EAST YORKSHIRE SOLAR FARM

East Yorkshire Solar Farm

EN010143

Environmental Statement

Volume 2, Appendix 13-5: Framework Construction Traffic Management Plan
Document Reference: EN010143/APP/6.2

Regulation 5(2)(a)
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

June 2024
Revision Number: 01

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Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

East Yorkshire Solar Farm

Environmental Statement – Appendix 13-4: Framework Construction Traffic Management Plan

Regulation Reference	Regulation 5(2)(a)
Planning Inspectorate Reference	EN010143
Application Document Reference	EN010143/APP/6.2
Author	East Yorkshire Solar Farm Team

Version	Date	Status of Version
Rev 00	November 2023	DCO submission
Rev 01	18 June 2024	Deadline 1

Prepared for:

East Yorkshire Solar Farm Limited

Prepared by:

AECOM Limited

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Executive Summary

ES1 AECOM has been appointed by East Yorkshire Solar Farm Limited to provide transport planning advice with regard to the proposed East Yorkshire Solar Farm comprising of solar PV array electricity generating facility and export connection to the National Grid Drax Substation. The Site is located on land to the east of Selby and north of Howden in East Riding of Yorkshire.

ES2 The objectives of this Framework Construction Traffic Management Plan are to minimise the impact of construction traffic on local communities by reducing traffic at highways and local public rights of ways, and where possible implementing mitigation.

ES3 The Site is located in a rural area with limited footways and pedestrian and cycle facilities, though there are many public rights of way. To the north of the Site runs the A163, the A614 runs to the east and the M62 runs to the south. The B1228 is the connecting north to south transport route that cuts through the Site. Other local roads are smaller country roads. It is assumed that all construction workers will travel to and from the Site by vehicles due to the remote location of the Site and lack of access to the public transport network.

ES4 The Scheme with respect to transport and access is considered to be in accordance with relevant national and local policy as demonstrated within this Framework Construction Traffic Management Plan, by providing mitigation to avoid adverse impacts on highway safety and on the transport network.

ES5 During the anticipated peak months 1-18 of the construction phase, up to 400 construction workers are expected to travel to the compounds across the Site, dropping to 225 workers from month 19 onwards. Shifts at the Site are anticipated to be between 07:00-19:00 during the week and between 07:00-13:00 on Saturdays.

ES6 Workers are anticipated to car share and utilise minibuses, meaning a total of 178 vehicle trips are expected during the morning and evening peak hours (06:00-07:00 and 19:00-20:00) respectively. Following month 19, this is anticipated to drop to 100 vehicle trips in these hours. No restrictions have been applied to possible routes workers could take to the Site.

ES7 There is expected to be no generated trips between the road network peak hours of 08:00-09:00 and 17:00-18:00

ES8 During construction, it is assumed that 25 Heavy Goods Vehicles will deliver across the Site daily between (months 1 to 18) between the hours of 09:00-16:00. In month 19, it is assumed that daily deliveries will drop to 15 HGVs.

ES9 It is assumed there will be 50 daily tractor-trailer movements during construction (months 1 to 18) between the hours of 09:00-17:00. In month 19, it is assumed this will drop to 30 tractor-trailer movements.

ES10 HGVs will travel to and from the Compounds via the Strategic Road Network with traffic travelling to Compound A and B moving along the A163 to the A614, traffic to Compound D moving along the A63 to the A19, and to

Compound E along the A645 to the M62. No HGVs will travel to Compound C.

ES11 Tractor-trailers moving from Compounds to Solar PV Site sees deliveries distributed equally among the corresponding Solar PV Areas and traffic from the Grid Connection Corridor will see deliveries distributed equally along the length of the route.

ES12 It is expected that construction vehicles accessing the Site will be cars, small vans, 10m rigid vehicles, max articulated lorries, tractors with trailers (up to 12 metres in length), mobile cranes, and Abnormal Indivisible Loads. A maximum of 10 Abnormal Indivisible Loads will be associated with the implementation of the two Grid Connection Substations.

ES13 Swept path analysis and the consideration of visibility splays has been conducted at pinch points along the routes set out, and at the entrances to each of the Compound locations. Based on the results, the Compound access is considered to be viable; however, some locations were identified that would require carriageway widening and/or vegetation removal and associated traffic management to facilitate safe implementation.

ES14 Internal routes will be utilised through the Site where possible as the primary route construction traffic across the Site. Upgrades to existing tracks may be necessary, and construction of additional secondary access to tracks may be conducted.

ES15 During the construction phase, car parking will be provided at each Compound to accommodate construction workers. Construction workers will then be transported within the Site via mini-bus, or similar. Cycle parking spaces may also be provided if there is demand for this.

ES16 Mitigation and management measures will be implemented in support of the Scheme, to avoid any adverse impacts on the surrounding networks during the construction phase.

ES17 The measures that will enforce and ensure compliance of this CTMP will include contractor kick-off meetings before Site occupation, Site inductions for drivers and workers, reporting systems in place to ensure incidences of non-compliance can be investigated, contractual requirements ensuring compliance, information packs including codes of good practice, details of the Transport Co-ordinator and more necessary information for contracted staff.

ES18 The Applicant will take all reasonable steps to avoid any breach of the Framework Construction Traffic Management Plan through the implementation of the management measures. However, should any breaches occur, then enforcement procedures will be implemented involving the Transport Co-ordinator, the Applicant and the relevant contractor. Monitoring will be made available to the relevant local planning authorities and relevant highway authorities at their request to ensure compliance and to demonstrate that action is being taken where necessary.

1. Introduction

1.1 Background

1.1.1 AECOM has been commissioned by East Yorkshire Solar Farm Limited (the 'Applicant') to prepare a Framework Construction Traffic Management Plan (CTMP) in support of the proposed East Yorkshire Solar Farm (the 'Scheme') Development Consent Order (DCO) application.

1.1.2 The Scheme will comprise: the construction, operation (maintenance), and decommissioning of solar photovoltaic (PV) generating panels (the 'Solar PV Site'), associated grid connection (comprising the 'Interconnecting Cable Corridor' and 'Grid Connection Corridor'), access points ('Site Accesses') and 'Ecology Mitigation Area' – collectively referred to as the 'Site'. The boundary of the Site is referred to as the 'Order limits'. The Site location is shown in **Figure 13-5-1**.

1.1.3 Further information on the Scheme and Site is provided in **Chapter 2: The Scheme, ES Volume 1 [EN010143/APP/6.1]**.

1.1.4 The Site is approximately 1,276.47 hectares (ha) in size and straddles the boundary between the counties of North Yorkshire and the East Riding of Yorkshire. The Solar PV Site, Ecology Mitigation Area and Interconnecting Cable Corridor are solely located within the administrative area of East Riding of Yorkshire Council. The Grid Connection Corridor and Site Accesses are located within the administrative areas of East Riding of Yorkshire Council and the North Yorkshire Council (following reorganisation into a new single unitary council for North Yorkshire in April 2023). The landscape features within the Solar PV Site consist predominately of agricultural fields mainly under arable production, with some areas of pasture, interspersed with individual trees, hedgerows, tree belts (linear) small woodland blocks and farm access tracks.

1.2 Purpose of Report

1.2.1 The purpose of this appendix is to set out the Framework CTMP, which focuses on the management of construction traffic within the vicinity of the Site along the local highway network during the construction period of the works, in order to limit any potential disruptions and implications on the wider transport network, as well as for the existing road users.

1.2.2 This Framework CTMP sets out the proposals to manage construction traffic and staff vehicles during the construction of the Scheme. It identifies the management of freight traffic (i.e. Heavy Goods Vehicles (HGVs), tractor-trailers, as well as staff vehicles).

1.2.3 It has been informed by extensive consultation with the highway authorities (i.e. East Riding of Yorkshire Council and North Yorkshire Council[1]) and National Highways with regard to the Strategic Road Network (SRN).

1.2.4 It should be noted that as this is a framework document and as such, certain details remain to be developed as the Scheme progresses into detailed design following DCO consent. The full details of all measures may not be

[1] Formerly North Yorkshire County Council.

confirmed until after consent for the Scheme has been granted. A detailed CTMP will be required to be produced by the contractor prior to commencement of construction of the Scheme and this is secured by DCO requirement.

1.2.5 This appendix should be read in conjunction with **Chapter 13: Transport and Access, ES Volume 1 [EN010143/APP/6.1]**.

1.3 Aims and Objectives

1.3.1 The objectives of this Framework CTMP are to set a framework for the measures that would be developed in the detailed CTMP to:

a. Minimise the volume of construction HGVs and construction staff vehicles as far as reasonably practicable;

b. Maximise the safe and efficient movement of materials and staff required during the construction phase as far as reasonably practicable;

c. Minimise the restrictions imposed and ensure efficient management to the local public rights of way (PRoW) within the Site during the construction phase The **Framework PRoW Management Plan [EN010143/APP/7.13]** provides details of how existing PRoWs will be managed during the construction phase;

d. Minimise the impacts both for the local community and visitors to the area using the road network as far as reasonably practicable; and

e. Set out the measures to be adhered to by those travelling to and from the Order limits to reduce the impact of the construction of the Scheme.

1.4 Report Structure

1.4.1 Following this introduction, the Framework CTMP is structured as follows:

a. **Section 2** provides details of the Site location, surrounding area and the existing highway network;

b. **Section 3** summarises the HGV, construction and staff vehicle movements which are expected to be generated by the Scheme across the construction period, including during at the peak of construction;

c. **Section 4** provides details of the proposed site access for the Site including details of layouts, visibility splays and swept paths, as well as routing arrangements and internal Site layout considerations including access tracks, compounds and parking;

d. **Section 5** summarises the proposed measures to manage the highway network and pedestrian and cycle routes during the construction phase, as well as measures directed at HGVs and staff members, as well as for the management, monitoring and review of the CTMP;

e. **Section 6** deals with compliance and enforcement of the CTMP; and

f. **Section 7** provides the conclusion to the CTMP.

2. Existing Conditions

2.1 Site Location

2.1.1 The Scheme is located within areas of existing agricultural fields mostly under arable production, with some interspersed areas of pasture, trees hedgerows, woodland and farm access tracks.

2.1.2 An overall Scheme plan is provided in **Chapter 2: The Scheme, ES Volume 1 [EN010143/APP/6.1]**.

2.2 Surrounding Area

2.2.1 The landscape features immediately within the study area around the Scheme comprise a number of villages, including Foggathorpe Gribthorpe, Spaldington, and Brind within the Site. To the north-east of the Site is Holme-On-Spalding-Moor, to the north-west is Bubwith, and to the south is Howden. Drax village is to the south of the National Grid Drax Substation where the Grid Connection Corridor route connects.

2.2.2 To the north of the Site runs the A163, to the east is the A614 and to the south is the M62. The B1228 is the connecting north to south transport route that traverses through the Site. A railway line (the Selby Line, also part of the TransPennine Express route) also traverses through the Site at Solar PV Ares 3b and 3c, and Grid Connection Corridor, in an east-west direction.

2.2.3 There is an extensive network of PRoWs both within the Site and the surrounding area. Further details of these are set out within Section 4 of this report.

2.3 Site Accessibility

Strategic Highway Network

2.3.1 The M62 forms part of the SRN and connects Liverpool to Hull via Bradford, Leeds and Wakefield. The road has three lanes travelling in each direction with hard shoulder separation. The road is managed by National Highways and provides a link for onward strategic journeys heading east and west. The junction on the M62 closest to the Site is junction 37, which will be used by some vehicles to access the Site.

Local Highway Network

2.3.2 The A63 travels between Hull in the east to Leeds in the west via Selby, although the route becomes the M62 for approximately 15km between Junctions 38 and 37. From Junction 37 to the A19 the A63 is a single carriageway, with speed limits indicated at 30mph through villages such as Asselby, 40mph through Barmby-on-the-Marsh and Hemingborough, with the National Speed Limit in place elsewhere indicating 60mph.

2.3.3 The A614 is a single carriageway road running to the east of the Scheme. The road can be accessed from the west via the A163 in Holme-on-Spalding-Moor, Spaldington Lane, the A63, and the M62 at Junction 37.

2.3.4 The A163 is a single carriageway road running east to west from the north of Barlby to Selby bypass for an extent of approximately 19km. to the north of

the Scheme, the road intersects with B1228 to the east and the A614 to the east. This section of road is National Speed Limit in places, but drops to 40 or 30 mph through villages such as Holme-on-Spalding-Moor, Foggathorpe, Highfield and Bubwith. The road is generally 6 metres (m) wide.

2.3.5 The A645 runs from Crofton in the east to Airmyn Grange where it intersects with the A614, after passing the National Grid Drax Substation.

2.3.6 The B1228 runs from the north near York southwards to Howden and can be accessed via the A163, Willitoft Road, Wood Lane, Brind Lane and the A63 to the south. The road is a single carriageway and is predominantly National Speed Limit (60 mph), with the exception of sections north of Howden station and approaching Highfield which are signed as 40 mph. The road offers no pedestrian facilities. The road is included within the Site.

2.3.7 Wood Lane runs within the Site, connecting Station Road in the west to Tottering Lane in the east for a length of 5.6km. The road is a singular lane (around 3m wide) with verges either side. The road connects to Willitoft Road, the B1228 and Brind Lane along the road at various junctions.

2.3.8 Tottering Lane provides access to the Site, heading east from the junction with Willitoft Road and Wood Lane to the north with Bell Lane, travelling for 3km. The road is a single lane (approximately 4m wide) with grass verges on both sides. It is noted that the roadside verges of Tottering Lane are a Local Wildlife Site (LWS).

2.3.9 Ings Lane is a no through road that travels through the village of Spaldington. Through the settlement the road is a single carriageway approximately 6m wide, where parked cars were observed. There are footways present alongside the residential properties. Following the last residential house to the east of the settlement, the road becomes single carriageway (approximately 3m wide) with grass verges on either side.

2.3.10 Spaldington Lane runs through the Site, travelling from the B1228 in the west to the A614 in the east for a distance of approximately 4km. The road is a single carriageway without road markings, that provides access to an unmarked road heading north to Ings Lane, Wood Lane and Willitoft Road.

2.3.11 Rowlandhall Lane runs north to south from Wood Lane in the north for a distance of approximately 2km to Newsholme Road in the south. The road runs within the Site. The road is the width of a single lane (approximately 3m wide) with grass verges either side.

2.3.12 New Road provides access to the National Grid Drax Substation from the A645 to the south. The road is a single carriageway route approximately 6.7m wide with some footways present close to the National Grid Drax Substation.

2.3.13 Pear Tree Avenue runs north-east of the National Grid Drax Substation, connecting in the west to New Road and continuing east to an unmarked road for approximately 750m. The road is approximately 3m wide with grass verges either side.

2.3.14 Carr Lane is accessed from a junction eastbound from New Road travelling east for 800m before becoming Redhouse Lane. The road is a single carriageway, approximately 5m wide with grass verges on either side.

2.3.15 Newsholme Road is a residential road and is approximately 5.0m wide, with on street parking observed.

2.3.16 School Road runs from Garthends Lane in the west travelling east to the A63 for approximately 650m in the village of Hemingbrough. The single carriageway is approximately 5.5m in width and has pedestrian footways on both sides of the road.

2.3.17 Chapel Balk Road is accessed via School Road and is a farm road that travels south along an unofficial lane for 470m before a junction with Grange Road. At this junction the road continues further south for a further 230m until meeting Barmby Ferry Road as an unofficial track. The road is a single lane and is approximately 3.3m wide.

2.3.18 Barmby Ferry Road runs south-east from Hemingbrough village towards the River Ouse for a distance of 1.4km. The road is an unofficial track road cutting through fields, and is a single lane with a width of approximately 3m.

2.4 Other Transport Modes

2.4.1 Details relating to the accessibility of the Site via public transport, cycling and on foot are provided within **Transport Assessment** (**Appendix 13-4, ES Volume 2 [EN010143/APP/6.2]**). It has been assumed that all construction workers will be expected to travel to and from the Site by vehicle due to its remote location and lack of easy access to the public transport network.

3. Construction Movements

3.1.1 This section provides a summary of the forecast HGV and staff vehicle movements that are expected during the construction phase of the Scheme, based on the proposed construction phase programme.

3.2 Construction Programme

3.2.1 Subject to the DCO for the Scheme being granted, the earliest construction phase could start is during 2025, being built over a 24-month period. The peak construction period is anticipated to occur between months 1-18.

3.3 Construction Vehicle Movements

3.3.1 Construction staff, HGV deliveries, and tractor-trailer deliveries will be distributed across five main compounds throughout the Site, which are shown in **Figure 13-5-2** and described in Section 3.4**.**

3.3.2 A detailed breakdown of the expected traffic during the 24-month construction period is shown in **Table 1**.

Table 1. Indicative Construction Programme

Month	Compound A			Compound B			Compound C			Compound D			Compound E		
	Worker vehicles	HGVs	Tractor-trailers	Worker vehicles	HGVs	Tractor-trailers	Worker vehicles	HGVs	Tractor-trailers	Worker vehicles	HGVs	Tractor-trailers	Worker vehicles	HGVs	Tractor-trailers
1	67	9	18	58	8	14	9	0	2	22	4	8	22	4	8
2	67	9	18	58	8	14	9	0	2	22	4	8	22	4	8
3	67	9	18	58	8	14	9	0	2	22	4	8	22	4	8
4	67	9	18	58	8	14	9	0	2	22	4	8	22	4	8
5	78	11	22	68	10	18	10	0	2	22	4	8	0	0	0
6	89	13	26	78	12	22	11	0	2	0	0	0	0	0	0
7	89	13	26	78	12	22	11	0	2	0	0	0	0	0	0
8	89	13	26	78	12	22	11	0	2	0	0	0	0	0	0
9	89	13	26	78	12	22	11	0	2	0	0	0	0	0	0
10	89	13	26	89	12	24	0	0	0	0	0	0	0	0	0
11	89	13	26	89	12	24	0	0	0	0	0	0	0	0	0
12	89	13	26	89	12	24	0	0	0	0	0	0	0	0	0
13	89	13	26	89	12	24	0	0	0	0	0	0	0	0	0
14	89	13	26	89	12	24	0	0	0	0	0	0	0	0	0
15	89	13	26	89	12	24	0	0	0	0	0	0	0	0	0
16	89	13	26	89	12	24	0	0	0	0	0	0	0	0	0
17	89	13	26	89	12	24	0	0	0	0	0	0	0	0	0
18	89	13	26	89	12	24	0	0	0	0	0	0	0	0	0
19	0	0	0	100	15	30	0	0	0	0	0	0	0	0	0

Month	Compound A			Compound B			Compound C			Compound D			Compound E		
	Worker vehicles	HGVs	Tractor-trailers	Worker vehicles	HGVs	Tractor-trailers	Worker vehicles	HGVs	Tractor-trailers	Worker vehicles	HGVs	Tractor-trailers	Worker vehicles	HGVs	Tractor-trailers
20	0	0	0	100	15	30	0	0	0	0	0	0	0	0	0
21	0	0	0	100	15	30	0	0	0	0	0	0	0	0	0
22	0	0	0	100	15	30	0	0	0	0	0	0	0	0	0
23	0	0	0	100	15	30	0	0	0	0	0	0	0	0	0
24	0	0	0	100	15	30	0	0	0	0	0	0	0	0	0

Construction Workers

3.3.3 It is anticipated that there would be up to 400 members of staff working at the Scheme daily during months 1 to 18 of the construction programme. From months 19 to 24, this will drop to 225 daily workers.

3.3.4 Minibuses for workers would be provided to facilitate journeys to/from key towns/cities where significant numbers of people could originate. Based on the population weighting exercise carried out to inform traffic distribution, the proportions of workers that could be expected to use the minibuses have been assumed. This indicated a proportion of 50% (e.g., 201 out of 400 workers) that could be expected to use the minibus services.

3.3.5 Minibuses (e.g., 16-seater for the purposes of this assessment) would be allocated to each identified settlement based on the assumed proportion of workers in each location. This equates to a requirement of 16 minibuses per day to transport the 201 workers from the varying locations.

3.3.6 Of the remaining 199 workers not expected to use the minibus services, approximately 55% could be targeted for car sharing measures, which equates to 109 workers. Of this total, a realistic car share ratio of 1.5 workers per car has been assumed, equating to a total of 72 vehicle movements. This number can then be added to the remaining 90 workers using their own car to travel to the Site and the 16 movements associated with the minibuses.

3.3.7 Therefore, for the purposes of the assessment there would 178 vehicle trips during the morning development peak hour (06:00-07:00) and 178 vehicle trips during the evening peak, during the peak months of construction (months 1 to 18).

3.3.8 From months 19 to 24, this will drop to 225 daily workers which would equate to 178 vehicle trips per morning and evening peak between months 1 to 18, and 100 vehicle trips per morning and evening peak from months 19 to 24.

3.3.9 It should be noted that car sharing will be encouraged for local construction workers and based on AECOM's experience of previous DCO projects where a large construction workforce has been employed, an average car occupancy of 1.5 persons per vehicle is considered to be realistic for the purposes of calculating the forecast vehicle trip attraction for the Site. The Applicant will implement measures, as set out in Section 5.3, (to be secured as part of this Framework CTMP) to seek to maximise the numbers of staff that car share with colleagues to reduce the number of vehicles travelling to/ from the Site each day, including a Car Share Scheme to match potential sharers and help staff identify any colleagues who could potentially be collected along their route to/from the Site. The aspiration is to achieve a higher average occupancy level than 1.5 persons per vehicle (for the Site) to further reduce the impact of the Scheme on the local network and the SRN.

HGVs

3.3.10 During the construction period, it is anticipated that there will be a maximum of 25 artic HGVs delivering across the Site daily between construction months 1 to 18. In month 19, daily deliveries will drop to 15 HGVs, travelling to Compound B (located in Solar PV Area 2d) only.

Tractor-trailers

3.3.11 Following deliveries from HGVs to the Compounds during the construction period, tractors with trailers will deliver the loads to other locations around the Solar PV Site and Grid Connection Corridor. It is anticipated that there will be 50 daily tractor/trailer movements during the construction period between month 1 to 18. In month 19, daily deliveries will drop to 30 tractor-trailer movements from Compound B only.

Daily Construction Profile

3.3.12 Construction worker shifts are planned to be between 07:00-19:00 during the week in summer months and 07:00-13:00 on Saturdays. Therefore, construction workers are anticipated to travel between 06:00-07:00 and 19:00-20:00 during the week and between 06.00-07.00 and 13.00-14.00 on Saturdays. HGVs will be limited to deliver between 09:00-16:00 and tractor-trailers will deliver around the site between 09:00-17:00.

3.3.13 It is anticipated that months 1-18 will see the same amount of generated traffic across the Scheme, and therefore a typical daily profile is set out in **Table 2**.

Table 2. Months 1 to 18 Daily Profile of Generated Trips (Two-way)

Time	Cars/ Minibuses		HGVs		Tractor-trailers		Total
	In	Out	In	Out	In	Out	
00:00-01:00	0	0	0	0	0	0	**0**
01:00-02:00	0	0	0	0	0	0	**0**
02:00-03:00	0	0	0	0	0	0	**0**
03:00-04:00	0	0	0	0	0	0	**0**
04:00-05:00	0	0	0	0	0	0	**0**
05:00-06:00	0	0	0	0	0	0	**0**
06:00-07:00	178	0	0	0	0	0	**178**
07:00-08:00	0	0	0	0	0	0	**0**
08:00-09:00 (network AM peak)	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00-10:00	0	0	4	4	7	6	**21**
10:00-11:00	0	0	4	3	6	6	**19**
11:00-12:00	0	0	3	4	6	7	**20**
12:00-13:00	0	0	4	3	6	6	**19**
13:00-14:00	0	0	3	4	7	6	**20**
14:00-15:00	0	0	4	3	6	6	**19**
15:00-16:00	0	0	3	4	6	7	**20**

Time	Cars/ Minibuses		HGVs		Tractor-trailers		Total
	In	Out	In	Out	In	Out	
16:00-17:00	0	0	0	0	6	6	**12**
17:00-18:00 (network PM peak)	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00-19:00	0	0	0	0	0	0	**0**
19:00-20:00	0	178	0	0	0	0	**178**
20:00-21:00	0	0	0	0	0	0	**0**
21:00-22:00	0	0	0	0	0	0	**0**
22:00-23:00	0	0	0	0	0	0	**0**
23:00-00:00	0	0	0	0	0	0	**0**
Total	**178**	**178**	**25**	**25**	**50**	**50**	**506**

3.3.14 The above indicates that the Scheme is expected to see a maximum of 178 two-way vehicle trips during the AM development peak hour (06:00-07:00) and PM development peak hour (19:00-20:00) respectively. These construction vehicles will be spread across the four compounds.

3.3.15 There is expected to be no generated trips travelling across the road network between during network AM and PM peak hours of 08:00-09:00 and 17:00-18:00, respectively.

3.3.16 During the winter months, lower numbers of workers would be expected, possibly arriving at the Site later and departing the Site earlier and working shorter hours. These traffic movements would still occur outside the network peak hours, so these key periods would not be impacted. In addition, the percentage increase in traffic would likely be lower in this situation due to higher traffic baseline in later hours in the AM period and earlier hours in the PM period. The assessment of worker traffic during the summer months therefore represents a robust worst-case scenario.

3.4 Construction Vehicle Distribution

3.4.1 For the purpose of this assessment, construction worker trips have been informed using a gravity model approach to assume origins of their trips from surrounding settlements. This has been used to inform both private car journeys and the minibus pick up locations. This is considered to be an acceptable methodology as the exact location of the construction workforce is not known at this stage.

3.4.2 The locations, weightings of each settlement, and ultimate distribution are provided in **Table 3**.

Table 3. Construction Worker Weighted Distribution by Residence

Settlement	Population	Average distance from Order limits (km)	Weighting	Weighted population	Percentage distribution
Holme-On-Spalding-Moor	3,172	9	1	3,172	0%
Bubwith	1,225	9	1	1,225	0%
Goole	19,518	11	1	19,518	1%
Market Weighton	6,429	18	1	6,429	0%
Selby	92,000	20	1	92,000	6%
Pocklington	8,337	22	0.7	5.836	0%
Thorne	17,295	25	0.7	12,107	1%
Wheldrake	1,984	27	0.7	1,389	0%
York	198,100	32	0.7	138,670	9%
Beverley	18,624	34	0.7	13,037	1%
Pontefract	30,881	41	0.7	21,617	1%
Doncaster	302,400	42	0.7	211,680	14%
Hull	256,400	44	0.7	179,480	12%
Driffield	13,080	45	0.7	9,156	1%
Leeds	751,500	67	0.5	375,750	25%
Sheffield	552,700	75	0.5	276,350	19%
Barnsley	231,200	75	0.5	115,600	8%
Total				**1,483,015**	**100%**

3.4.3 The potential route choices from these origins to the Site have then been assumed using an iterative process within an online interactive mapping tool. No restrictions have been applied to possible routes workers could take to the Site.

3.4.4 Construction HGVs will travel to and from the Compounds via the SRN to avoid passing through any local villages such as Bubwith.

3.4.5 The restrictions on HGV movements to certain routes as follows:

a. Compound A – Along the A163 to the A614;

b. Compound B – Along the A163 to the A614;

c. Compound C – None, refer to paragraph 3.4.7;

d. Compound D – Along the A63 to the A19; and

e. Compound E – Along the A645 to the M62.

3.4.6 Restrictions on HGV and tractor-trailer movements on roads through Howden and north from Howden along the B1228 Station Road would also be introduced.

3.4.7 At Compound C no HGVs will deliver to here; instead, going to Compound B and then tractor-trailer vehicles will complete the delivery to Compound C. Therefore, no HGV routing has been conducted for Compound C.

3.4.8 At the remaining four Compounds (A, B, D, E), HGVs will complete deliveries for the Solar PV Site and Grid Connection Corridor. From each Compound these deliveries will be moved across the Solar PV Areas and along the Grid Connection Corridor using tractor-trailers. The movements will generally take place on haul roads within the Solar PV Areas and Grid Connection Corridor where equipment is required; however, these vehicles will also be required to utilise or cross sections of roads along the local road network.

3.4.9 The roads that will be utilised in deliveries from each Compound is as follows:

a. Compound A – Gribthorpe Road, Tottering Lane and Ings Lane;

b. Compound B – B1228, Unmarked Road (Spaldington Lane), Wood Lane;

c. Compound C (tractor-trailer access from Compound B only) – Rowlandhall Lane, Wood Lane, B1228;

d. Compound D – A63, Unmarked Road, Wood Lane, School Road, Chapel Balk Road and Barmby Ferry Road; and

e. Compound E – Pear Tree Avenue, New Road and Carr Lane.

3.4.10 The HGV and tractor-trailer routing for each compound is displayed in **Figures 13-5-3 to 13-5-7**.

3.4.11 Tractor-trailer traffic from the Compounds for the Solar PV Site will be distributed equally among the corresponding Solar PV Areas.

3.4.12 Tractor-trailer traffic from the Grid Connection Route will be distributed equally along the length of the route.

3.4.13 Network Rail will be consulted prior to any proposed use of the Rowlandhall Lane Level Crossing. All tractor-trailer vehicles that are categorised as large or slow in accordance with existing signage must call the signaller prior to crossing Rowlandhall Lane Level Crossing and comply with any instructions given to them.

3.5 Vehicle Types, Plant Requirements and Abnormal Loads

3.5.1 It is expected that construction vehicles accessing the Site will consist of the following:

a. Cars;

b. Small vans (Light Goods Vehicles [LGV]);

c. 10m rigid vehicles;

d. Max articulated lorries (HGV);

e. Tractors with trailers (up to 12m in length);

f. Mobile cranes; and

g. Abnormal Indivisible Loads (AIL).

3.5.2 AILs will be associated with the implementation of Substations across the Solar PV Site, with a maximum of 10 anticipated during the period of construction.

3.5.3 Swept path analysis has been carried out at potential pinch points identified along key roads on the local road network, to ascertain whether HGVs and other vehicles are able to safely access the Site. This analysis has subsequently informed routing of vehicles.

3.5.4 All large vehicles and other AILs will be required to follow the agreed HGV routing strategy when travelling to/from the Site.

3.5.5 Based on the swept path analysis results, some locations were identified that would require carriageway widening/vegetation removal and associated traffic management to facilitate safe implementation.

4. Site Access, Layout and Routing

4.1 Introduction

4.1.1 During the construction phase of the Scheme, it will be served by multiple access points to different Solar PV Areas, as well as access to the five compounds across the Site and the Grid Connection Corridor. Proposed access layouts, visibility splays and swept paths for the Scheme are presented in **Annex A: Proposed Access Layouts, Visibility Splays and Swept Paths (Annex A, Appendix 13-5, ES Volume 2 [EN010143/APP/6.2])** of this appendix.

4.1.2 The following drawings contained within **Annex A** indicate the Compounds and their corresponding access points / vehicle routing from the wider road network.

a. Compound A: Access 1 Drawing 60683115-HGN-DR-CH-0101;

b. Compound B: Access 12 Drawing 60683115-HGN-DR-CH-0112;

c. Compound C: Access 18 Drawing 60683115-HGN-DR-CH-0118;

d. Compound D: Access 24 Drawing 60683115-HGN-DR-CH-0124; and

e. Compound E: Access 27 Drawing 60683115-HGN-DR-CH-0127.

4.1.3 The access to the Compounds is as follows:

a. Compound A – Access via Willitoft Road;

b. Compound B – Access via the B1228;

c. Compound C – Access via Rowlandhall Lane;

d. Compound D – Access via the A63; and

e. Compound E – Access via Pear Tree Lane.

4.1.4 Compounds A, B and C will be converted to include solar PV panels at the end of their use, whilst Compounds D and E will be converted into landscaping.

4.1.5 Access to each Solar PV Areas is described in **Table 4**. All are accessed via farm style entry points to the fields in question.

Table 4. Solar PV Area Access Points and Routes

Solar PV Area	Access Point and Route
1a/Compound A	Accessed via Willitoft Road.
1b	Accessed using internal roads travelling south-east via Compound A, crossing over Tottering Lane, down to Gribthorpe and north into the Site.
1c	Accessed using internal roads travelling south via Compound A, crossing over Tottering Lane, travelling south into the Site.
1d	Accessed using internal roads travelling south via Compound A, travelling west along Tottering Lane, and travelling south into the Site.
1e	Accessed using internal roads, travelling south-east via Compound A, crossing over Tottering Lane accessing and travelling east into the Site.
1f	Accessed using internal roads, travelling south-east via Compound A, crossing over Tottering Lane accessing and travelling east into 1e. Continuing south-east, crossing over Ings Lane and travelling south into the Site.
2a	Accessed using the B1228 travelling north, then heading north-west down a farm lane to travel west into the Site.
2b	Accessed travelling south along the B1228, then east along the unmarked road (Spaldington Lane) then heading north along internal roads via Site 2e and travelling west into the Site.
2c	Accessed using the B1228 travelling north, then heading north-west into the Site.
2d/Compound B	Accessed via the B1228.
2e	Accessed travelling south along the B1228, then east along the unmarked road (Spaldington Lane) then heading north along internal roads to travel north into the Site.
2f	Accessed travelling south along the B1228, then east along the unmarked road (Spaldington Lane) then heading south into the Site.
2g	Accessed travelling south along the B1228, then east along the unmarked road (Spaldington Lane) then heading south-west along the A614 turning north into the Site.
3a	Accessed using the B1228 travelling north, then heading south-west along Wood Lane, then turning west into the Site.
3b	Accessed using the B1228 travelling north, then heading south-west along Wood Lane, then turning east into the Site.

Solar PV Area	Access Point and Route
3c/Compound C	Accessed via Rowlandhall Lane turning east on internal roads to access the Site.

4.1.6 Access to the Grid Connection Corridor will be either directly via Compounds D and E or via farm style entry points from the road network into the corridor. The vehicles would then use internal roads. The accesses are described in **Table 5**.

Table 5. Grid Connection Corridor Access Points and Routes

Access Point	Access Routing
Compound D	Accessed via the A63 east of Babthorpe, large vehicles would enter the access and depart the access from / to the west only.
Compound E	Vehicles exit the M62 at Junction 36, travel north-west along the A614 from Goole Interchange, then along the A645. At the New Road/ A645 Junction, turn north along New Road, then along Pear Tree Avenue. Turn north into the Compound
Wood Lane	Access from the A63, then onto Wood Lane.
A63 (South)	Turn south directly from the A63 (access is west of Compound D from the A63)
New Road	Vehicles exit the M62 at Junction 36, travel north-west along the A614 from Goole Interchange, then along the A645. At the New Road/ A645 Junction, turn north along New Road

4.1.7 Only tractor-trailer vehicles and some minibuses will access the specific Solar PV Areas (and the Grid Connection Corridor accesses away from the Compounds), with the majority of generated movements directed to the Compounds.

4.1.8 When travelling to the Solar PV Areas and Grid Connection Corridor, vehicles will be instructed to use the access routes set out in **Table 4** and **Table 5**, specifically tractor-trailer deliveries.

4.1.9 HGVs will be directed to utilise the routes set out in Section 4.4.5, and construction staff will be advised to take the most direct route to the Site using ‘higher’ order roads, such as A and B classified roads (i.e. the SRN and PR1/PR2 routes) where feasible.

Off-Site Highway Improvements

4.1.10 Local off-site highway improvements (e.g., verge clearance, hedge cutting and/or passing bays) will be carried out at access points where necessary.

Vehicle Swept Path Analysis

4.1.11 As set out above, the agreed routing strategy for HGVs for each compound is as follows:

a. Compound A – Along the A163 to the A614;

b. Compound B – Along the A163 to the A614;

c. Compound C – Along A63, then Rowlandhall Lane;

d. Compound D – Along the A63 to the A19; and

e. Compound E – along the A645 to the M62.

4.1.12 Vehicle swept path analysis has been conducted on HGV routes where pinch points have been noted using the largest vehicle assumed to utilise the roads (maximum legal articulated vehicle). AIL vehicles have also been analysed along these routes to ensure safe journeys along the road network.

4.1.13 All points of access to the Grid Connection Corridor, Solar PV Areas and Compound locations, have also been analysed using swept path analysis compared to the largest assumed vehicles to enter the respective areas.

4.1.14 All proposed points of access are provided within **Annex A: Proposed Access Layouts, Visibility Splays and Swept Paths (Annex A, Appendix 13-5, ES Volume 2 [EN010143/APP/6.2])**.

4.1.15 The vehicle swept paths demonstrate that construction vehicles will be able to turn in/out of the proposed site accesses. It should be noted that traffic marshals will be in place to control HGV movements at the access to ensure these movements are carried out safely. An appropriate level of visibility will be achievable to/from the access, as set out above.

Access Tracks

4.1.16 It is proposed that internal routes through the Solar PV Areas where possible will be utilised as the primary route for deliveries and staff movements across the Site. Where necessary, upgrades to existing tracks through widening and resurfacing may be necessary, and construction of additional secondary access to tracks to increase connectivity may be conducted.

4.1.17 It is proposed that internal access tracks will be 6m in width and passing places will be 20m in length and installed at strategic locations to ensure safe passage of construction vehicles. The internal tracks will enable free-flowing movement within the Site whilst removing construction traffic from local roads.

5. Management and Mitigation

5.1.1 This section outlines the construction traffic management measures that will be implemented in support of the Scheme, to avoid any adverse impacts on the surrounding networks during the construction phase.

5.2 Highway Network

Access Works

5.2.1 Access designs have been provided for all locations where vehicles will be required to enter the Site. The access drawings are provided within **Annex A: Proposed Access Layouts, Visibility Splays and Swept Paths (Annex A, Appendix 13-5, ES Volume 2 [EN010143/APP/6.2])**.

Other Improvements

5.2.2 Major carriageway widening works/ improvements are not currently planned as part of the construction of the Scheme; however, local off-site highway improvements (e.g., verge clearance, hedge cutting and/or passing bays) will be carried out at access points where necessary.

5.2.3 Pre and post construction road condition surveys will be undertaken at identified locations in coordination with the relevant Local Highway Authority.

Temporary Traffic Management

5.2.4 The Grid Connection Corridor will require temporary traffic management at several points along the road network during the construction period, to allow construction vehicles to safely cross and access cable routes sections, as well as organising traffic to avoid impacts on the road network and traffic.

5.2.5 Where necessary, temporary traffic signals are proposed to mitigate the impact of the laying of the cable, along busier roads. Where roads are less busy, traffic management will be conducted by laymen where necessary.

5.2.6 At some locations where the Grid Connection Corridor will be crossing the road, Horizontal Direction Drilling (HDD) will be used to limit lane closures and the need for further traffic measures. The roads where this will occur are as follows:

a. A63; and

b. New Road.

5.2.7 Open-cut installation will be used for the remainder of roads which are crossed by the Grid Connection Corridor and Interconnecting Cable Corridor. These roads will use temporary traffic management measures, such as lane closures to facilitate implementation rather than full road closures.

5.2.8 The exact methodology for implementing temporary traffic management will be determined by the contractor once appointed and designed to minimise any potential effects as far as possible. Further detail will be provided within the detailed CTMP.

Crossing Points

5.2.9 It should be noted that the construction access points will be gated following implementation of fencing early on in construction, and supporting measures (e.g., traffic marshals and signage) will safely facilitate construction vehicles as they exit or enter the carriageway.

5.3 Management Measures and Controls

HGV Measures and Controls

5.3.1 The following measures will be implemented to manage HGV deliveries to the Site:

a. Delivery management system;

b. Traffic management and monitoring;

c. Suitable (and agreed) HGV routes;

d. HGV timing restrictions;

e. Traffic marshals and Site management;

f. Communications strategy;

g. Appropriate Site access arrangements;

h. Necessary escort, permits and traffic management for AILs; and

i. Interactions with pedestrians and cyclists.

Delivery Management System

5.3.2 A Delivery Management System (DMS) will be implemented to control bookings of HGV deliveries from the start of the construction period. This will be used to regulate the arrival times of HGVs via timed delivery slots, as well as to monitor compliance of HGV routing. In addition, adequate space will be made available along the proposed access road to ensure no queuing back onto the surrounding road network occurs.

Traffic Management and Monitoring

5.3.3 Traffic Management and Monitoring System (TMMS) will be developed to provide details of the technologies and other means employed to monitor HGVs to/from the Compounds (e.g., Global Positioning System [GPS] and Automatic Number Plate Recognition [ANPR]). This will enable the Applicant to monitor the following:

a. Compliance with the HGV routes;

b. Compliance with the number of HGV limits in terms of number of deliveries arriving and departing at any one time and over the course of the day; and

c. Compliance with the timing restrictions.

5.3.4 In addition, the TMMS will also record all LGVs which enter and exit the Site, to allow all vehicles to be monitored. In the instance that a complaint has been made in relation to inappropriate routes being used, then this will be cross-referenced with the TMMS to allow appropriate actions to then be taken.

5.3.5 The precise form of TMMS would be determined following the appointment of a contractor and will include a summary of the contractual requirements which those visiting the Site will have to adhere to, along with the measures to be taken for non-compliance.

HGV Routes

5.3.6 HGVs will be required to comply with the agreed routing strategy set out in Section 3.4.5, apart from in the case of exceptional circumstances where the proposed routing to the Site is compromised due to an incident or road closure for example. In this circumstance it is considered acceptable for HGVs to be redirected via an alternative route or to deliver outside of the established scheduling if required.

HGV Timing Restrictions

5.3.7 To reduce the potential impact of HGV deliveries, the arrival and departure times will be managed to minimise the number of HGVs travelling to the Site during the network peak hours for the local highway network; identified within the **Transport Assessment** (**Appendix 13-4, ES Volume 2 [EN010143/APP/6.2]**) as 08:00-09:00 and 17:00-18:00. For example, HGVs could be delayed in the afternoon to avoid being released from the Site during the PM network peak hour.

5.3.8 The timing restrictions, considered likely to be implemented at this stage are:

a. Avoiding arrivals or departures on a weekday between 08:00-09:00 and 17:00 and 18:00;

b. Limiting deliveries to between the hours of 09:00-16:00;

c. No arrivals or departures on Saturday before 08:00 or after 13:00; and

d. No arrivals or departures on Sundays or public holidays.

Traffic Marshalling and Site Management

5.3.9 Suitably qualified traffic marshals will be positioned at the proposed Site accesses, and at any crossing points between the road network and the Site during construction to ensure vehicle movements are controlled safely.

5.3.10 Visibility will be maximised between construction vehicles and other users at the crossing points (e.g., through hedgerow clearance), and advanced signage will be provided to warn users of the potential presence of construction vehicles. Staffed controls will be provided at each crossing point (including traffic marshals and gates), with a default priority that construction traffic will give-way to other users.

Communications Strategy

5.3.11 A communications strategy will be developed by the Applicant to ensure that the measures contained within this Framework CTMP are communicated to the workforce. This would include an information pack setting out the contractual requirements which will be provided to the contractors. Furthermore, regular meetings will be held with contractors to discuss HGV management and to address any issues associated with travel to/from the Site, as well as to relay information including any restrictions and requirements which should be followed.

Site Access Arrangements

5.3.12 The Site access layouts have been designed to accommodate HGVs and tractor-trailers as shown by the vehicle swept path analysis, as provided in **Annex A: Proposed Access Layouts, Visibility Splays and Swept Paths (Annex A, Appendix 13-5, ES Volume 2 [EN010143/APP/6.2])**. A hardstanding surface will be provided at the proposed accesses to ensure the weight of the HGVs can be accommodated. In addition, wheel washing facilities will be provided within each Compound to prevent mud from being trafficked onto the highway.

5.3.13 Vegetation clearance will be carried out at the proposed Site accesses where required in order to achieve appropriate levels of visibility as agreed

with the local authorities and set out in **Appendix 13-3: Communications with the Local Highways Authorities, ES Volume 2 [EN010143/APP/6.2]** and shown in **Annex A: Proposed Access Layouts, Visibility Splays and Swept Paths (Annex A, Appendix 13-5, ES Volume 2 [EN010143/APP/6.2])**.

Abnormal Loads

5.3.14 At this stage, the only abnormal loads associated with the Scheme will be related to the two Grid Connection Substations needed at the Solar PV Site (located in Solar PV Area 1c). AIL deliveries will be associated with the two Grid Connection Substations components, such as the transformers (approximately 10 vehicle movements).

5.3.15 A specialised haulage service will be employed to allow these components to be transported with the necessary escort, permits and traffic management, with the contractor consulting the relevant highways authorities to ensure the correct permits are obtained. The police will also be given advanced notification under the Road Vehicle Authorisation of Special Types Order 2003 (Ref 1).

5.3.16 All abnormal loads will be expected to follow the agreed HGV routing strategy when travelling to/from the Site. Further details related to the abnormal loads will be included within the detailed CTMP for the Scheme.

Pedestrians and Cyclists

5.3.17 Access to all existing PRoWs will be retained during the construction phase, with no PRoW closures and a limited number of temporary PRoW diversions around the Site. The **Framework PRoW Management Plan [EN010143/APP/7.13]**, produced for the DCO Application, provides details of how existing PRoWs will be managed during the construction phase.

Physical Separation from Solar PV Site

5.3.18 The proposed construction route will be physically separated from existing PRoW, to maximise the safety of pedestrians and cyclists within the Site.

5.3.19 Each diversion will be clearly marked out, along with appropriate signage at either end of the diversion. The diversion routes will be agreed with the relevant local authority prior to construction. The existing PRoW will be reinstated during the operational phase, albeit public access will be retained throughout as a result of the PRoW diversions.

5.3.20 As above, a sufficient corridor will be provided to accommodate and retain the minimum legal PRoW widths, which will be maintained for all PRoW throughout the construction phase. The above locations including details of minimum legal PRoW widths are presented within the **Framework PRoW Management Plan [EN010143/APP/7.13]**.

Physical Separation from Grid Connection Corridor

5.3.21 The proposed Grid Connection Corridor will cross some existing PRoWs and it is therefore proposed to temporarily (and locally) divert these around each works area, for a short period (circa. 2-3 weeks each), when the cables are installed.

5.3.22 The construction works will be very localised and the temporary PRoW diversions will therefore only displace the existing PRoW around the works area before re-joining the existing PRoW.

5.3.23 Each minor diversion will be clearly marked out, along with appropriate signage at either end of the diversion. The diversion routes will be agreed with the relevant local authority prior to construction commencing.

5.4 Staff Vehicle Measures and Controls

5.4.1 Staff movements will be managed through the implementation of the following measures:

a. Limited and allocated car parking;
b. Car sharing;
c. Staff arrival and departure times;
d. Parking strategy; and
e. Minibus service.

Limited Car Parking

5.4.2 During the construction phase, car parking spaces will be provided at each of the Compounds to accommodate parking of construction workers. The maximum parking to accommodate private vehicles and minibuses required at each compound is set out as follows:

a. Compound A – 89 spaces;
b. Compound B – 100 spaces;
c. Compound C – 11 spaces;
d. Compound D – 22 spaces; and
e. Compound E – 22 spaces.

5.4.3 Construction workers will then be transported within the Site via mini-bus, or similar.

5.4.4 Car parking spaces may also be allocated, such as to encourage electric vehicle use by provision of charging facilities.

Car Sharing

5.4.5 To reduce the potential impact of vehicles associated with the local staff during the construction period, the contractor will implement measures to encourage car sharing to reduce the number of vehicles travelling to/from the Site each day. The benefits of car sharing will be promoted to encourage multi-occupancy vehicle use, such as reduced fuel costs and ease of parking with guaranteed spaces for those workers car sharing within the Compounds.

5.4.6 A Car Share Scheme will be implemented to match potential sharers and to help staff identify any colleagues who could potentially be collected along their route to/from the Site. It should be noted that parking will be limited to encourage staff to travel together.

5.4.7 A minimum occupancy rate of 1.5 persons per vehicle for local staff (an assumption adopted within the **Transport Assessment** (**Appendix 13-4, ES Volume 2 [EN010143/APP/6.2]**)) is expected; however, the aspiration is to achieve a higher average occupancy level to further reduce the impact of the Scheme on the local network and the SRN.

Staff Arrival and Departure Times

5.4.8 The proposed working hours will be between the hours of 07:00-19:00 on weekdays and between 07:00 and 13:00 on Saturday. They will therefore be travelling along the road network between the hours of 06:00-07:00 and 19:00-20:00, and as such no staff vehicle movements are anticipated during the weekday network peak hours.

5.4.9 Any other on-site works where construction workers are moving outside of the above working hours is anticipated to be limited.

Minibus Service

5.4.10 It has been assumed that 50% of staff will travel to the Site via minibus, due to living in local villages and towns, or staying in hotels within these areas. The locations and routes of the shuttle services are yet to be determined, though drivers would be directed to use the most direct route across the SRN to deliver staff to the Compounds from local areas.

5.4.11 The following assumptions have been adopted for the shuttle service which will be provided for non-local staff travelling to/from the Site:

a. The shuttle services will travel between the Site and local worker accommodation to transfer all non-local staff to/from the Site each day;

b. The shuttle services will depart from the Site to pick-up construction workers from local worker accommodation and residential areas and return to the Site prior to the start of a shift;

c. The shuttle services will depart from the Site to drop-off construction workers back at their local worker accommodation within the hour after the completion of a shift (before returning back to the Site);

d. The shuttle services will each be expected to have an average occupancy of 16 people when transferring construction workers;

e. A shuttle service round-trip is expected to take around 30-45 minutes on average; and

f. A total of 16 shuttle buses will be available to cater for peak demand.

5.4.12 The above is designed to minimise vehicle trips on the surrounding highway network as far as practicable.

Internal Movements

5.4.13 Minibuses will also be used to transport staff around the Site by making use of the internal routes wherever practicable to travel between the Solar PV Site, the Grid Connection Corridor and the construction compounds. This will minimise trips and will also avoid trips on the surrounding highway network.

5.5 Management Structure

5.5.1 The overall management and implementation of the CTMP will be the responsibility of the Applicant. A Transport Co-ordinator will be appointed by the Applicant to implement, manage and develop the CTMP.

5.5.2 The Transport Co-ordinator will:

a. Implement and monitor the CTMP to identify successful measures and areas for improvement;

b. Promote the CTMP to all staff and contractors travelling to and from the Site to ensure compliance with its contents;

c. Liaise as appropriate with local transport and traffic groups, local planning authorities, local highway authorities and National Highways;

d. Monitor data relating to HGV routes, timing of HGV arrivals and departures and compliance with the HGV routing;

e. Manage the Car Share Scheme;

f. Manage the minibus service between local worker accommodation and the Site; and

g. Discuss any issues with relevant parties and identify any amendments to the CTMP (including measures) to ensure compliance is maintained.

5.6 Monitoring and Review

HGVs

5.6.1 The CTMP will be monitored and revised to ensure that contractors are complying with the document. This process will be led by the Transport Co-ordinator.

5.6.2 The Transport Co-ordinator will monitor data relating to HGV routes, timing of HGV arrivals and departures and compliance with the HGV routing plans set out. The results of the data monitoring will be reported to identify any issues which need to be resolved and any additional measures which should be implemented to these from arising again. The reports will be shared with the Applicant, relevant local authority and the highway authorities.

Staff Vehicles

5.6.3 Construction staff vehicles will be monitored when entering and exiting the Site accesses to determine routes staff may be taking to travel to the Site. This monitoring will determine whether any additional measures should be explored to minimise staff trips on the local highway network.

5.6.4 Construction staff will be directed to available parking bays upon arrival to assist them to park in a timely manner. Given the working patterns identified, it is expected that the car parks at the compounds will be managed between 06:30-07:00 and between 19:00-19:30 in the summer when the majority of staff are expected to arrive/depart. During the winter months, staff parking will be managed accordingly based on varied arrival and departure times as described in paragraph 3.3.16.

Additional Monitoring

5.6.5 The following monitoring will also be carried out during the construction phase, and secured as part of this Framework CTMP:

a. Construction vehicles (HGVs and tractor-trailers) will be monitored to ensure drivers are adhering to the agreed routing strategy; and

b. Vehicle safety will be monitored within the Site, including at the PRoW crossing points, temporary PRoW diversion points, and at Grid Connection Corridor intersection points.

6. Compliance and Enforcement

6.1 Introduction

6.1.1 This section of the Framework CTMP provides a summary of the mechanisms that will be implemented to maximise compliance with the CTMP.

6.2 Best Practice

6.2.1 The Applicant will use internal management procedures to maximise compliance and its enforcement with the requirements of the Framework CTMP, including:

a. Contractor kick-off meetings: contractors will be reminded of the Applicant's standards and expectations as set out in contract documentation.

b. Site induction: drivers will be briefed on the aims and objectives of the CTMP, including the booking system, designated routes and expected driver behaviour. A copy of the CTMP will be provided to each contractor to provide details of how the site will be managed as well as the rules and regulations.

c. Reporting: incidences of non-compliance will be investigated within the CTMP. Reports from each incident will be raised and shared with the relevant contractor. The CTMP will be updated where necessary to resolve any ongoing issues.

6.3 Contractual Conditions

6.3.1 Each contractor will be provided with a contract setting out their contractual requirements in terms of compliance with the Framework CTMP upon appointment. A copy of the CTMP will be provided along with details of the agreed routing strategy for HGVs to ensure that this route is followed.

6.4 Information Packs and Communications

Information packs will be provided to all contractors once they have been confirmed. The information pack will form part of the agreement between the Applicant and the designated contractors. The information pack will include details of the following:

a. Code of Good Practice;

b. Details of the Transport Co-ordinator;

c. Delivery routing restrictions;

d. Worker routing;

e. Emergency procedures;

f. Non-compliance guidance; and

g. Complaint procedures.

6.5 Enforcement

6.5.1 The Applicant will take all reasonable steps to avoid any breach of the Framework CTMP through the implementation of the management measures. However, should any breaches occur, then enforcement procedures will be followed:

6.5.2 The Transport Co-ordinator will notify the Applicant of any breaches of the Framework CTMP arrangements as and when they occur.

6.5.3 The Applicant will issue a warning letter to the relevant contractor outlining what action would be taken in the event of any further non-compliance (in general terms).

6.5.4 The Applicant will report the details of the response to the Transport Co-ordinator as part of the monitoring report. The monitoring report will be made available to the relevant local planning authorities and relevant highway authorities at their request to ensure compliance and to demonstrate that action is being taken where necessary.

6.5.5 Further detail on the sanctions which could be applied will be included within the detailed CTMP for the Site.

7. Conclusion

7.1.1 The purpose of this Framework CTMP is to focus on the management of construction traffic along the local highway network within the vicinity of the Site during the construction period of the works, in order to limit any potential disruptions and implications on the wider transport network as well as for the existing road users.

7.1.2 This Framework CTMP sets out the proposals to manage construction traffic and staff vehicles during the construction of the Scheme. It identifies the management of freight traffic (i.e., HGVs), as well as staff vehicles.

7.1.3 It should be noted that as this is a framework document, certain details will remain to be developed at the post consent stage as the Scheme progresses into detailed design. The full details of all measures may not be available until after DCO consent for the Scheme has been granted and will be provided within the detailed CTMP for the Scheme as necessary.

8. References

Ref. 1 HMSO (2003). Road Vehicle Authorisation of Special Types Order 2003.

Figures

Revision: 0 Drawn: JW Checked: CA Approved: HS Date: 2024-05-09

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PROJECT

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CONSULTANT

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LEGEND

- Order limits
- Land not included in the Order limits

NOTES

ISSUE PURPOSE

Examination

PROJECT NUMBER

60683115

FIGURE TITLE

Scheme Location

FIGURE NUMBER

Appendix 13-5-1

1:50,000 @ A3

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Revision: 1 Drawn: JW Checked: CA Approved: HS Date: 2024-05-09

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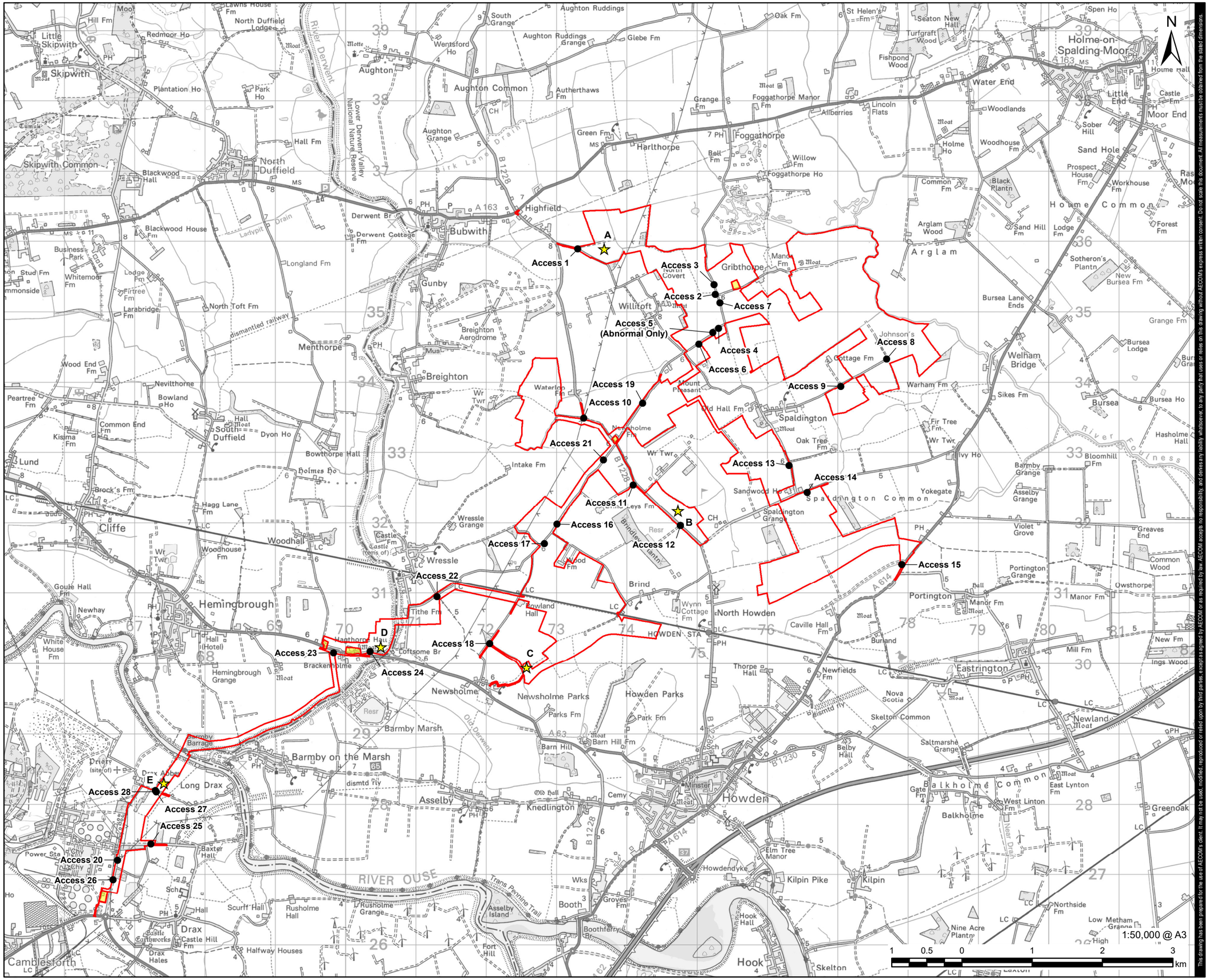

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LEGEND

- Order limits
- Land not included in the Order limits
- Indicative Compound Location
- Proposed Access

NOTES

ISSUE PURPOSE

Examination

PROJECT NUMBER

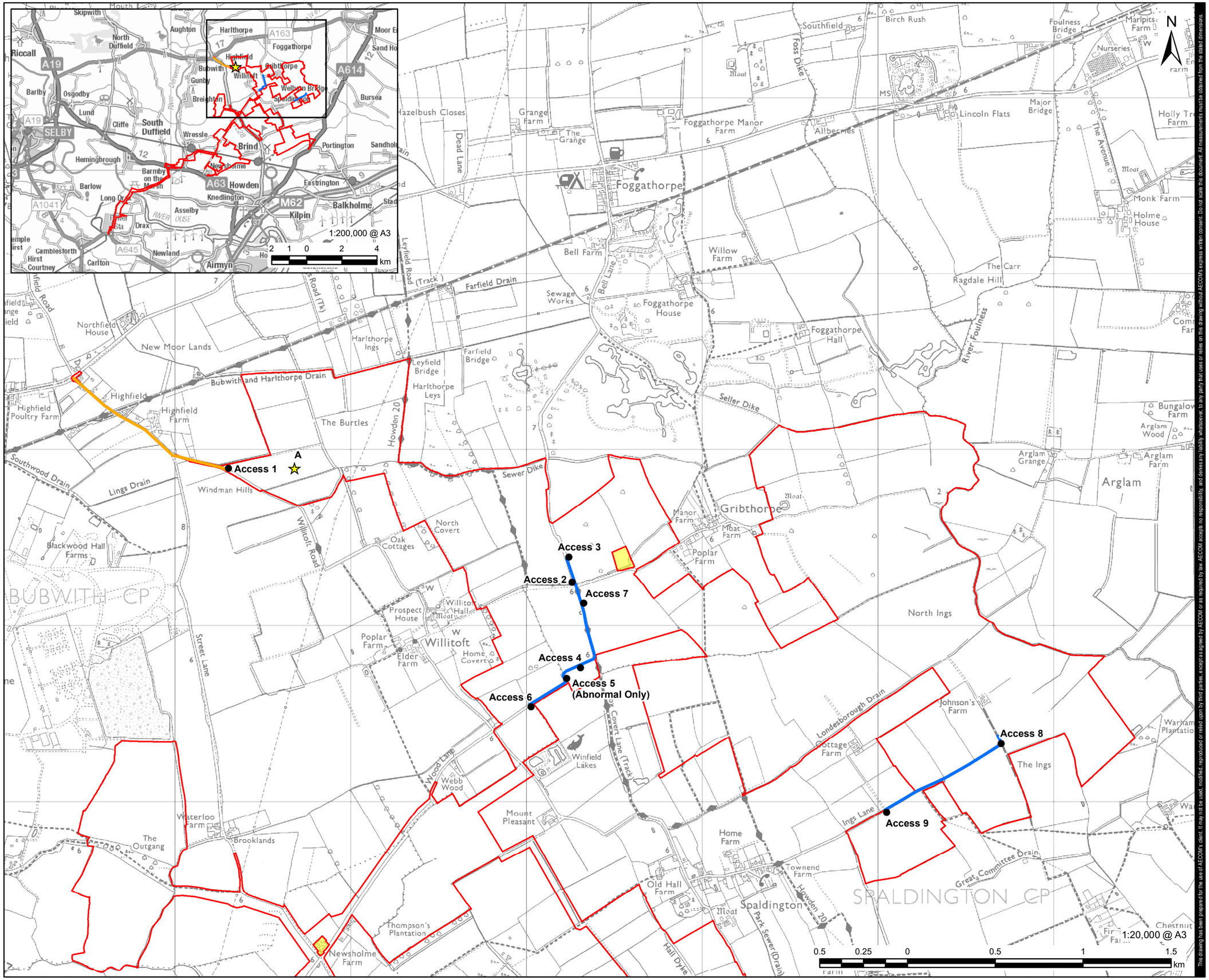
60683115

FIGURE TITLE

Compound and Site Access Locations

FIGURE NUMBER

Appendix 13-5-2



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LEGEND

- Order limits
- Land not included in the Order limits
- Indicative Compound Location
- Proposed Access

Compound Access Routes (See Inset for Full Extent)

- Tractor Trailer Route Only
- HGV Route Only

NOTES

ISSUE PURPOSE

Examination

PROJECT NUMBER

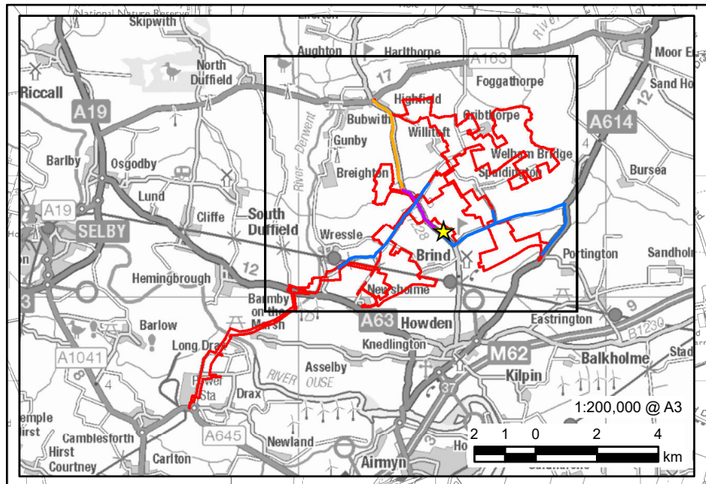
60683115

FIGURE TITLE

Compound A Access HGV and Tractor Trailer Routeing

FIGURE NUMBER

Appendix 13-5-3



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LEGEND

- 🟥 Order limits
- 🟨 Land not included in the Order limits
- ★ Indicative Compound Location
- ● Proposed Access

Compound Access Routes (See Inset for Full Extent)

- HGV and Tractor Trailers
- HGV Route Only
- Tractor Trailer Route Only

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ISSUE PURPOSE
Examination

PROJECT NUMBER
60683115

FIGURE TITLE
Compound B Access HGV and Tractor Trailer Routeing

FIGURE NUMBER
Appendix 13-5-4

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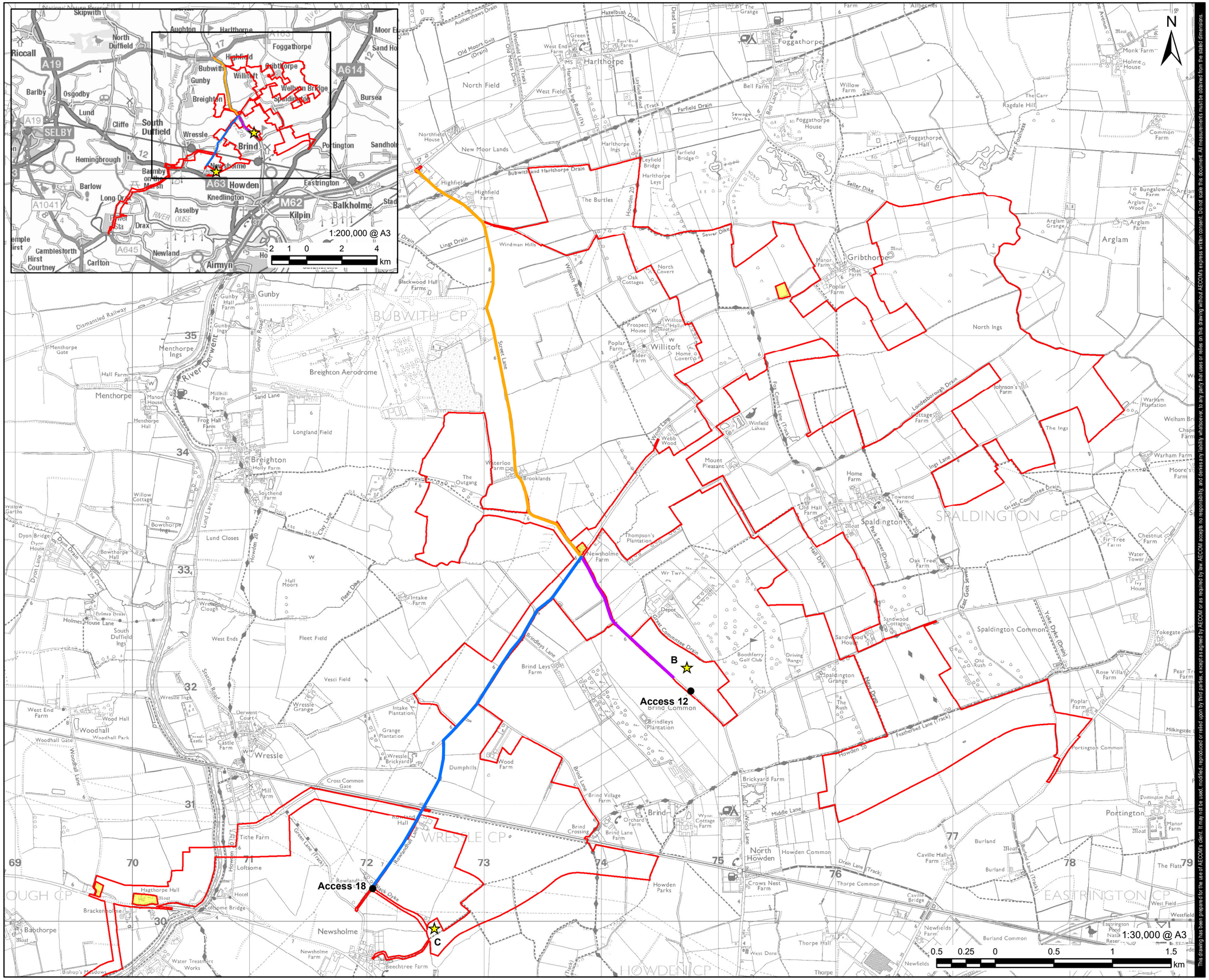

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LEGEND

- 🟥 Order limits
- 🟨 Land not included in the Order limits
- ☆ Indicative Compound Location
- ● Proposed Access

Compound Access Routes (See Inset for Full Extent)

- HGV and Tractor Trailers
- HGV Route Only
- Tractor Trailer Route Only

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ISSUE PURPOSE

Examination

PROJECT NUMBER

60683115

FIGURE TITLE

Compound C Access HGV and Tractor Trailer Routeing

FIGURE NUMBER

Appendix 13-5-5

Filename: \\5004 - Information Systems\60683115_Boom Power\02_Maps\Post DCO Submission\Transport_Map_Updates_Chapter_Appendix_13\App13-5_CTMP\CTMP_PostDCO_App13-5-5_Compound_C_Access_HGV_tractor_trailer_routing_A3_20240509_R1.mxd

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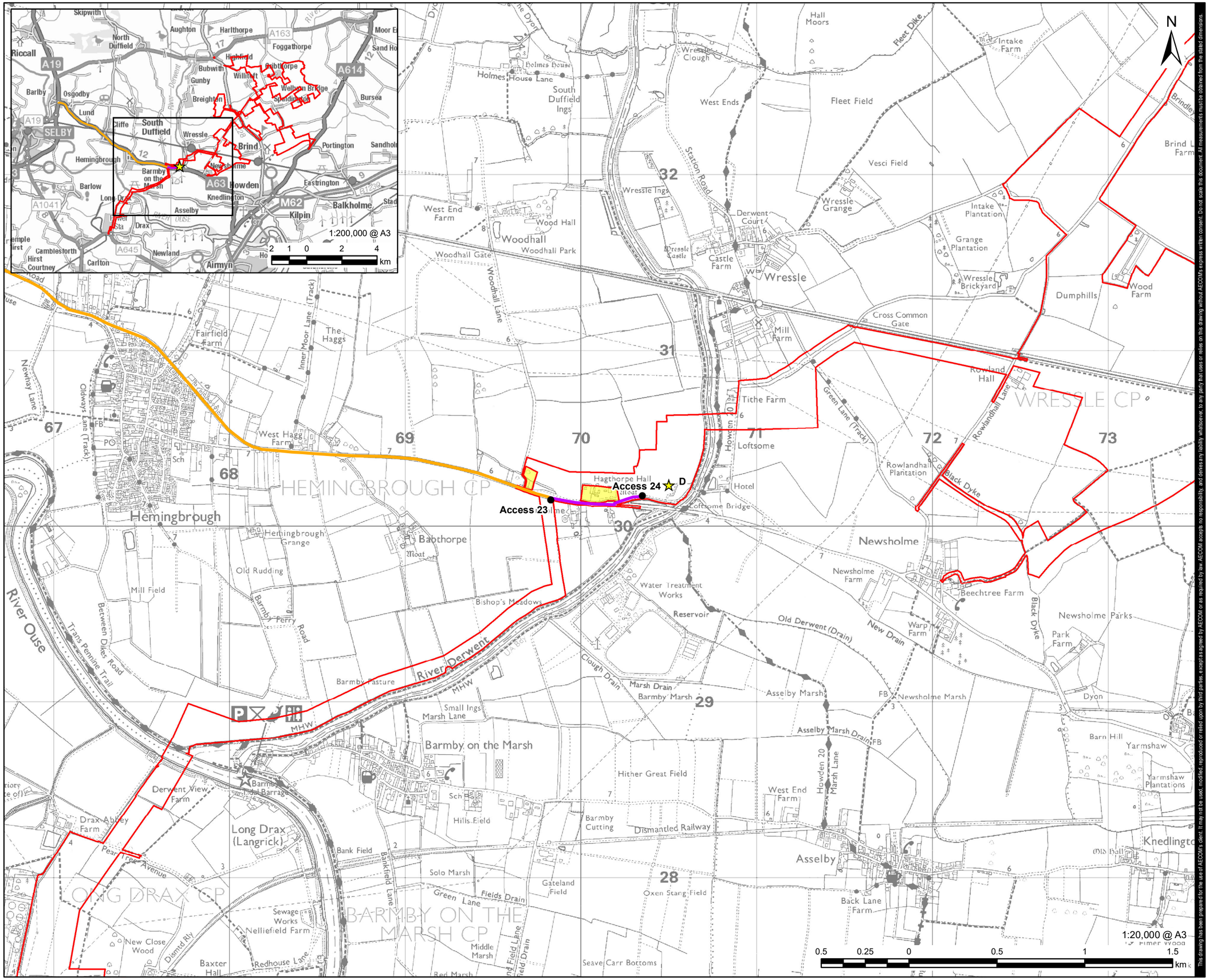

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LEGEND

- Order limits
- Land not included in the Order limits
- Indicative Compound Location
- Proposed Access

Compound Access Routes (See Inset for Full Extent)

- HGV and Tractor Trailers
- HGV Route Only

NOTES

ISSUE PURPOSE

Examination

PROJECT NUMBER

60683115

FIGURE TITLE

Compound D Access HGV and Tractor Trailer Routeing

FIGURE NUMBER

Appendix 13-5-6

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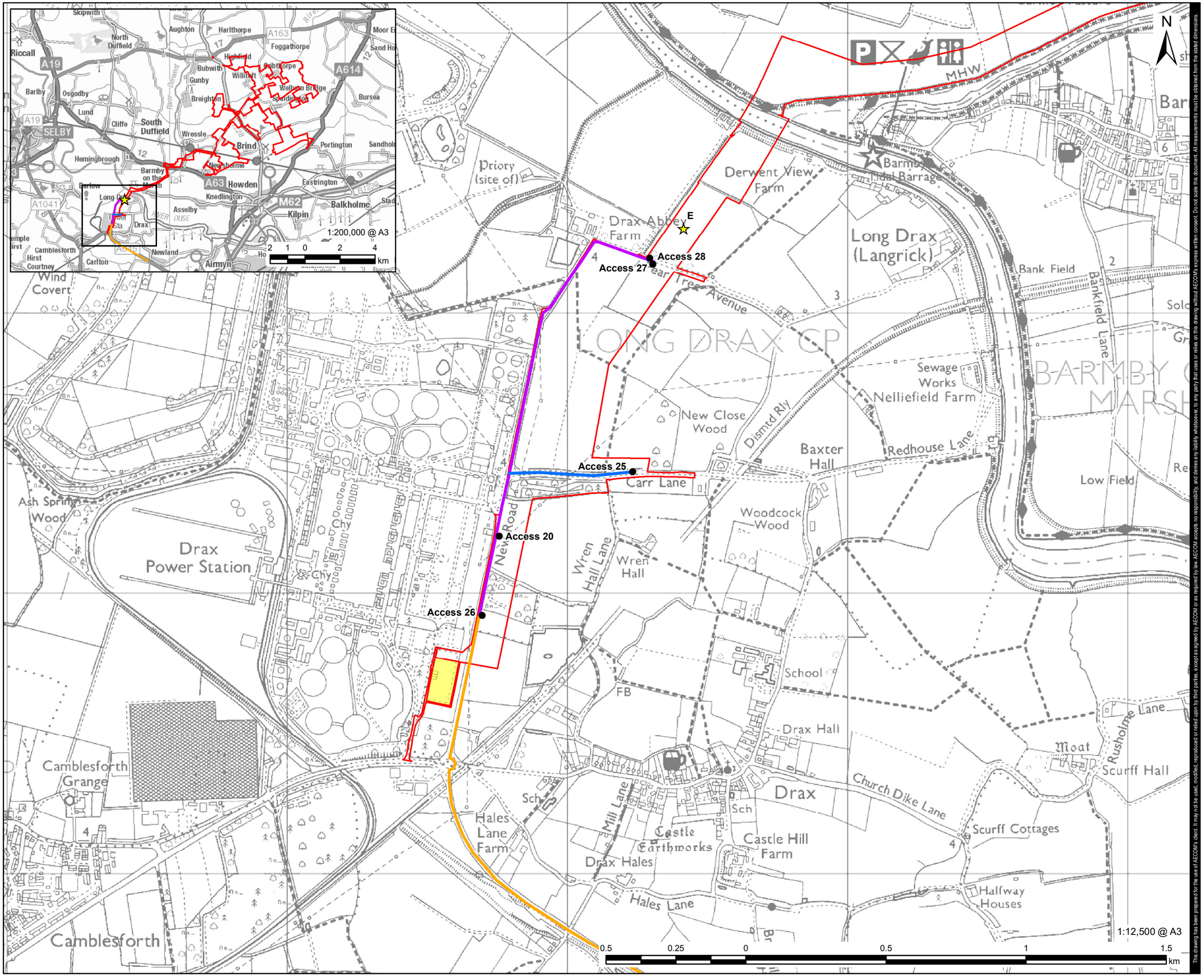

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LEGEND

- Order limits
- Land not included in the Order limits
- Indicative Compound Location
- Proposed Access

Compound Access Routes (See Inset for Full Extent)

- HGV and Tractor Trailers
- HGV Route Only
- Tractor Trailer Route Only

NOTES

ISSUE PURPOSE

Examination

PROJECT NUMBER

60683115

FIGURE TITLE

Compound E Access HGV and Tractor Trailer Routeing

FIGURE NUMBER

Appendix 13-5-7

Filename: I:\5004 - Information Systems\60683115_Boom Power\02_Maps\Post DCO Submission\Transport_Map_Updates_Chapter_Appendix_13\App13-5_CTMP\TRA_PostDCO_App13-5-8_Abnormal_Indivisible_Load_Routeing_A3_20240509_R0.mxd

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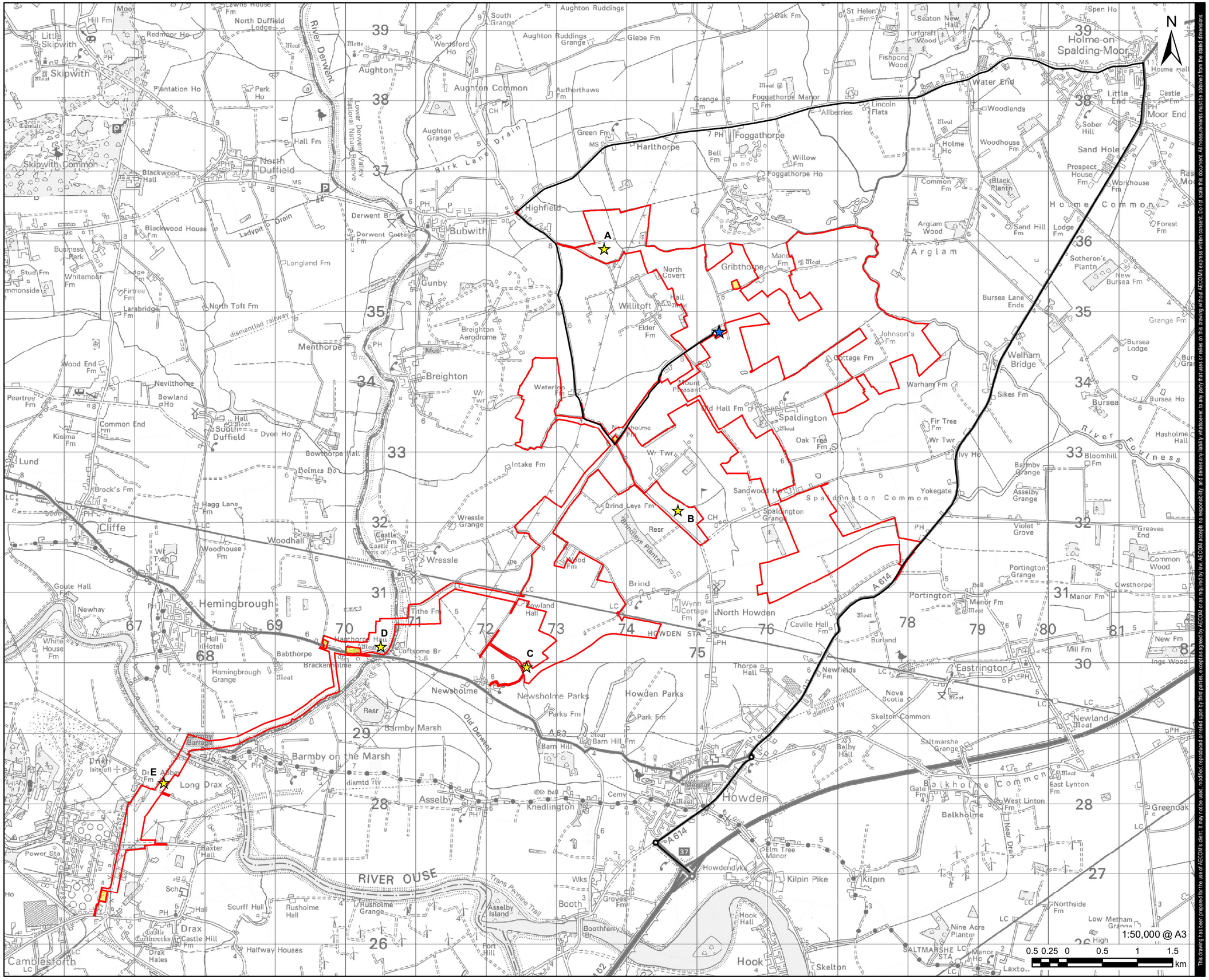

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LEGEND

🟥	Order limits
🟨	Land not included in the Order limits
☆	Indicative Compound Location
★	33kV/132kV Grid Connection Substations
—	Abnormal Indivisible Load Route

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ISSUE PURPOSE

Examination

PROJECT NUMBER

60683115

FIGURE TITLE

Abnormal Indivisible Load Routeing

FIGURE NUMBER

Appendix 13-5-8

Abbreviations

Abbreviation/Term	Definition
AIL	Abnormal Indivisible Load
ANPR	Automatic Number Plate Recognition
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
DMS	Delivery Management System
ES	Environmental Statement
GPS	Global Positioning System
ha	Hectare
HDD	Horizontal Direction Drilling
HGV	Heavy Goods Vehicle
km	Kilometre
LGV	Light Goods Vehicle
LWS	Local Wildlife Site
m	Metre
mph	Miles per hour
PRoW	Public Right of Way
PV	Photovoltaic
SRN	Strategic Road Network
TMMS	Traffic Management and Monitoring System

Glossary of Frequently Used Terms

Term	Definition
Swept path analysis	The calculation and analysis of the movement and path of different parts of a vehicle when that vehicle is undertaking a turning manoeuvre.
Visibility splays	A drawing that visualises the angle and distance from which drivers emerging from an access can see and be seen by drivers proceeding along the priority road.

Annex A Proposed Access Layouts, Visibility Splays and Swept Paths

See separate document