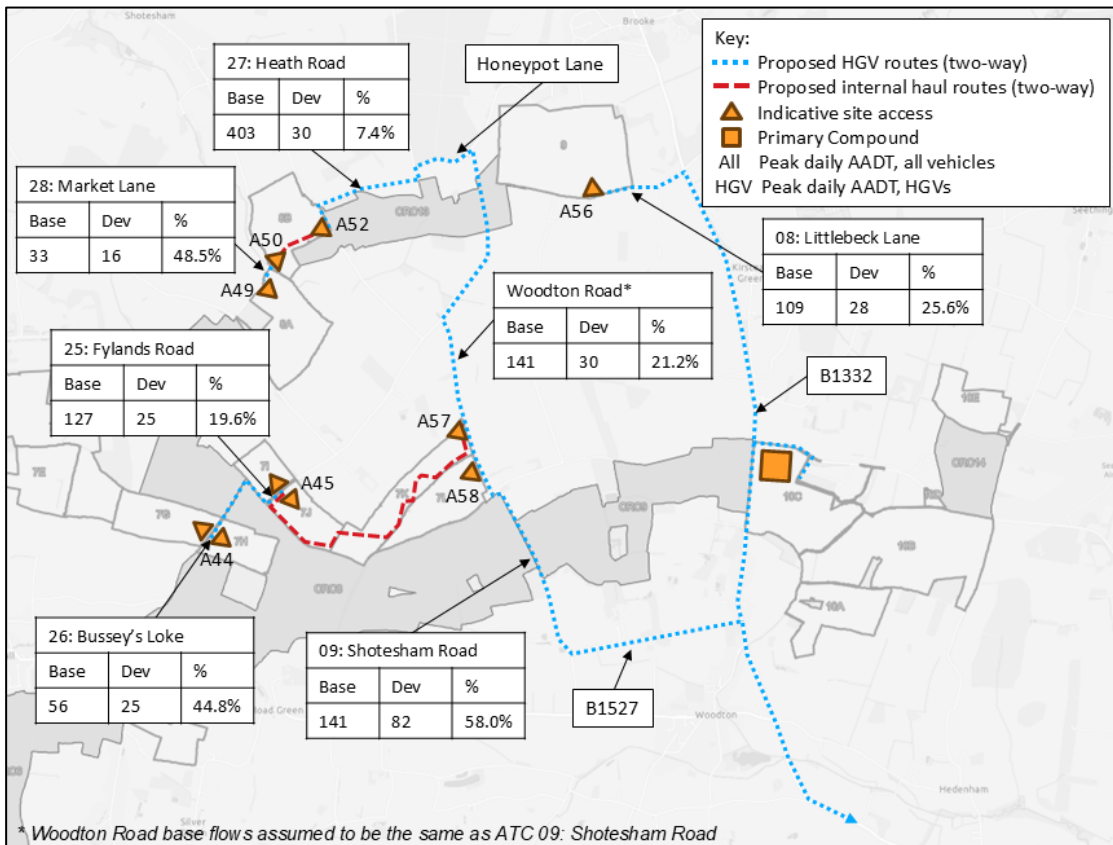


Figure 3: Percentage Impact – Sub-Sites 7G-L, 8A-B, 9

1.4.2 It should be noted that no allowance has been made for a reduction in agricultural vehicles on the LRN that would occur due to the switch to solar generation from agricultural field uses. This includes larger agricultural vehicles such as tractor trailer combinations and harvesting machines. Therefore, the trip generation figures can be considered a worst case scenario.

1.5 Construction Vehicle Management

1.5.1 The following HGV construction management protocol for Sub-Sites 7G-L, 8A-B and 9 are proposed:

- Restricting HGV construction movements to between 09:30 and 16:30 Monday-Friday.
- All inbound HGVs will report to the Primary Compound at Sub-Site 10C.
 - The Primary Compound at Sub-Site 10C will act as a vehicle holding area and call forward point.
 - HGVs will be released one at a time in staggered intervals from the Primary Compound to each Sub-Site aligned to approximate journey times to access points: i.e. Sub-Site: 7G-H = 8-9mins, Sub-Site 7I-L = 5-6mins, Sub-Site 8A-B – 11-12mins, Sub-Site 9 = 3-4mins.
 - Movements will be controlled by radio or phone contact between Traffic Marshals at the Primary Compound and the Sub-Sites confirming the arrival of HGVs. This will help avoid multiple vehicles using the same part of the LRN at the same time and reduce potential conflicts.
- HGVs delivering to Sub-Sites 7G-H, 8A-B and 9 will be restricted to either 10m rigid or 12m draw bar vehicle. This may require some materials and equipment to be

transhipped between vehicles at the Primary Compound at Sub-Site 10C. The reduction in vehicle size will aid manoeuvrability and reduce impact on the LRN including Bussey’s Loke, Honeypot Lane, Heath Road, Market Lane and Littlebeck Lane.

- Passing places will be utilised on appropriate sections of the LRN to help vehicles safely pass one another. This could include the introduction of new passing places or the improvement of existing passing places. It is also acknowledged that other existing informal passing places are present on the LRN.
- The combined width of the road and passing place will be a minimum 5.5m and the length will be 15-20m depending on the maximum anticipated vehicle size.
- Temporary road signage will be installed along the construction traffic routes to inform all road users of the construction works and vehicles and to direct construction traffic to and from the various construction accesses.
- Temporary speed reductions during construction will also be introduced in appropriate locations on the LRN such as in the vicinity of site accesses to reduce the impact of HGVs and protect other road users.
- For outbound vehicles leaving the Sub-Sites a similar process will be followed:
 - The Traffic Marshal will only release construction vehicles one at a time when departing site.
 - Movements will be controlled by radio or phone contact between Traffic Marshals at the Sub-sites and the Primary Compound confirming HGVs movement on the LRN. This will help avoid multiple vehicles using the same part of the LRN at the same time and reduce potential conflicts.
 - The Traffic Marshal would check for oncoming vehicles before releasing the construction vehicle from site onto the LRN using a Stop Works board to hold vehicles on the LRN if required.

1.6 Staff Travel

- Construction workers will arrive between 06.30-08.00 and depart between 16.30-19.00 therefore avoiding the morning peak period and with a staggered departure in the afternoon peak period.
- Worker minibuses buses will be used to reduce private vehicle usage for staff travel to site. A mode split of 50% of staff travelling to work by minibus and 12 workers per minibus is currently assumed and is represented in the trip generation figures provided in this Note.

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Prepared By: [REDACTED], Transport Planner
Reviewed By: [REDACTED], Senior Associate
Subject: TA Appendix B.4 - National Highways Transport and Access

1.1 Introduction

1.1.1 This Technical Note has been prepared to inform the analysis of traffic impact of the construction period for the East Pye Solar DCO development ('the Scheme'). It focuses on the proposed routing and impact on National Highways road network, which includes A47 and A11.

1.2 Baseline Conditions

1.2.1 Baseline flows on A47 and A11 were collected from WebTRIS for a one-week period. Due to data availability, it was not possible to collect information from the same week across all traffic count points. Dates were however selected which would represent a typical week (i.e. not during school holidays when travel patterns are non-standard). The survey dates were between the months of February, September and November 2024.

1.2.2 The traffic counters utilised for this Note are as follows:

- 6331/1 – A47 (westbound) between A146 and A140;
- 6332/1 – A47 (eastbound) between A140 and A146;
- 6340/1 – A47 (westbound) between B1108 and A1074;
- 6341/1 – A47 (eastbound) between A1064 and B1108;
- 6329/1 – A47 (eastbound) between A11 and A140; and
- 6327/1 – A11 (northbound) between B1135 and A47.

1.2.3 Baseline traffic flows were growthed using TEMPro to the peak construction year for the Scheme identified as 2029. The future baseline flows in Average Annual Daily Traffic (AADT) and Average Annual Weekday Traffic (AAWT) are summarised in Table 1. Due to the limitation of available data, AADT/AAWT flows are not available for count ID 6329/1 (A47 eastbound between A11 and A140).

Table 1: Future Baseline (2029) Flows on A47 and A11

Count ID	Link	AADT (2029)	% >6.6m	AAWT (2029)	% >6.6m
6327/1	A11 northbound between B1135 and A47	22,971	9.3%	25,005	10.8%
6331/1	A47 eastbound between A140 and A146	29,004	7.4%	31,888	8.8%

Count ID	Link	AADT (2029)	% >6.6m	AAWT (2029)	% >6.6m
6322/1	A47 westbound between A147 and A140	28,995	7.8%	31,005	9.2%
6341/1	A47 eastbound between A1074 and B1108	21,865	7.4%	23,574	8.6%
6340/1	A47 westbound between B1108 and A1074	21,612	12.8%	23,199	13.7%

1.3 Trip Generation and Distribution

1.3.1 The Scheme is anticipated to generate a peak daily of 69 Heavy Goods Vehicles (HGV) (138 arrivals + departures) for the Photovoltaic (PV) Solar Sites, and a peak daily of 33 HGVs for the Cable Route Corridor (CRC). There is also anticipated to be in the peak month an average daily 505 staff, equivalent to 205 cars, shuttles and Light Goods Vehicles (LGV) per day. This is based on a worst-case scenario, which assumes all sites are active simultaneously. In reality construction activities will be staggered across the construction programme.

1.3.2 Construction vehicles arriving to and departing from the Scheme will access the Strategic Road Network (SRN) via two key north to south corridors: A140 and B1332. Along these corridors, the following trip distribution has been assumed:

- HGVs – A140: 50% access from the north, 50% access from the south;
- Cars, Shuttles, LGVs – A140: 75% access from the north, 25% access from the south;
- HGVs – B1332: 100% access from the south;
- Cars, Shuttles, LGVs – B1332: 75% access from the north, 25% access from the south.

1.3.3 The trip distribution on A140 and B1332 is visualised in Figures 1 and 2.



Figure 1 (above): HGV and Light Movements – Distribution on A140



Figure 2 (above): HGV and Light Movements – Distribution on B1332

1.3.4 Based on the trip generation and distribution outlined above for construction vehicles and staff movements, the peak daily development flows in relation to National Highways links are summarised in Table 2.

Table 2: Peak Daily Development Flows – A47 / A11

Count ID	Link	HGVs*		Cars / Shuttles / LGVs*	
		Arrive	Depart	Arrive	Depart
6331/1	A47 westbound between A146 and A140	7	7	23	23
6332/1	A47 eastbound between A140 and A146	7	7	23	23
6340/1	A47 westbound between B1108 and A1074	14	14	46	46
6341/1	A47 eastbound between A1074 and B1108	14	14	46	46
6329/1	A47 eastbound between A11 and A140	27	27	92	92
6327/1	A11 northbound between B1135 and A47	14	14	46	46
6331/1	A47 westbound between A146 and A140	7	7	23	23

* Numbers are rounded

1.3.5 As can be seen in Table 2 the link with the highest level of anticipated vehicle movements from the Scheme is the A47 between the A11 and A140.

1.4 Impact Assessment

1.4.1 The effects of traffic during the construction and decommissioning phases of the Scheme are considered in this section. Within the IEMA Guidelines¹ one general rule is suggested that applies to the National Highways links and can be used as the criteria to assess the scale and extent of the environmental assessment:

- Rule 1: Include highway links where traffic flows would increase by more than 30% (or the number of HGVs would increase by more than 30%).

1.4.2 Table 3 summarises the percentage impact on the National Highways links. Due to the limitation of available data, AADT/AAWT flows are not available for count ID 6329/1 (A47 eastbound between A11 and A140). As shown, percentage change on the National Highways links is evidenced to be negligible, considerably lower than IEMA thresholds. It is therefore considered that the impact of the Scheme on A47 and A11 is not significant.

Table 3: Percentage Impact Assessment

Count ID	Link	Future Base AADT	AADT + Dev Flows	% Increase
6327/1	A11 northbound between B1135 and A47	22,971	23,030	0.26%
6331/1	A47 eastbound between A140 and A146	29,004	29,034	0.10%
6322/1	A47 westbound between A147 and A140	28,995	29,025	0.10%
6341/1	A47 eastbound between A1074 and B1108	21,865	21,924	0.27%
6340/1	A47 westbound between B1108 and A1074	21,612	21,671	0.27%

1.5 Cumulative Developments

1.5.1 Four nearby developments were used as part of the assessment of cumulative effects. These developments were as follows:

- 2023/1368 – Land south of Church Road, residential development;
- 2025/1689 – Land north of Carr Lane, BESS development;
- EN010109 – Sheringham and Dudgeon Extension, offshore wind farm and onshore electrical connection scheme; and
- EN020027 – Norwich to Tilbury, overhead line connection works.

1.5.2 Table 4 summarises the peak daily development flows associated with the four cumulative schemes. Data was collected from each developments respective planning application documents to provide estimated trip generation and distribution flows.

1.5.3 It should be noted that the development flows obtained for EN020027 – Norwich to Tilbury is for the developments peak construction year of 2028. The peak construction year for the Scheme is identified as 2029. Therefore, the cumulative development flows can be considered a worst case scenario as the peak construction years do not overlap and will in reality be lower than those set out in Table 4.

¹ Institute of Environmental Management and Assessment (IEMA) Guidelines (July 2023) Accessed December 2025

Table 4: Cumulative Development Flows

Count ID	Link	Peak Daily Flows (one-way)			
		2023/1 368	2025/1 689	EN010 109	EN020 027
6327/1	A11 northbound between B1135 and A47	56	10	271	117
6331/1	A47 eastbound between A140 and A146	56	20	485	234
6322/1	A47 westbound between A146 and A140	56	20	485	234
6341/1	A47 eastbound between A1074 and B1108	56	10	561	117
6340/1	A47 westbound between B1108 and A1074	56	10	561	117
6329/1	A47 eastbound between A11 and A140	56	20	472	234

- 1.5.4 Table 5 evaluates the percentage impact on the National Highways links after including Scheme flows and cumulative development flows. Due to the limitation of available data, AADT/AAWT flows are not available for count ID 6329/1 (A47 eastbound between A11 and A140).
- 1.5.5 As shown, percentage impact on National Highways links does not exceed IEMA thresholds, and is considered to have a negligible impact on the Strategic Road Network (SRN). Considering the data is representative of a reasonable worst-case scenario and peak daily development flows from the Scheme and cumulative developments, it is not anticipated that impacts on the SRN will increase beyond the stated percentages.

Table 5: Cumulative Development Impact Assessment

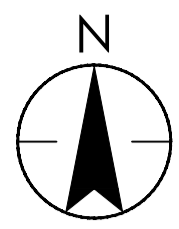
Count ID	Link	AADT (2029)	AADT + Dev + Cumulative	% Increase
6327/1	A11 northbound between B1135 and A47	22,971	23,484	2.23%
6331/1	A47 eastbound between A140 and A146	29,004	29,829	2.84%
6322/1	A47 westbound between A146 and A140	28,995	29,820	2.84%
6341/1	A47 eastbound between A1074 and B1108	21,865	22,668	3.67%
6340/1	A47 westbound between B1108 and A1074	21,612	22,415	3.71%

1.6 Summary

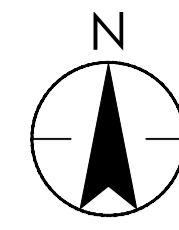
- 1.6.1 The assessment within this Note demonstrates that the proposed Scheme will have low to minimal impact on National Highways road network. The data collection and forecasting exercise confirms that cumulative development flows show no material impact on National Highways' network performance or safety, and no adverse operational or capacity effects have been identified.

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Appendix C Site Access Drawings, Visibility Splays and Swept-Path Analysis



EGRESS



ENTRY



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The Stills, 1st Floor, 80 Tummill Street
London
EC1M 5QU
Tel. +44 20 3824 6600
www.stantec.com/uk

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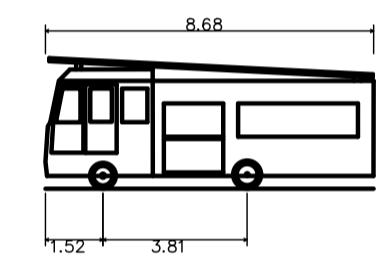
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- VEHICLE MOVEMENTS HAVE BEEN MODELLED AT A FORWARD DESIGN SPEED OF 5 KM/H.
- ALL VEHICLE PATHS ASSUME IDEALISED SWEEPED PATHS WITH NO ALLOWANCE FOR DRIVER ERROR OR OVERHANG CLEARANCE.
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- BASE MAPPING DERIVED FROM ISLAND GREEN POWER DRAWING NAME "EAST PYE SOLAR BESS FINAL 11-11-25" AND MAY NOT REFLECT CURRENT SITE CONDITIONS.

VEHICLE PROFILE



DB32 Fire Appliance	8.680m
Overall Length	2.180m
Overall Width	3.452m
Overall Body Height	0.337m
Min Body Ground Clearance	2.121m
Max Track Width	6.00s
Lock to lock time	7.910m
Kerb to Kerb Turning Radius	

P01 FIRST ISSUE	LW	TH	2026.02.17
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	-	-	2026.02.17
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Issue Status

S2 - FOR INFORMATION

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ISLAND GREEN POWER

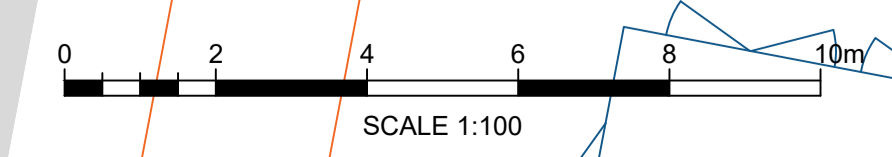
EAST PYE SOLAR FARM

DEVELOPMENT CONSENT ORDER

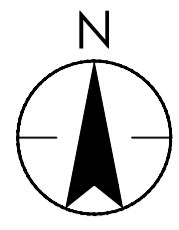
Title
VEHICLE TRACKING
BESS UNIT - WESTERN ACCESS
FIRE APPLIANCE
SHEET 1 OF 2

Project No. 333101678 A1 Scale 1:100

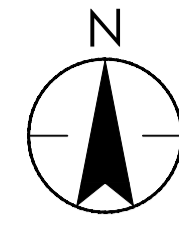
Revision - Drawing No. 333101678-STN-HGN-SW-DR-H-5536



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ENTRY



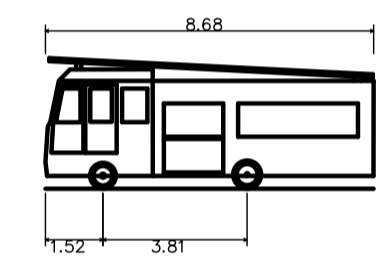
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VEHICLE PROFILE



DB32 Fire Appliance	8.680m
Overall Length	2.180m
Overall Width	3.452m
Overall Body Height	0.337m
Min Body Ground Clearance	2.121m
Max Track Width	6.00s
Lock to lock time	7.910m
Kerb to Kerb Turning Radius	

PO1 FIRST ISSUE	LW	TH	2026.02.18
Issued/Revision	By	Appd	YYYY.MM.DD
	-	-	2026.02.18
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Issue Status

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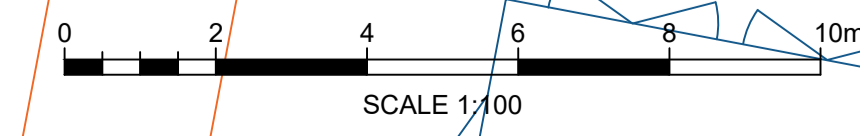
Client/Project
ISLAND GREEN POWER

EAST PYE SOLAR FARM

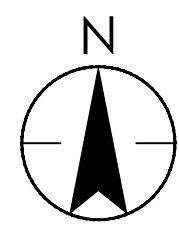
DEVELOPMENT CONSENT ORDER

Title
VEHICLE TRACKING
BESS UNIT - WESTERN ACCESS
FIRE APPLIANCE
SHEET 2 OF 2

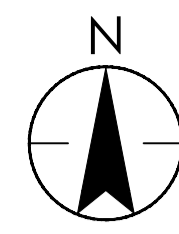
Project No.	333101678	A1 Scale	1:100
Revision		Drawing No.	333101678-STN-HGN-SW-DR-H-5536



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NORTHBOUND



SOUTHBOUND



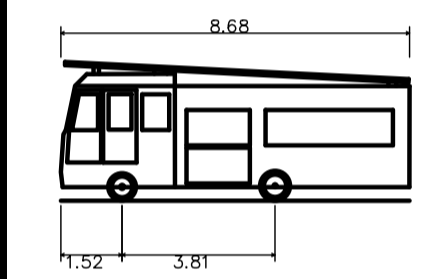
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VEHICLE PROFILE



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Kerb to Kerb Turning Radius	

P01 FIRST ISSUE	LW	TH	2026.02.18
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Client/Project
ISLAND GREEN POWER

EAST PYE SOLAR FARM

DEVELOPMENT CONSENT ORDER

Title
VEHICLE TRACKING
BESS UNIT - APPROACH TO ACCESS (NW)
FIRE APPLIANCE
SHEET 1 OF 1

Project No. 333101678 A1 Scale 1:1000

Revision Drawing No. 333101678-STN-HGN-SW-DR-H-5540

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D
C
B
A

Pond

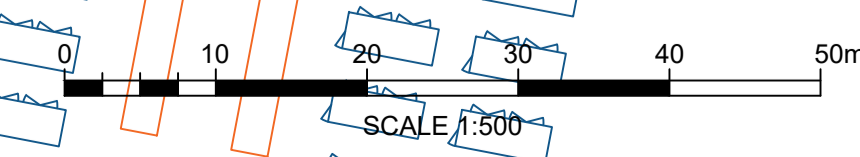
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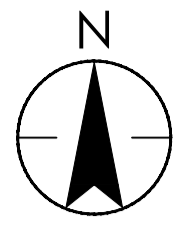
Drain

Pond

Drain

Drain





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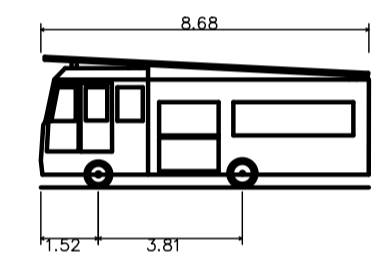
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VEHICLE PROFILE



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Max Track Width	6.00s
Lock to lock time	7.910m
Kerb to Kerb Turning Radius	

PO1 FIRST ISSUE	LW	TH	2026.02.17
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ISLAND GREEN POWER

EAST PYE SOLAR FARM

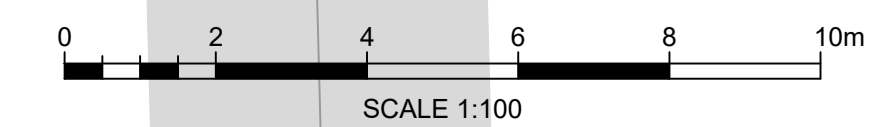
DEVELOPMENT CONSENT ORDER

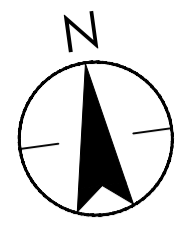
Title

VEHICLE TRACKING
BESS UNIT - SOUTHEASTERN ACCESS
FIRE APPLIANCE
SHEET 1 OF 1

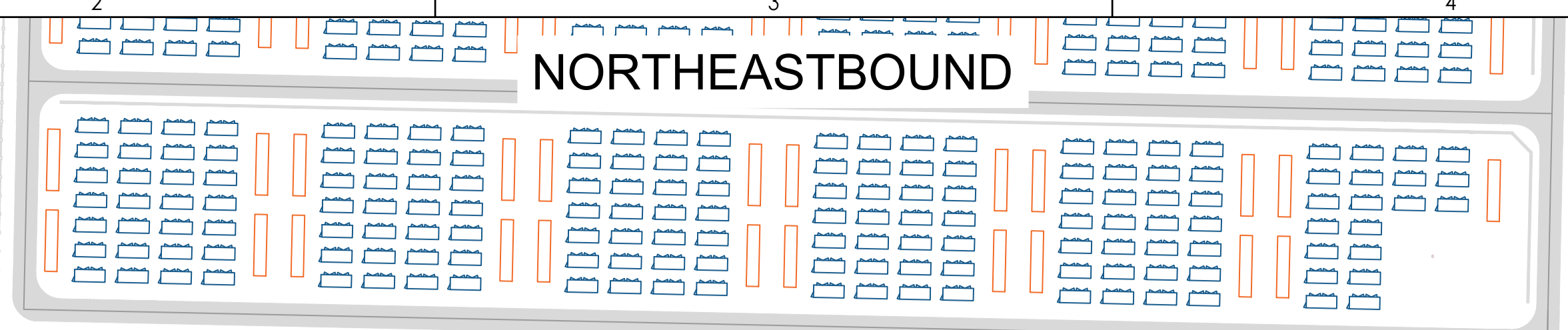
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Revision	Drawing No.
-	333101678-STN-HGN-SW-DR-H-5537

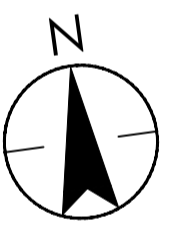
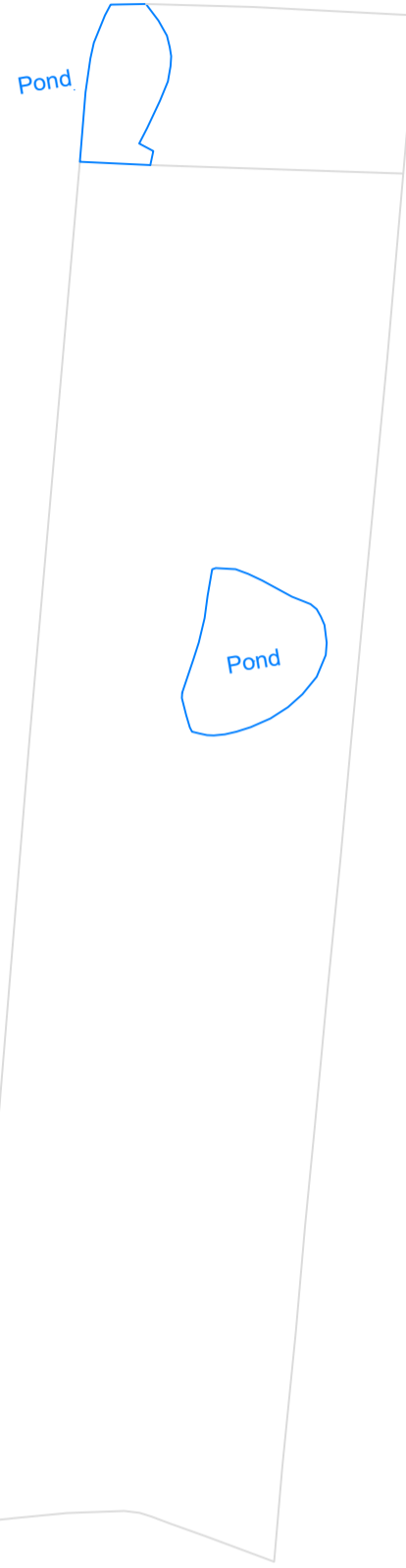




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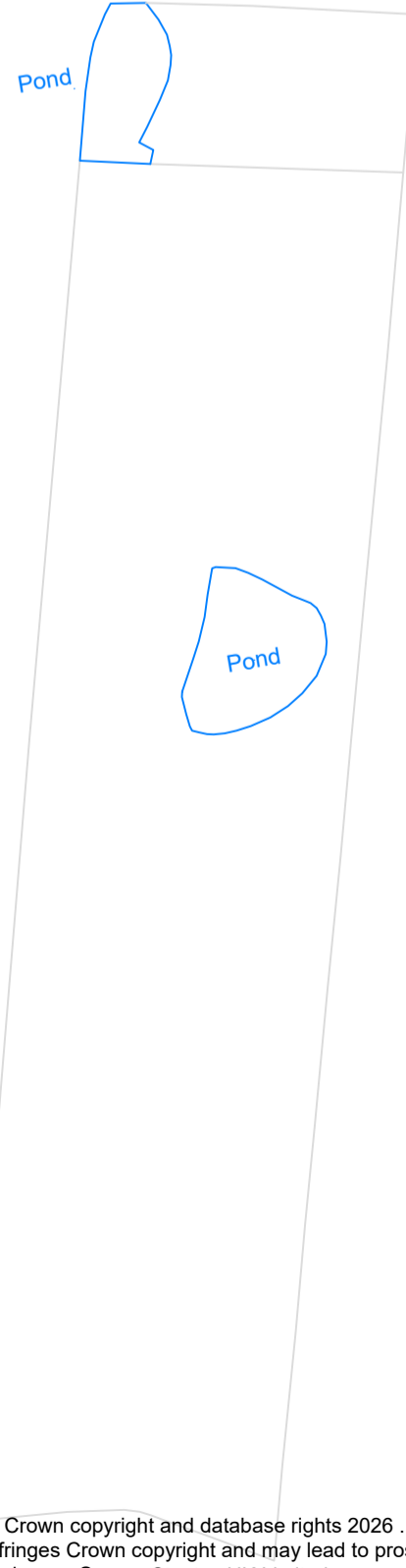
Drain



SOUTHWESTBOUND



Drain



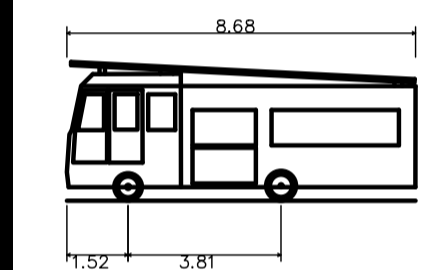
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VEHICLE PROFILE



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Max Track Width 2.121m
Lock to lock time 6.00s
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PO1 FIRST ISSUE	LW	TH	2026.02.17
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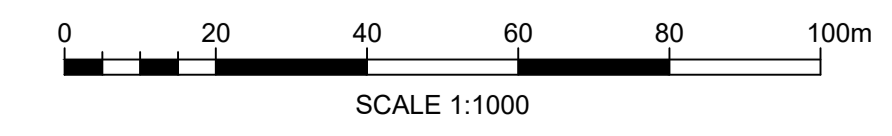
Client/Project
ISLAND GREEN POWER

EAST PYE SOLAR FARM

DEVELOPMENT CONSENT ORDER

Title
VEHICLE TRACKING
BESS UNIT - APPROACH TO ACCESS (SE)
FIRE APPLIANCE
SHEET 1 OF 1

Project No. 333101678	A1 Scale 1:1000
Revision	Drawing No. 333101678-STN-HGN-SW-DR-H-5540



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