Design and Access Statement

Postcombe and Lewknor Solar Farm

Postcombe and Lewknor Solar Farm Limited

Prepared by:

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SLR Project No.: 425.VT1363.00001

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Revision: Final

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	6 March 2025	JkH	SC	GS
02	7 May 2025	SC	SC	GS

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Acronyms and Abbreviations

AGL	Above Ground Level
BNG	British National Grid
CEMP	Construction Environmental Management Plan
CTMP	Construction Traffic Management Plan
DAS	Design and Access Statement
DMP	Development Management Procedure
EIA	Environmental Impact Assessment
ES	Environmental Statement
ha	Hectare
MW	Megawatt
NPPF	National Planning Policy Framework
PRoW	Public Right of Way
PV	Photovoltaic
SAC	Special Area of Conservation
SODC	South Oxfordshire District Council
SSSI	Site of Special Scientific Interest
UK	United Kingdom

1.0 Introduction

This Design and Access Statement (DAS) describes the design process and the resultant development proposal for the Postcombe and Lewknor Solar Farm (the "Proposed Development"), located approximately 50 m south of the village of Postcombe, 450 m north of the village of Lewknor and 4.3 km south of the town of Thame. The Site is in the South Oxfordshire District Council (SODC) area. The DAS accompanies the planning application submitted to SODC seeking permission to construct and operate the Proposed Development.

The purpose of this DAS is to provide information on the principles and approach that have guided the design process. This DAS demonstrates how the site and its surroundings have been fully assessed to ensure that the final design solution is the most suitable for the site. It describes the starting point for the Proposed Development design, and subsequent alterations to the layout that were made in response to the issues that were identified through the consultation and appraisal process. Details are also provided on the access arrangements to the site.

This DAS should be read in conjunction with the Planning Statement as well as the Environmental Statement (ES), which also contains information on the planning policy context the design iteration process, predicted landscape and visual effects, and includes a Construction Traffic Management Plan.

Article 9 of Town and Country Planning (Development Management Procedure) (England) (Amendments) Order 2015 ('the DMPO') requires a DAS to be prepared in support of all 'major' developments. As the Proposed Development site comprises an area of more than 1 hectare, it is considered a 'major' development. Article 9 of the DMP states that a DAS must:

a) *explain the design principles and concepts that have been applied to the development;*

b) *demonstrate the steps taken to appraise the context of the development and how the development takes that context into account;*

c) *explain the policy adopted as to access, and how polices relating to access in relevant local development documents have been taken into account;*

d) *state what, if any, consultation has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation; and*

e) *explain how any specific issues which might affect access to the development have been addressed.*

2.0 Background Information

2.1 Name of the Scheme

The Proposed Development is called Postcombe and Lewknor Solar Farm.

2.2 The Applicant

The application is submitted by Postcombe and Lewknor Solar Farm Limited which is jointly proposed by Solar 2 and Recurrent Energy. Solar2 is a specialist energy developer, founded in 2019 by Gerry and Paula Jewson, former owners of West Coast Energy. Solar2 has

offices in Somerset and Wales and members of the team have experience of developing solar projects throughout the UK.

The Solar2 team has a substantial track record in the successful development of renewable projects throughout, being responsible for the delivery of more than 1GW of renewable energy.

Recurrent Energy, a subsidiary of Canadian Solar Inc., is one of the world's largest and most geographically diversified utility-scale solar and energy storage project development, ownership, and operations platforms. With an industry-leading team of in-house energy experts, Recurrent Energy serves as Canadian Solar's global development and power services business.

To date, Recurrent Energy has successfully developed, built, and connected 11 GWp of solar projects and more than 3 GWh of energy storage projects across six continents. As of December 31, 2024, its global pipeline includes over 28 GWp of solar and 67 GWh of energy storage capacity.

2.3 Advisors

The Applicant appointed SLR Consulting to undertake the environmental assessments and advise on the design of the Proposed Development. The EIA has been supported by the following technical specialists:

- Stephenson Halliday (planning policy and landscape and visual);
- AOC Archaeology (cultural heritage and archaeology).

SLR Consulting has completed assessments of ecology and biodiversity; glint and glare; and land take, soil quality and agricultural land.

3.0 Site Details

3.1 Site Location and Site Description

The Proposed Development Site ('the Site') is located in South Oxfordshire at site centre British National Grid (BNG) Reference SU 70800 98800 as illustrated in **Figure 1**. The Site location is also shown in Figure 1.1 of the ES.

The Site consists of two key components; the 'cable corridor' and the 'solar site'.

3.2 Description of the Site

The solar site is located approximately 50 m south of the village of Postcombe and 450 m north of the village of Lewknor and 4.3 km south of the town of Thame. The site consists of two land parcels which border either side of the M40 motorway, with the A40 to the east, Weston Road to the west and Salt Lane to the north (refer to **Figure 1**).

The total Site area is approximately 97.5 ha including the proposed cable corridor. The solar site and cable corridor are predominantly used for arable agricultural purposes with small sections of woodland. The solar site is largely enclosed by trees and hedgerows with more open sections to the north and north-east.

The Site does not overlap with any statutory nature conservation designations. A Public Right of Way (PRoW) footpath (PRoW code: 277/7/10) traverses the eastern land parcel from the south-west corner to the north, with a bridleway bordering the southern solar site boundary (Bridleway Code: 277/33/30). The PRoW runs under a 11 kV powerline, a setback

has been put in place to allow access to the PRoW and power line. A PRoW (PRoW code: 102/1/10) also runs parallel to the cable corridor in the first two fields.

There is one watercourse that crosses through the cable corridor. There are no land drains or watercourses located within the solar site. The closest watercourse is approximately 30 m from the western boundary of the western area of the solar site.

The solar site will be accessed from two access points, one along Salt Lane to access the western land parcel and one along the A40 to access the eastern land parcel.

4.0 The Proposed Development

A detailed description of the Proposed Development is provided within Chapter 4 of the ES and it is illustrated on the accompanying figures and application drawings but a summary of the key elements of the Proposed Development is provided below.

- Solar PV Panels;
- inverters;
- transformers;
- high voltage (HV) switchgear and control equipment;
- cabling and interconnector;
- cabling for grid route to connection at Harlesford Solar Farm substation ('cable corridor');
- on-site substation and control building;
- customer station compound;
- spares container;
- meteo mast;
- site access and tracks;
- car parking;
- grid route cable;
- security fencing and CCTV;
- landscape planting; and
- two temporary construction compounds.

5.0 Site Selection and Alternatives

The Town and Country Planning Environmental Impact Assessment (EIA) Regulations 2017 (as amended) state that an ES must include *"A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects"* (Schedule 4.2) (UK Government, 2017).

A detailed description of the site selection for this Proposed Development is provided in Chapter 3 of the ES.

The Site was identified as an area which would be appropriate for solar development due to a number of environmental and technical considerations. Proximity to the point of connection at Harlesford Substation (SP 68973 01070) was a key factor. The substation sited approximately 3 km from the solar site ensures sufficient capacity to export the power generated and reduces the environmental impact from the cable corridor.

Prior to the selection of the Site boundary, several alternative locations were evaluated before confirming the current position of the Proposed Development. The environmental considerations that informed the siting included:

- Landscape and visual impact;
- Ecology and biodiversity;
- Agricultural land; and
- Transport and Access.

6.0 Public and Community Involvement

The Applicant has engaged with local communities throughout the design phases of the Proposed Development. This engagement has been undertaken through a variety of approaches. See the Statement of Community Involvement (SCI) Report accompanying this planning application for more details on public engagement to date.

The Applicant held a public consultation event on 17th July 2024 at the Lewknor Village Hall.

The main feedback received at the exhibition included:

- Landscape and visual impact concerns – Resulted in increasing the distance between the panels and Postcombe village.
- Concern about the Grade II listed historic funeral path from Postcombe to Lewknor – As a result the path is being enhanced and will support biodiversity benefits.
- Concerns regarding the number of solar developments in the area
- Loss of agricultural land.
- The name of the development did not reflect the proximity to the village of Postcombe.

7.0 Design Principles

7.1 Introduction

The design process for the Proposed Development included the preparation and evaluation of various iterations for the layout and on-site ancillary infrastructure. To develop a layout that represents the most appropriate design, the process considered potential environmental impacts and effects, physical constraints, access requirements, and the relationship to adjacent land.

Key information was gathered through desktop research, field surveys, local planning policy review, planning constraints, and community engagement. This comprehensive baseline assessment helped identify and prioritise site-specific issues and sensitivities, guiding further detailed evaluations and influencing the design iterations of the Proposed Development.

The design evolution process is described below with more detail in Chapter 3 of the ES.

7.2 Environmental Constraints and Opportunities

It is important to note that the identification of a constraint does not necessarily result in the exclusion of that area from the potential development envelope; rather it means that careful thought and attention was paid to the constraint and the design altered appropriately.

Various surveys were undertaken to inform the constraints of the Proposed Development, and the environmental assessments detailed within the ES and associated technical appendices.

- Ecology Surveys: An ecological walkover survey was undertaken of the Site which informed protected species surveys which were carried out throughout 2023 – 2024.
- Landscape and Visual: The landscape and visual team undertook a site visit to familiarise themselves with the landscape context and to identify key viewpoints to take photography, this has formed the baseline of the Landscape and Visual Impact Assessment.

The environmental constraints within 5 km of the Site are illustrated in **Figure 2**.

7.3 Design Considerations

Taking into consideration the above constraints as well as advice from SODC and public feedback, the following principles were adopted where possible during the design iterations undertaken by the Applicant to ensure that the final design of the Proposed Development was the most suitable for the Site:

- avoid designated and protected sites;
- sensitively designed layout to avoid or minimise setting effects on heritage assets;
- avoid or minimise impacts on any identified sensitive ecological habitats or species;
- minimise impacts in respect of noise and the visual amenity of residential properties;
- minimise traffic and transport impacts;
- consider topography in terms of suitability for siting panels;
- avoid areas of high-risk flooding; and
- maximise the potential renewable electricity generation.

7.4 Embedded Mitigation

Landscape and Visual

There are no national or local landscape designations within the Proposed Development site boundary. The closest, Chilterns National Landscape (NL) lies ~1.8 km to the south-east of the Site.

The Proposed Development will introduce a localised alteration in landcover from arable fields to a solar energy farm with substation, surrounded by security fencing. There is

potential for landscape and visual effects on a number of landscape and visual receptors including residential receptors, designated assets, PRoWs and landscape character.

The location of the solar PV modules and associated ancillary infrastructure has been considered within the iterative design process in order to minimise the impacts on the nearest receptors.

The key elements of the design which have considered the potential landscape and visual effects include:

- Placement of the substation and other infrastructure closer to the motorway and hidden from the village of Postcombe.
- Landscape planting to enhance the biodiversity of the Site as well as to mitigate the visual impact.
- The use of a dark green and grey on the infrastructure which blends with the earthier tones of the landscape and assimilates the infrastructure more successfully.
- Landscape planting along the PRoW to enhance the footpath and screen the development.

Overall, the Applicant has made best efforts to design the Proposed Development to limit its landscape and visual effects as far as is reasonably possible, while also ensuring the Site can maintain maximum generation.

A full assessment of landscape and visual effects is presented in Chapter 5 of the ES.

Cultural Heritage

There are no statutory designated heritage assets within the Proposed Development Site boundary. The closest designated heritage asset is Feathers Public House LB, a Grade II* Listed Building located ~220 m north-east.

Mitigation in the form of an archaeological watching brief will be undertaken during construction. No mitigation measures are recommended beyond those inherent in the Proposed Development design for the operational phase of the development.

A full assessment of cultural heritage effects is presented in Chapter 6 of the ES.

Ecology

The ecological baseline has been considered throughout the design process for the Proposed Development with an aim to either eliminate or reduce the potential for any significant effects on receptors.

There are no statutory ecological designations present on Site. The closest ecological designation is Aston Rowant and Chilterns Beechwoods Special Area of Conservation (SAC) located approximately 1.3 km south-east of the Site boundary. The majority of the Site consists of intensively farmed arable land of very low ecological value.

There are mature trees and hedgerows present within the Site boundary. These are predominantly being retained and managed for biodiversity as part of the Site enhancement measures and ongoing management with the exception of one tree to be removed to allow for the visibility splay on the A40 access point and some hedgerow to be translocated to allow for the visibility splay along the A40. Additional seed planting is also proposed within the Landscape Mitigation Plan (Figure 5.10 of the ES) which will enhance the ‘biodiversity net-gain’ of the solar site.

Full details of habitat enhancement measures will be detailed within the Construction Environmental Management Plan (CEMP) which will be drafted and agreed with SODC prior to work commencing.

A full assessment of ecology and biodiversity effects is presented in Chapter 7 of the ES.

Glint and Glare

A glint and glare (G&G) assessment was carried out which quantified the magnitude and duration of G&G on nearby receptors, it was concluded that no significant effects are anticipated when taking account of embedded and standard mitigation including the implementation of the Landscape Mitigation Plan.

A full assessment of G&G is presented in Chapter 9 of the ES.

Land Take, Soil Quality and Agricultural Land

An Agricultural Land Classification (ALC) survey (Appendix 8.1 of the ES) has been undertaken for the solar site which determined that it comprises Grade 3a and Grade 3b land. A Soil Management Plan (Appendix 8.2 of the ES) has been prepared which includes mitigation measures to prevent damage to the soil during construction and operation of the Proposed Development.

Flood Risk

A Flood Risk and Drainage Assessment (FRDA) (Appendix 2.4 of the ES) has been undertaken and a sustainable drainage system (SuDS) has been designed into the Proposed Development. The proposed drainage/SuDS scheme for the Proposed Development will comprise the management of surface water runoff from the substation and other infrastructure. Swales are proposed around the perimeter of the solar site to mitigate against any potential surface water flooding on site.

Transport

There will be increased traffic volumes on the local road networks during the construction phase, with limited operational traffic expected. A Construction Traffic Management Plan (CTMP) (Appendix 2.3 of the ES) provides detailed assessment of the impact and has been prepared to minimise disruption to local residents.

Public Access

A PRoW footpath (PRoW code: 277/7/10) traverses the eastern land parcel of the solar site from the south-west corner to the north. Following discussions with SODC this is proposed to be diverted along the south-eastern boundary of the solar site during construction but will be retained the current location during operation. Likewise, the footpath (PRoW code: 102/1/10) which runs parallel to the cable corridor is proposed to be diverted parallel to its current location, subject to agreement with SODC. In addition, there is a bridleway bordering the southern solar site boundary (Bridleway Code: 277/33/30), although no impact is expected on this route.

It is anticipated that there will be a temporary closure of the two PRoW's during the construction period which will be managed in consultation with SODC and all details of path closures will be included in the Construction Environmental Management Plan (CEMP), drafted and agreed prior to the commencement of construction. It is anticipated that these temporary closures will last up to fourteen months but this may be reduced with a

management regime to be agreed with SODC. The current routes and the proposed temporary diversions are shown on Figure 4.12 of the ES.

The paths and local access will be reopened and maintained for the duration of the operation of the Proposed Development and will be restored to its pre-construction condition as a minimum, addressed through an appropriately worded condition.

Interpretation boards will be placed around the Site to provide information to the public on solar power and the development itself. Pedestrians would retain rights of way during the operational period of the Proposed Development.

7.5 Layout Iterations

A number of alternative locations and layout iterations were considered as part of the design process.

Three previous design iterations (Layouts 1-3) are presented in **Figures 3 – 5**.

- **Layout 1:** This layout was informed by preliminary desktop environmental studies, and the layout was the first layout presented to SODC via their pre-application consultation process in January 2022. This layout included an additional field that is not included within the final design due to discussions with the SODC and concerns over proximity to the AONB.
- **Layout 2:** This layout was informed by ongoing survey work. It was presented to SODC in September 2023 through a second round of pre-application consultation. Key changes to the layout were:
    - amendment to the red line boundary with increased set back from the village of Lewknor;
    - the substation and other infrastructure were placed in the north-eastern corner of the western land parcel, away from Postcombe and other nearby residential properties, to minimise visibility;
    - the overhead line and PRoW were buffered to allow for sufficient space for public access once the Proposed Development is operational; and
    - avoidance of identified badger sett locations.
- **Layout 3:** This layout is the finalised layout which was informed by further consultation with the local community, including an in-person community engagement event. The feedback also contributed to the name change of the project from ‘Lewknor Solar Farm’ to ‘Postcombe and Lewknor Solar Farm’. The iterative impact assessment process has resulted in the following principal environmental and technical changes:
    - inclusion of a cable corridor for the grid connection;
    - a further 10 m set back from the village of Postcombe;
    - increased set back from the residential property close to the south-west of the solar site;
    - additional space allocated for landscape mitigation planting between the solar site and the village of Postcombe, including a new woodland block and new hedgerow planting; and

- provision of sustainable drainage features including swales along the north-eastern and south-western boundaries.

8.0 Design Freeze

Consideration of the main design principles and avoidance and minimising of environmental impacts resulted in the final design freeze as shown in **Figure 5**. It is considered that this resulting design freeze is most appropriate for this Site and has taken on board feedback from the public, local stakeholders and the environmental assessments undertaken.

The Proposed Development will consist of an array of solar photovoltaic (PV) modules with an export capacity of up to 49.9 MW. The modules will stand approximately 1 m Above Ground Level (AGL) at their minimum point and will be angled up to 60° to the horizontal and arranged in rows. The maximum panel height will be up to 3.1 m AGL.

Each PV module will be fixed and mounted upon a prefabricated alloy metal frame. The frames will be anchored to the ground via steel piles that will be driven to approximately 1.5 m into the ground, therefore no foundations would be required. The frames will be orientated to the south/south-east in a fixed tilt arrangement

Further details of the Site infrastructure are provided within Chapter 4 (Project Description) of the ES. The final layout of the Proposed Development is shown in **Figure 5**.

9.0 Access Strategy

The construction and operational access to the solar site will be taken from two points of access, one for each of the two land parcels that straddle the M40. Access to the eastern land parcel will be taken from a new access junction on the A40 to the south of Postcombe. Access to the western land parcel is to be taken from Salt Lane from a new access junction. Access between the two parcels will be taken using the A40 and Salt Lane.

During construction, a temporary laydown and site compound area will be used, with each site having their own stand-alone areas

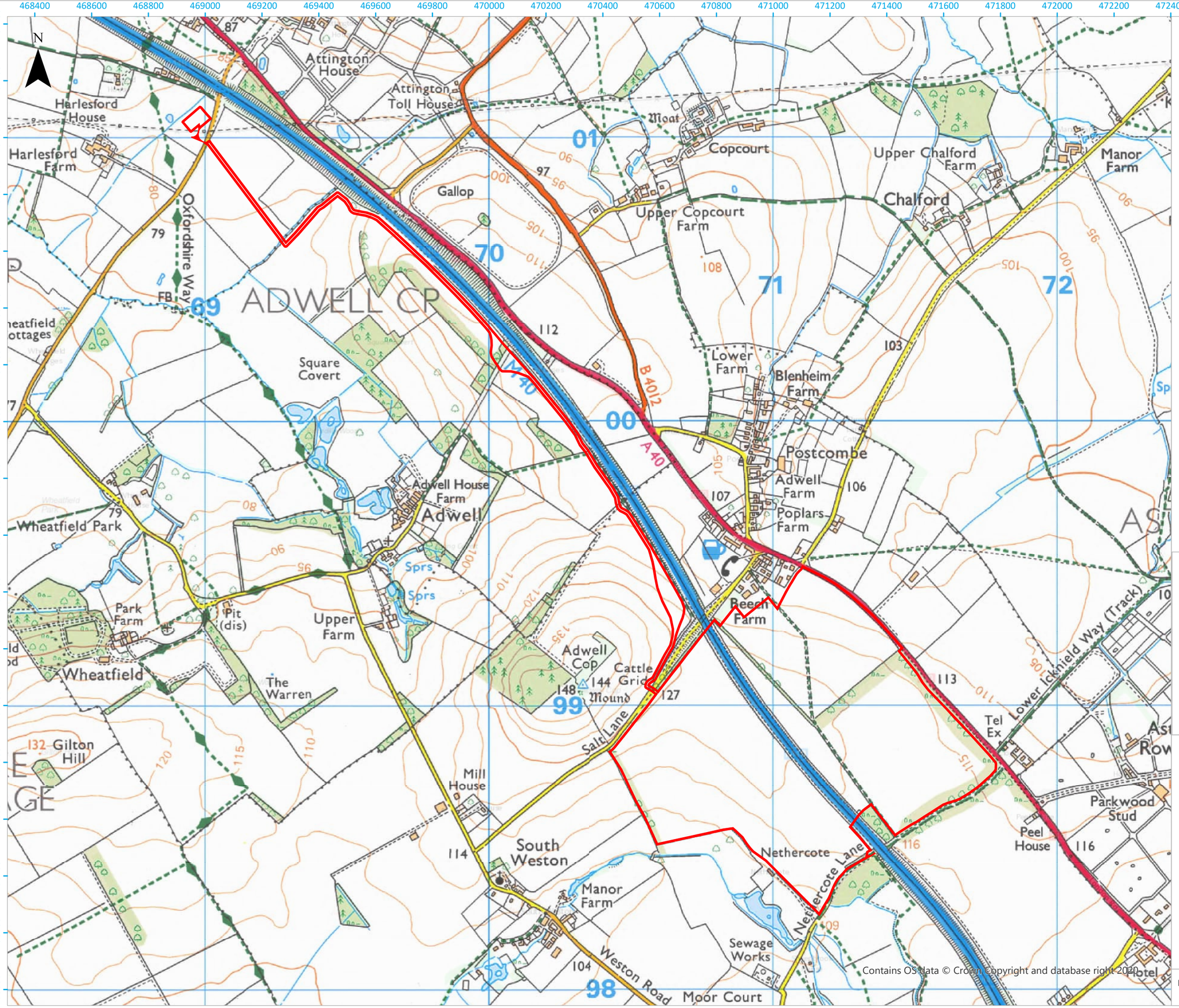
10.0 Conclusion

The final layout has been informed by a robust environmental assessment and design iteration process, taking into account physical constraints, potential environmental, landscape and visual impacts and their effects. The information used to inform the design iteration process included consultation responses received, baseline data and the technical impact assessments undertaken.

The final layout comprises an array of solar photovoltaic modules and their associated infrastructure, including mounting frames, inverters and transformers, substation and communications buildings, temporary construction compound, security fencing and on-site tracks as shown in **Graphic 5**.

Overall, the Proposed Development is an appropriately designed, sensibly located, and completely sustainable development which is in line with policies in the local and strategic development plans and conforms to local and national policy. It will provide a valuable contribution towards economic growth and renewable energy generation in the SODC area to directly contribute towards renewable energy targets and the Council’s declared climate change emergency.

Figures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Attington Toll House
Harlesford House
Harlesford Farm
Moat
Copcourt
Upper Chalford Farm
Manor Farm
Chalford
Gallop
Upper Copcourt Farm
Oxfordshire Way
FB
ADWELL CP
Square Covert
Lower Farm
Blenheim Farm
B 4012
A 40
Postcombe
Adwell Farm
Poplars Farm
Adwell House Farm
Adwell
Wheatfield Park
Park Farm
Pit (dis)
Upper Farm
Wheatfield
The Warren
Sprs
Adwell Cop
Cattle Grid
Mound
Beech Farm
Salt Lane
Gilton Hill
Mill House
South Weston
Manor Farm
Sewage Works
Weston Road
Moor Court
Nethercote
Nethercote Lane
Lower Icknield Way (Track)
Tel Ex
Parkwood Stud
Peel House
Aylesbury
Oxford
M40
KEY
Site Boundary
Contains OS data © Crown Copyright and database right 2020
Coordinate System: British National Grid
Projection: Transverse Mercator
0 0.05 0.1 0.2 0.3 0.4 0.5
Kilometres
1:12,500
solar2
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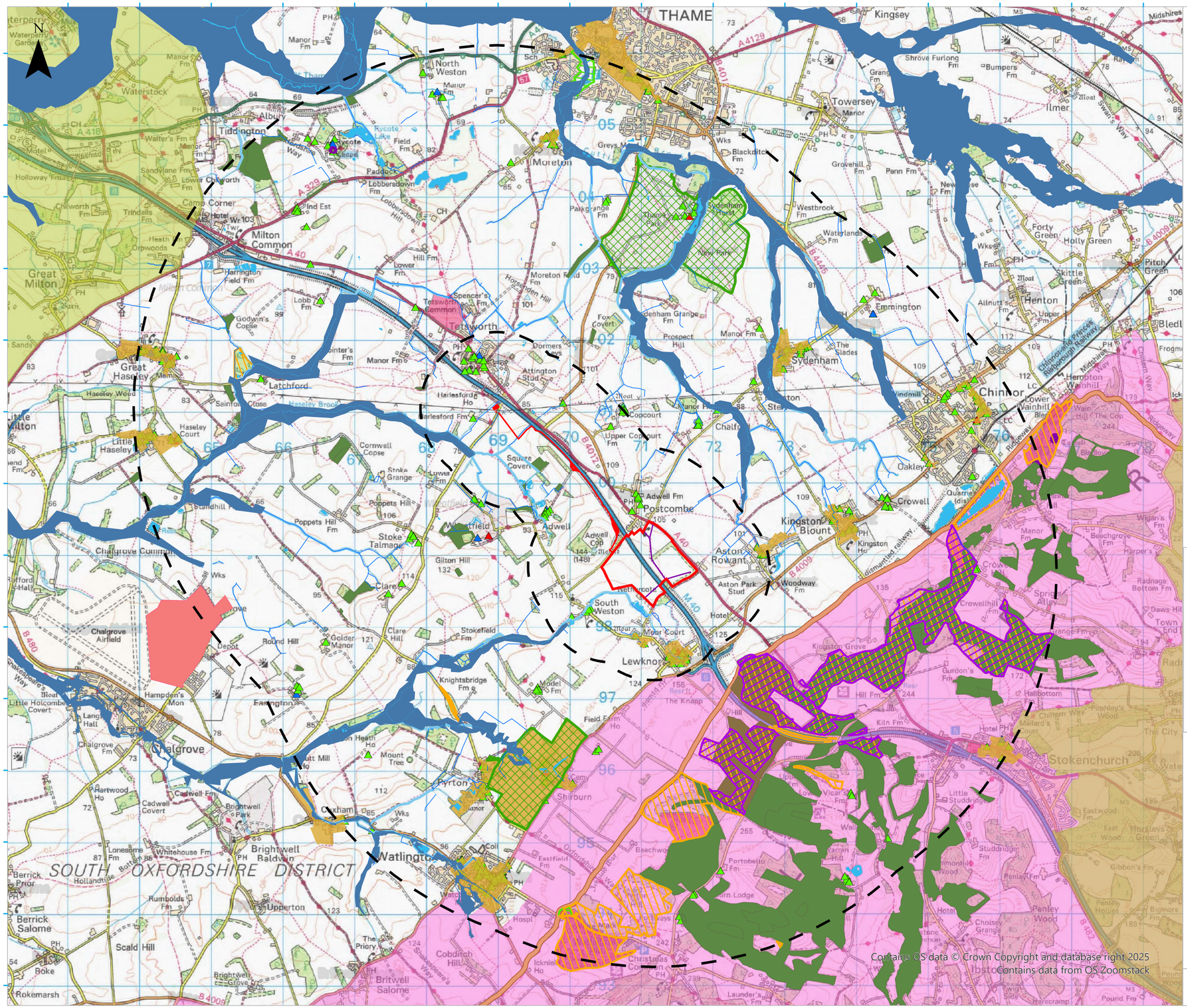
Figure 1
Site Location Plan
Date: 08/05/2025
Lead: JH
Review: SC
Version: 1



KEY

- Site Boundary
- 1 and 5 km Buffer
- Surface Water Areas
- Flood Alert Areas
- Surface Water Lines
- Watercourses
- Special Areas of Conservation
- Sites of Special Scientific Interest
- Ancient Woodland
- Local Nature Reserves
- National Nature Reserves
- Scheduled Monuments
- Registered Parks and Gardens
- Conservation Areas
- Registered Battlefields

Listed Buildings

Grade

- I
- II
- II*
- Countryside and Rights of Way Act Access Land
- Green Belt
- National Trails
- Areas of Outstanding Natural Beauty
- Over Head Line

Coordinate System: British National Grid
Projection: Transverse Mercator

0 0.25 0.5 1 1.5 2 2.5 Kilometres

1:50,000

solar2

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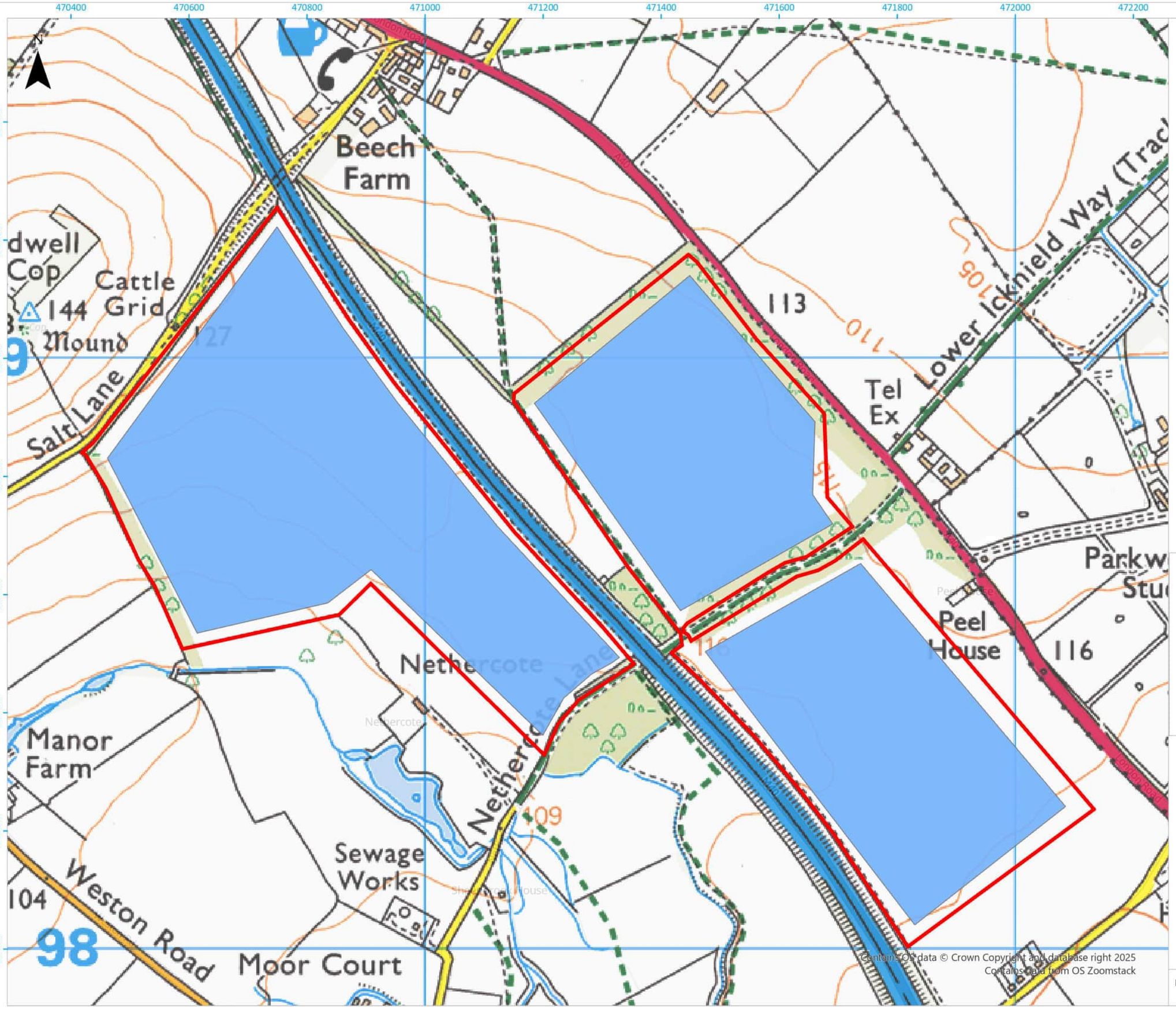
Figure 2
Constraints within 5km

Date:	Lead:	Review:	Version:
08/05/2025	JH	SC	1



KEY

- Indicative Site Boundary
- Indicative Solar Modules

Coordinate System: British National Grid
Projection: Transverse Mercator

0 0.03 0.07 0.13 0.2 0.26 0.33 Kilometres

1:6,000

solar2

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Figure 3
Design Iterations - Layout 1

Date:	Lead:	Review:	Version:
13/05/2025	JH	SC	1

470200 470400 470600 470800 471000 471200 471400 471600 471800 472000

199600 199400 199200 199000 198800 198600 198400 198200

N

Poplars Farm

London Road

Beech Farm

Adwell Cop

Cattle Grid

144

148

Mound

99

127

Salt Lane

113

110

105

Lower Icknield

Tel Ex

120

135

South Weston

Manor Farm

Nethercote

Nethercote Lane

116

109

Peel House

Sewage Works

104

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Contains data from OS Zoomstack

KEY

- Indicative Site Boundary
- Temp Construction Compound
- Fence and CCTV
- Customer Substation
- Spares Container
- Inverter TX
- Substation Compound
- Solar Modules

Coordinate System: British National Grid
Projection: Transverse Mercator

0 0.03 0.07 0.13 0.2 0.26 0.33 Kilometres

1:6,000

solar2

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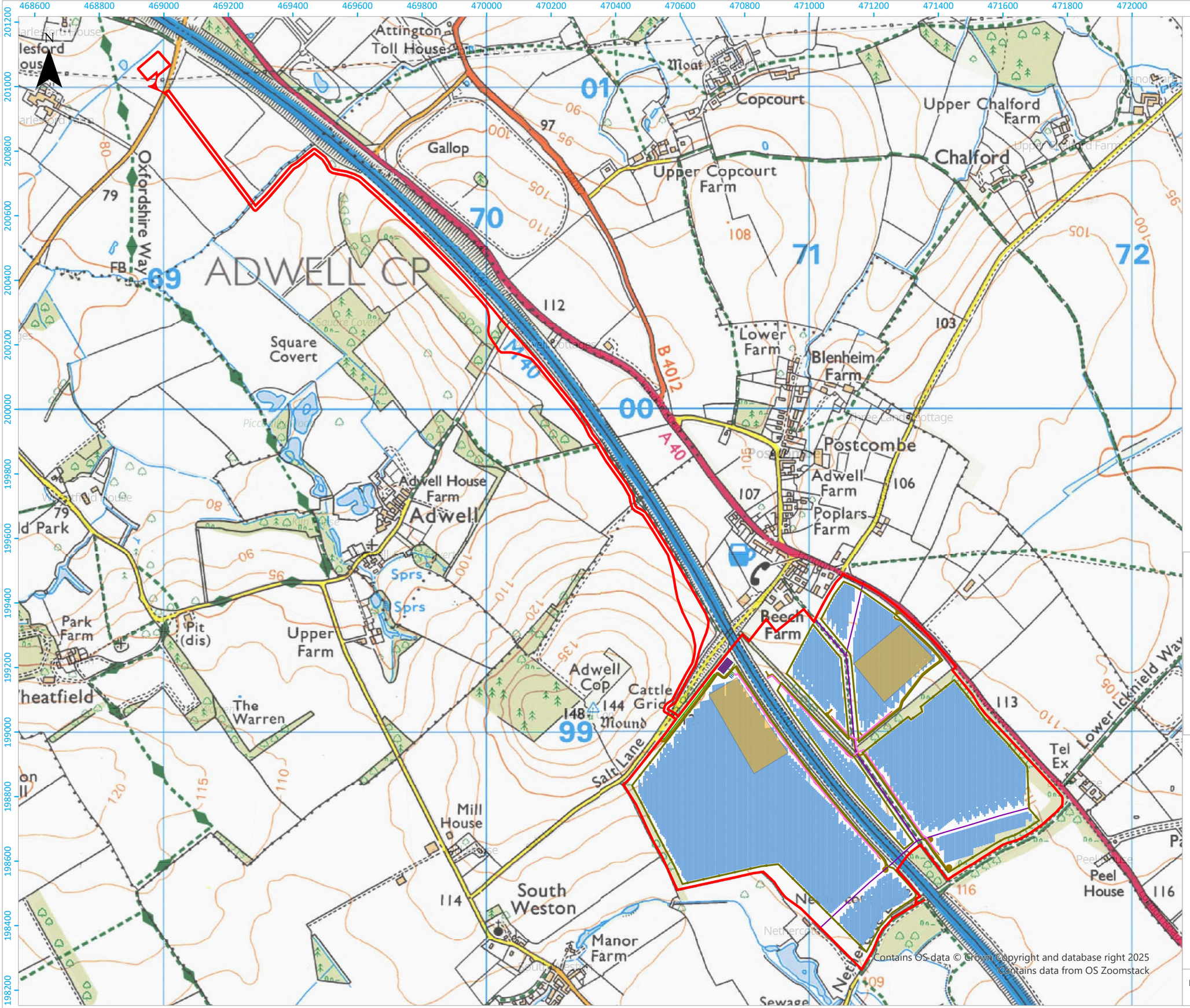
Figure 4
Design Iterations - Layout 2

Date:	Lead:	Review:	Version:
08/05/2025	JH	SC	1



Coordinate System: British National Grid
Projection: Transverse Mercator

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1:11,000

solar2

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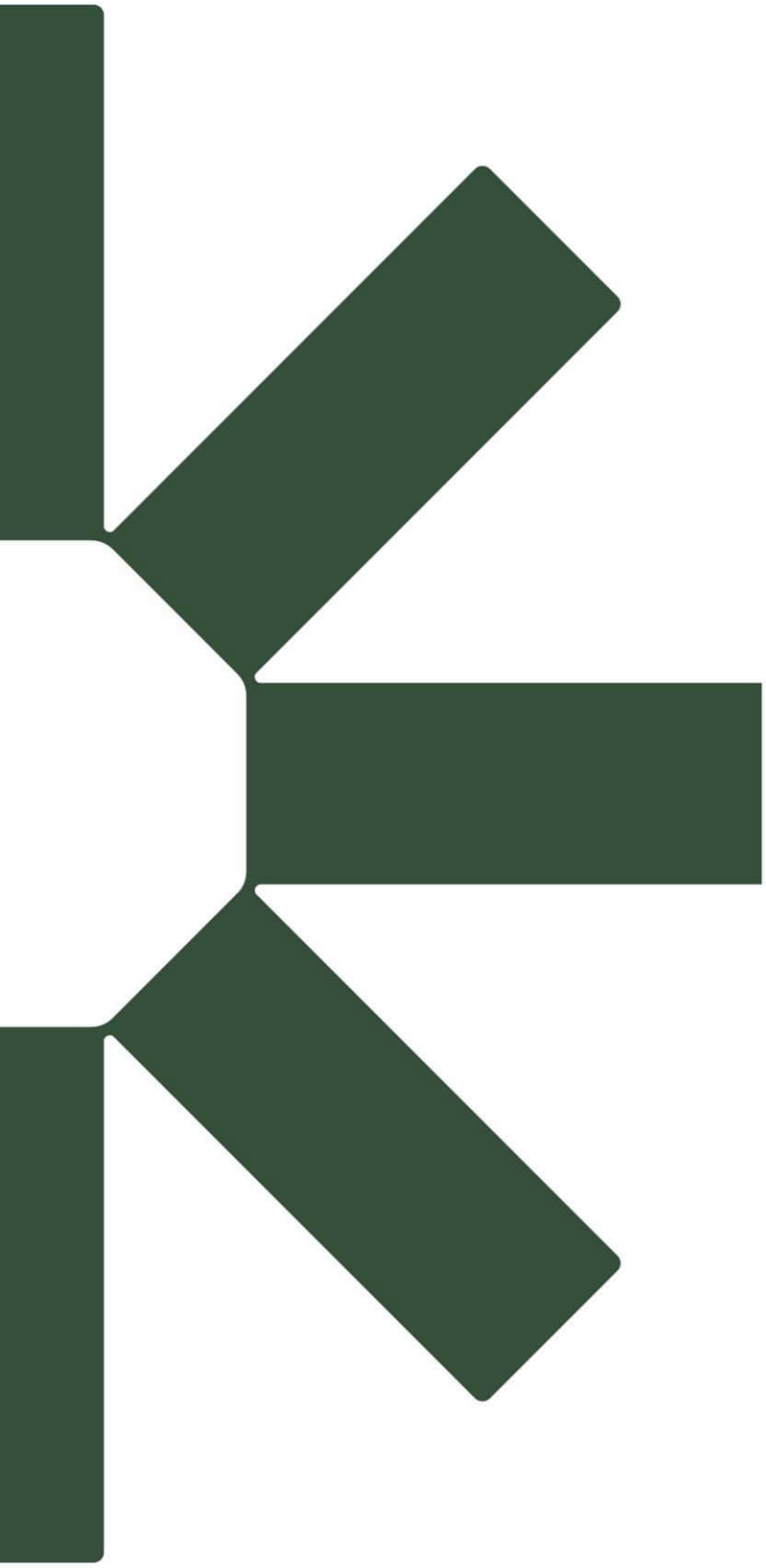
Figure 5
Design Iterations - Layout 3

Date:	Lead:	Review:	Version:
08/05/2025	JH	SC	1



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