

### **Priory Farm Solar Array**

Proposed Development of a Photovoltaic Solar Array on Land at Priory Farm to the East of Great Wymondley, North Hertfordshire

# PINS Ref: APP/X1925/V/23/3323321 LPA Ref: 21/03380/FP

Proof of Evidence on Transport Matters by Lee Kendall

**On Behalf of the Applicant** 



AGR 4 Solar Limited

August 2023 3004-01-LK/PoE

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#### 1.0 INTRODUCTION AND SCOPE OF EVIDENCE

#### 1.1 Qualifications and Relevant Experience

- 1.1.1 My name is Lee Kendall. I am a Technical Director for Axis, a multi-disciplinary consultancy with offices in Wilmslow and Chester. I am responsible for managing the Transport Planning capability of the Company and have worked in this capacity since November 2018. Prior to this I was an Associate at Curtins for one year, an Associate Director at SCP Transport in Manchester, working there for over ten years, and a Transport Planner at HSL in Nottingham, working there for over two years. I have extensive experience of advising clients on the transport impacts of new development across the United Kingdom and have worked on approximately 2,000 project proposals in my career.
- 1.1.2 I obtained a Bachelor's degree in Design and Technology / English from the Manchester Metropolitan University and I am a Member of the Chartered Institution of Highways and Transportation and a Member of the Transport Planning Society. I am familiar with the application site, having visited it on Friday 30<sup>th</sup> June 2023.
- 1.1.3 A senior Axis colleague within my department produced the Transport Statement (TS) work dated October 2021 which accompanied the original planning application (ref 21/03380/FP) in December 2021. Later on during the course of the planning application in June / July 2022, the TS was slightly revised to include a paragraph relating to parking during the construction phase. This updated July 2022 version of the TS is the one included within the core documents list (CD 10).
- 1.1.4 Following this, I became more directly involved with subsequent discussions and agreements with the Local Highway Authority (LHA) at Hertfordshire County Council (HCC).
- 1.1.5 I understand my duty to help the Inspector on matters within my expertise and that this duty overrides any obligation to the person or company from whom I have received instructions or by whom I am paid. I confirm that my fees are not conditional on the outcome of the Inquiry. I have complied, and will continue to comply, with that duty.
- 1.1.6 The evidence which I have prepared and provide for this called-in Inquiry reference APP/X1925/V/23/332321 in this Proof of Evidence is true and has been prepared



in accordance with the guidance of my professional institution, The CIHT, and I confirm that the opinions expressed are my true and professional opinions.

#### 1.2 Scope of Evidence

- 1.2.1 I have prepared this Proof of Evidence (PoE) to set out what I consider to be all the transport-related matters relevant to the call-in Inquiry for the proposed solar farm development (the 'proposed development') on land at Priory Farm to the East of Great Wymondley, North Hertfordshire (the 'application site').
- 1.2.2 Prior to the resolution to grant permission for the proposed development by the Local Planning Authority (LPA) at North Hertfordshire Council (NHC) in November 2022, an agreement was reached between Axis (representing the Applicant) and the LHA at HCC that the scheme would be acceptable in traffic and transportation terms. This was subject to normal conditions concerning the arrangement of the site accesses and passing bay, construction traffic routes, and the post-construction phase reduction in the scale and nature of the temporary access works (CD 116).
- 1.2.3 This is reflected in section 5.29 of the Council's Statement of Case (CD 138), which states that "The impacts upon the local highway network would be temporary during the construction of the Solar Farm and the impacts of the Proposal would be adequately controlled by conditions. It is considered that this matter is neutral in the planning balance."
- 1.2.4 In calling-in the application for determination, the Secretary of State initially indicated that the matters which he particularly wishes to be informed about for the purposes of his consideration of the application are:

"a) The extent to which the proposed development is consistent with Government policies for protecting Green Belt land as set out in the NPPF (Chapter 13); and

b) The extent to which the proposed development is consistent with Government policies for meeting the challenge of climate change, flooding and coastal change as set out in the NPPF (Chapter 14); and

c) The extent to which the proposed development is consistent with Government policies for conserving and enhancing the natural environment as set out in the NPPF (Chapter 15); and

d) The extent to which the proposed development is consistent with the development plan for the area; and

e) Any other matters the Inspector considers relevant."

- 1.2.5 It is considered that the topic of transport falls under the consideration of Chapter 13 of the NPPF in the sense that there is at least the *potential* for transport impacts of new development to cause harm to the green belt. I therefore seek to quantify this potential harm within my evidence so that the Inspector may weigh it in the overall planning balance.
- 1.2.6 Of course, transport can also be considered under 'other relevant matters' in this context.

#### 1.3 **Proof of Evidence Structure**

- 1.3.1 This PoE is structured as follows:
  - i) Chapter 2.0 sets out an assessment of the transport-related policies that are relevant to the proposed development;
  - Chapter 3.0 sets out an appraisal of the proposed development from a transport perspective, including a summary of the work carried out before and during the application process, and which ultimately resulted in agreement being reached with the LHA on all transport matters;
  - iii) Chapter 4.0 sets out a response to all transport-related representations / objections lodged by third parties during the course of the planning application; and,
  - iv) Chapter 5.0 provides the conclusions.
- 1.3.2 An executive summary of this evidence is provided in a separate volume (document ref APP/LK/1).



#### 2.0 POLICY, GUIDANCE AND DESIGN STANDARDS

#### 2.1 Relevant Transport Policies

#### National Planning Policy – NPPF (CD 56)

- 2.1.1 Paragraphs 104 to 113 of the July 2021 NPPF (CD 56) set out the Government's planning policy approach to transport matters.
- 2.1.2 In the context of the proposed development, the key paragraph is 111, which indicates that *"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".*
- 2.1.3 The following chapter 3 of my evidence seeks to demonstrate that there would be neither an unacceptable impact on highway safety, nor a severe residual impact on capacity arising from the proposed development.
- 2.1.4 It follows therefore that the development should not be prevented on highways grounds.
- 2.1.5 In terms of green belt policy, paragraphs 137-151 set out the Government's approach. Paragraph 148 states that *"When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations."*
- 2.1.6 In this case, *"any other harm"* includes the harm that may be caused by the proposed transport-related infrastructure and the effects of traffic activity arising from the proposed development, and which must therefore be weighed in the overall balance.
- 2.1.7 The following chapter 3 of my evidence demonstrates that there would only be very limited transport-related harm arising from the proposed development, and I discuss this in more detail in chapter 5.

Local Planning Policy – North Hertfordshire Local Plan 2011—2031 (Adopted Nov 2022) (CD 39)

- 2.1.8 From a transport perspective, the relevant policies from the North Herts Local Plan (CD 39) are:
  - i) Policy SP1: Sustainable development in North Hertfordshire;
  - ii) Policy SP5: Countryside and Green Belt;
  - iii) Policy SP6: Sustainable transport;
  - iv) Policy SP7: Infrastructure requirements and developer contributions;
  - v) Policy SP12: Green infrastructure, landscape and biodiversity;
  - vi) Policy T1: Assessment of transport matters; and,
  - vii) Policy D1: Sustainable design.

#### Policies SP1, SP7, SP12, T1 and D1

- 2.1.9 Policies SP1, SP7, SP12, T1 and D1 can be considered together insofar as their relevance to transport matters are concerned, given that they express similar policy tests in the assessment of this specific development proposal.
- 2.1.10 Policy SP1 is relevant to the proposed development in transport terms because pointc) v. of the policy indicates that planning permission will be granted for developmentthat includes mitigation measures that reduce the impact of development.
- 2.1.11 Similarly, Policy SP7 is relevant insofar as it requires new development to make provision for infrastructure that is necessary in order to accommodate additional demands resulting from the development, and ensure that any such infrastructure mitigation is in place at the appropriate juncture.
- 2.1.12 Policy SP12 is also linked to Policies SP1 and SP7 in terms of its specific relevance to the transport-related aspects of the planning application, insofar as it states that the Council will protect the natural environment, biodiversity and habitats.
- 2.1.13 Similarly, Policy D1 indicates that planning permission will be granted for those development proposals that respond positively to the site's local context and which take all reasonable opportunities to retain existing vegetation.
- 2.1.14 Finally, Policy T1 indicates that planning permission will be granted if new development does not cause highway safety problems or unacceptable impacts on



the highway network, appropriate mitigation measures are put forward, and suitable assessments are undertaken.

- 2.1.15 These policies are linked and relevant because it is an integral part of the proposed development to form two new site accesses from Graveley Lane that will allow the safe movement of construction-related traffic into and out of the site parcels, and also to mitigate the impact of the construction traffic during the temporary construction period through the formation of a HGV passing place on the northern side of Graveley Lane.
- 2.1.16 Moreover, the policies are relevant because, following the completion of the construction period, the site access arrangements will be 'downgraded' in terms of their footprint and geometry, so that the smaller accesses will only cater for the very limited of small vehicle (van) traffic movements that will need to access the site parcels during the operational phase. Similarly, the passing place will also be removed following the construction period.
- 2.1.17 The areas of land that would be occupied by the larger site access junction bellmouths and passing place will then be restored as grassed verges, and thus restored as a natural habitat.
- 2.1.18 Planning conditions have been put forward by the Council requiring these postconstruction works to take place within 3 months of the completion of the proposed development, which the Applicant is happy to accept.
- 2.1.19 Therefore, the proposed development is complaint with the relevant requirements of Policies SP1, SP7, SP12, T1 and D1 insofar as it puts forward appropriate and proportional mitigation measures to address the transport impacts of the scheme during the construction phase, and where the small areas of the natural environment that are affected by those works will be substantially returned to nature after the construction phase.

#### Policy SP5: Countryside and Green Belt

2.1.20 Policy SP5 is relevant to the proposed development in transport terms insofar as it is a local policy extension of the NPPF section 13 policies on green belt. Specifically, the harm arising from the transport effects of development must be weighed in the balance to determine whether very special circumstances exist to grant permission.

2.1.21 As indicated above, the following chapter 3 of my evidence seeks to demonstrate that there would be only very limited transport-related harm arising from the proposed development that would feed into this overall balancing exercise, and I discuss this in more detail in chapter 5.

#### Policy SP6: Sustainable Transport

- 2.1.22 Policy SP6 is relevant to the proposed development as it requires applicants to provide assessments, plans and supporting documents to demonstrate the safety and sustainability of their proposals. Policy T1 also imposes a similar requirement.
- 2.1.23 The proposed development is compliant with this policy because the application was accompanied by a TS and accompanying drawings, which were appropriate in scale and nature to the impact of the scheme. Furthermore, and as the following section of my evidence demonstrates, these plans were refined and developed in close consultation with the LHA during the course of the planning application, which ultimately resulted in an agreement with the Council that the site access arrangements and transport effects of the proposed development would be acceptable.

## Local Planning Policy – Wymondley Parish Neighbourhood Plan (Made Sep 2019) (CD 40)

- 2.1.24 From a transport perspective, the relevant policies from the Wymondley Parish Neighbourhood Plan (CD 40) are:
  - i) Policy GB1: Green belt; and,
  - ii) Policy TM1: Roads.

#### Policy GB1

2.1.25 Policy GB1 within the Wymondley Parish Neighbourhood Plan echoes the policy requirements of section 13 of the NPPF and Policy SP5 of the North Herts Local Plan, and suggests that new development proposals must comply with Government green belt policy. As alluded earlier, the transport-related harm to the green belt arising from the proposed development is assessed in the following section 3.0 of my evidence.

Policy TM1

- 2.1.26 Similarly, Policy TM1 within the Neighbourhood Plan echoes the policy requirements of NPPF paragraph 111, and most of the above-mentioned policies within the North Herts Local Plan, as it suggests that new development proposals should be supported by appropriate documentation and put forward any mitigation measures.
- 2.1.27 The assessment of policy compliance presented earlier is therefore directly applicable to Policy TM1 as well.

#### 2.2 Design Standards

2.2.1 There are a number of technical highway design standards that are relevant to the proposed development, and in particular, the level of forward visibility that is achievable towards proposed site access arrangements and the level of junction visibility that is achievable from the site accesses.

#### DMRB CD 109 Revision 1 (CD 113)

- 2.2.2 CD 113 includes an extract from the Design Manual for Roads and Bridges (DMRB) CD 109 Revision 1 (note 'DMRB CD 109' is the technical document name, not to be confused with the corresponding Core Document to this Inquiry). DMRB CD 109 sets out the technical requirements for highway link design on the trunk road network.
- 2.2.3 DMRB CD 109 is relevant because it sets out the principles of what 'design speed' and 'stopping sight distances' are. Other parts of the DMRB cross reference the stopping sight distance requirements within DMRB CD 109, as discussed in the subsections below.
- 2.2.4 In simple terms, DMRB CD 109 sets out the desirable minimum stopping sight distances for various brackets of vehicle speed. DMRB is the prevailing design standard that is applicable because the recorded traffic speeds and nature of Graveley Lane fall outside the scope of when the less onerous Manual for Streets-based design standards might otherwise apply.
- 2.2.5 It is important to note that, in highway design, the 'speed limit' and 'design speed' are two different things. In the DMRB, road design and visibility requirements should be set according to the 'design speed' of a road, which can often be very different to what the posted speed limit of a road might ultimately be. The way in which design



speed is determined is explored below in reference to the applicability of DMRB CA 185.

- 2.2.6 The design speed of Graveley Lane was determined, through speed surveys, to be 50mph in the westbound direction and 41mph in the eastbound direction. The point at which this was set and agreed with the LHA is set out on pages 11-12 of CD 111 (in an email from Axis to the LHA dated 26<sup>th</sup> August 2022).
- 2.2.7 DMRB CD 109 sets out what the desirable minimum stopping sight distances should be for various design speeds. Page 17 of the DMRB CD 109 in CD 113 includes table 2.10, within which 3 design speed brackets and the corresponding stopping sight distances are highlighted in yellow.
- 2.2.8 It was with reference to the observed DMRB CD 109 standards that the forward and junction visibility requirements of the proposed site accesses were interpolated, designed and agreed with the LHA during the course of the application. This is discussed further below.

#### DMRB CD 123 Revision 1 (CD 114)

- 2.2.9 CD 114 includes an extract of DMRB CD 123, which sets out the geometric requirements of new accesses onto the trunk road network. It includes technical standards on how visibility from junctions should be measured.
- 2.2.10 The document identifies that the level of visibility that should be achievable should correspond to the relevant stopping sight distance, which as mentioned above, should be determined from the observed design speed.
- 2.2.11 To reiterate, the level of visibility that will be achievable from the proposed site accesses is consistent with the interpolated stopping sight distance requirements and observed design speed of Graveley Lane on the approaches to the site accesses, as agreed with the LHA, and the accesses will therefore operate safely and satisfactorily.
- 2.2.12 The 'approved' drawings which show the junction and forward visibility splays are set out in CD 25 to CD 28 inclusive.
- 2.2.13 It is noted that a planning condition has been suggested by the Council to ensure that the site accesses and proposed passing bay are constructed in accordance with these approved drawings.



- 2.2.14 As originally drafted, this condition was drafted as a pre-commencement condition which required detailed engineering versions of the approved plans to be submitted for approval, and then for the detail shown on the detailed plans to also be in place before commencement.
- 2.2.15 It should be noted that part of the western visibility splay envelope from the proposed southern site access falls outside of the adopted highway boundary and also outside of the red-line planning application boundary.
- 2.2.16 However, the land within which the visibility splay falls is under the control of the Applicant and so there is no suggestion that the approved works cannot be satisfactorily delivered. Nonetheless, technically, this means that the planning condition wording should be amended to be structured as a 'Grampian' style, negatively-worded condition instead.
- 2.2.17 I have therefore suggested that the condition wording should be adjusted slightly to reflect this fact, which is respectfully put to the Inspector for consideration.

#### DMRB CA 185 Revision 1 (CD 115)

- 2.2.18 CD 115 includes DMRB CA 185 which sets out the requirements for measuring vehicle speeds on a road and then the technical methodology for determining the 'design speed' from the recorded dataset (technically referred to as the 85<sup>th</sup> percentile speed).
- 2.2.19 Again, as part of the design of the site accesses, this methodology was followed in the calculation of the appropriate design speed, stopping sight distance and thus the visibility requirements. It formed the basis for the approval from the LHA during the course of the planning application.
- 2.2.20 Whilst there were a series of exchanges with the LHA on this topic, and in particular where the calculated visibility splays should be measured to on Graveley Lane, the exchanges resulted in agreement on this matter, and this is reflected in the approved drawings and in the emails within CD 111 and the LHA's final consultation response dated 27<sup>th</sup> October 2022 (CD 116).

#### 3.0 APPLICATION APPRAISAL - TRANSPORT

#### 3.1 The Existing Conditions and Proposed Development

- 3.1.1 A full description of the existing highway-related conditions around the application site is provided within section 2 of the July 2022 TS (CD 10) and section 2 of the Statement of Common Ground (SoCG).
- 3.1.2 Similarly, section 3 of the TS (CD 10) and section 3 of SoCG sets out a description of the proposed development, and so it is not therefore necessary to repeat these descriptions within this PoE.
- 3.1.3 However, it should be noted that the description of the proposed development within the TS is somewhat superseded by subsequent discussions and agreements reached with the LHA at HCC during the course of the planning application.

#### 3.2 Timeline / Evolution of Scheme / Sequence of Discussions With LHA

- 3.2.1 The sequence of transport-related documentation and exchanges during the course of the planning application ran as follows:-
  - i) 6<sup>th</sup> December 2021 application submitted with original October 2021 TS, included as Appendix I to the submitted Planning, Design and Access Statement (CD 2);
  - ii) 29<sup>th</sup> June 2022 The LPA forwarded a copy of two much earlier consultation responses, prepared by the LHA and dated January 5<sup>th</sup> 2022, to Axis.
  - iii) 13<sup>th</sup> July 2022 in response to the LHA comments dated 5<sup>th</sup> January 2022, Axis provided an updated version of the TS dated July 2022 (CD 10), a Technical Note which sought to address the comments raised (CD 29) and a swept path assessment / annotated drawing of the proposed site accesses;
  - iv) 15<sup>th</sup> August 2022 The LHA provided a further consultation response to the LPA which was subsequently forwarded to Axis for comment;
  - v) 26<sup>th</sup> August 2022 Axis provided a response to the LHA comments dated 15th August;
  - vi) 6<sup>th</sup> September 2022 The LHA provided a further consultation response to the LPA / Axis;
  - vii) 26<sup>th</sup> September 2022 Axis provided a response to the LHA comments dated 6<sup>th</sup> September 2022;

- viii) 5<sup>th</sup> October 2022 The LHA requested more detailed drawings, amongst other assurances;
- ix) 10<sup>th</sup> October 2022 Axis responded to the LHA's comments dated 5<sup>th</sup> October 2022;
- x) 12<sup>th</sup> October 2022 The LHA indicated, informally, that that the latest drawings were satisfactory and that a revised consultation response would be provided formally removing the LHA objection to the proposal;
- xi) 27<sup>th</sup> October 2022 The LHA wrote to the LPA with their final consultation response (CD 116), indicating they had withdrawn their objection, subject to the imposition of suitable planning conditions on any grant of planning permission. In other words, all highway-related matters were agreed with the LHA at this point; and,
- xii) 17<sup>th</sup> November 2022 the scheme was presented to the NHC planning committee with a positive recommendation for approval. Pages 58-59 of the committee report (CD 35a) accurately and concisely summarise the highway position with the scheme. The debate at the planning committee raised almost no concerns whatsoever from objectors and Members on transport-related matters.
- 3.2.2 A slightly more detailed summary of the email exchanges with the LHA is set out at CD 112, whilst CD 111 sets out the full exchanges themselves, between 13<sup>th</sup> July 27<sup>th</sup> October 2022 inclusive, including attachments and drawings.
- 3.2.3 The exchanges resulted in the following changes to the scheme originally submitted:
  - i) The site access into the northern site parcel onto Graveley Lane was relocated some 32m to the east of the position shown on the originally submitted plans;
  - A passing place was added on the northern side of Graveley Lane, to the east of the revised site access location;
  - iii) The extent of junction and forward visibility splays shown on the submitted drawings was updated; and,
  - iv) Swept path assessments were updated.
- 3.2.4 As a result, the 'agreed' list of drawings is therefore as follows:-
  - i) Drawing No. 3004-01-D04 Proposed Passing Place and Visibility Splays (CD 25);



- ii) Drawing No. 3004-01-D05- Forward Visibility Splays (CD 26);
- iii) Drawing No. 3004-01-ATR03 Swept Path Assessment Northern Access (CD 27); and
- iv) Drawing No. 3004-01-ATR01C Northern and South Access Swept Paths (CD 28)<sup>1</sup>.

#### 3.3 Appraisal of the Transport-Related Facets of the Scheme

#### General

- 3.3.1 In simple terms, the transport-related effects of any solar farm, including the proposed development, are at their highest for only a temporary period during the construction period.
- 3.3.2 Following construction, traffic activity is typically imperceptible, limited to only a very small number of engineer / maintenance visits per week. I explore this in more detail below.
- 3.3.3 The proposed development will be accessed via two simple priority-controlled junctions located on either side of Graveley Lane, as indicated on Drawing No. 3004-01-D04 (CD 25).
- 3.3.4 During construction, the two site accesses would each lead into site compound areas, wherein materials can be laid down, staff can park, and where construction staff welfare and wheel washing facilities would be located.
- 3.3.5 As indicated earlier, a passing place would also be located on the northern side of Graveley Lane to the east of the proposed site access, where the lane is slightly narrower.
- 3.3.6 Two suggested planning conditions were put forward by the LHA in their final consultation response (CD 116), recommending that the geometry of the two site accesses should be 'downgraded' within 3 months of the cessation of construction activity, and that the passing place should also be removed within the same period.

<sup>&</sup>lt;sup>1</sup> Note – Drawing 3004-01-ATR01C (CD 28) includes the originally submitted northern site access location and so is only relevant insofar as the swept path assessments of the southern side access are concerned.



3.3.7 The purpose of these conditions is to ensure that the visual impact of the site accesses and passing bay is minimised to appropriately meet the construction and post-construction needs of the development, and so that the environment around the accesses is restored, as much as possible, thus helping to minimise impact upon the green belt. These conditions are fully accepted by the Applicant.

#### **Construction Traffic Forecasts**

- 3.3.8 There are three distinct traffic-generating phases in the proposed development lifespan the construction phase, the operational phase, and then the decommissioning phase.
- 3.3.9 In the operational phase, which would extend to 40 years under the timeframe applied for, traffic flows to and from the site would be imperceptible, comprising in the order of only one or two engineer site visits per week in a small van.
- 3.3.10 Section 4 of the TS report (CD 10) sets out the traffic-generating forecasts of the proposed development during the construction phase. It is not therefore necessary to exhaustively repeat the entire assessment is this evidence.
- 3.3.11 However, in summary:-
  - The traffic-generation forecasts have been based on a 'first principles' approach, which in turn is based on the scale and nature of materials that are required to be delivered to the sites and the number of staff that will be on-site throughout the construction period;
  - ii) Construction activity would last around only 36 weeks;
  - iii) Construction activities would take place 6 days per week, between 08:00 18:00
     Monday to Friday and between 08:00 13:00 on Saturdays;
  - iv) No deliveries would take place on Sundays, with the possible exception of oneoff abnormal loads or large vehicles such as cranes.
  - v) A total of around 2,156 two-way delivery movements are forecast to occur over the full 36-week construction period;
  - vi) A significant proportion of materials (comprising mostly aggregate for the construction of the on-site tracks) would be delivered during the first 4 weeks (11% of the construction phase). During this period, up to around 40 two-way delivery movements might be expected per day;

- vii) In the remaining 32 weeks (89% of the construction phase), up to around only 8 two-way delivery movements might be expected, per day; These two-way delivery movements are significantly lower than the initial 4-week period, and would be largely imperceptible and temporary in nature;
- viii) In addition, there will also be approximately 50 staff requiring access to the site per day, on average. During peak activities, the number of construction-related staff may rise to around 120;
- ix) For robustness, in the TS work it was assumed that each staff vehicle would have an occupancy rate of 2 staff per vehicle, on average. In reality, the occupancy rate per vehicle is likely to be 3 or more, particularly if (as is common with solar farm construction) the contractor utilises a workforce that will be brought by minibus to and from their place of accommodation during the construction phase;
- x) Therefore, in total, the maximum traffic generation associated with the proposed development would be 160 daily two-way movements, including both deliveryrelated movements and staff trips, but within around the first 4 weeks of the 36week construction period;
- xi) For the remainder of the construction period (32 weeks), there would be a maximum of approximately 128 two-way movements per day, on average, again inclusive of delivery-related movements and staff trips. This equates to an average of 12 additional 2-way movements per hour throughout the working day, or approximately one additional vehicle movement every 5 minutes. This level of trip generation is therefore considered to be negligible;
- xii) It is likely that the majority of staff trips would occur at the beginning and end of the working day and are unlikely to coincide with delivery-related movements. There will be approximately 4 two-way delivery-related movements per hour throughout the working day, which equates to approximately 1 movement every 15 minutes. This frequency of activity means it is unlikely that two vehicles will meet in opposite directions along Graveley Lane very frequently;
- xiii) Background traffic flows along Graveley Lane are relatively low, with only around
  5 two-way movements per minute during the peak hours, and approximately 2
  two-way movements per minute outside of the peak hours; and,
- xiv)HGV turning movements into and out of the site accesses will also be managed by a banksman to minimise conflict with other road users.

3.3.12 The decommissioning phase would be effectively a mirror of the construction phase in terms of traffic generation, albeit spread more evenly across the decommissioning period.

#### **Construction Traffic Management Plan**

- 3.3.13 During the construction period, all delivery and construction traffic would be directed along road routes that have no significant sensitive receptors along them.
- 3.3.14 **Image 3.1** below indicates the construction traffic route to and from the A1(M) J9, via a short section of the A505, the B197 and Graveley Lane.

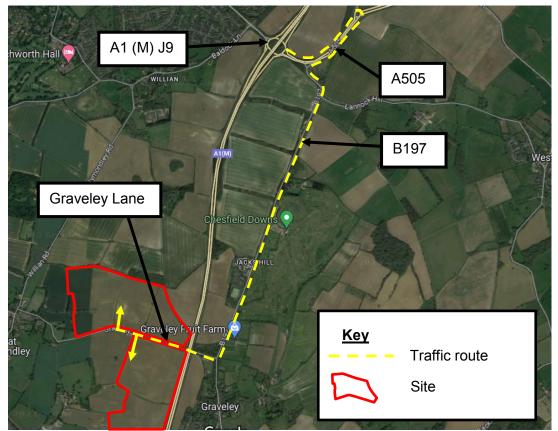


Image 3.1 – Construction Traffic Route

- 3.3.15 The proposed routing of HGV delivery vehicles is discussed in detail within the TS report (CD 10). The proposed construction traffic route has been carefully chosen as the most effective at avoiding unnecessary traffic congestion and sensitive receptors by utilising trunk road and 'A' & 'B' classified roads as far as possible.
- 3.3.16 These routes, and the management of construction traffic in general, will be set out within a more detailed Construction Traffic Management Plan (CTMP), which the

LHA have agreed can be secured by means of suitable planning conditions, as is normal in these circumstances.

- 3.3.17 Nonetheless the content and substance of the CTMP will comprise the key measures outlined below.
- 3.3.18 Temporary warning and directional signage will be located at road junctions and the site access to advise construction traffic drivers.
- 3.3.19 Given the temporary nature of the construction programme, with the maximum level of movements only occurring for a small portion of the construction period (4 weeks), and the fact that agricultural traffic regularly uses this highway network to access fields and farm compounds in the locality, it is considered that these roads are more than suitable to accommodate construction traffic for such a scheme.
- 3.3.20 Where construction traffic will utilise the slightly narrower section of Graveley Lane (between the two site accesses), and as mentioned earlier, the proposed development includes for a passing bay, which the LHA have agreed is a suitable mitigation measure.
- 3.3.21 Construction activity would take place during the days / hours indented in the previous sub-section of this evidence.
- 3.3.22 There will be designated waiting areas for HGV's routing towards the site from both the north and south. These will be located at South Mimms Services on the A1(M) for HGV's travelling from the south, and at Baldock Services, J10 A1(M), for HGV's travelling from the north. HGV's will be required to park up within these service areas and call ahead to the site manager to ascertain whether it is acceptable to move forward to the site. The site is located an approximate 25-minute drive (Approximately 36km) from South Mimms Services and a 10-minute drive (approximately 10km) from Baldock Services.
- 3.3.23 The use of these holding / waiting areas at the two motorway service areas will ensure that HGVs are not unnecessarily waiting to be unloaded within the construction compounds and will not therefore create a hazard on the adjacent highway, thereby minimising the incidence of HGVs waiting to enter and leave the site at the same time. All plant, delivery/collection vehicles and cranes will be supervised by a banksman and operatives using 'stop' and 'go' signs to manage the flow of passing cars.



- 3.3.24 Again, as is normal in these circumstances, and in addition to the details indicated above, at the planning condition discharge stage the CTMP will also indicate more details relating to:
  - i) The phasing of the construction and proposed construction programme;
  - The numbers of daily construction vehicles including details of their sizes, at each phase of the development;
  - iii) Details of construction vehicle parking, turning and loading/unloading arrangements clear of the public highway;
  - iv) Details of any hoardings;
  - v) Details of how the safety of existing public highway users and existing public right of way users will be managed;
  - vi) Management of traffic to reduce congestion;
  - vii) Control of dirt and dust on the public highway, including details of the location and methods to wash construction vehicle wheels, and how it will be ensured dirty surface water does not runoff and discharge onto the highway;
  - viii) The provision for addressing any abnormal wear and tear to the highway;
  - ix) The details of consultation with local businesses or neighbours;
  - x) The details of any other Construction Sites in the local area; and,
  - xi) Waste management proposals.
- 3.3.25 Separate planning conditions have been proposed by the LHA (and agreed by the Applicant) to deal with both the construction phase of the scheme and also the decommissioning phase.
- 3.3.26 In terms of the grid connection, all proposed excavations, construction activities and traffic control measures necessary to lay electrical cables within the local highway network will be subject to a Section 50 licence<sup>2</sup> and associated traffic management approval process via HCC (a separate consenting regime to planning).
- 3.3.27 This will be subject to a separate detailed S50 submission and will detail precisely what measures will be taken to ensure that road users are not unduly inconvenienced or unnecessarily disrupted by any construction activity. Some partial / full but

<sup>&</sup>lt;sup>2</sup> Under the New Roads and Street Works Act 1991

temporary road closures / route diversion activities will be necessary in order to facilitate the cable laying.

- 3.3.28 Operatives will be instructed to manage access to residential and commercial properties through the use of 'stop', 'go' signs, or a rolling traffic light system, to control the flow of traffic whilst works are being undertaken along the planned cable route to the National Grid sub-station south-west of Little Wymondley.
- 3.3.29 In summary, there is no reason to believe that construction traffic-related activity represents a reason to resist the proposed development. Construction traffic will occur over a relatively limited temporary time period, it will be modest in volume and nature, it will occur along traffic routes with no material sensitive receptors, and it can be carefully managed and controlled by means of appropriately worded planning conditions that the LHA have agreed to.



#### 4.0 RESPONSE TO THIRD PARTY REPRESENTATIONS

#### 4.1 Objector Comment Themes

- 4.1.1 The responses received from third parties have been analysed to identify those which include transport-related sentiments. At the time of writing, no objections have been received to the call-in Inquiry that contain any transport-related concerns. Therefore, the focus of this section of my evidence is on those representations received at the application stage only.
- 4.1.2 Allowing for duplicate respondents, there were a total of around 163 objections made at the application stage (7 letters of support). Of the 163 objections, some 14 included transport-related sentiments. These have been grouped together into a set of common themes, which are set out in the table below:-

Themes Expressed in Transport-Related Objections				
No of Comments	Description			
4	Disruption caused by the laying of the cable connection between the site and the sub-station			
1	The developed should be asked to upgrade the National Cycle Network route 12 (NCN 12)			
7	Increase of HGVs on rural road system and congestion caused by development-related traffic. Construction traffic should be prevented travelling through the village via Priory Lane			
1	A shorter cabling route should be taken to enter the power station at Blakemore End Road, instead of Sperberry Hill Lane, thereby avoiding an extra 500m of unnecessary digging and disruption			
1	No consultation via fire service undertake to determine if fire engine access is suitable			

Table 4.1 – Objector Comment Themes - Transport

Themese Evenuesed in Themese out Deleted Objection

4.1.3 In the sub-sections below I have responded to each theme accordingly.

#### Theme 1 – Cable Laying Disruption

- 4.1.4 Four respondents expressed concerns regarding the disruption that will arise when the cable connection to the National Grid sub-station is installed.
- 4.1.5 As indicated in the previous section of my evidence, some full and partial road closures will be an inevitable consequence of the development, albeit for a temporary period only. Suitable traffic management measures and diversion routes will be put in place and the cable installation will be carried out in phases to help minimise any delays that are caused to local residents, and to minimise conflict with existing underground services. The traffic management measures will be agreed with the LHA through the separate consenting process (S50 license).
- 4.1.6 The applicant will seek to ensure, through agreement with the LHA, that the disruption is minimised.

#### Theme 2 – Upgrade Required to NCN 12

- 4.1.7 One of the respondents has suggested that, as part of the development, upgrades should be made to the NCN 12 route. The NCN 12 runs in a north / south direction and is situated to the east of the site along the route of Wymondley 001 bridleway.
- 4.1.8 Any such improvement to the NCN 12 would need to be secured via either a planning condition or a planning obligation. To be acceptable (and in the case of a planning obligation, lawful), both mechanisms require certain key tests to be met, as set out in NPPF (CD 56) paras 56 57.
- 4.1.9 In order for any such condition or obligation to satisfy the key tests, the improvement measure or contribution must be necessary and relevant (or reasonably related) to the development, amongst others.
- 4.1.10 Given that the development will not generate any material increase in the use of the NCN 12 by construction and operational maintenance staff, any such scheme would immediately fail these key tests. No such improvements can therefore be justified in this instance.
- 4.1.11 Whilst considering this point, it is perhaps worth pointing out that the maintenance of a public right of way is a statutory duty of the Local Highway Authority.

#### Theme 3 – Congestion Concerns & HGVs Through Village

- 4.1.12 Seven of the respondents have raised concerns with the potential for the development to cause or exacerbate perceived local road congestion, particularly within the local settlements of Great Wymondley and Little Wymondley.
- 4.1.13 Some of the responses suggest that a basic misunderstanding has arisen regarding the routing of development-related traffic. However, as indicated earlier on Image 3.1, all construction traffic will be routed away from the local settlements via the A1(M) J9, the A505, the B197 and then Graveley Lane, and so no HGV movements will be generated through the villages.
- 4.1.14 There are no material sensitive receptors along the actual construction traffic route. Construction traffic will in any event be relatively modest in scale and nature, and will only take place over a temporary 36-week period. It will be managed in a careful manner, to be controlled via the CTMP, and mitigation has been proposed in the form of the passing place along the narrower section of Graveley Lane.

#### Theme 4 – Consider Alternative Cabling Route

- 4.1.15 The cable route to the National Grid sub-station has been determined based on the point of connection within the sub-station site, the avoidance of conflict with other services and what National Grid have offered as part of the connection agreement.
- 4.1.16 As discussed in the commentary on 'theme 1' above however, efforts will be made to ensure that disruption to access and local people will be minimised.

#### Theme 5 – Fire Service Access

- 4.1.17 At the outset of the construction phase, the site accesses will be constructed to satisfactorily accommodate the swept path manoeuvres of large HGVs delivering materials to the site. The site accesses will therefore be easily capable of accommodating fire engine vehicles, which are significantly smaller than a full size HGV.
- 4.1.18 As noted earlier, there is a draft planning condition proposed that will require details of the revised site access geometry to be agreed, so that the accesses reduced in scale within 3 months of the cessation of construction. This will in turn make the accesses more suitable to accommodate the occasional maintenance van movement that will arise during the operational phase.

- 4.1.19 It is therefore within the gift of the Council, as part of the condition discharge process, to ensure that any such reduced-scale access design is still suitable to allow the movements of a fire engine, and so I do not see this as a material issue.
- 4.1.20 It is of course hoped that any such emergency access would never be required. Nonetheless, in my experience of having undertaken thousands of swept path assessments in my career, I do not believe that a requirement to design the downgraded accesses to cater for fire engines would make the geometry any more onerous that it would otherwise be anyway. I routinely carry out such assessments and know from this experience that a junction bellmouth with 6m corner radii and a 5 to 5.5m wide access would be able to satisfactorily accommodate a fire engine movement.



#### 5.0 SUMMARY AND CONCLUSIONS

#### 5.1 Summary Evidence

5.1.1 A summary of my evidence is contained in a separate volume (document ref APP/LK/1).

#### 5.2 Conclusions

- 5.2.1 Section 2 of this evidence includes an assessment of the compliance of the proposed development with relevant national and local transport planning policy.
- 5.2.2 The exception to this is the assessment of harm caused to the green belt by the transport-related effects of the scheme (paragraph 148 of the NPPF). This is discussed below.
- 5.2.3 Sections 2 and 3 of this evidence demonstrate that the main transport-related effects of the development comprise the visual effects of the proposed site accesses and passing place on the locality, and also the effects of traffic activity during the construction and decommissioning phases.
- 5.2.4 The visual effects / harm caused by the site accesses and passing place will be temporary in nature, lasting for the duration of the construction phase only. Thereafter the passing place will be removed and the site access junctions will be reduced in scale and nature, so that the affected areas will be largely restored and returned to nature.
- 5.2.5 It is my view that the future site access arrangements will be immaterially different to the kind of agricultural access arrangements that one might expect to find spread everywhere throughout the British countryside. They will not therefore appear as an incongruous feature within the landscape.
- 5.2.6 Likewise, the effects / harm caused by traffic activity will also be minimal, and largely temporary in nature. Construction traffic will occur over a relatively limited 36-week time period, it will be modest in volume and nature, it will occur along traffic routes with no material sensitive receptors, and it can be carefully managed and controlled by means of appropriately worded planning conditions that the LHA have agreed to.
- 5.2.7 I therefore conclude that the harm caused to the green belt by the transport-related effects of the proposed development will be very limited.

- 5.2.8 It is again worth reiterating that the Council have indicated that the matter of transport is, in their view, actually 'neutral' in the planning balance (section 5.29 of CD 138).
- 5.2.9 In terms of the compliance of the proposed development with the two tests within paragraph 111 of the NPPF, it is my view that the scheme does not even approach falling foul of the test whereby an unacceptable impact on highway safety would arise, nor indeed would it approach failing the test of whether a 'severe' cumulative traffic congestion impact would arise.
- 5.2.10 The proposed development was not objected to by the LHA during the course of the planning application and the planning committee were content to grant planning permission based on the officer recommendation. There a number of standard transport-related planning conditions put forward that will ensure the delivery of the scheme in a safe and satisfactory manner.
- 5.2.11 The transport-related objections raised by third parties during the course of the application have been reviewed and have been found to be either flawed, or lacking in substantive reasons to resist the development.
- 5.2.12 It is therefore my overall conclusion that there should be no resist to withhold planning permission for the proposed development from a transport perspective, and it is therefore commended to the Inspector for approval.

#### **GLOSSARY OF ACRONYMS & KEY TERMS**

CIHT	Chartered Institute of Highways and Transportation
CTMP	Construction Traffic Management Plan
DMRB	Design Manual for Roads and Bridges
HCC	Hertfordshire County Council
HGV	Heavy Goods Vehicle
LHA	Local Highway Authority
LPA	Local Planning Authority
NCN	National Cycle Network
NHC	North Hertfordshire Council
NPPF	National Planning Policy Framework
PoE	Proof of Evidence
SoCG	Statement of Common Ground
TS	Transport Statement