Proposed Solar Farm

Vicarage Drove

Transport Statement

For

Renewable Connection Developments

motion

Document Control Sheet

Proposed Solar Farm

Vicarage Drove

Renewable Connection Developments

This document has been issued and amended as follows:

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15/04/2021	1st Draft	CH	JNR
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1.0 Introduction

Preamble

1.1 Motion is retained by Renewable Connections Developments to prepare a Transport Statement in relation to the development of land to the north-west of Bicker (The "Application Site"). The Application Site is located within the administrative boundaries of Lincolnshire County Council (LCC) and Boston Borough Council (BBC) and is shown on Figure 1.1 below.

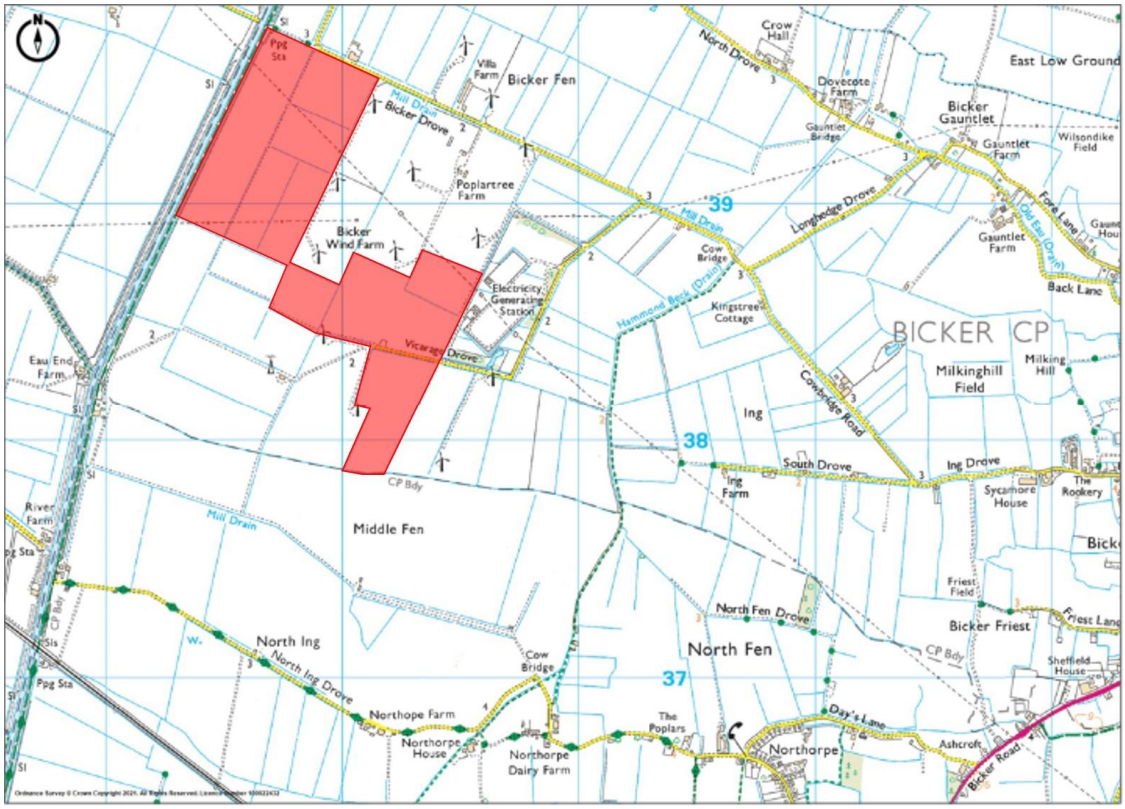


Figure 1.1: Application Site Location

1.2 The Application Site currently comprises a field of circa 80.36 hectares. This planning application seeks permission for the construction of a combined solar farm with battery storage facility on land to the north-west of Bicker (the Proposed Development).

Transport Planning Policy and Guidance

1.3 The requirement to prepare a transport statement is set out in the National Planning Policy Framework, 2021, published by the Department for Communities and Local Government (NPPF). Paragraph 113 of NPPF states:

"All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed."

1.4 The criteria against which development should be assessed is set out in NPPF paragraph 110 that states:

In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users; and

c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

1.5 Paragraph 111 of the NPPF sets out the highway grounds on which development could be prevented or refused:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

1.6 Detailed guidance on the scope and content required for Transport Statements is provided in the government's planning practice guidance. This Transport Statement is prepared in accordance with this guidance.

Scope of Report

1.7 This Transport Statement has been prepared in accordance with current best practice guidelines and demonstrates that:

- The proposals accord with national and local policies relevant to transport;
- Safe and suitable access to the Application Site can be achieved by all modes; and,
- The level of traffic associated with the proposals will not lead to severe impact to the existing operation and free flow of traffic on the adjoining highway network.

1.8 Following this introduction, this Transport Statement is split into 5 sections as follows:

- Section 2 assesses existing conditions;
- Section 3 provides an overview of the proposed development and details of the proposed access, parking and servicing arrangements;
- Section 4 assesses the trip generating potential of the proposals and provides an overview of the impacts these are likely to have; and
- Section 5 summarises the key findings and conclusions of this report.

2.0 Existing Conditions

Highway Network

2.1 Figure 2.1 below illustrates the local highway network surrounding the Application Site.

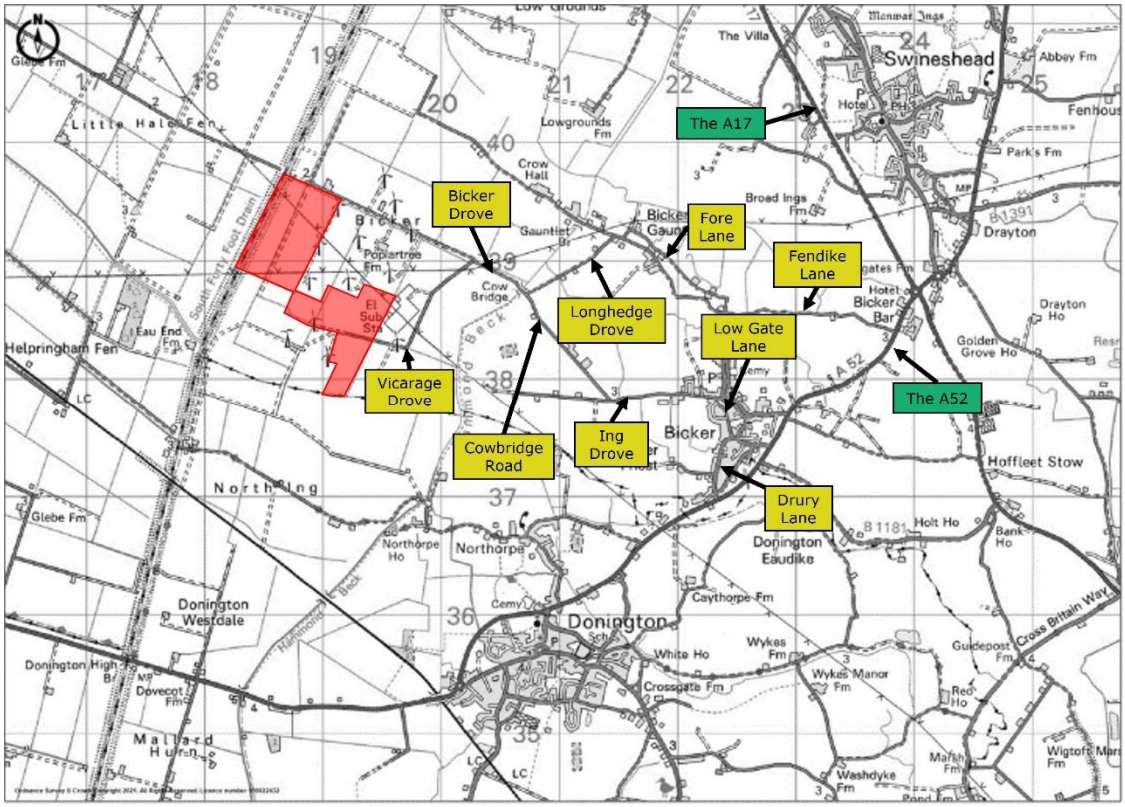


Figure 2.1: Local Highway Network

2.2 At a local level, Vicarage Drove connects to the A52 Donington Road via Bicker Drove, Cowbridge Road, Ing Drove, Rookery Road, Low Gate Lane and Drury Lane. Another route to the A52 Donnington Road can be achieved via Bicker Drove, Longhedge Drove Fore Lane and Fendike Lane.

2.3 In the vicinity of the Application Site, the metalled surface of Vicarage Drove is between 2.7 and 3.7 metres wide and is a single lane road. There is no street lighting on Vicarage Drove and no pedestrian footways on either side of the carriageway. Vicarage Drove is subject to a 60mph speed limit however observation on site identified that traffic travels significantly slower than this speed.

2.4 Vicarage Drove connects with Bicker Drove which has neither footways nor street lighting and is between 3 and 7 metres wide.

Road Safety

Recorded Personal Injury Collision Data

2.5 Personal Injury Collision (PIC) data was obtained from CrashMap for the adjoining highway network for the most recent five year period available, 1st January 2015 to 31st December 2019. No PIC's were identified in the road network adjacent to the Application Site.

Non-Motorised Users

2.6 There is a public footpath along the Hammond Beck to the east of the Application Site and a public bridleway along the South Forty Foot Drain to the west of the Application Site.

Planned Development and Infrastructure

2.7 The Triton Knoll Offshore Wind Farm Electrical System is a development located to the north of the Application Site. There are de minimis vehicle trips to this development, the vast majority of which are for operational maintenance purposes.

2.8 The Viking Link development is currently under construction at land to the south of the Application Site. During this construction phase, it is anticipated that a large volume of HGVs will be making regular trips to the Viking Link site. However, after inspection of planning documents relating to this development, it is clear that this volume of HGVs will be routed through fields obtained through freehold acquisition to gain access to the A52 Bicker Road immediately north of Donington. This route is shown in Figure 2.2 below.

2.9 No other planned transport schemes or infrastructure have been identified in the local area to the Application Site which need to be taken into consideration in the TS.

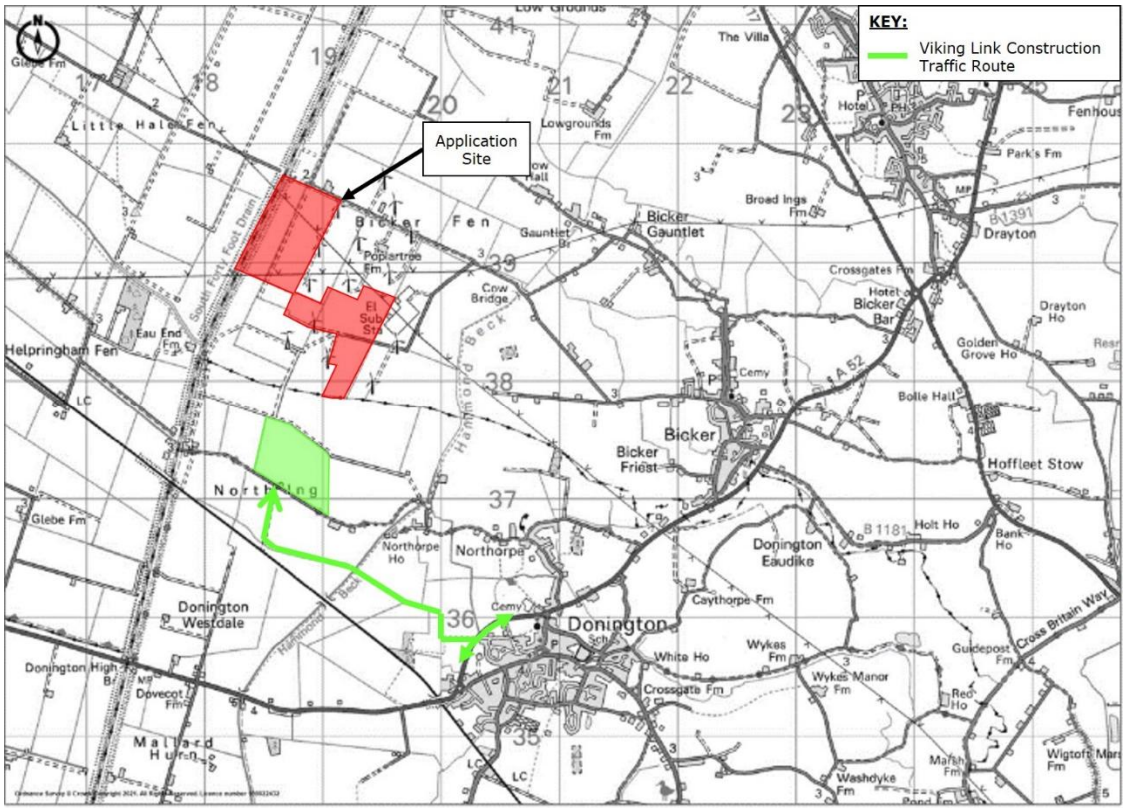


Figure 2.2: Viking Link Construction Traffic Route

3.0 Proposed Development

Proposed Development

Development Description

3.1 The Application Site currently comprises a greenfield plot of land circa 80.36 hectares in area. This planning application seeks permission for the construction of a combined solar farm and battery storage on land to the north-west of Bicker.

3.2 The solar panels and other associated infrastructure would be transported to the Application Site on articulated lorries up to 16.5m in length.

Site Access

3.3 The Application Site is currently accessed via an existing National Grid access track running north from Vicarage Drove and is used by the farming vehicles associated with the Application Site, with a secondary access at the northern point from Bicker Drove.

3.4 The Vicarage Drove entrance will be utilised to provide access for construction traffic and maintenance vehicles to the Application Site. This access has good visibility in both directions, with 2.4m by 215m visibility splays achievable in both directions. These visibility splays are included at Appendix A.

3.5 Within the Application Site an area of hardstanding would be set aside for vehicles to manoeuvre in to enable all vehicles, including articulated lorries, to enter and leave in forward gears. The provision of an area of hardstanding within the Application Site for vehicles to manoeuvre in and over which they would drive prior to accessing the public highway would reduce the risk of mud being trafficked onto the public highway and the ensuing nuisance this can cause. The exact location of this area of hardstanding within the Site is to be confirmed.

Access Routes

Public Highway

Three potential routes on the public highway were investigated as a means of access to the Application Site by construction and maintenance vehicles. They are illustrated below in Figure 3.1.

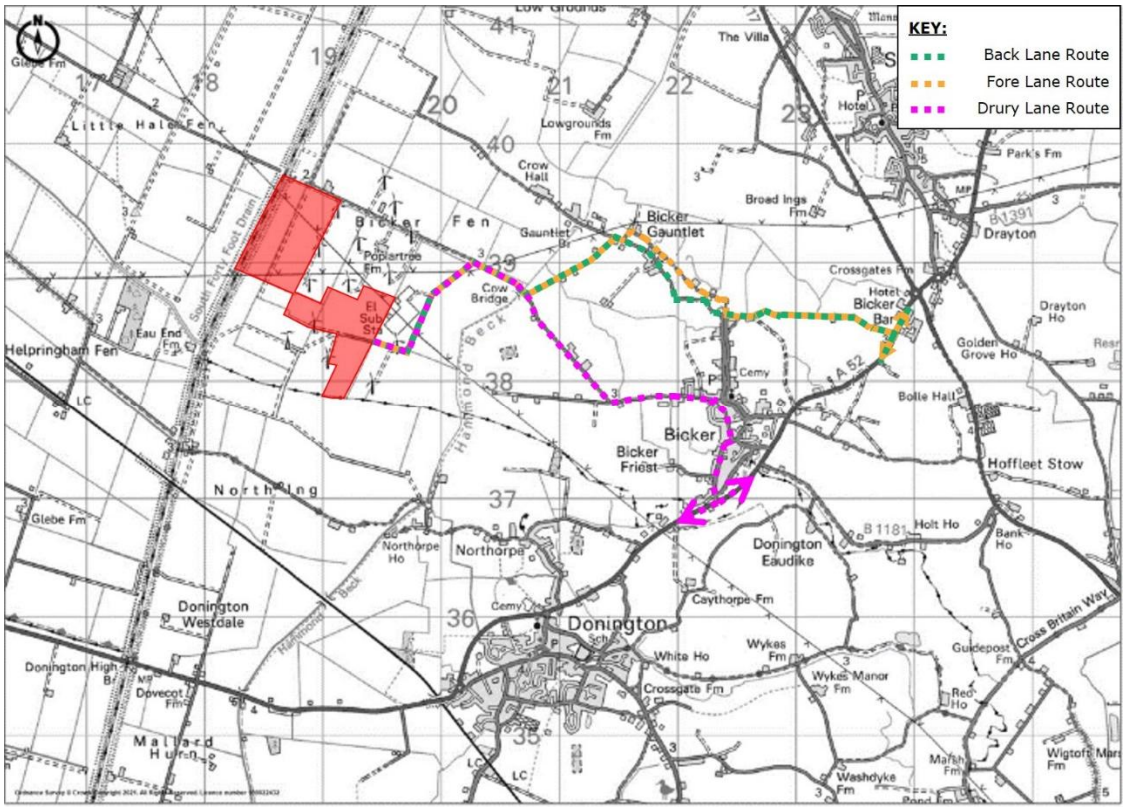


Figure 3.1: Public Highways Access Route Options

Back Lane

3.6 Under this access route, HGVs would arrive at the Application Site via the A52 Donington Road, Fendike Lane, Back Lane, North Drove, Longhedge Drove, Bicker Drove and Vicarage Drove.

Fore Lane

3.7 This access route would see HGVs arrive via the A52 Donington Road, Fendike Lane, Fore Lane, North Drove, Longhedge Drove, Bicker Drove and Vicarage Drove.

Drury Lane

3.8 Under this access route, HGVs would arrive at the Application Site via the A52 Donington Road, Drury Lane, Low Gate Lane, Rookery Road, Ing Drove, Cowbridge Road, Bicker Drove and Vicarage Drove.

3.9 The benefits and restrictions of each of the above routes is outlined in Table 3.1 below.

Access Route Option	Benefits	Restrictions
Back Lane	A relatively short route that avoids the villages of Bicker and Northorpe	There is a narrowing restricting manoeuvrability
Fore Lane	A relatively short route that avoids the villages of Bicker and Northorpe	A tight right-hand turn (that is achievable)
Drury Lane	The shortest route	Would require HGVs to travel through Bicker village

Table 3.1: Evaluation of Access Route Options

3.10 Following evaluation of the access route options, it is concluded that the best option is the Fore Lane route via the A52 Donington Road, Fendike Lane, Fore Lane, North Drove, Longhedge Drove, Bicker Drove and Vicarage Drove.

3.11 This route is tried and tested and suitable for temporary movements associated with construction traffic. Swept path analysis has been conducted for this route and is provided at Appendix B. It shows that a 16.5 metre articulated lorry is able to manoeuvre along this route from the Strategic Road Network at the A52 Donington Road to the proposed site access on Vicarage Drove.

3.12 This approach routes development traffic to the Application Site via one of the shortest routes to and from the Strategic Road Network which comprises the A52 Donington Road. Additionally, it routes construction traffic away from the settlements of Bicker and Northorpe.

Alternative Route

3.13 During consultation with the Parish Council, local residents' concerns were raised regarding the proposed construction access route via Fore Lane, and in particular the junction with North Drove / Back Lane. Notwithstanding that the analysis above demonstrates that an articulated lorry is able to make this turn and that delivery drivers will be instructed to use this route and not travel through Bicker, local residents were concerned that delivery drivers would revert to travelling to the Application Site via Drury Lane. This was primarily because the Drury Lane route is easier to negotiate in an articulated vehicle and hence would be much more attractive to a delivery driver. But also, there was concerns raised about how a routing strategy could be effectively enforced in a timely manner for a relatively low volume of delivery vehicles over a relatively short period of time.

3.14 In response to these concerns, the Applicant has approached 3rd party land owners in order to explore alternative delivery routes that would take advantage of private access roads as well as public highway.

3.15 As a consequence, access across 3rd party land for construction traffic to follow the route shown on the plan below has been secured.

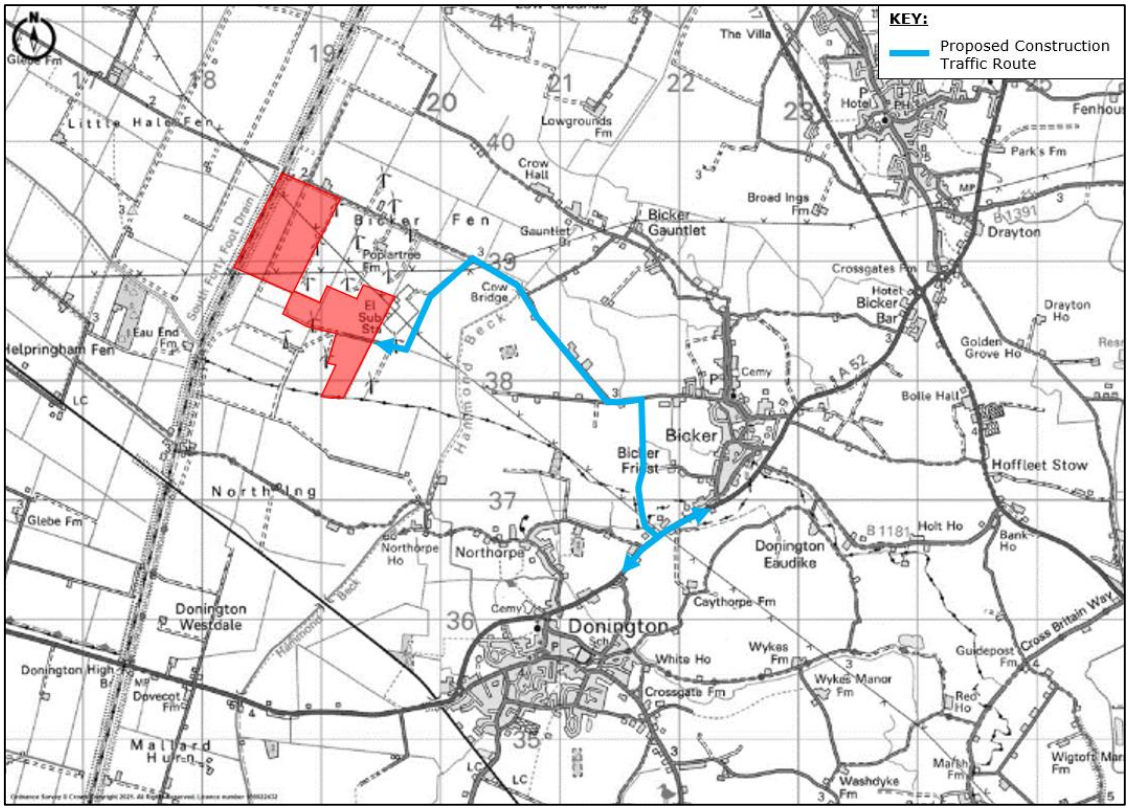


Figure 3.2: Proposed Access Route

3.16 The figure above shows that the proposed construction access route would utilise an existing haul road connecting the A52 directly with Ing Drove which has been designed to cater for large and articulated vehicles.

3.17 The proposed access route would avoid the village of Bicker and also the use of Fore or Back Lanes, which were areas of concern for local residents.

Vehicle movements

3.18 The Proposed Development comprises two phases: construction and operation. The primary construction phase of the Proposed Development is expected to last for approximately 6 months. During this period, initial site setup works including access maintenance and improvements would be undertaken where considered to be beneficial to the use of the access, followed by construction of the internal access route(s), ground works, the installation of the solar panels and other infrastructure.

3.19 Forecast average daily traffic movements associated with both phases is presented in Table 3.2 below.

Phase	Duration	Average daily traffic movements
Construction	6 months	8-10 two-way commercial vehicle trips per day
Operation	Permanent	up to 8 two-way commercial vehicle trips per week

Table 3.2: Forecast Development Average Daily Two-Way Traffic Movements

3.20 Table 3.2 shows that the highest increase in average two-way daily traffic movements is expected during the 6 month construction phase. Average daily commercial vehicle movements are expected to amount to no more than 10 two-way vehicle movements per day.

3.21 During the operational phase, traffic movements are expected to be minimal. Operational traffic would comprise 1 van accessing the Application Site four times per week i.e. 8 two-way vehicle movements per week.

Abnormal loads

3.22 There are no abnormal loads proposed in relation to the Proposed Development.

4.0 Traffic impact and mitigation

Highway Safety

Traffic Volumes

4.1 The temporary increase in traffic volumes and especially the heavy vehicle component of the traffic volume could lead to adverse highway safety impacts. Traffic volume is anticipated to be low on the roads leading from the A52 Donington Road to the Application Site as the Triton Knoll development generates only maintenance trips and the Viking Link construction traffic uses an alternative route. As a result, the expected change in traffic volumes as a result of the Proposed Development is unlikely to be discernible.

Visibility

4.2 As the proposed temporary access plan is identical to the existing access arrangement for the Application Site, it is deemed suitable for the purposes of this development.

Construction Traffic Management Plan

4.3 Notwithstanding the de minimis change in highway capacity which is expected to arise from the construction phase of the Proposed Development, it is unlikely there is currently a large volume of HGV traffic on the sections of local highway network intended for construction traffic routing to the Application Site. There is therefore the potential that even minimal increases in HGV traffic of up to 30 two-way vehicle movements per day could result in disturbance to users of this section of the road, albeit for a temporary 6 month period.

4.4 In order to reduce or avoid this potential disturbance arising from heavy goods vehicles, a Construction Traffic Management Plan (CTMP) is proposed. The CTMP would be secured by condition.

Residual impacts

4.5 On completion of the 6 month construction period, construction traffic would cease. There would therefore be no residual traffic related impacts arising from the temporary construction phase of the Proposed Development.

4.6 During the operational phase, traffic movements are expected to amount to 8 two-way vehicle movements per week. Traffic volumes of this magnitude would be imperceptible on a daily basis. No residual traffic related impacts arising from the permanent operational phase of the Proposed Development.

5.0 Summary and Conclusion

5.1 Motion is retained by Renewable Connections Developments to prepare a Transport Statement in relation to the development of land to the north-west of Bicker (The "Application Site"). The Application Site is located within the administrative boundaries of Lincolnshire County Council (LCC) and Boston Borough Council (BBC).

5.2 The Application Site currently comprises a field of circa 80.36 hectares. This planning application seeks permission for the construction of a combined solar farm with battery storage on land to the north-west Bicker (the Proposed Development).

5.3 HGV construction traffic will route to the Application Site via the A52 Donington Road and then utilise an existing haul road on private land connecting directly to Ing Drove. Construction traffic would then route via Cowbridge Road, Bicker Drove and finally Vicarage Drove to the Application Site access. This access route has been specifically negotiated by the applicant in response to concerns raised by local residents articulated to the applicant via the Parish Council and will:

- Route construction traffic to the Application Site via the shortest route to and from the Strategic Road Network which comprises the A52 Donington Road in the vicinity of the Application Site;
- Avoids the villages of Bicker and Northorpe; and
- Avoids the use of Fore and Back Lanes, which were raised as areas of concern via the Parish Council.

5.4 During the operational phase of the development, there would be a minimal increase in traffic volumes with operational traffic (commercial vehicles) expected to access the Application Site on four occasions per week at the most.

5.5 The construction phase of the Proposed Development would lead to a temporary increase in traffic on the road network surrounding the Application Site. This would be for a temporary 6 month period. On average during this 6 month period, it is expected that the Proposed Development would lead to an increase in traffic movements of up to 10 two-way vehicle movements per day. Changes of this magnitude would have a de minimis impact on highway capacity.

5.6 It is proposed that a Construction Traffic Management Plan (CTMP) is prepared and agreed with the local highway authority prior to commencement of activities at the Application Site. This will ensure any potential disturbance to other road users is fully mitigated.

5.7 There are no residual traffic impacts identified.

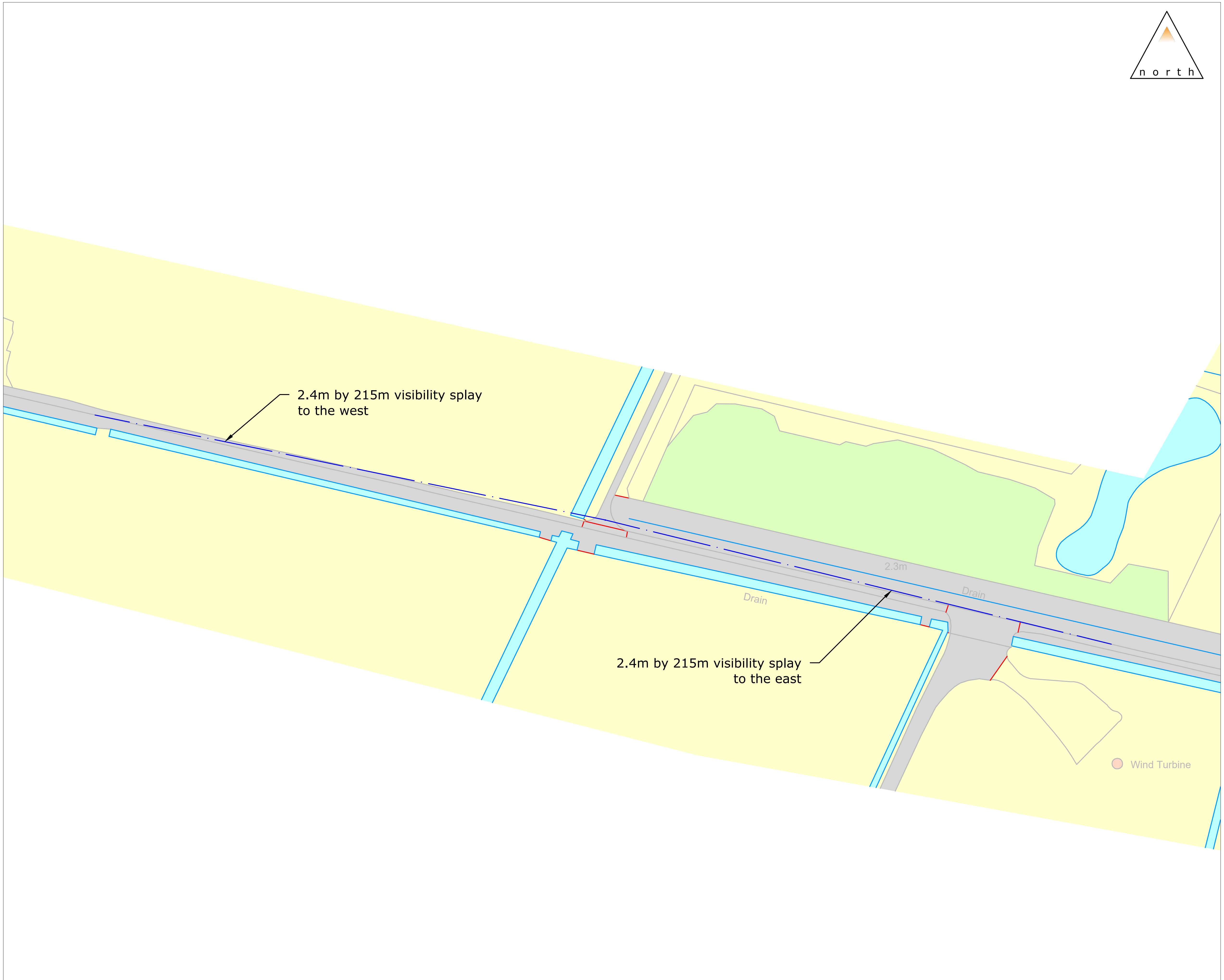
5.8 In conclusion, the Proposed Development provides an opportunity to provide new, non-carbon energy generating facilities at a location which can be safely accessed by construction and operational vehicles and at which the temporary traffic impacts during construction would be de minimus. Traffic management measures can be put in place to reduce or avoid potential residual impacts arising from road traffic during the temporary 6 month construction period. In short:

- The proposals accord with national and local policies relevant to transport;
- Safe and suitable access to the Application Site can be achieved by all modes; and,
- The level of traffic associated with the proposals will not lead to severe impact to the existing operation and free flow of traffic on the adjoining highway network.

In accordance with paragraph 109 of NPPF, there are therefore no transport or highway reasons why planning permission should be prevented or refused.

Appendix A

Visibility Splays



Rev:	Description:	Date:	Rev By:	Chk'd:

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Project:
Proposed Solar Farm, Bicker

Title:
Visibility Splay

Client:
Renewable Connections

Drawing Status:

Scale: 1:1500 (@ A3) Date: 26/08/2021

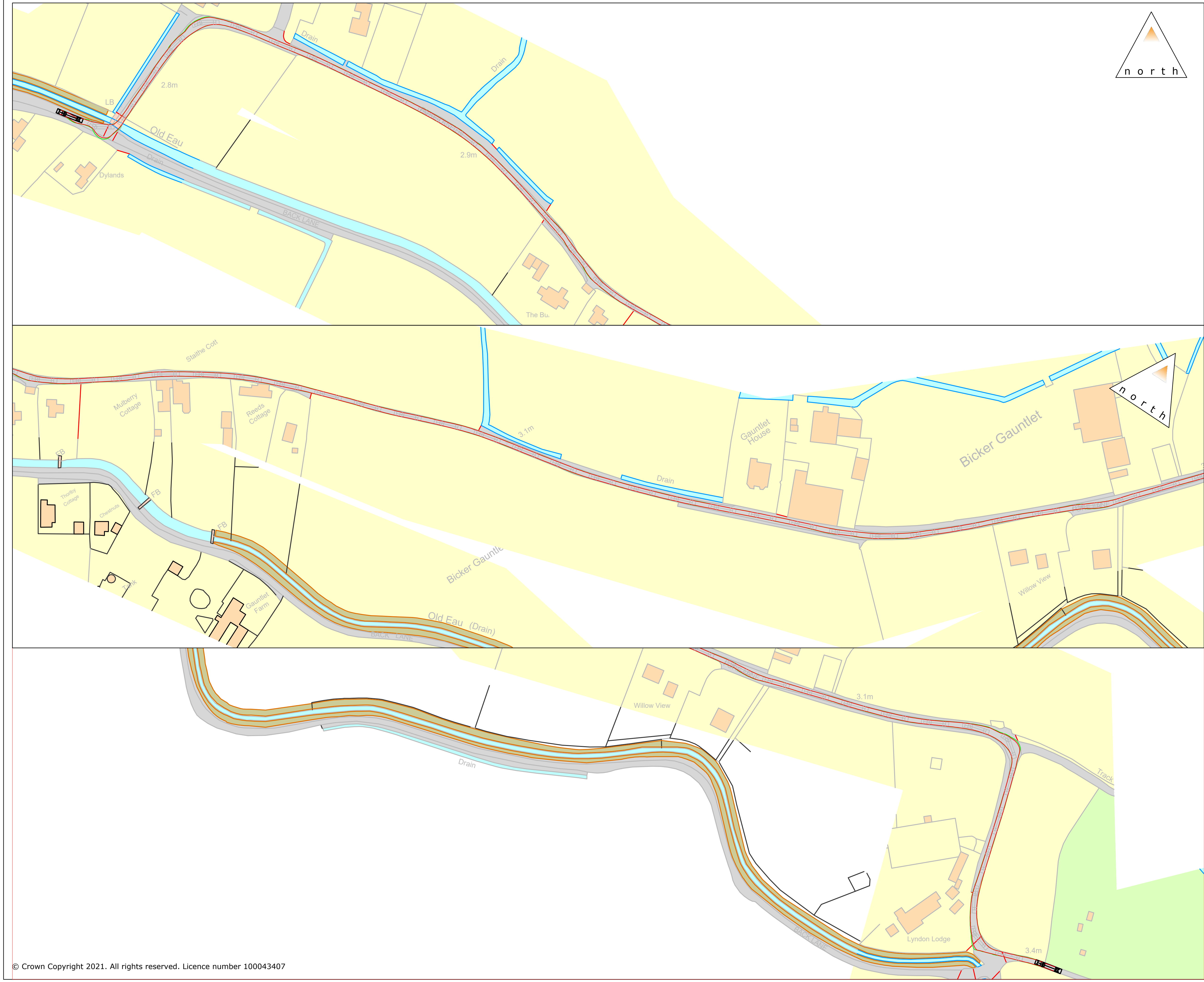
Drawn: CH Checked: JR Approved: JR

Drawing: 2012036-17

Revision:

Appendix B

Fore / Back Lane Swept Path Analysis



Rev:	Description:	Date:	Rev By:	Chk'd:

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Project:
Proposed Solar Farm, Bicker

Title:
Swept Path Analysis (Option 2)
Large Articulated Vehicle

Client:
Renewable Connections

Drawing Status:

Scale: 1:2000 (@ A3) Date: 18/05/2021

Drawn: AN Checked: JR Approved: JR

Drawing: 2012036-9
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