

## **SUNNICA ENERGY FARM**

# Preliminary Environmental Information Report

Appendix 13B: Construction Traffic Management Plan

Sunnica Ltd

**AUGUST 2020** 



### Quality information

Prepared by	Checked by	Verified by	Approved by
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Transport Planner	Principal Transport Planner	Associate Director	Regional Director

### **Revision History**

Revision	Revision date	Details	Authorized	Name	Position
1	August 2020	For issue	NA	NA	Associate Director

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## Introduction

- 1.1.1 AECOM has been appointed by Sunnica Limited to provide transport planning advice in support of the proposed Energy Farm comprising solar PV and battery storage (hereafter referred to as the Scheme') on land near Red Lodge, Suffolk (hereafter referred to as the 'Sunnica East Site A' and ' Sunnica East Site B') and Chippenham, Cambridgeshire (hereafter referred to as the 'Sunnica West Site A' and 'Sunnica West Site B'). The Scheme is as follows:
  - Sunnica East Site A and B (within the administrative areas of West Suffolk Council and Suffolk County Council with part of Sunnica Site A within East Cambridgeshire District Council / Cambridgeshire County Council) covering up to 530 hectares (ha) and located 2.5 kilometres (km) southwest of Mildenhall;
  - Sunnica West Site A and B (within the administrative areas of East Cambridgeshire District Council / Cambridgeshire County Council) total up to 540ha and located 3 km north of Newmarket and 6.5km east of Burwell:
  - Substation extension at Burwell; and
  - The cable routing linking Sunnica East Site A and B and Sunnica West Site A and B with the substation extension provided at Burwell.
- 1.1.2 The location of the Scheme is shown in Figure 1-1 below.

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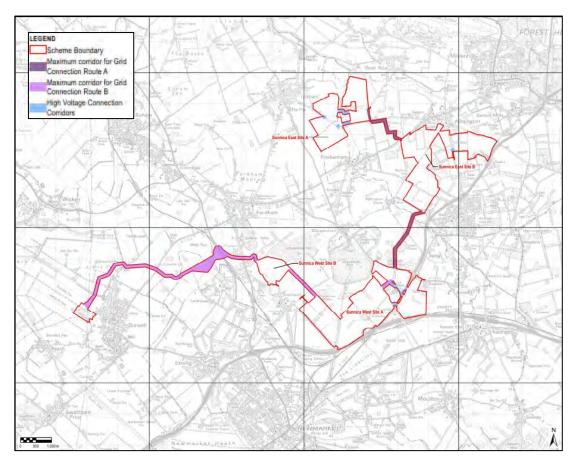


Figure 1-1: Site Location

- The Scheme will connect to the National Grid system at Burwell, at an 1.1.3 existing substation. This substation will be extended to allow energy generated by the development to enter the national grid.
- 1.1.4 Grid Connection Route A. approximately 6km in length will connect Sunnica East Site A and Site B with Sunnica West Site A. Grid Connection Route B. approximately 10km in length will connect the Sunnica West Site B to the Burwell National Grid Substation Extension.
- 1.1.5 The Scheme qualifies as a Nationally Significant Infrastructure Project and will require a DCO from national government, due to its generating capacity. It is an Environmental Impact Assessment development. Consultation will take place in 2020, in accordance with the requirements of the Planning Act 2008, which governs the DCO application process.
- 1.1.6 Framework Construction Traffic Management Plan accompanies Sunnica Limited's application for a Development Consent Order (DCO) to the Planning Inspectorate for the proposed development of Sunnica Energy Farm. The Framework CTMP will be developed as the project progresses. It is anticipated that the DCO, if granted, would include a requirement for the Framework CTMP to be developed into a full CTMP that would be submitted for the approval of the relevant planning authority (or authorities) following consultation with the relevant highway authorities, before construction is begun. The DCO, would therefore, secure that its measures are complied with.

#### 1.2 Scope

- 1.2.1 This Framework CTMP sets out Sunnica Limited's proposals to manage construction traffic during the construction of the Sunnica Energy Farm project. The CTMP deals with the management of all freight traffic (i.e. heavy goods vehicles (HGVs)), as well as staff traffic to the car parks located on the main development sites.
- 1.2.2 It should be noted that as this is a framework document, it sets what Sunnica Limited would undertake to manage the impact of construction traffic however certain details remain to be developed as the Scheme progresses. The full detail of all measures may not be available until after consent for the Scheme has been granted and a contractor appointed.

#### 1.3 **Objectives**

- 1.3.1 The objectives of the Framework CTMP are to set a framework for the measures that would be developed in the full CTMP to:
  - Minimise the volume of HGV and staff traffic associated with the construction of Sunnica Energy Farm so far as reasonably practicable;
  - Maximise the safe and efficient movement of materials required for Sunnica Energy Farm so far as reasonably practicable;
  - Minimise the impacts both for the local community and visitors to the area using the road network so far as reasonably practicable; and
  - Set out a management plan to be adhered to by those travelling to and from the site to reduce the impact of the construction of the scheme.

#### 1.4 **Report Structure**

- 1.4.1 Following this introduction this Framework CTMP is structured as follows:
  - **Section 2:** summarises the movements generated by the Sunnica Energy Farm Project during the construction phase;
  - Section 3: summarises the proposed measures to manage HGV and staff movements during the construction phase;
  - Section 4: deals with monitoring and review of the CTMP; and
  - **Section 5:** deals with compliance and enforcement of the CTMP.

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## Construction Movements

#### 2.1 Introduction

2.1.1 This section summarises the vehicle movements that are estimated to occur during the construction of the Sunnica Energy Farm, in terms of types of vehicles, estimated number of movements and routing. Detail is also provided in the Transport Assessment (TA) and the Access Strategy.

#### 2.2 **Construction Period**

Based on information provided by the applicant, the construction of the 2.2.1 Scheme will occur over a two-year period with all sites being constructed concurrently.

#### **Construction Movements**

- 2.2.2 A summary of the freight movements and the routes to be taken for Sunnica East Site A and B, Sunnica West Site A and B, the substations and the cable routes is provided in the following paragraphs. These routes have been considered following a review of the local road network and the CCC and SCC freight management plans.
- 2.2.3 An Access Strategy relating to the construction routes for HGVs was prepared by AECOM and is provided in **Appendix A**.
- 2.2.4 HGVs are classified as all goods vehicles travelling to the site. This includes what would normally be considered to be light goods vehicles. Further detail on vehicle types will be provided in future iterations of this CTMP.

#### Sunnica West Site A & B

- 2.2.5 Based on the information provided by Sunnica, it is anticipated on average there will be 22 HGV deliveries (44 vehicle movements) per day to Sunnica West Site A during the construction phase. The peak HGV deliveries are forecast to occur in month three and four with 40 HGV deliveries per day (80 movements).
- 2.2.6 Assuming a 10 hour daily construction delivery window, with movements split equally across the hours (noting that there will be more arrivals at the start of the day and departures towards the end), it would be anticipated on a typical day for there to be less than three HGV movements in an hour to Sunnica West Site A and four HGV movements in an hour during peak periods of activity.
- 2.2.7 The main access to Sunnica West Site A is proposed to be from La Hogue Road and to be located in close proximity to the A11/La Hogue Road/Norwich Road T-junction. To minimise the number of HGVs on the local network internal routes will be used where possible from the main access point. Where HGVs are unable to use internal routes, there are various secondary access points identified which include B1085 and Dane Hill Road as well as Chippenham Road to access Sunnica West Site B. Figure 2-1 identifies the access points and routes for HGVs.

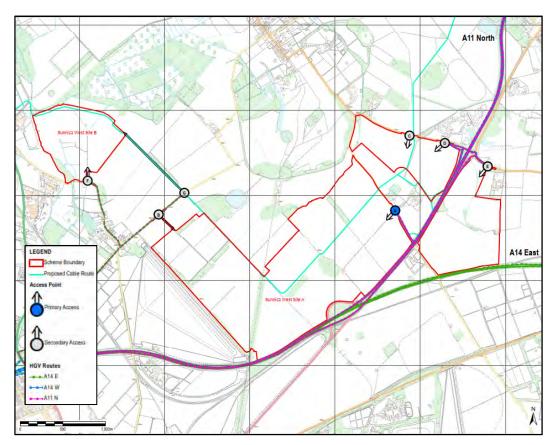


Figure 2-1: Sunnica West Access Points and HGV Routes

#### Sunnica East Site A and B

- 2.2.8 Based on the information provided by Sunnica Limited, it is anticipated that on average there will be 22 HGV deliveries (44 vehicle movements) per day to Sunnica East Site B during the construction phase. The peak HGV deliveries are forecast to occur in month three and four with 40 HGV deliveries per day (80 movements).
- 2.2.9 Assuming a 10 hour typical construction delivery window, with movements split equally across the hours (noting that there will be more arrivals at the start of the day and departures towards the end), it would be anticipated on a typical day for there to be less than three HGV movements in an hour to Sunnica East Site B and four HGV movements in an hour during peak periods of activity.
- 2.2.10 The main access to Sunnica East Site B is proposed to be from Elms Road and to be located in close proximity to the A11 northbound off-slip/Elms Road T-junction. To minimise the number of HGVs on the local network internal routes will be used where possible from the main access point. Where HGVs are unable to use internal routes, there are various secondary access points which include from Golf Links Road, Newmarket Road and Beck Road.
- 2.2.11 Figure 2-2 identifies the access points and routes for HGVs.

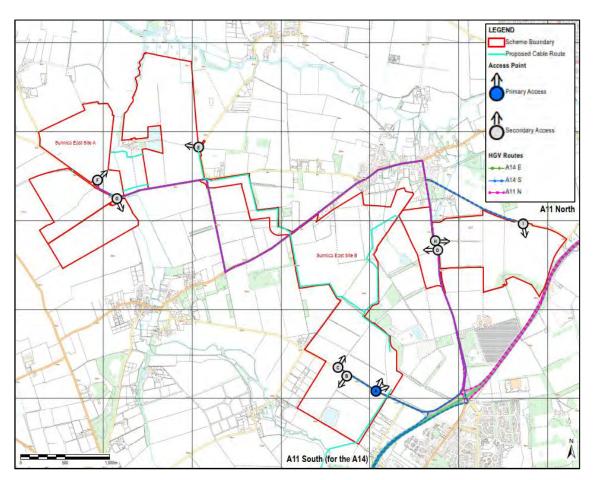


Figure 2-2: Sunnica East Access Points and HGV Routes

### **Substations**

2.2.12 Based on the information provided by Smith Brothers Construction Limited the four substations are forecast to require two to three HGV deliveries each per day per substation. This results in 8-12 HGV deliveries (16-24 vehicle movements) per day during the first 15 months of the construction period. The Burwell substation is an existing substation located to the northwest of the main village on Newnham Drove and an extension is proposed in the adjacent field to the west.

#### **Cable Routes**

2.2.13 Based on the information provided by Smith Brothers Construction Limited the cable routes are forecast to require four HGV deliveries (eight vehicle movements) per day during the first 15 months of the construction period.

#### Other HGVs

- 2.2.14 Based on information provided by Sunnica Limited, an additional 2220 HGVs are required across the 24-month construction period for fuel and water delivery and waste and sewage collection to the compounds at Sunnica East Site B and Sunnica West Site A. This results in five HGVs per day (10 vehicle movements) on the basis of an average of 20 working days per month.
- 2.2.15 At this stage, detail relating to the number and type of Abnormal Indivisible Loads (AILS) are unknown. Details relating to AILs will be provided in future

updates of the CTMP. It should however be noted that where AILs are likely to occur, their routing to the sites will be restricted to the Strategic Road Network (SRN) where possible with the use of the local road network used for only short distances along the connections between the main site accesses and the SRN junctions.

### **Total HGV Construction Vehicles**

- 2.2.16 Based on the information provided by Sunnica regarding the construction phasing of the Sunnica West Site A and B, and Sunnica East Site A and B. and Smith Brothers Construction Limited for the substations and cable routes, it is forecast there would be a maximum of 101 HGV deliveries per day. During the first 15 months whilst the cable routes are under construction. an average of 71 HGV deliveries per day are anticipated across the DCO Site. Once the cable routes have been constructed, an average of 33 HGV deliveries per day are forecast across the DCO Site for the remaining construction period.
- 2.2.17 Figure 2-3 identifies the forecast total number of HGV deliveries per day across the construction period.

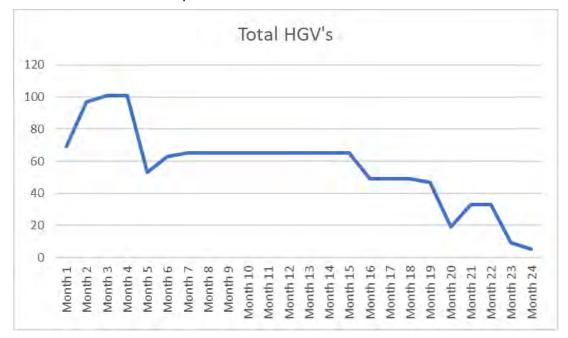


Figure 2-3: Forecast Total HGVs Deliveries per Day during the **Construction Period** 

- 2.2.18 Sunnica West Site A and B will be accessed via the Chippenham junction of the A11, to the north of junction 38 of the A14. Sunnica East Site A and B will be accessed via the A11 and B1085, utilising the existing access to Worlington Quarry. Access arrangements to each site are expected to remain consistent throughout construction.
- Figure 2-4 and Figure 2-5 identifies the compound areas during the 2.2.19 construction phase for Sunnica West Site A and B, and Sunnica East Site A and B, respectively.

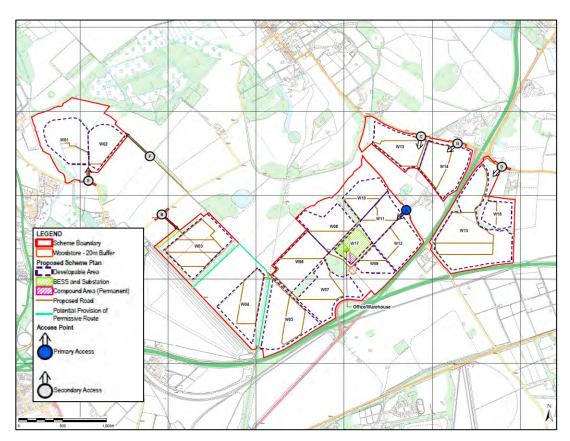


Figure 2-4: Sunnica West Compound Areas

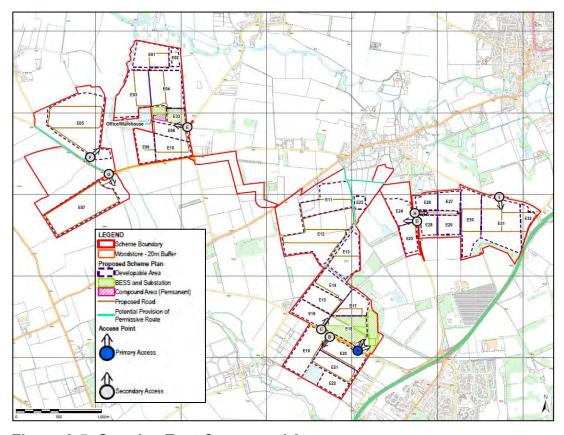


Figure 2-5: Sunnica East Compound Areas

#### Staff Movements

#### **Total Staff Vehicles**

- 2.2.20 Information relating to staff numbers during the construction period has been provided by Sunnica Limited relating to Sunnica West Site A and B, and Sunnica East Site A and B, and Smith Brothers Construction Limited relating to the substations and cable routes. The construction of the substation and cable routes are forecast to occur within the first 15 months of the construction period. Staff relating to the substations and cable routes will be required to enter the main access to Sunnica West Site A or Sunnica East Site B.
- 2.2.21 The peak number of staff required for Sunnica West Site A and B is forecast to occur in month 11 with 610 staff per day. The peak number of staff required for Sunnica East Site A and B is forecast to occur in months 9 to 11 with 650 staff per day. Therefore, the peak number of staff across the DCO Site is forecast to occur in month 11 of the construction period with 1,260 staff per day. Across the entire construction period the average number of staff required for Sunnica West Site A and B is forecast to be 494 staff and 500 staff for Sunnica East Site A and B, resulting in an average of 994 staff per day across the DCO Site.
- 2.2.22 Due to the rural location of the DCO Site, it is anticipated that the majority of staff will drive or be a vehicle passenger to / from the site. For the purpose of this assessment, it is assumed that the staff vehicles will have an average vehicle occupancy of 1.5 persons. The average vehicle occupancy has been identified from previous AECOM experience in Suffolk.
- 2.2.23 Therefore, the peak number of vehicles associated with the staff for Sunnica West Site A and B is forecast to be 407. The peak number of vehicles associated with the staff for Sunnica East Site A and B is forecast to be 434. Therefore, 841 vehicles per day is forecast to be the peak number of vehicles associated with the DCO Site. The average number of vehicles associated with the staff for Sunnica West Site A and B is forecast to be 330 and 334 for Sunnica East Site A and B resulting in an average of 664 vehicles per day. It should be noted that the number of vehicles set out in this paragraph are the combined total across both Site A and B at each of Sunnica East and Sunnica West.
- 2.2.24 The working hours are anticipated to be 07:00 to 19:00, therefore it is forecast that the construction staff will travel to the site between 06:00 and 07:00 and depart between 19:00 and 20:00.
- 2.2.25 Figure 2-6 identifies forecast total number of staff vehicles per day across the construction period.

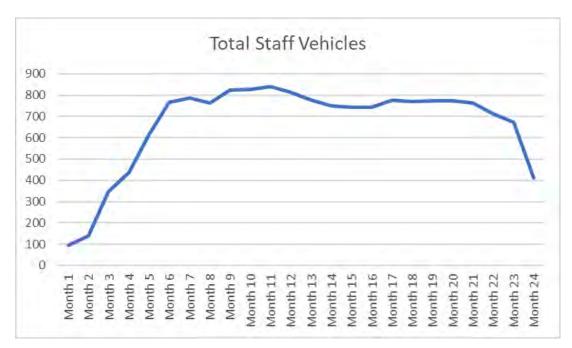


Figure 2-6: Forecast Total Staff Vehicles per Day during the Construction Period

## Management

#### 3.1 Introduction

3.1.1 This section of the Framework CTMP outlines the construction traffic management measures that would be developed and detail in the CTMP and thereafter implemented.

#### 3.2 **Management Measures and Controls**

#### **HGV Measures**

- 3.2.1 The freight strategy for the Sunnica Energy Farm project seeks to manage HGV deliveries to the DCO site through the implementation of the following measures:
  - Delivery management system;
  - **HGV** routes;
  - **HGV** timing restrictions;
  - HGV emission standards; and
  - Communications strategy.

### Delivery Management System (DMS)

- 3.2.2 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 effectively plan all HGV deliveries in accordance with the construction programme, regulate the flow of HGVs via timed delivery slots, and monitor compliance of HGV routing.
- 3.2.3 A traffic management and monitoring system (TMMS) will be developed. The TMMS will provide details of the technologies and other means employed to monitor HGVs to/from the development site(e.g. global positioning system (GPS), automatic number plate recognition (ANPR)). This will enable Sunnica Limited to monitor the following:
  - compliance with the HGV routes;
  - 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
  - compliance with the timing restrictions.
- 3.2.4 The precise form of DMS 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, along with the measures to be taken for non-compliance.

#### **HGV Routes**

3.2.5 HGVs travelling to the DCO site from the wider highway network will be required to comply with the HGV routes set out in the Access Strategy in **Appendix A** and in accordance with the DMS and TMMS. Due to the size of Sunnica East Site A and B, and Sunnica West Site A and B, various accesses

may be required should travel within each Site not be possible. It is acknowledged that there will be the requirement for the occasional HGV to travel on the local highway network to access the secondary access points. Local HGV deliveries, those HGV movements where both the origin and the destination are within the Sunnica sites, would be required where possible to follow Sunnica HGV routes.

### **HGV Timing Restrictions**

- 3.2.6 To reduce the potential impact of the HGV deliveries, the arrival and departure times will be manged to minimise the number of HGVs travelling to the site during the highway peak hours. In addition, the HGVs can be delayed in the afternoon to avoid being released from the site during the highway peak hour. The HGV deliveries will be routed onto the strategic road network (A11 / A14) to travel to / from the site. As set out in the Access Strategy the HGV deliveries will be required to use the A11 to travel to the main accesses of the Sites and will therefore not have an impact on any of the local villages near the DCO Site such as Chippenham or Red Lodge during the AM or PM highway peak hours.
- 3.2.7 The timing restrictions, considered likely to be implemented at this stage are:
  - No arrivals or departures on a Weekday between 08:00 and 09:00, and between 17:00 and 18:00;
  - No arrivals or departures on a Saturday before 08:00 or after 13:00; and
  - No arrivals or departures on Sundays or public holidays.
- 3.2.8 The restrictions imposed on deliveries by HGVs will be set out within the DMS and TMSS.

#### **HGV Monitoring**

3.2.9 Sunnica Limited will implement a monitoring system whereby the route of all HGVs travelling to and from the site is recorded such that non-compliance with the CTMP can be identified and measures taken. The form this monitoring will take has not yet been confirmed at this stage, but details will be included within future iterations of the CTMP.

#### **HGV Emissions**

3.2.10 Where possible, all HGVs routing to the development sites (with the exception of vehicles used for the transportation of abnormal loads) will be required to be compliant with the latest emission standards at the time of construction.

### **Communications Strategy**

- 3.2.11 A Communications Strategy will be developed by Sunnica Limited to ensure that all relevant measures are communicated to those that need to know. This would include an information pack setting outing the contractual requirements.
- 3.2.12 Further to this, Sunnica Limited will hold regular meetings with contractors to discuss HGV management, any issues that arise and address any issues received.

#### Staff Vehicle Measures

#### Lift-sharing

- 3.2.13 To reduce the potential impact of vehicles associated with the staff during the construction period, applicant will implement measures to maximise the numbers of staff that lift share with colleagues to reduce the number of vehicles travelling to/from the Site each day. Staff will also be encouraged to use the SRN in the vicinity of the Site such as the A11, A14 and A142 to travel to/from the Site where appropriate to minimise the amount of construction traffic using local roads through the nearby villages, in line with the routes identified in the access strategy for the HGVs.
- 3.2.14 The aim is for all staff to car share with an average rate 1.5 persons per vehicle identified within the TA however it is hoped that a higher average could be achieved to further reduce the impact of the development on the local and SRN. To encourage staff, promotion of the benefits of car sharing will be carried out such as reduced fuel costs, ease of parking with possibility of dedicated spaces for those sharing provided nearer to the minibus collection points within the compounds. Parking at the site will also be limited to encourage staff to travel together.
- 3.2.15 In order to achieve the above, a Car Share Scheme will be implemented which will match potential sharers and be available to staff so that they can find their own match as well as that identified by the Transport Co-ordinator.
- 3.2.16 Dedicated spaces for those lift sharing will be provided within the parking areas and be located close to the mini-bus pick up points to reduce park and walk time. Further details on this will be provided once the details on the parking provision at the compounds is known.

#### Parking Strategy

- 3.2.17 The parking strategy seeks to minimise the potential impact of the vehicle trips associated with the staff, in particular in the surrounding villages. Two evenly split car parking areas are proposed, one within Sunnica West Site A and the other in Sunnica East Site B, which are accessed as follows:
  - Sunnica West Site A to be accessed off an unclassified road which links to the A11 as well as a number of unclassified roads within the rural area to west of the A11; and
  - Sunnica East Site B to be accessed off the B1085, which heads north from its junction with the A11 near to Red Lodge. The access is to be located adjacent to an existing access to an existing solar energy farm located adjacent to the A11.
- 3.2.18 During arrival of staff at both sites the car parking areas will be managed to ensure the efficient arrival of staff and assignment of the car parking spaces where vehicles will be routed to the most appropriate location based on their arrival time. The car parking management will ensure staff entering the car parking areas are undertaken in a timely and safe manner. Given the working patterns identified it is not expected there will be the requirements for car parking management outside of the hour preceding the staff start time, which is identified as 07:00. As a result, it is anticipated a one-way system will be in place within the two car parks with a single point will provide the

- entry/egress onto the local highway network. Appropriate signage, internally and externally, will identify the entry and egress routes for vehicles for the two car parking areas.
- 3.2.19 A car parking permit system is proposed to be implemented across the two car parking areas. Before commencing work on site, staff will be allocated to one of the two car parking areas which will be based on their starting location for their travel to the Site. This takes into consideration if staff are starting their journey from a different location to their home. The intention of the car parking permit system is to encourage staff to use the strategic road network in the vicinity of the Site such as the A11 and A14. This will assist in minimising the number of vehicle trips which could occur on the local roads, in particular through Fordham, Chippenham, Worlington and Red Lodge. Where possible, staffs primary working location in the Sunnica East Site and Sunnica West Site will be the same as their parking permit location.

#### **Minibus**

3.2.20 A mini-bus service will be used to transport staff around the site making use of internal routes where possible. Where the minibus is unable to use internal routes, the local highway network will be used to transport staff to the other site compounds. Considering the start/finish time of staff, any minibus service trips on the local highway network are expected to occur outside of the peak highway hours. Given the use of a minibus service the departure of staff is expected to be staggered outside of the highway peak hours and will be dictated on when staff return to the main two car parking areas.

## 3.3 Management Structure

- 3.3.1 The overall management and implementation of the CTMP will be the responsibility of Sunnica Limited. A transport coordinator will be appointed by Sunnica Limited to be responsible for the management, development and implementation of the CTMP.
- 3.3.2 The transport coordinator will:
  - Liaise as appropriate with local transport and traffic groups, local planning authorities, local highway authorities and Highways England;
  - Monitor the CTMP to identify what is working well and what can be improved;
  - Promote the CTMP to all staff and contractors travelling to and from the site to ensure compliance with its contents; and
  - Discuss issues which come to light with the relevant parties and discuss any amendments required to ensure that compliance with the CTMP is maintained.

## 3.4 Monitoring and Review

- 3.4.1 To ensure that contractors are complying with the CTMP, a monitoring and review approach will be taken. This will be led by the transport coordinator.
- 3.4.2 The transport coordinator will monitor data relating to the routes utilised, the timing of arrivals and departures, how contractors are utilising the DMS and the emission standards of vehicles accessing the site. Regular reporting will

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set out the results of the data monitoring and identify any issues which need to be resolved and what measures would need to be implemented to ensure that any identified issues do not occur again. The reports will be shared with Sunnica Limited and the highway authorities.

## **Compliance and Enforcement**

#### 4.1 Introduction

4.1.1 This section of the Framework CTMP provides a summary of the mechanisms that will ensure compliance with the CTMP.

#### 4.2 **Compliance**

4.2.1 There are three areas under which enforcement of the CTMP will be imposed: Best Practice, Contractual Conditions and Default Mechanisms.

#### **Best Practice**

- 4.2.2 Sunnica Limited will use internal management procedures to ensure compliance with the requirements of the CTMP, including:
  - Contractor kick off meetings: contractors will be reminded of Sunnica Limited standards and expectations as set out in contract documentation.
  - Site induction: driver induction to include briefing on aims and objectives of the CTMP, including booking system, designated routes and driver behaviour. A copy of the CTMP will be provided to each of the companies who provide services to the scheme so that all are informed of how the sites are being managed and what Sunnica Limited expects all contractors to adhere to.
  - Reporting: incidences of non-compliance with the CTMP will be investigated. Reports from each incident will be raised and shared with the relevant contractor. Where necessary changes to the CTMP will be made to ensure that any breach which could become a constant problem is resolved.

#### **Contractual Conditions**

Upon appointment each contractor will be provided with a contract setting out their contractual requirements in terms of compliance with the CTMP. A copy of the CTMP will be provided along with confirmation of the routes vehicles are anticipated to take to reach the site from their starting location as well as the access which they will enter at and the time of entry.

#### **Enforcement**

- 4.2.3 Sunnica Limited will take all reasonable steps to avoid a breach of the CTMP from occurring through the implementation of the management measures. However, if there are breaches of the movement arrangements as set out in this CTMP during the construction phase, the enforcement procedures are as follows:
  - The transport coordinator will notify Sunnica Limited of a breach of the CTMP arrangements as and when they occur.
  - Sunnica Limited will issue a warning letter to the relevant contractor outlining what action would be taken in the event of a further breach.

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> Details relating to the action which would be taken will be provided within the full CTMP.

- Sunnica Limited will report the details of the response to the transport coordinator 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 that action is being taken where breaches are occurring.
- 4.2.4 Further detail on the sanctions which could be applied would be included within the full CTMP.

# **Appendix A – Access Strategy**



## **Access Strategy – Sunnica Energy Farm**

**Client name** Sunnica Limited **Project name** Sunnica Energy Farm **Date** 3<sup>rd</sup> September 2020

Prepared by Theodore Jones

**Checked by**Caroline Brooks

**Approved by** Nicholas Anderson

Reference No.

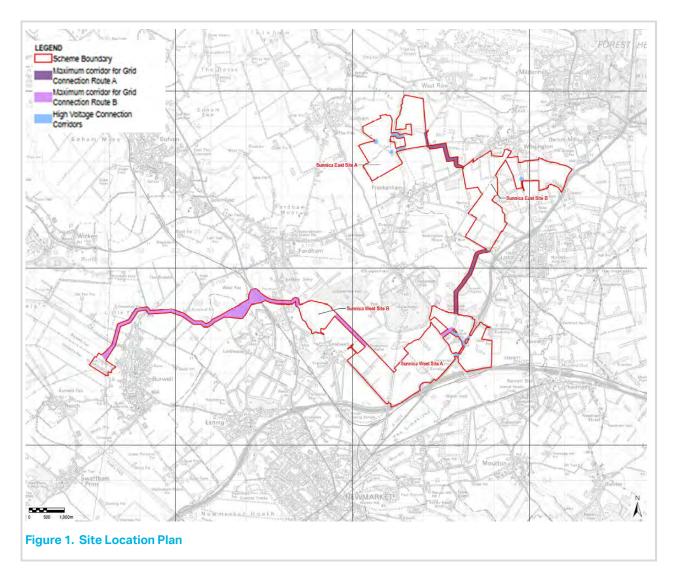
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### **Revision History**

Revision	Revision date	Details	Authorised	Name	Position
1	18/7/19	For Issue	NA	N. Anderson	Regional Director
2	31/7/19	Update regarding Internal Comments	NA	N. Anderson	Regional Director
3	12/09/19	Update following Red Line Boundary Changes	NA	N. Anderson	Regional Director
4	27/09/19	Update following Red Line Boundary Changes	NA	N. Anderson	Regional Director
5	12/10/19	Update following Red Line Boundary Changes	NA	N. Anderson	Regional Director
6	25/11/19	Update following Red Line Boundary Changes	NA	N. Anderson	Regional Director
7	06/07/20	Update following Red Line Boundary Changes	NA	N. Anderson	Regional Director
8	17/08/20	Update regarding Internal Comments	NA	N. Anderson	Regional Director
9	03/09/20	Update following Red Line Boundary Changes	NA	N. Anderson	Regional Director

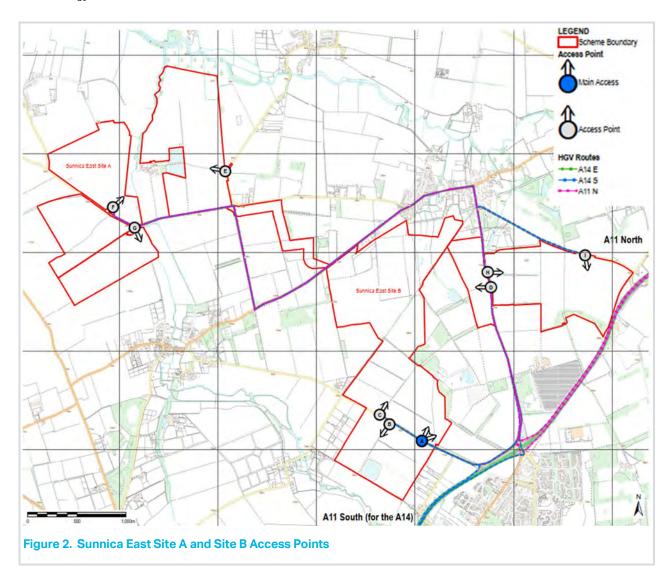
#### 1.0 Introduction

- 1.1 AECOM has been appointed by Sunnica Limited to provide transport planning advice in support of the proposals to provide an Energy Farm (powered by solar energy) (hereafter referred to as 'the Development Consent Order (DCO) Site') on land near Red Lodge, Suffolk and Chippenham, Cambridgeshire. The location of the DCO Site is shown on Figure 1 below. These sites are connected via a cable route corridor, which comprises Grid Connection Route A, between the Sunnica East Site B and Sunnica West Site A, and Grid Connection Route B, between the Sunnica West Site A and the Burwell National Grid Substation Extension.
- 1.2 This document, which has been prepared for the consideration of the Highway Authorities, Suffolk County Council (SCC), Cambridgeshire County Council (CCC) and Highways England (HE), outlines the proposed Access Strategy for the Sunnica Energy Farm.
- 1.3 It sets out the access proposals and construction routes for consideration and implementation during both the construction and operational phases of the DCO Site. The proposed Access Strategy includes the Sunnica East Site (A and B), Sunnica West Site (A and B), cable route corridors for Grid Connection Routes A and B and the Burwell National Grid Substation Extension.



#### 2.0 Vehicular Access

- 2.1 Vehicular accesses have been identified using information provided by the client, a review of the local road network, and the CCC and SCC freight management plans. The possible access points for construction vehicles are set out below.
  - Sunnica East Site A and Site B
- 2.2 Due to the size of the Sunnica East Site A and Site B, a number of accesses may be required should travel within the site not be possible.
- 2.3 The main access to the Sunnica East Site B is proposed to be from Elms Road, which runs in a broad northwest to southeast direction linking Church Lane in Freckenham with the B1085 Elms Road and A11 near Red Lodge. Elms Road is a narrow single carriageway road which is bound by hedgerows. Where possible, hedgerows will need to be cut back to assist with any wide loads.
- 2.4 This access would be adjacent to the edge of an existing wooded area and opposite an existing access provided to the land to south. It would also provide access for any Adnormal Indivisble Loads (AlLs) required to serve this site. It is not recommended that any AlLs travel further than this access due to the width of the carriageway and the inability of any other vehicles to pass. Any movement of AlLs will need to be made within the site to reach other areas. The main access is marked as (a) on Figure 2 below.

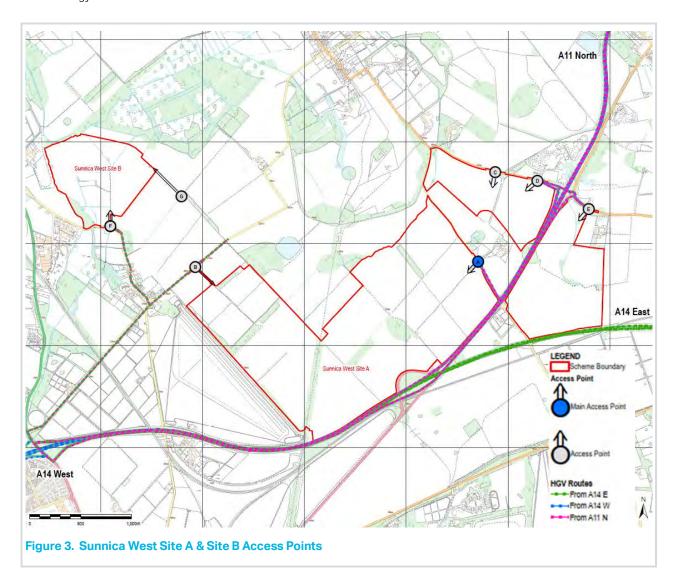


- 2.5 Although much of the Sunnica East Site B could be accessed from the access off Elms Road, there are parts of the site as well as Sunnica East Site B which would need to be accessed from other roads. Therefore, secondary points of access are likely to be required from other accesses on Elms Road northwest of the main access, Newmarket Road and Isleham Road. These accesses are also shown on **Figure 2** and described in further detail below.
  - Land located to the south of Elms Road
    - Access could be provided from Elms Road on the southern side of the carriageway, approximately 550 metres east of the junction with Badlingham Road (b). There is an existing gated access to the agriculture land at this location which could be utilised. Elms Road is approximately five metres wide along the frontage of the site and therefore passing places are recommended to ensure HGVs can pass.
  - Land located to the north of Elms Road
    - Access could be provided from Elms Road on the northern side of the carriageway, approximately 110
      metres north-west of the proposed access to the land to the south (c). There is an existing gated access
      to the agriculture land which could be utilised. Elms Road is approximately five metres wide along the
      frontage of the site and therefore passing places are recommended to ensure HGVs can pass.
  - Land located to the west of Newmarket Road
    - Access could be provided from Newmarket Road on the western side of the carriageway, approximately 800 metres south of the junction with Golf Links Road (d). There is an existing access to this area which could be utilised.

- Land located to the north of Beck Road
  - Access could be provided 350 metres north of the Isleham Road / Beck Road junction (e). There is an
    existing access to the area which can be utilised.
  - Access could be provided from Beck Road approximately 1,300 metres west of its junction with Isleham Road (f). There is an existing access to the area to the north which can be utilised.
- Land located to the south of Beck Road
  - Access could be provided from Beck Road approximately 1,000 metres west of its junction with Isleham Road (g). There is an existing access to this area which could be utilised.
- Land located to the east of Newmarket Road and west of the A11
  - Access could be provided from Newmarket Road on the eastern side of the carriageway, approximately 700 metres south of the junction with Golf Links Road (h). The benefits of an access in this location are good visibility and little impact on existing vegetation whilst also being within a reasonable distance of the B1085 / A11 junction such that construction vehicles would not need to travel through residential areas such as Worlington or utilise the A11 junction with Golf Links Road which does not provide any slip road facility.
  - Access could be provided from Golf Links Road on the southern side of the carriageway, approximately
     1.2km east of the junction with Newmarket Road (i). There is an existing access to this area which could be utilised.

Sunnica West Site A and Sunnica West Site B

- 2.6 Similar to the Sunnica East Site, a number of access may be required should travel within the Sunnica West Site A or Sunnica West Site B not be possible.
  - Sunnica West Site A
- 2.7 The main vehicular access to the Sunnica West Site A is proposed to be provided from an existing access off the unclassified road which bounds the site to the north as shown on **Figure 3** below (a). The existing access into the site located off the unclassified road which links with the B1085 and the A11 could be utilised as the main access. This access is located opposite the access to the La Hogue Farm Shop and Café.



- 2.8 The unclassified road connects with the B1085 at a priority junction some 1,300 metres to the north-west whilst the connection with the A11 is made some 450 metres to the east. The junction with the A11 is provided in the form of a left-in, left-out on and off slip road arrangement.
- 2.9 The unclassified road measures approximately six metres at the points nearest the junctions with the B1085 and A11, with the intervening section measuring approximately four metres. The length of carriageway measuring four metres runs for approximately 1,100 metres including at the point of the site access. Over the course of this length, the road gently winds through the area and therefore forward visibility at times can be an issue. A number of passing places could be provided to assist vehicles travelling to and from the A11.
- 2.10 Although the majority of the Sunnica West Site A could be accessed from the access off the unclassified road, there are parts of the site which would need to be accessed from other roads. Therefore, secondary points of access are likely to be required from farm tracks, Chippenham Road and Dane Hill Road. These accesses are also shown on Figure 3 and described in further detail below.
  - Land located to the south of Chippenham Road
    - Access could be provided from Chippenham Road using the existing farm track located approximately 365 metres east of the Snailwell village boundary (b). The alignment of Chippenham Road is relatively straight therefore visibility is good and the width is such that it can accommodate two-way HGV traffic. A route from the A142 Fordham Road is available without travelling through the centre of Snailwell village where weight restrictions limiting vehicles to less than 7.5 tonnes are in force.
  - Land located to the south of the B1085 and west of the A11
    - Access could be provided from the B1085 at two locations. One location is approximately 700 metres west of the A11 / B1085 roundabout junction (c) There is an existing access to the area which can be

utilised. The other location is approximately 350 metres west of the A11 / B1085 roundabout junction (d). There is an existing gated access to the agriculture land at this location which could be utilised, opposite the access for WildTracks Outdoor Activity Park.

- Land located to the south of the B1085 and east of the A11
  - Access could be provided from the B1085 Dane Hill Road approximately 200 metres east of the A11 / B1085 roundabout junction (e). There is an existing gated access to the agriculture land at this location which could be utilised.

Sunnica West Site B

- 2.11 The main vehicular access to Sunnica West Site B could be provided from Chippenham Road and / or Snailwell Road.
- 2.12 The possible location identified by the Design Team on Chippenham Road is approximately 715 metres east of the village of Snailwell and would utilise an existing farm track (f). It is unlikely that large HGVs such as low loaders could enter at this location without the alignment of the access changing as on entering the field the access route immediately changes direction 45 degrees to the right and therefore would cause issues for longer vehicles when entering or exiting. Chippenham Road is relatively straight in alignment however a hedge and a line of trees would restrict visibility on exit and therefore alterations would need to be made if this was within the control of the applicant. Forward visibility along Chippenham Road from the east is sufficient to see vehicles exiting however it is recommended that any access in this location is signed to warn drivers of slow vehicles exiting.
- 2.13 Access from Fordham Road could be provided from an existing field access (g). However, all vehicles would need to enter and exit the site to/from the east as approximately 150 metres to the west is a weight limit restriction, restricting vehicles up to a maximum weight of 7.5 tonnes from utilising the bridge over the River Snail. Vehicles would need to travel through the village of Snailwell to/from the A142 Fordham Road. Forward visibility on approach to the access is restricted due to Fordham Road bending to the left.
- 2.14 The access from Chippenham Road would provide better access than from Fordham Road.

Cable Route Corridor

2.15 A haul road will need to be provided alongside the cable route corridor for vehicles related to the laying of the cables with access provided at intermittent points where the corridor is located near to the local highway network or where the cables crosses the highway network such as on the A142 Fordham Road.

Burwell National Grid Substation Extension

- 2.16 The Burwell National Grid Substation Extension, where the cable for the DCO Site will connect to, is located within the village of Burwell in Cambridgeshire. The substation is an existing facility located to the north west of the main village on Newnham Drove and an extension is proposed in the adjacent field to the west.
- 2.17 Newnham Drove is a single track, no through route, road measuring approximately 4.2 metres wide and is relatively straight in alignment from its junction with Weirs Drove along the frontage of the substation and the proposed extension, ensuring that visibility requirements can be met. Passing places are provided intermittently and the road is unclassified and de-restricted in terms of speed. For low levels of traffic which are managed by the site, access at this location is considered feasible.

#### 3.0 Local Authority Freight Management Plans

- 3.1 SCC and CCC both operate Freight Management Plans which set out the preferred routing options for Heavy Goods Vehicles travelling within both authority areas. The Plans also identify where height and weight restrictions are in place.
  - SCC Lorry Route Network
- 3.2 The SCC 'Lorry Route Network' illustrates the routes which SCC have identified as the recommended routes for Heavy Goods Vehicles when travelling within and through the county. There are three route types identified by SCC. The route type, the description and the roads which form those routes are set out in **Table 1** below.

Table 1. SCC Lorry Route Types

Route Type	Description	Roads (Examples)
Strategic Lorry Routes		A11
	Predominantly the trunk road network and larger 'A' classified roads.  All movements crossing Suffolk should use these, with those starting or ending in the county using them in preference to local lorry routes.	A14
		A12
		A140
		A143
		A134
Zone Distributor Routes		A143
	Predominantly 'A' classified and 'B' classified roads.  Roads within a zone serving as a route directly to a location or as a route to local access routes.	A1101
		A1065
		B1506
Local Access Routes		B1085
	Roads or part of roads servicing as access to a specific location.	B1102
		B1106

Source: SCC

- 3.3 In addition to the routes identified in **Table 1**, weight restrictions are in place on roads within Suffolk however none are located within the vicinity of the DCO Site Boundary or on the roads which vehicles are likely to travel along to reach the Sunnica East Site.
- 3.4 A copy of the plan illustrating which roads within Suffolk fall within which route type is included in **Appendix A**.
  Cambridgeshire Advisory Freight Map
- 3.5 The CCC 'Cambridgeshire Advisory Freight Map' illustrates the routes which CCC has identified as the recommended routes for Heavy Goods Vehicles when travelling within and through the county. There are two route types identified by CCC. The route type, the description and the roads which form those routes are set out in **Table 2** below.

Table 2. CCC Lorry Route Types

Route Type	Description	Roads (Examples)
		A11
Strategic Route	Predominantly the trunk road network and larger 'A' classified roads.	A14
		A142
Local Route	Predominantly 'A' classified and 'B' classified roads.	B1085
		B1104
		B1102

Source: CCC

- 3.6 In addition to the routes identified in **Table 2**, weight and height restrictions are in place on roads within Cambridgeshire. There are two roads within the vicinity of the DCO Site Boundary which are affected by a restriction. A three tonne weight restriction has been placed on the bridge over the River Kennet on Badlingham Road. The bridge is located approximately one kilometre west of the south-western boundary of the proposed Sunnica East Site B. Badlingham Road connects with B1085 Elms Road on the sites south-western boundary. The second is located on Fordham Road, where a seven and a half tonne weight restriction has been placed on the bridge over the River Snail. The bridge is located approximately 150 metres of a proposed access to the Sunnica West Site B.
- 3.7 A copy of the plan illustrating which roads within Cambridgeshire fall within which route type is included in **Appendix**A.

#### 4.0 Construction Vehicle Routing

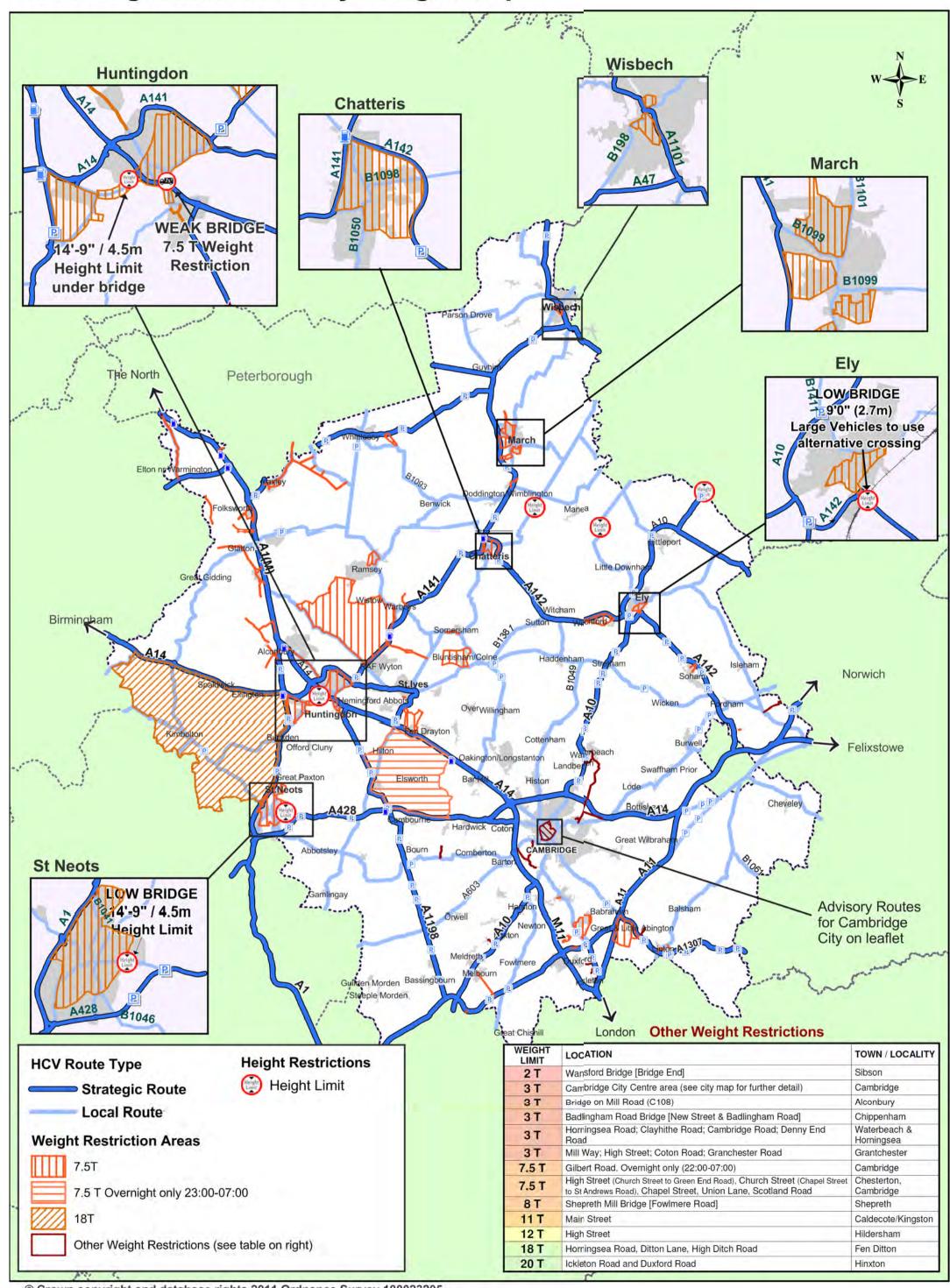
- 4.1 Using these access points, possible routes for construction vehicles have been identified. These are illustrated on plans included in **Appendix B**.
- 4.2 Where possible routes have been identified which are suitable to allow two-way HGV traffic movements such as the trunk road network and those roads identified by both SCC and CCC are being suitable for HGV traffic. The routes identified have also where possible been identified such that they have as little impact on residential areas as possible.
- 4.3 It is understood, during discussions with the Highway Authorities, that a concern exists relating to vehicles utilising Junction 37 of the A14 (A14 / A142 Fordham Road) to transfer from the A14 westbound carriageway to the A14 eastbound carriageway, in effect facilitating a U-turn. This manoeuvre is required due to material such as panels entering the UK at the port of Felixstowe and then travelling westbound to the site. Junction 38 which connects the A14 with the A11 does not provide all movements and therefore vehicles travelling north on the A11 from Felixstowe would have to utilise alternatives. A review of the alternatives would add significant distance to the journeys of vehicles traveling to the site and require HGVs to pass through Bury St. Edmunds and Thetford. This would also require all HGVs from Felixstowe to utilise the 'Fiveways' junction near Mildenhall which has recently been upgraded to improve capacity with vehicles. Although it is appreciated that there are safety and capacity concerns at junction 37 on the A14, this represents the quickest route and one that would impact less on more residential areas. A Construction Traffic Management Plan (CTMP) would be prepared with deliveries occurring outside of peak times to reduce the impact of the development.

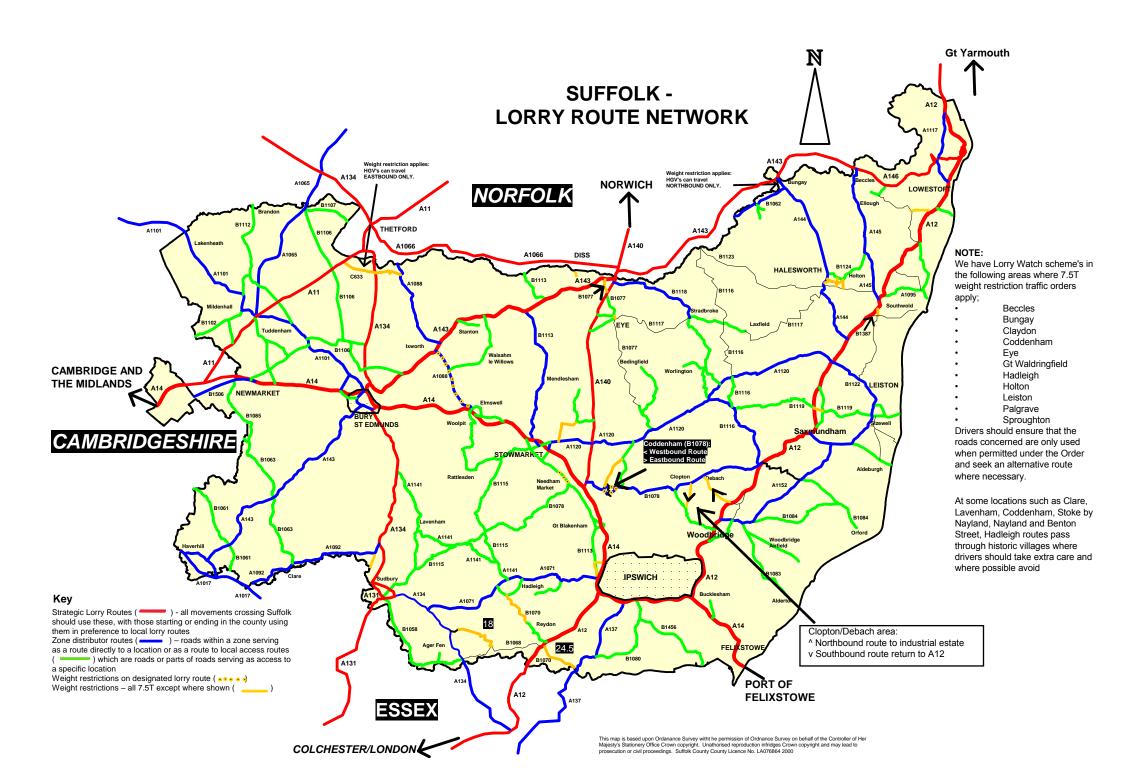
#### 5.0 Summary

- 5.1 This Access Strategy has been prepared to illustrate the potential access locations to the proposed Sunnica East Site A, Sunnica East Site B, Sunnica West Site A and Sunnica West Site B near to Worlington, Suffolk and Chippenham, Cambridgeshire respectively as the Burwell National Grid Substation Extension and the cable route corridor.
- 5.2 The Strategy also identifies the likely routes for journeys between the access points and the trunk road network. This is based on a review of the routes available and the information available from SCC and CCC in relation to HGV movements within each county.

## Appendix A – CCC and SCC HGV Route Plans

# **Cambridgeshire Advisory Freight Map**





# Appendix B – Potential Construction Routes

