



DESIGN & ACCESS STATEMENT

Land to the north-west of Westhide
Herefordshire
HR1 3RQ

Prepared on behalf of
Ersun (Westhide SPV) Ltd

December 2021

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1. Introduction

- 1.1. Planning Developments Limited on behalf of Ersun (Westhide SPV) Ltd, is submitting a full planning application for the “installation of ground mounted solar photovoltaic array, together with associated infrastructure, security fencing, CCTV, landscaping, onsite biodiversity net gain and permissive rights of way” (together the “Project”) on land to the north-west of Westhide (the “Site”).
- 1.2. The requirement for a Design and Access Statement is a response to the national drive towards high quality sustainable design which is reflected in the National Planning Policy Framework. The level of detail in a Design and Access Statement (the “Statement”) should be proportionate to the complexity of the application but should not be long. This document has been prepared in accordance with the Planning Practice Guidance Note (14-0209-20140306).
- 1.3. This Statement should be read in conjunction with the following suite of documentation:
 - PP – 09775161 - Application Form and Ownership Certificates
 - ALC-W1 – Agricultural Land Classification Report v3
 - ARB-W1 – Arboricultural Report containing: Arboricultural Impact Assessment, Arboricultural Method Statement and Tree Protection Plan
 - BEMCC-W1 – Core Strategy Policy SS6 and LD2 – Biodiversity & Ecology measures compliance checklist
 - 3352BNG – Biodiversity Net Gain
 - 3.0 Metric Westhide BNG
 - CIL-W1 - Community Infrastructure Levy (CIL) – Determining whether a development may be CIL Liable Planning Application Additional Information Requirement Form
 - CCMCC-W1 - Core Strategy Policy SS7 and SD1 – Climate Change Measures compliance checklist
 - Confidential Badger Report – To follow
 - CTMP-W1 - Construction Traffic Management Plan Issue 03
 - Cumulative Impact Assessment – To follow
 - DAS-W1 - Design and Access Statement

- 3352EclA-W1 – Ecological Appraisal fv03
- FRA-W1 - Flood Risk Assessment
- HDBA-W1 – Heritage Desk Based Assessment Iss1
- 3352LVIA-W1 – Landscape and Visual Impact Assessment Fv2
- 3352 LVIA Appendices – Appendices A – E Rev A and Appendix F
- Landscape Environmental Management Plan – To follow
- 3352 Westhide Solar Type 3 Visualisation
- 3352 L GA 0 02 Landscape Mitigation and Enhancement Plan Rev B
- 3352 L GA 1 01 Landscape Mitigation and Enhancement Plan Inset 1
- 3352 L GA 1 02 Landscape Mitigation and Enhancement Plan Inset 2
- 3352 L GA 1 03 Landscape Mitigation and Enhancement Plan Inset 3
- 3352NA-W1 – Natural Assets & Environmental Net Gain Report fv1
- NIA-W1 – Noise Impact Assessment V2
- PS-W1 – Planning Statement v1
- SCI-W1 – Statement of Community Involvement
- TS-W1 1 of 7 – Topographical Survey

1.4. The application is also accompanied by the following documents as required by National and Local Validation requirements:

- 3352 L X LP 1 Site Location Plan Rev A
- 3352 L GA 0 01 Masterplan Rev F
- 3352 P DT 3 01 PV Mounting System Detail
- 3352 P DT 3 02 Fence & Gate Detail Rev A
- 3352 P DT 3 03 CCTV Detail
- 3352 P DT 3 04 Access Track Detail

- 3352 P DT 3 05 Transformer Substation Detail
- 3352 P DT 3 06 Inverter Detail
- 3352 P DT 3 07 Spares Container Detail

2. Site Location and Context

- 2.1. The Site is centred on Grid reference: 357718 244466 and located to the northwest of the village of Westhide.
- 2.2. Westhide is approximately 8 km to the northeast of the City of Hereford.



Figures 1 & 2: Site Location

- 2.3. The Site identified on drawing no. 3352 L GA 0 01 Masterplan Rev F (approximately 152.5 acres / 61.71 ha) consists of a network of 8 arable fields bounded by hedgerows and woodland. Several scattered mature trees are present within the fields, as well as three ponds.

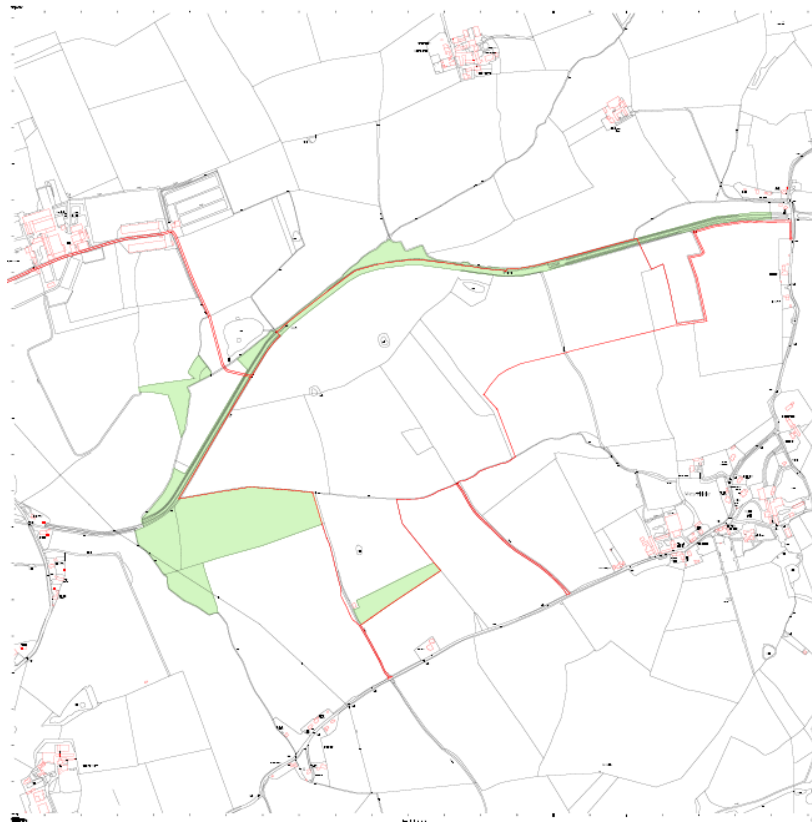


Figure 3: Site Location Plan



Figure 4: Masterplan

- 2.4. The Site is bound to the northwest, north and northeast by the Herefordshire and Gloucestershire Canal separated from the site by a linear belt of trees and hedgerow. To the east lies further agricultural land, beyond which are several properties and the associated lane that serves the village of Westhide.
- 2.5. The Site is adjacent to woodland on its western boundary, with further agricultural land to the south beyond which is Withies Road that serves Dodmarsh and the village of Westhide respectively.
- 2.6. There are no distinguishing features or buildings within the boundary of the Site. There are several properties and the associated lane that serves the village of Westhide to the east.
- 2.7. The Site is located within the landscape character Estate Farmlands.
- 2.8. There are no dwellings in the immediate vicinity of the Site and those that are present to the east and south are separated by the intervening landscape.
- 2.9. The land is relatively level with a gentle rise to the southeast of the identified land.
- 2.10. There are no Public Rights of Way (PRoWs) crossing the Site. The Three Choirs Way is located beyond the site boundary to the north. An ordinary watercourse flows along the northern boundary of the Site. The topography of the Site is undulating.

3. The Design of the Proposed Project

3.1. This report sets out the design elements required of the Design and Access Statement, namely:

- Amount
- Layout
- Scale
- Landscaping
- Appearance
- Use
- Context
- Access
- Heritage

Amount

3.2. The Project comprises a solar photovoltaic farm, circa 34.6 MW (DC) and associated equipment within an approximate site area (red line area) of 152.5 acres (61.7 hectares (ha)) and an approximate fenced area of 114.66 acres (46.4 ha).

3.3. Whilst the proposed site area is large, it should be noted that the overall area of the site covered by solar photovoltaic panels is approximately 40.28 acres (16.3 ha).

3.4. This allows for sufficient separation between the rows to avoid shadowing from panel to panel. See below for further details.

Layout

3.5. The proposed solar photovoltaic panels will be arranged according to standard design criteria for such installation. In summary, the panels will be set out in rows of module tables, running east to west and orientated to the south at an angle of circa 25° from horizontal to maximise exposure to solar radiation.

3.6. Arrays will be clustered together to minimise the ground footprint but will be spaced (approx. 4.5m) to avoid shadowing from panel to panel.

- 3.7. Arrays will be sited a minimum distance of 5 m from field boundaries and further if trees are present, to safeguard the health of the hedgerows / trees and to provide enough distance to protect ecological features or features of conservation value identified along the boundaries. Setting the panels back will also prevent shading by adjacent trees and hedges.
- 3.8. The layout of the Project has been refined as a direct response to comments received during the consultation process with Herefordshire Council and following receipt of consultants' technical reports, alongside consultation feedback from the local community and councillors, as shown on the layout plans below:

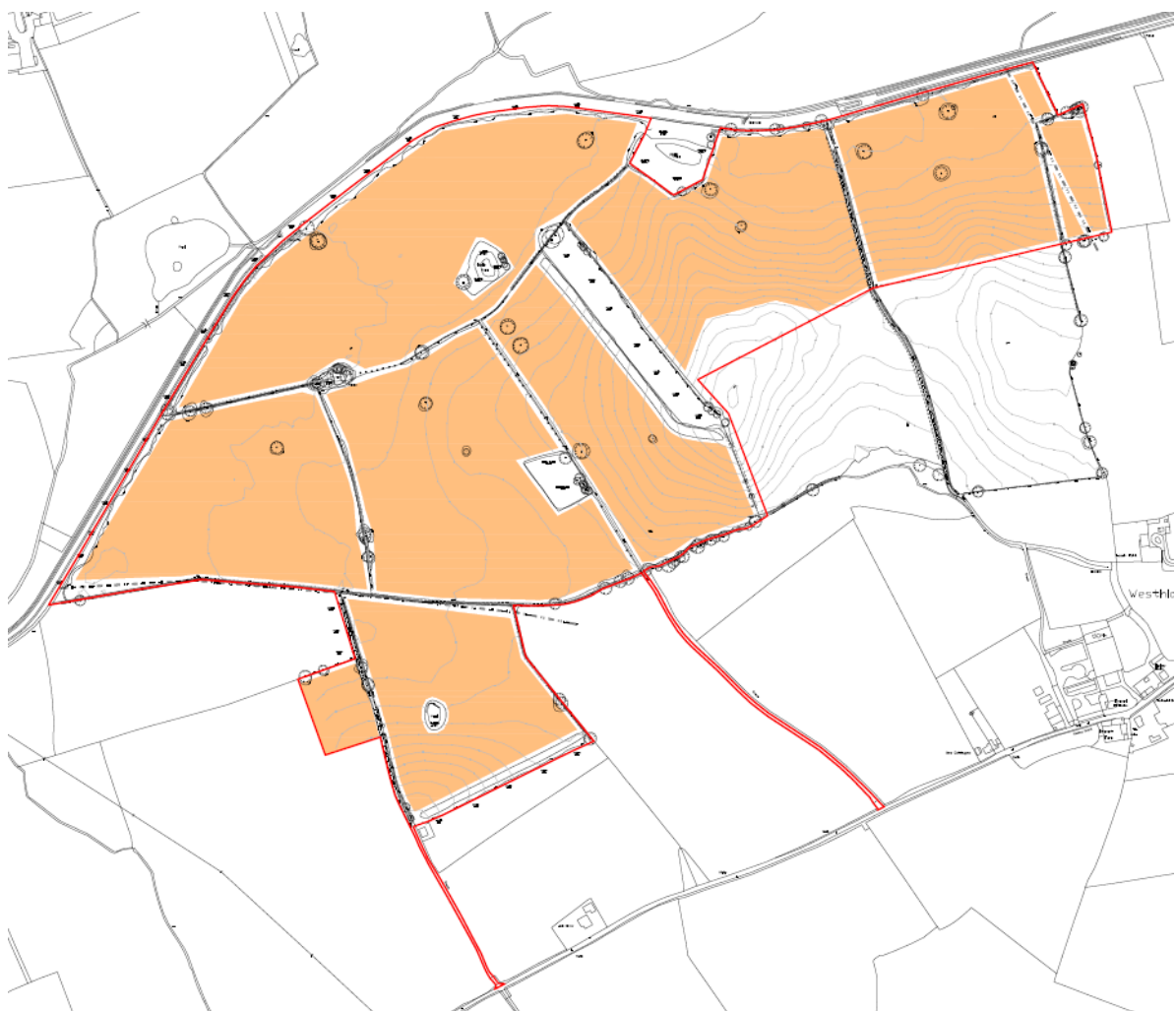


Figure 5: Pre-Application Proposed Development Plan

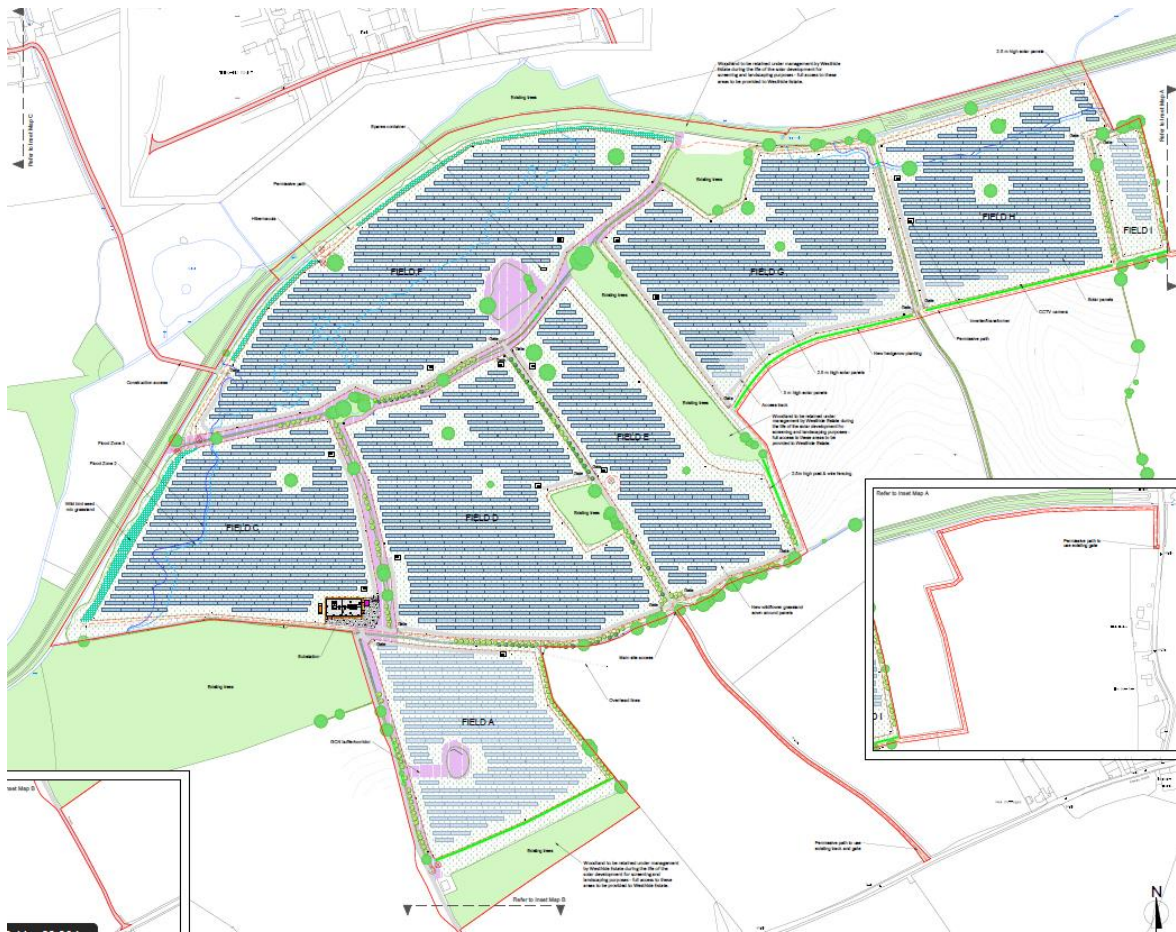


Figure 6: Masterplan accompanying the formal planning submission.

- 3.9. There are no Public Rights of Way (PRoW) crossing the Site. However, following discussions with residents during the public consultation process, the applicant has acknowledged that increasing public access for walking would provide a material benefit. In addition, the estate within which the solar array is proposed has expressed an interest in using the solar scheme as an opportunity to increase public access to residents.
- 3.10. The location of the proposed permissive path is shown on the landscape masterplan that accompanies this submission. Permissive paths will be temporary alongside the project for the operational duration of the scheme (30 years).
- 3.11. A Landscape Ecological Management Plan (LEMP) accompanies the submission which provides details of the landscape mitigation and management thereof over the lifetime of the Project.

Scale

- 3.12. The panels will be ground mounted on angle racks pile driven into the ground (depth to be confirmed).
- 3.13. Panels with a maximum trailing edge of 2.5m will have a front leading edge of 0.7m. Furthermore, panels with a maximum trailing edge of 3.0m will have a front leading edge of 1.2m.
- 3.14. The angled nature of the solar photovoltaic panels ensures the best solar absorption, and the height of the front leading edge will vary so that despite the undulation in the ground, the solar photovoltaic panels will all remain level with each other.

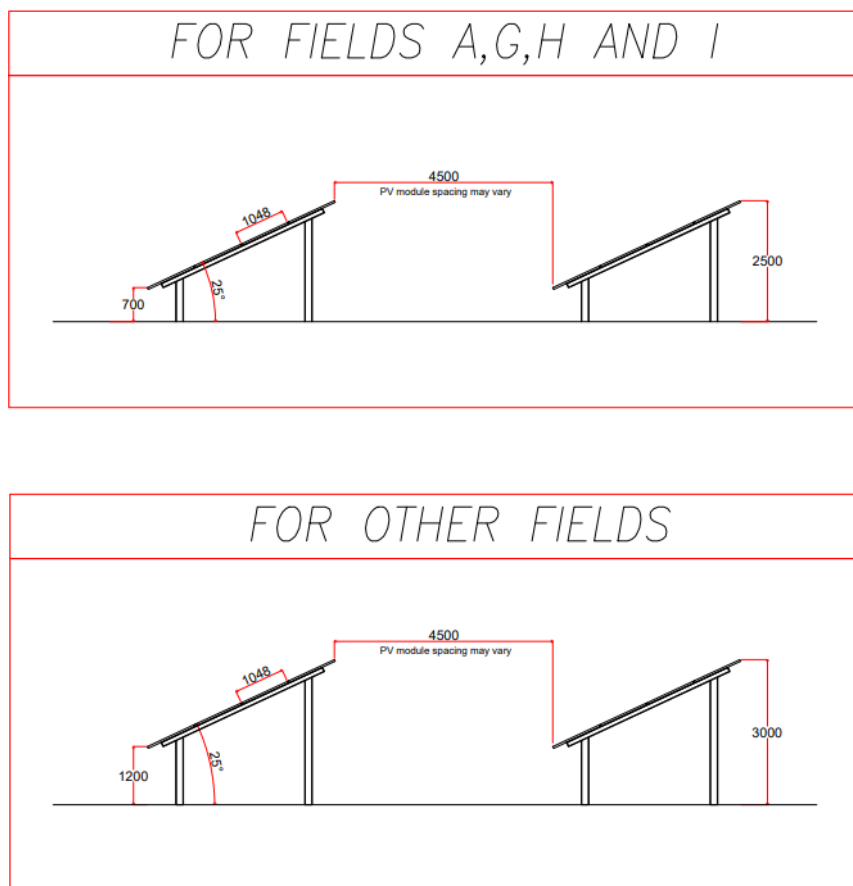


Figure 7: Extract from 3352 P DT 3 01 PV Mounting System

- 3.15. The solar array will utilise central inverters evenly spaced within the Site, see the accompanying Masterplan 3352 L GA 0 01 Rev F. The inverters are typically 1.5 m x 3 m, and around 2.5 m high.

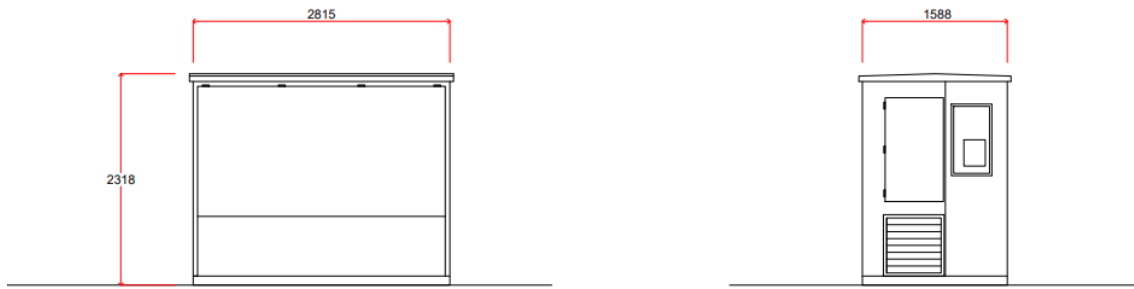


Figure 8: Extract from 3352 P DT 3 06 Inverter Detail

- 3.16. The fence will comprise a 2.5m high post and wire fence around the solar array (pile driven, no requirement for concrete). The fence around the perimeter of the solar array will incorporate small mammal and badger gates as appropriate to allow mammals to traverse across the Site.
- 3.17. The DNO substation will be bound by a 2.4m high palisade fence.
- 3.18. The fence associated with the solar array will be erected on the inside of the existing field boundaries, utilising existing openings where practical and allowing for movement from one field to another whilst avoiding the need to create new gaps in hedgerows.
- 3.19. 84 CCTV cameras are proposed. Each camera will be fixed to a 3 m high galvanised steel pole, located around the perimeter of the solar array. The cameras will be fixed, and all will be inward facing, covering certain areas within the fenced boundary of the Site only.



Figure 9: Extract from 3352 P DT 3 03 CCTV Detail

- 3.20. In some instances, day/night cameras are located at the entrance to the site, which are capable of viewing in colour during the daytime and switch to black and white at night.
- 3.21. The cameras identify heat sources, which means that in either daylight or night the cameras would be able to detect whether this was a person climbing the fence or, an animal encountering the fence.
- 3.22. The cameras work 24 hours a day but only record when motion is detected. If a sensor on the fence is triggered the cameras will automatically record. The cameras are controlled by a manned operations room and only surveyed by an operator if an alert is received from the fence system.
- 3.23. To support the photovoltaic array, several other components are required as set out in **Table 1** below:

Structure		Number and Dimensions
Spares Container		1 no. – 6 m L x 2.4 m W x 2.5 m H
Private Switchgear		1 no. 19 m L x 20 m W x 5 m H
Distribution Operator (DNO)	Network	1 no. 23 m L x 20 m W x 5 m H

Table 1: Supporting infrastructure

Landscaping

- 3.24. To assist with integrating the Project into the landscape, a landscape visual impact assessment (LVIA) has informed the proposed landscaping scheme, which also accompanies this submission and identifies where infill planting and additional screening, onsite planting is required to assist with integrating the proposal within the landscape and to contribute to and enhance the Site's biodiversity.
- 3.25. Reinforcement native species planting is proposed to the field boundaries. To complete the screening of views into the Site, a small number of field boundaries will be allowed to grow above their current height.

Appearance

- 3.26. The Project will sit within the existing field boundaries. Panels will be orientated with the front of the panels orientated in a southerly direction, capturing direct light throughout the day.
- 3.27. The height and degree of the panels have been kept to a minimum whilst still ensuring they are working to full capacity.
- 3.28. Other associated infrastructure has been sited so as not to give rise to visual impact. In addition, to assist with short and long-distance views, the proposed private and DNO switchgear fencing will be coloured green.
- 3.29. The Project has been designed to have limited visual impact on the landscape, existing and proposed boundary planting will assist with screening the Project from various views. The screening effect will improve with time and as the new trees/hedges and infill planting matures.

Use

- 3.30. The Project would constitute a solar photovoltaic generating station.
- 3.31. Driven by a multi-layered political framework at both national and international levels, the UK's Energy Infrastructure is on a rapid path to decarbonisation. This path involves the transition away from traditional fossil fuel generation to more sustainable methods of energy generation such as solar photovoltaic and wind.
- 3.32. Land which is developed and used as a solar photovoltaic generating station can continue to be farmed, whilst also providing a net biodiversity gain across the Site.
- 3.33. Solar energy is a renewable free source of energy that is sustainable and totally inexhaustible. It is a non-polluting source of energy and can make a significant contribution to both Herefordshire Council and the national carbon reduction targets, with no adverse effects to the environment.

Context

- 3.34. The Project is sited on existing agricultural arable land, utilising existing field boundaries to separate the solar arrays.
- 3.35. The existing and proposed landscaping will assist visually with short and long-distance views.

- 3.36. Pre-application discussions have been undertaken with Herefordshire Council and their comments and advice incorporated into the design of the proposed development.
- 3.37. Community engagement has been undertaken with the local community, Parish Councils, and unitary authority councillors. Full details of the community engagement process are contained within the accompanying Statement of Community Involvement report.

Access

- 3.38. Most construction vehicles will travel to / from the site via and from the A465, to the north of the Site to a farmstead, where materials will be stored and then transported to the development Site via smaller vehicles.
- 3.39. Larger pieces of equipment, such as the transformer will be delivered on an articulated low loader. Due to the swept path of this vehicle, it cannot be transported along the main construction access track by a smaller vehicle. As such the transformer will be delivered via the C1131, to the south of the Site.
- 3.40. Full details of the construction route to Site and access into the Site is provided within the Construction Traffic Management Plan, which accompanies this application.
- 3.41. Internal access tracks will be required at the construction and operational phases of the development as illustrated on drawing no. 3352 P DT 3 04 Access Tracks Detail.
- 3.42. There are two types of internal tracks proposed – Distribution Network Operator (DNO) access track and internal access tracks.
- 3.43. The DNO requires a 4.5m wide access track comprising GeoGrid (or acceptable equivalent) laid on the existing ground level, 100mm of compacted recycle Type 1 stone and 300mm of cement stabilised clean Type 1 stone. This track will be constructed to this specification and set away from field boundaries to protect tree and hedge roots and to safeguard any ecological or conservation value along the boundaries.
- 3.44. The internal access tracks are required to provide easy access to the inverters which support the solar arrays.
- 3.45. The internal access track will form a 4m wide track comprising 300 mm of compacted recycled stone.

Heritage

- 3.46. There are numerous listed buildings within the surrounding landscape. A Romano-British settlement is recorded within the site. This was found in the 1920s during the laying of a sewer pipe when large amounts of Romano- British pottery, box flue tiles and in-situ foundations was recorded.
- 3.47. Cotswold Archaeology were commissioned in October 2020 by the applicant to undertake a heritage desk-based assessment in respect of the proposed solar farm.
- 3.48. This assessment has identified high potential of previously unrecorded remains of Romano-British date occurring within the Site, associated with the known settlement in the central southern area of the Site. However, the level of survival of any potential archaeology is not yet known and is suspected to differ across the Site. Away from the focus of the previously recorded Romano-British farmstead, archaeological remains are unlikely to be of the highest significance.
- 3.49. There is also some potential for remains of late prehistoric date, and former agricultural features, such as field boundaries, dating to the post-medieval period to be present.
- 3.50. Agricultural activity across large parts of the Site, including subsoiling and the cultivation of potatoes, will have had an impact on the upper level of any archaeological features present. The evidence from the investigations of the Romano-British site appears to support this conclusion.
- 3.51. In view of the identified archaeological potential, field investigation may be required prior to the determination of planning application. However, it is not considered that the significance of the known and potential archaeological resource within the Site is of such a level that would require preservation in situ, or influence development design.
- 3.52. The assessment has considered the potential effects of the development on surrounding designated heritage assets, through the alteration of their settings. It was established that, on account of intervening development, vegetation, and topography, the proposals would not result in any harm to the significance of any of the Listed Buildings in the study area.
- 3.53. The full Heritage Desk Based Assessment report accompanies the application submission.

4. Site Access and Construction Traffic Management

Introduction

- 4.1. This section of the Design and Access Statement considers the access issues arising from the development, including the access generally, the access requirements during construction and subsequent access to the Site for operation and maintenance purposes.
- 4.2. A Construction Traffic Management Plan prepared by Cotswold Transport Planning accompanies this formal submission.

Routing to Site

- 4.3. Most construction vehicles will travel to / from the site via and from the A465, to the north of the Site to a farmstead, where materials will be stored and then transported to the development Site via smaller vehicles.
- 4.4. Larger pieces of equipment, such as the transformer will be delivered on an articulated low loader. Due to the swept path of this vehicle, it cannot be transported along the main construction access track by a smaller vehicle. As such the transformer will be delivered via the C1131, to the south of the Site.
- 4.5. Whilst most construction vehicles will travel to / from Site via the main construction access route to the north of the Site, it is envisaged that some construction vehicles will need to access the site from the south, alongside the transformer delivery.
- 4.6. Two potential points of access are available from the C1131 and these supplementary construction access points are currently utilised for agricultural purposes, with large agricultural vehicles accessing and egressing regularly.

Internal Access Tracks

- 4.7. There are two types of internal tracks proposed – Distribution Network Operator (DNO) access track and internal access tracks.
- 4.8. The DNO requires a 4.5m wide access track comprising GeoGrid (or acceptable equivalent) laid on the existing ground level, 100mm of compacted recycle Type 1 stone and 300mm of cement stabilised clean Type 1 stone. This track will be constructed to this specification and set away from field boundaries to protect tree and further where any ecological sensitive features are identified.

4.9. The internal access tracks are required to provide easy access to the inverters which support the solar arrays.

4.10. The internal access track will form a 4 m wide track comprising 300mm of compacted recycled stone.

Vehicle Trip Attraction – Construction Phase

4.11. Construction at the site will be carried out Monday to Friday 08:00 to 18:00, and Saturdays 08:00 to 13:30. No construction or deliveries will take place on Sundays or Bank Holidays. To be considerate to residents, construction traffic associated with the solar farm will be co-ordinated to avoid vehicle movements during the AM (08:00 to 09:00) and PM (17:00 to 18:00) local highway network peak hours, as well as the School PM peak (15:00 to 16:00).

4.12. A maximum of up to 20 – 30 construction workers are anticipated to be on site during peak times during the construction period. A temporary construction compound area will be provided in the same location as the material storage. Ample parking space will be provided within the farmstead for construction workers; as such, no overspill car parking will occur on the local highway network.

4.13. Table 2 below sets out forecast vehicle movements associated with the construction phase at the Site. These trips have been determined based on the size of the Site and other solar farm Projects within the UK. In determining the approximate vehicle trip attraction, it has been assumed construction will last 25 weeks.

Activity	Vehicle Size	Number of Deliveries (movements)
Site compound facilities and temporary fencing	10m Hiab Lorry	13 (26 two-way movements)
Temporary Access Track	10m Hiab Lorry	38 (76 two-way movements)
Modules	Articulated Lorry	105 (210 two-way movements)
Inverters	Articulated Lorry	10 (20 two-way movements)
Piles	Articulated Lorry	25 (50 two-way movements)
Framework	Articulated Lorry	45 (90 two-way movements)
Cable	Articulated Lorry	37 (74 two-way movements)
Field array substation transformers	Articulated Lorry	9 (18 two-way movements)
Aggregate for field array substations	10m Tipper Truck / Articulated Lorry	45 (90 two-way movements)
Crane for lifting / positioning substations	16m Mobile Crane	9 (18 two-way movements)
Fencing	10m Hiab Lorry	40 (80 two-way movements)
Other construction and plant	Various 10m low/side Loaders and Hiabs	33 (66 two-way movements)
Site skips	10m Rigid Truck	63 (126 two-way movements)
Fuel, water, small materials	Large Van	40 (80 two-way movements)
Transformer	Low loader lorry	1 (2 two-way movements)
Substation Compound Construction	Van	Two per weekday (Four two-way trips on a daily basis)
	10m Hiab Lorry	300 (600 two-way movements)
Staff on-site	Minibus for mechanical installer and private vehicles for installers	20 private vehicles (40 two-way movements on a daily basis)
Total		Approximately 55 two-way trips per day

Table 2: Anticipated Vehicle Movements During Construction of the Solar Farm

4.14. It should be noted that whilst a 25-week construction period has been identified, and vehicle trips assumed across this period, the actual construction process will not see a constant flow of vehicles. The initial set up of the site and removal of the construction compound, site office etc, will see lower levels of activity, with peak vehicle movements in the middle of the process for three to four months.

Operational Phase

- 4.15. Once the park is fully operational there are anticipated to be approx. 2 visits a month to the site a year for equipment maintenance and management of the landscaping. These visits will be made by light vans or 4x4 vehicles. Access to the site for maintenance and management would be off the C1131 to the south of the site.
- 4.16. Space will remain within the site for such vehicles to turn around to ensure the vehicle can leave in a forward gear.

Public Access

- 4.17. There is currently no public access into or across the solar Site.
- 4.18. As part of the solar scheme proposal, a permissive path is being proposed around the boundary of the scheme, which will increase public access and recreational facility in the immediate vicinity of the nearest settlement and increase interconnectivity in the existing PRow network.

5. Summary

- 5.1. The proposed Project has been located and designed to minimise the effects on the open countryside, biodiversity and the surround environment and receptors.
- 5.2. The temporary construction works will not attract a significant level of vehicle trips, with the future operation of the Site only attracting a low volume of trips per year. Overall vehicle trips will not result in a severe impact on the local highway network.
- 5.3. There is no public access into the Site currently and this will be the case on the construction and operation of the Project. It should be noted that permissive paths have been incorporated within the development proposal, but these are outside of the solar arrays fenced area as shown on drawing 3352 L GA 0 01 Masterplan Rev F.
- 5.4. Security fencing will secure the individual field parcels, with CCTV located strategically around the site to ensure full coverage of the Site is achieved. Cameras will all face inwards and will only activate if intruders are detected.