Fosse Green Energy

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EN010154

6.3 Environmental Statement Appendices

Appendix 14-D: Glint and Glare Assessment

VOLUME

6

Planning Act 2008 (as amended)

Regulation 5(2)(a)

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)

18 July 2025

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulation 2009 (as amended)

Fosse Green Energy

Development Consent Order 202[ ]

6.3 Environmental Statement Appendices

Appendix 14-D: Glint and Glare Assessment

Regulation Reference	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	EN010154
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Glint and Glare Assessment

Fosse Green Energy

July 2025

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1. EXECUTIVE SUMMARY

1.1. This assessment considers the potential impacts on ground-based receptors such as roads, rail and residential dwellings as well as aviation assets from Fosse Green Energy project (the 'Proposed Development'). A 1km study area around the Principal Site is considered adequate for the assessment of ground-based (residential, road, rail and bridleway) receptors, whilst a 30km study area is chosen for aviation receptors. Within the ground-based study areas of the Principal Site, there are 228 residential receptors, including 26 residential areas, 243 road receptors, 20 rail receptors and 82 bridleway receptors that were considered. As per the methodology section, where there are several residential receptors within close proximity, a representative dwelling or dwellings is/are chosen for full assessment as the impacts will not vary to any significant degree. Where small groups of receptors have been evident, the receptors on either end of the group have been assessed in detail. 10 residential receptors, including four residential areas, 26 road receptors, seven rail receptors and three bridleway receptors were dismissed as they are located within the no reflection zones (see paragraph 5.1 – 5.3). 35 aerodromes are located within the 30km study area; five of which, RAF Waddington, Peacocks Farm, South Hykeham Airfield, South Scarle Airfield and Blackmoor Farm required detailed assessments as the Principal Site is located within their respective safeguarding buffer zones. The other 30 aerodromes did not require a detailed assessment due to their size and/or orientation in relation to the Principal Site.

1.2. Geometric analysis was conducted at 228 individual residential receptors, including 22 residential areas, 217 road receptors, 13 rail receptors and 79 bridleway receptors. Also, geometric analysis was conducted at 12 runway approach paths, two circuit paths and one Air Traffic Control Tower (ATCT) at RAF Waddington, Peacocks Farm, South Hykeham Airfield, South Scarle Airfield and Blackmoor Farm.

1.3. The assessment concludes that:

a. Solar reflections are possible at 178 of the 228 residential receptors assessed within the 1km study area. The initial bald-earth scenario identified potential impacts as High at 48 receptors, including six residential areas, Medium at 19 receptors, including two residential areas, Low at 111 receptors, including 10 residential areas, and None at the remaining 50 receptors, including three residential areas. Upon reviewing the actual visibility of the receptors, impacts remain High at 11 receptors, including one residential area, and Medium at three receptors, including one residential area, and reduce to Low at 44 receptors, including eight residential areas, and to None at all remaining receptors, including 12 residential areas. Once mitigation measures were considered, impacts reduce to Low at 36 receptors and to None at all remaining receptors. Therefore, overall impacts on residential receptors are considered to be Low.

b. Solar reflections are possible at 215 of the 217 road receptors assessed within the 1km study area. The initial bald-earth scenario identified potential impacts as **High** at 156 receptors, **Low** at 59 receptors and **None** at the remaining two receptors. Upon reviewing the actual visibility of the receptors, glint and glare impacts remain **High** at 30 receptors and reduce **None** for all remaining road receptors. Once mitigation measures were considered, impacts reduce to **None** at all receptors. Therefore, overall impacts are considered to be **None**.

c. Solar reflections are possible at all the 13 rail receptors assessed within the 1km study area. The initial bald-earth scenario identified potential impacts as **High** at five receptors and **Low** at eight receptors. Upon reviewing the actual visibility of the receptors, glint and glare impacts reduce to **None** for all rail receptors. Therefore, overall impacts on rail receptors are considered to be **None**.

d. Solar reflections are possible at all the 79 bridleway receptors assessed within the 1km study area. The initial bald-earth scenario identified potential impacts as **High** at 65 receptors and **Low** at 14 receptors. Upon reviewing the actual visibility of the receptors, glint and glare impacts remain **High** at 40 receptors and reduce to **Low** at 15 receptors and to **None** at 24 receptors. Once mitigation measures were considered, impacts reduce to **Low** at 10 receptors and to **None** at all remaining receptors. Therefore, overall impacts on bridleway receptors are considered to be **Low**.

e. 12 runway approach paths and one ATCT were assessed in detail at RAF Waddington, Peacocks Farm, South Hykeham Airfield, South Scarle Airfield and Blackmoor Farm. Only green glare impacts were predicted for the Runway 20 approach path, eastern circuit path and ATCT at RAF Waddington, the Runway 10 approach path at South Hykeham Airfield and the Runway 06 and 24 approach paths at Blackmoor Farm. Green glare and yellow glare impacts were predicted for the western circuit path at RAF Waddington Runway 08 and 24 approach paths at Peacocks Farm, the Runway 28 and 31 approach paths at South Hykeham Airfield and the Runway 10 approach path at South Scarle Airfield. Green glare is an **acceptable impact** upon runways according to FAA guidance. Upon reviewing the ground elevation profile between the ATCT at RAF Waddington and the Principal Site, the impacts upon the ATCT reduce to **None**. Upon inspection of the type of aircraft using Peacocks Farm and South Hykeham Airfield, time of impact, position of the sun and use of existing pilot mitigation strategies when landing in the direction of the sun, as well as the current UK and US guidance, all impacts at Peacocks Farm, South Hykeham Airfield

and South Scarle Airfield can be deemed **acceptable**. Overall impacts on aviation assets are **acceptable** and **Not Significant**.

1.4. **Mitigation** is required due to the impacts found for Residential Receptors 97, 98, 101, 102, 148, 155, 157 – 160, 196 and 197, Road Receptors 13 - 16, 45, 78 - 80, 82 – 84, 98 – 104, 113, 144 - 148 and 177 - 182 and Bridleway Receptors 2 – 6, 8 – 11, 14 – 16, 27 –38, 54 – 62 and 65 – 71 being **High** or **Medium**. The recommended mitigation measures will also screen the **Low impact** views from Residential Receptors 23, 28, 38 – 41, 81, 82, 100, 156, 161 and 164, and Bridleway Receptors 25, 26, 45, 46 and 75. This includes the hedges and trees along panel boundaries, field boundaries and bridleway boundaries as shown in the **Landscape Mitigation Plan (Drawing No: 23-128-DL100,** presented in **Figure 7.15-1: Landscape Mitigation Plan** as part of the **Framework LEMP [EN010154/APP/7.15])** being managed to deliver a minimum height at least the same as the upper edge of the panels, which is currently proposed to be a maximum 3.5m.

1.5. The effects of glint and glare and their impact on local receptors has been analysed in detail and there is predicted to be **Low** impacts at nine runway approach paths, whilst the remaining aviation receptors are predicted to have **No Impacts**. Impacts upon ground-based receptors are predicted to be **Low** or **None.** Therefore, overall impacts are **Not Significant**.

2. INTRODUCTION

BACKGROUND

2.1. Neo Environmental Ltd has been appointed by AECOM Ltd on behalf of Fosse Green Energy Limited (the 'Applicant') to undertake a Glint and Glare Assessment for a proposed solar development with Battery Energy Storage System (BESS) (the "Proposed Development") on land approximately 9km southwest of Lincoln City Centre.

PROPOSED DEVELOPMENT DESCRIPTION

2.2. The Proposed Development will comprise the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) electricity generating facility, with an on-site Battery Energy Storage System (BESS) and other associated infrastructure, with a total capacity exceeding 50 megawatts (MW), along with an import and export connection to the national transmission network at the proposed National Grid substation near Navenby.

2.3. The DCO Site comprises:

a. The Principal Site would comprise the ground mounted solar PV panels, BESS, Onsite Substation, and associated infrastructure; and

b. The Cable Corridor would comprise the 400 kilovolt (kV) Grid Connection Cables, linking the Onsite Substation (located within the Principal Site) to the proposed National Grid substation near Navenby, approximately 10km south east of the Principal Site.

2.4. The Principal Site is the focus of this assessment, as this will be where the glint and glare impacts will originate from.

2.5. The BESS will either be distributed throughout the Principal Site (referred to as 'distributed BESS' arrangement) or located at a single BESS Compound (referred to as 'centralised BESS' arrangement). In case of the distributed BESS arrangement the area of the BESS Compound would be used for the solar PV panels, and from the perspective of glint and glare assessment this presents the worst-case scenario (i.e. the largest amount of solar PV panels that could result in glint and glare). This assessment therefore considered the layout of the Principal Site for the distributed BESS arrangement.

2.6. The Proposed Development considers two options for the solar PV panel arrangement: fixed south facing and single axis tracker. This report assesses both of these options as explained in section 4. The Cable Corridor is not considered in the assessment, given it does not incorporate any infrastructure that may lead to potential glint or glare.

SITE DESCRIPTION

2.7. The Principal Site comprises approximately 1,070ha of land contained within mainly agricultural fields. The field boundaries consist of hedgerows and trees. Ground levels within the Principal Site vary from approximately 10m Above Ordnance Datum (AOD) to 31m AOD in the northwestern part of the Principal Site.

2.8. The Principal Site is centred at approximate grid reference SK 90388 62514. The wider landscape contains the villages of Thorpe on the Hill, Witham St Hughs, Haddington, Thurlby, and Bassingham, with the Cable Corridor extending towards Navenby. The Proposed Development is wholly located within North Kesteven District, Lincolnshire.

SCOPE OF REPORT

2.9. Although there may be small amounts of glint and glare from the metal structures associated with the solar PV panels, this is not likely to be significant and the main source of glint and glare will be from the solar PV panels themselves and is the focus of this assessment. Since the Cable Corridor comprises below ground infrastructure and does not comprise of reflective surfaces, there is no potential for glint and glare effects, therefore this is not considered further in this assessment.

2.10. Solar PV panels are designed to absorb as much light as possible and not to reflect it. However, glint can be produced as a reflection of the sun from the surface of the solar PV panel. This can also be described as a momentary flash. This may be an issue due to visual impact and viewer distraction on ground-based receptors and on aviation.

2.11. Glare is significantly less intense in comparison to glint and can be described as a continuous source of bright light, relative to diffused lighting. This is not a direct reflection of the sun, but a reflection of the sky around the sun.

2.12. This report focusses on the effects of glint and glare and its impact on local receptors and is supported by the following Figures and Appendices.

a. Appendix A: Figures

- Figure 1A: Residential Receptor Map Overall;
- Figure 1B: Residential Receptor Map Sheet 1B;
- Figure 1C: Residential Receptor Map Sheet 1C;
- Figure 2A: Road Receptor Map Overall;
- Figure 2B: Road Receptor Map Sheet 2B;

- Figure 2C: Road Receptor Map Sheet 2C;
- Figure 3: Rail Receptor Map;
- Figure 4A: Bridleway Receptor Map Overall;
- Figure 4B: Bridleway Receptor Map Sheet 4B;
- Figure 4C: Bridleway Receptor Map Sheet 4C;
- Figure 5: Site Layout;
- Figure 6: Panel Area Labels;
- Figure 7: RAF Waddington Aerodrome Chart

b. Appendix BA: Residential Receptor Glare Results Group A (Receptors 1 – 80) (5 degrees);

c. Appendix BB: Residential Receptor Glare Results Group B (Receptors 81 - 160) (5 degrees);

d. Appendix BC: Residential Receptor Glare Results Group C (Receptors 161 - 203) (5 degrees);

e. Appendix BD: Residential Receptor Glare Results Group D (Receptors 204 - 228) (5 degrees);

f. Appendix CA: Residential Receptor Glare Results Group A (Receptors 1 – 80) (45 degrees);

g. Appendix CB: Residential Receptor Glare Results Group B (Receptors 81 - 160) (45 degrees);

h. Appendix CC: Residential Receptor Glare Results Group C (Receptors 161 - 203) (45);

i. Appendix CD: Residential Receptor Glare Results Group D (Receptors –204 - 228) (45);

j. Appendix DA: Residential Receptor Glare Results Group A (Receptors 1 – 80) (Tracker);

k. Appendix DB: Residential Receptor Glare Results Group B (Receptors 81 - 160) (Tracker);

l. Appendix DC: Residential Receptor Glare Results Group C (Receptors 161 - 203) (Tracker);

m. Appendix DD: Residential Receptor Glare Results Group D (Receptors –204 - 228) (Tracker);

n. Appendix EA: Road Receptor Glare Results Group A (Receptors 1 – 79) (5 degrees);

o. Appendix EB: Road Receptor Glare Results Group B (Receptors 80 – 151) (5 degrees);

p. Appendix EC: Road Receptor Glare Results Group C (receptors 152 – 215) (5 degrees);

q. Appendix FA: Road Receptor Glare Results Group A (Receptors 1 – 79) (45 degrees);

r. Appendix FB: Road Receptor Glare Results Group B (Receptors 80 – 151) (45 degrees);

s. Appendix FC: Road Receptor Glare Results Group C (receptors 152 – 215) (45 degrees);

t. Appendix GA: Road Receptor Glare Results Group A (Receptors 1 – 79) (Tracker);

u. Appendix GB: Road Receptor Glare Results Group B (Receptors 80 – 151) (Tracker);

v. Appendix GC: Road Receptor Glare Results Group C (receptors 152 – 215) (Tracker);

w. Appendix GD: Road Receptor Glare Results (35 degrees);

x. Appendix H: Rail Receptor Glare Results (5 degrees);

y. Appendix I: Rail Receptor Glare Results (45 degrees);

z. Appendix J: Rail Receptor Glare Results (Tracker);

aa. Appendix K: Bridleway Receptor Glare Results (5 degrees);

bb. Appendix L: Bridleway Receptor Glare Results (45 degrees);

cc. Appendix M: Bridleway Receptor Glare Results (Tracker);

dd. Appendix N: Aviation Receptor Glare Results (5 degrees);

ee. Appendix O: Aviation Receptor Glare Results (45 degrees);

ff. Appendix P: Aviation Receptor Glare Results (Tracker);

gg. Appendix Q: Visibility Assessment Evidence;

hh. Appendix R: Ground Elevation Profile; and

ii. Appendix S: Solar Module Glare and Reflectance Technical Memo.

STATEMENT OF COMPETENCE

2.13. This Glint and Glare Assessment has been produced by David Thomson, Tom Saddington and Michael McGhee of Neo Environmental. Having completed a civil engineering degree in 2012, Michael has produced Glint and Glare assessments for over 1GW of solar farm developments

across the UK and Ireland. Tom has an undergraduate degree in Bioengineering and graduated with an MSc in Environmental and Energy Engineering in January 2020. He has been working on various technical assessments including glint and glare reports for numerous solar farms in Ireland and the UK. David has an undergraduate degree in physics, as well as a MSc in sensor design, a MSc in nanoscience and a Diploma in acoustics and noise control. He is an Environmental Engineer who has worked on numerous Glint and Glare assessments for solar farms across the UK and Ireland.

DEFINITIONS

2.14. This study examined the potential hazard and nuisance effects of glint and glare in relation to ground-based receptors, which includes the occupants of surrounding dwellings as well as road users. The US Federal Aviation Administration (FAA) in their "*Technical Guidance for Evaluating Selected Solar Technologies on Airports*"[1] have defined the terms 'Glint' and 'Glare' as meaning;

a. Glint – "*A momentary flash of bright light*"; and

b. Glare – "*A continuous source of bright light*".

2.15. Glint and glare are essentially the unwanted reflection of sunlight from reflective surfaces. This study used a multi-step process of elimination to determine which receptors have the potential to experience the effects of glint and glare. It then examined, using a computer-generated geometric model, the times of the year and the times of the day such effects could occur. This is based on the relative angles between the sun, the panels, and the receptor throughout the year.

2.16. The ocular impact upon a receptor will be assessed and used as the basis of categorising the magnitude of impact at each receptor. For the avoidance of doubt specular impact is a term that refers to the impact produced by the PV panels, whilst ocular impact is the impact observed by the observer.

General Nature of Reflectance from Photovoltaic Panels

2.17. In terms of reflectance, solar PV panels are by no means a highly reflective surface. They are designed to absorb sunlight and not to reflect it. Nonetheless, solar PV panels have a flat polished surface that omit 'specular' reflectance rather than a 'diffuse' reflectance, which would occur from a rough surface. Several studies have shown that solar PV panels (as opposed to Concentrated Solar Power) have similar reflectance characteristics to water, which is much lower than the likes of glass, steel, snow and white concrete by comparison (See Appendix S).

1 Harris, Miller, Miller & Hanson Inc. (November 2010). Technical Guidance for Evaluating Selected Solar Technologies on Airports; 3.1.2 Reflectivity. Technical Guidance for Evaluating Selected Solar Technologies on Airports. Available at:

https://www.faa.gov/airports/environmental/policy_guidance/media/airport-solar-guide.pdf

Similar levels of reflectance can be found in rural environments from the likes of shed roofs and the lines of plastic mulch used in cropping. In terms of the potential for reflectance from solar PV panels to cause hazard and/ or nuisance effects, there have been a number of studies undertaken in respect of schemes in close proximity to airports. The most recent of these was compiled by the Solar Trade Association (STA) in April 2016 and used a number of case studies and expert opinions, including that from Neo. The summary of this report states that "*the STA does not believe that there is cause for concern in relation to the impact of glint and glare from solar PV on aviation and airports…*"[2].

Time Zones / Datums

2.18. Locations in this report are given in Eastings and Northings using the 'British National Grid' grid reference system unless otherwise stated.

2.19. England uses British Summer Time (BST, UTC + 01:00) in the summer months and Greenwich Mean Time (UTC+0) in the winter period. For the purposes of this report all time references are in GMT.

2 Solar Trade Association. (April 2016). Summary of evidence compiled by the Solar Trade Association to help inform the debate around permitted development for non - domestic solar PV in Scotland. Impact of solar PV on aviation and airports. Available at: http://www.solar-trade.org.uk/wp-content/uploads/2016/04/STA-glint-and-glare-briefing-April-2016-v3.pdf

3. LEGISLATION AND GUIDANCE

3.1. There is no legislation and limited guidance or policy available in the UK at present in relation to the assessment of glint and glare from solar developments. Available UK guidance is reviewed below, in addition to references to international guidance where deemed suitable.

NATIONAL PLANNING POLICY GUIDANCE (NPPG) ON RENEWABLE AND LOW CARBON ENERGY (UK) [3]

3.2. Paragraph 013 (Reference ID: 5-013-20150327) sets out planning considerations that relate to large scale ground-mounted solar PV farms. This determines that the deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively. Considerations to be taken into account by local planning authorities are:

> *"The proposal's visual impact, the effect on landscape of glint and glare and on neighbouring uses and aircraft safety;*
>
> *The extent to which there may be additional impacts if solar arrays follow the daily movement of the sun."*

NATIONAL POLICY STATEMENT FOR RENEWABLE ENERGY INFRASTRUCTURE (EN-3)[4]

3.3. Section 2.10 of the EN-3 provides the following commentary in relation to Glint and Glare impacts:

> *2.10.102 Solar panels are specifically designed to absorb, not reflect, irradiation. However, solar panels may reflect the sun's rays at certain angles, causing glint and glare. Glint is defined as a momentary flash of light that may be produced as a direct reflection of the sun in the solar panel. Glare is a continuous source of excessive brightness experienced by a stationary*

[3] NPPG Renewable and Low Carbon Energy. Available at: http://planningguidance.communities.gov.uk/blog/guidance/renewable-and-low-carbon-energy/particular-planning-considerations-for-hydropower-active-solar-technology-solar-farms-and-wind-turbines/#paragraph_012

[4] UK Government, National Policy Statement for renewable energy infrastructure (EN-3). Available at: https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3

observer located in the path of reflected sunlight from the face of the panel. The effect occurs when the solar panel is stationed between or at an angle of the sun and the receptor.

2.10.103 Applicants should map receptors qualitatively to identify potential glint and glare issues and determine if a glint and glare assessment is necessary as part of the application.

2.10.104 When a quantitative glint and glare assessment is necessary, applicants are expected to consider the geometric possibility of glint and glare affecting nearby receptors, and provide an assessment of potential impact and impairment based on the angle and duration of incidence and the intensity of the reflection.

2.10.105 The extent of reflectivity analysis required to assess potential impacts will depend on the specific project site and design. This may need to account for 'tracking' panels if they are proposed as these may cause differential diurnal and/or seasonal impacts.

2.10.106 When a glint and glare assessment is undertaken, the potential for solar PV panels, frames and supports to have a combined reflective quality may need to be assessed, although the glint and glare of the frames and supports is likely to be significantly less than the panels.

2.10.158 Solar PV panels are designed to absorb, not reflect, irradiation. However, the Secretary of State should assess the potential impact of glint and glare on nearby homes, motorists, public rights of way, and aviation infrastructure (including aircraft departure and arrival flight paths).

2.10.159 Whilst there is some evidence that glint and glare from solar farms can be experienced by pilots and air traffic controllers in certain conditions, there is no evidence that glint and glare from solar farms results in significant impairment on aircraft safety. Therefore, unless a significant impairment can be demonstrated, the Secretary of State is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare from solar farms."

3.4. This Glint and Glare Assessment takes account of impacts upon nearby homes, motorists, railway lines, bridleway and aviation receptors.

PLANNING GUIDANCE FOR THE DEVELOPMENT OF LARGE-SCALE GROUND MOUNTED SOLAR PV SYSTEMS

3.5. As outlined within the BRE document 'Planning Guidance for the Development of Large-Scale Ground Mounted Solar PV Systems'[5]:

[5] BRE (2013) *Planning Guidance for the Development of Large Scale Ground Mounted Solar PV Systems*. Available at: https://www.bre.co.uk/filelibrary/pdf/other_pdfs/KN5524_Planning_Guidance_reduced.pdf

"Glint may be produced as a direct reflection of the sun in the surface of the solar PV panel. It may be the source of the visual issues regarding viewer distraction. Glare is a continuous source of brightness, relative to diffused lighting. This is not a direct reflection of the sun, but rather a reflection of the bright sky around the sun. Glare is significantly less intense than glint.

Solar PV panels are designed to absorb, not reflect, irradiation. However, the sensitivities associated with glint and glare, and the landscape/ visual impact and the potential impact on aircraft safety, should be a consideration. In some instances, it may be necessary to seek a glint and glare assessment as part of a planning application. This may be particularly important if 'tracking' panels are proposed as these may cause differential diurnal and/or seasonal impacts.

The potential for solar PV panels, frames and supports to have a combined reflective quality should be assessed. This assessment needs to consider the likely reflective capacity of all of the materials used in the construction of the solar PV farm."

3.6. This Glint and Glare Assessment assesses the overall impact of the Proposed Development onto the local environment.

INTERIM CAA GUIDANCE – SOLAR PHOTOVOLTAIC SYSTEMS (2010)

3.7. There is little guidance on the assessment of glint and glare from solar farms with regards to aviation safety. The Civil Aviation Authority (CAA) has published interim guidance on 'Solar Photovoltaic Systems[6]', they also intend to undertake a review of the potential impacts of solar PV developments upon aviation, however this is yet to be published.

3.8. The interim guidance identifies the key safety issues with regards to aviation, including *"glare, dazzling pilots leading them to confuse reflections with aeronautical lights."* It is outlined that solar farm developers should be aware of the requirements to comply with the Air Navigation Order (ANO), published in 2016 and amended in 2022. In particular, developers should be cognisant of the following articles of the ANO[7], including:

a. ***Article 240*** *– Endangering safety of an aircraft – "A person must not recklessly or negligently act in a manner likely to endanger an aircraft, or any person in an aircraft."*

b. ***Article 224*** *- Lights liable to endanger – "A person must not exhibit in the United Kingdom any light which:*

[6] *CAA (2010) Interim CAA Guidance – Solar Photovoltaic Systems. Available at: https://publicapps.caa.co.uk/modalapplication.aspx?catid=1&appid=11&mode=detail&id=4370*

[7] CAA (2016) Air Navigation: The Order and Regulations. Available at: https://www.caa.co.uk/media/1a2cigrq/air-navigation-order-2016-amended-april-2022-version.pdf

– *by reason of its glare is liable to endanger aircraft taking off or from landing at an aerodrome; or*

– *by reason of its liability to be mistaken for an aeronautical ground light liable to endanger aircraft."*

c. ***Article 225*** *– Lights which dazzle or distract – "A person must not in the United Kingdom direct or shine any light at any aircraft in flight so as to dazzle or distract the pilot of the aircraft."*

3.9. Relevant studies generally agree that there is potential for glint and glare from photovoltaic panels to cause a hazard or nuisance for surrounding receptors, but that the intensity of such reflections is similar to that emanating from still water. This is considerably lower than for other manmade materials such as glass, steel or white concrete (SunPower – 2009).

3.10. These Articles are considered within the assessment of glint and glare for the Proposed Development.

CAA – CAP738: SAFEGUARDING OF AERODROMES 3RD EDITION[8]

3.11. In 2003, the CAA first introduced the CAP738 document to help provide advice and guidance to ensure aerodrome safeguarding. Subsequently, there have been two updates to this document in 2006 and 2020.

3.12. Within the latest edition of CAP738, it outlines that the purpose of the document is to protect an aerodrome and to ensure safe operation. Specifically stating:

"Its purpose is to protect:

Aircraft from the risk of glint and glare e.g. solar panels."

3.13. Within the section named as "Appendix C – Solar Photovoltaic Cells", the following is stated:

"Policy

1. In 2010 the CAA published interim guidance on Solar Photovoltaic Cells (SPCs). At that time, it was agreed that we would review our policy based on research carried out by the Federal Aviation Authorities (FAA) in the United States, in addition to reviewing guidance issued by other National Aviation Authorities. New information and field experience, particularly with respect to compatibility and glare, has resulted in the FAA reviewing its original document 'Technical Guidance for Evaluating Selected Solar Technologies on Airports', which is likely to be subject to change, see link;

[8] Civil Aviation Authority (2020). CAP738 – Safeguarding of Aerodromes 3rd Edition. Available at: https://publicapps.caa.co.uk/docs/33/CAP738%20Issue%203.pdf

https://www.federalregister.gov/documents/2013/10/23/2013-24729/interimpolicy-faa-review-of-solar-energy-system-projects-on-federally-obligated-airports

2. In the United Kingdom there has been a further increase in SPV cells, including some located close to aerodrome boundaries; to date the CAA has not received any detrimental comments or issues of glare at these established sites. Whilst this early indication is encouraging, those responsible for safeguarding should remain vigilant to the possibility."

3.14. In summary, the above is stating that to date, there has not been any complications on airfields due to glare originating from solar farms across the UK.

US Federal Aviation Administration Policy

3.15. The US Federal Aviation Administration (FAA) in their Solar Guide (Federal Aviation Authority, 2010)[9] incorporates a chapter on the impact and assessment of glint from solar panels. It concludes that (although subject to revision):

"…evidence suggests that either significant glare is not occurring during times of operation or if glare is occurring, it is not a negative effect and is a minor part of the landscape to which pilots and tower personnel are exposed."

3.16. The interim policy (Federal Register, 2013)[10] demands that an ocular impact assessment must be assessed at 1-minute intervals from when the sun rises above the horizon until the sun sets below the horizon. Specifically, the developer must use the 'Solar Glare Hazard Analysis Tool' (SGHAT) tool specifically and reference its results as this was developed by the FAA and Sandia National Laboratories as a standard and approved methodology for assessing potential impacts on aviation interests, although it notes other assessment methods may be considered. The SGHAT tool has since been licensed to a private organisation who were also involved in its development and it is the software model used in this assessment.

3.17. Crucially, the policy provides a quantitative threshold that is lacking in the English guidance. This outlines that a solar development will not automatically receive an objection on glint grounds if low intensity glint is visible to pilots on final approach. In other words, low intensity glint with a low potential to form a temporary after-image (Green Glare) would be considered acceptable under US guidance. Due to the lack of legislation and guidance within England, this US document has been utilised as guidance for this report, which is accepted as best practice in the UK with the absence of quantitative guidance.

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[9] FAA (2010), Technical Guidance for Evaluating Selected Solar Technologies on Airports. Available at https://www.faa.gov/airports/environmental/policy_guidance/media/airport-solar-guide-print.pdf

[10] FAA (2013), Interim Policy, *FAA Review of Solar Energy System Projects on Federally Obligated Airports*. Available at https://www.federalregister.gov/documents/2013/10/23/2013-24729/interim-policy-faa-review-of-solar-energy-system-projects-on-federally-obligated-airports

3.18. The FAA guidance states that for a solar PV development to obtain FAA approval or to receive no objection, the following two criteria must be met:

a. No potential for glint or glare in the existing or planned Air Traffic Control Tower (ATCT); and

b. No potential for glare (glint) or "low potential for after-image" (Green Glare) along the final approach path for any existing or future runway landing thresholds (including planned or interim phases), as shown by the approved layout plan (ALP). The final approach path is defined as 2 miles from 50 feet above the landing threshold using a standard 3-degree glide path.

3.19. The geometric analysis included later in this report, which defines the extent and time at which glint may occur, is required by the FAA as the methodology to be used when assessing glint and glare impacts on aviation receptors. This report follows the methodology required by the FAA as it offers the most robust assessment method currently available.

FAA POLICY: REVIEW OF SOLAR ENERGY SYSTEMS PROJECTS ON FEDERALLY - OBLIGATED AIRPORTS[11]

3.20. The FAA updated its Interim Policy from 2013 as part of a commitment to "*update policies and procedures as part of an iterative process as new information and technologies become available.*" The main development regarding Glint and Glare since the Interim Policy is the following:

> *"Initially, FAA believed that solar energy systems could introduce a novel glint and glare effect to pilots on final approach. FAA has subsequently concluded that in most cases, the glint and glare from solar energy systems to pilots on final approach is similar to glint and glare pilots routinely experience from water bodies, glass-façade buildings, parking lots, and similar features. However, FAA has continued to receive reports of potential glint and glare from on-airport solar energy systems on personnel working in ATCT cabs."*

3.21. This is outlining that solar panels are similar to nuisances that are already caused by other existing infrastructure, such as; car parks, glass buildings and water bodies. Furthermore, the ATCT has been outlined as the key receptor to be assessed when determining Glint and Glare impacts from a solar farm.

3.22. Again, in respect of an absence of UK guidance, this is used as the best practice when assessing aviation receptors.

[11] FAA (2021). FAA Policy: Review of Solar Energy Systems Projects on Federally – Obligated Airports. Available at: https://www.federalregister.gov/documents/2021/05/11/2021-09862/federal-aviation-administration-policy-review-of-solar-energy-system-projects-on-federally-obligated

REVIEW OF LOCAL PLAN

Central Lincolnshire Local Plan 2018 - 2040

3.23. The Central Lincolnshire Local Plan (CLLP) 2018 - 2040[12] was adopted by the Central Lincolnshire Joint Strategic Planning Committee (CLJSPC) on 13 April 2023 and it now replaces the 2017 version of the CLLP as the development plan for the City of Lincoln, West Lindsey and North Kesteven District Councils.

3.24. The plan states in **Policy S14: Renewable Energy** that:

> *'Proposals for renewable energy schemes, including ancillary development, will be supported where the direct, indirect, individual and cumulative impacts on the following considerations are, or will be made, acceptable. To determine whether it is acceptable, the following tests will have to be met:*
>
> *i. The impacts are acceptable having considered the scale, siting and design, and the consequent impacts on landscape character; visual amenity; biodiversity; geodiversity; flood risk; townscape; heritage assets, their settings and the historic landscape; and highway safety and rail safety; and*
>
> *ii. The impacts are acceptable on aviation and defence navigation system/communications; and*
>
> *iii. The impacts are acceptable on the amenity of sensitive neighbouring uses (including local residents) by virtue of matters such as noise, dust, odour, shadow flicker, air quality and traffic;*
>
> *Testing compliance with part (i) above will be via applicable policies elsewhere in a development plan document for the area (i.e. this Local Plan; a Neighbourhood Plan, if one exists; any applicable policies in a Minerals or Waste Local Plan); and any further guidance set out in a Supplementary Planning Document.*
>
> *In order to test compliance with part (ii) above will require, for relevant proposals, the submission by the applicant of robust evidence of the potential impact on any aviation and defence navigation system/communication, and within such evidence must be documented areas of agreement or disagreement reached with appropriate bodies and organisations responsible for such infrastructure.*
>
> *In order to test compliance with part (iii) above will require, for relevant proposals, the submission by the applicant of a robust assessment of the potential impact on such users, and the mitigation measures proposed to minimise any identified harm'*

[12] Central Lincolnshire Local Plan, available at: https://www.n-kesteven.gov.uk/planning-building/planning/planning-policy/central-lincolnshire-local-plan-2018-2040

4. METHODOLOGY

4.1. A desk-based assessment was undertaken to identify when and where glint and glare may be visible at receptors within the vicinity of the Proposed Development, throughout the day and the year.

SUN POSITION AND REFLECTION MODEL

Sun Data Model

4.2. The calculations in the solar position calculator are based on equations from Astronomical Algorithms[13]. The sunrise and sunset results are theoretically accurate to within a minute for locations between +/- 72° latitude, and within 10 minutes outside of those latitudes. However, due to variations in atmospheric composition, temperature, pressure and conditions, observed values may vary from calculations.

Solar Reflection Model

4.3. The position of the sun is calculated at one-minute intervals of a typical year.

4.4. In order to determine if a solar reflection will reach a receptor, the following variables are required:

a. Sun position;

b. Observer location; and

c. Tilt, orientation, and extent of the modules in the solar array.

4.5. The model assumes that the azimuth and horizontal angle of the sun is the same across the whole Principal Site. This is considered acceptable due to the distance of the sun from the Proposed Development and the miniscule differences in location of the sun over the Principal Site.

4.6. Once the position of the sun is known for each time interval, a vector reflection equation determines the reflected sun vector, based on the normal vector of the solar array panels. This assumes that the angle of reflection is equal to the angle of incidence reflected across a normal plane. In this instance, the plane being the vector which the solar panels are facing.

4.7. On knowing the vector of the solar reflection, the azimuth is calculated and the horizontal reflection from multiple points within the Principal Site. These are then compared with the

[13] Jean Meeus, Astronomical Algorithms (Second Edition), 1999

azimuth and horizontal angle of the receptor from the Principal Site to determine if it is within range to receive solar reflections.

4.8. The solar reflection in the model is considered to be specular as a worst-case scenario. In practice, the light from the sun will not be fully reflected as solar panels are designed to absorb light rather than reflect it. The text above and Appendix S outlines the reflective properties of solar glass and compares it to other reflective surfaces. Although the exact figures in this report could contain a margin of error, it is included as a visual guide and it agrees with most other reports, in that solar glass has less reflective properties than other types of glass, bodies of water and snow, and that the amount of reflective energy drops as the angle of incidence decreases.

4.9. Most modern solar PV panels have a slight surface texture which should have a small effect on diffusing the solar radiation further. However, this has not been modelled in order to represent a the worst-case scenario assessment.

4.10. The panel reflectivity has been modelled to assume an anti-reflective coating (ARC), which is the industry standard for solar PV panels and further reduces the reflective properties of the solar PV panels.

Determination of Ocular Impact

4.11. The software used for this assessment is based on the Sandia Laboratories Solar Glare Hazard Analysis Tool (SGHAT). This tool is specifically mentioned in the FAA guidance as the software that should be used in this type of assessment. Again, this is following the current best practice available due to the lack of UK guidance.

4.12. Determination of the ocular impact requires knowledge of the direct normal irradiance, solar PV panel reflectance, size and orientation of the array, optical properties of the PV module, and ocular parameters. These values are used to determine the retinal irradiance and subtended source angle used in the ocular hazard plot.

4.13. The ocular impact[14] of viewed glare can be classified into three levels based on the retinal irradiance and subtended source angle: low potential for after-image (green), potential for after-image (yellow), and potential for permanent eye damage (red).

4.14. Green glare can be ignored when looking at ground based and some aviation receptors. Green glare does not cause temporary flash blindness and happens at an instant with very slight disturbance. As per FAA guidelines, mitigation is only required for green glare when affecting an Air Traffic Control Tower, but not for when affecting pilots. Therefore, it can be assumed that green glare is acceptable for ground-based receptors.

[14] Ho, C.K., C.M. Ghanbari, and R.B. Diver, 2011, Methodology to Assess Potential Glint and Glare Hazards From Concentrating Solar Power Plants: Analytical Models and Experimental Validation, Journal of Solar Energy Engineering-Transactions of the Asme, 133(3).

4.15. The subtended source angle represents the size of the glare viewed by an observer, while the retinal irradiance determines the amount of energy impacting the retina of the observer. Larger source angles can result in glare of high intensity, even if the retinal irradiance is low.

4.16. The modelling software outputs a hazard plot for each receptor predicted to be impacted by glare from the PV array. An orange dot is plotted for each minute of glare indicating the irradiance (power density) of the reflected solar light. A yellow dot is plotted to show the irradiance of the Sun when it is viewed directly. The hazard plot shows that the irradiance of the Sun is approximately three orders of magnitude greater than the reflected irradiance, i.e., the power density of solar reflections from photovoltaic panels are approximately 0.1% that of viewing the Sun. Due to the disparity in irradiance, whenever the Sun is observed in the same frame as solar reflections from a PV array, the Sun will be main source of glare impacts upon the observer. In such a case, the impact is deemed to be Low as a worst-case scenario.

Relevant Parameters of the Proposed Development

4.17. The photovoltaic panels will either be mounted as a fixed south facing or single axis tracker. The fixed south facing panels are oriented in a southwards direction to maximise solar gain and will remain in a fixed position throughout the day and during the year (i.e. they will not rotate to track the movement of the sun). The panels will face southwards and will be inclined at an angle of between 5 and 45 degrees. The single axis tracker panels will be orientated north south and face in an east-west direction to track the movement of the sun throughout the day, with the fixed south facing angle altering between +60 and -60 degrees.

4.18. For the fixed south facing arrangement, at each receptor, 5 and 45 degrees were assessed as this by virtue will capture the worst case at either end of the tilt scale for each receptor. The model output shows the total glare per year at each receptor for the 5 degree and 45 degree model outputs, the worst-case result was then used in the results table and compared against the tracker results for each receptor.

4.19. For the single axis tracking arrangement, the model assesses each angle across the day because the tilt will change as it tracks the sun. The angle will start at +60 degrees in the morning and then track through the day to -60 degrees at night in the same way the tracker panels will work.

4.20. The height of the panels above ground level is a maximum of 3.5m and points at the top of the panels are used to determine the potential for glint and glare generation.

4.21. Both tracker and fixed tilt panels will be assessed as part of the assessment below, with both considered when determining the impact upon a receptor.

IDENTIFICATION OF RECEPTORS

Ground Based Receptors

4.22. Glint is most likely to impact upon a ground-based receptor close to dusk and dawn, when the sun is at its lowest in the sky. Therefore, any effect would likely occur early in the day or late in the day, reflected to the west at dawn and east at dusk.

4.23. A 1km Study Area from the panels was deemed appropriate for the assessment of ground-based receptors as this seemed to contain a good spread of residential and road receptors in most directions from the Principal Site. The further distance a receptor is from a solar farm, the less chance it has of being affected by glint and glare due to scattering of the reflected beam and atmospheric attenuation, in addition to obstructions from ground sources, such as any intervening vegetation or buildings. This is based on best practice and our experience of completing Glint and Glare Assessments across the UK and Ireland.

4.24. An observer height of 2m was utilised for residential receptors, as this is a typical height for a ground-floor window. With regards to road users, a receptor height of 1.5m was employed as this is typical of eye level. Rail driver's eye level was assumed to be 2.75m above the rail for signal signing purposes and therefore this is the height used for assessment purposes. Horse rider eye level has been assumed to be 2.5m above ground level for bridleway receptors.

4.25. An assessment was undertaken to determine zones where solar reflections will never be directed near ground level.

4.26. Where there are several residential receptors within close proximity, a representative dwelling or dwellings is/are chosen for full assessment as the impacts will not vary to any significant degree. Where small groups of receptors have been evident, the receptors on either end of the group have been analysed in detail with the worst-case impacts attributed to that receptor.

Aviation

4.27. Glint is only considered to be an issue with regards to aviation safety when the solar farm lies within close proximity to a runway, particularly when the aircraft is descending to land. This is outlined within the FAA guidance as being the key aviation receptors to assess and is considered best practice in the absence of UK guidance.

4.28. Should a solar farm be proposed within the safeguarded zone of an aerodrome, then a full geometric study may be required, which would determine if there is potential for glint and glare at key locations, most likely on the descent to land.

4.29. Buffer zones to identify aviation assets vary depending on the safeguarding criteria of that asset. All aerodromes within 30km will be identified, however, generally the detailed assessments are only required within: 20km for large international aerodromes, 10km for military aerodromes and 5km for small aerodromes.

MAGNITUDE OF IMPACT

Static Receptors

4.30. Although there is no specific guidance set out to identify the magnitude of impact from solar reflections, the following criteria has been set out for the purposes of this report:

a. **High -** Solar reflections impacts of over 30 hours per year or over 30 minutes per day.

b. **Medium -** Solar reflections impacts between 20 and 30 hours per year or between 20 minutes and 30 minutes per day.

c. **Low -** Solar reflections impacts up to 20 hours per year or up to 20 minutes per day.

d. **None -** Effects not geometrically possible or no visibility of reflective surfaces likely due to high levels of intervening screening

Moving Receptors (Road and Rail)

4.31. Again, no specific guidance is available to identify the magnitude of impact from solar reflections on moving receptors except in aviation, however, it is thought that a similar approach should be applied to moving receptors as aviation, based on the ocular impact and the potential for after-image.

4.32. The FAA guidance states that for a solar PV development to obtain FAA approval or to receive no objection, the following criteria must be met:

a. No potential for glare (glint) or "*low potential for after-image*" along the final approach path for any existing or future runway landing thresholds (including planned or interim phases), as shown by the approved layout plan (ALP).

4.33. The following criteria has been set out for the purposes of this report:

a. **High -** Solar reflections impacts consisting of any amount of yellow glare.

b. **Low -** Solar reflections impacts consisting of any amount of only green glare.

c. **None -** Effects not geometrically possible or no visibility of reflective surfaces likely due to high levels of intervening screening.

4.34. The FAA produced an evaluation of glare as a hazard and concluded in their report[15] that:

[15] Federal Aviation Authority, Evaluation of Glare as a Hazard for General Aviation Pilots on Final Approach (2015), Available at https://libraryonline.erau.edu/online-full-text/faa-aviation-medicine-reports/AM15-12.pdf

"The more forward the glare is and the longer the glare duration, the greater the impairment to the pilots' ability to see their instruments and to fly the aircraft. These results taken together suggest that any sources of glare at an airport may be potentially mitigated if the angle of the glare is greater than 25 deg from the direction that the pilot is looking in. We therefore recommend that the design of any solar installation at an airport consider the approach of pilots and ensure that any solar installation that is developed is placed such that they will not have to face glare that is straight ahead of them or within 25 deg of straight ahead during final approach."

4.35. It is reasonable to assume that although this report is assessing pilots vision impairment, it can also be applied to drivers of other road and rail vehicles. Therefore, the driver's field of view will also be analysed where required and if the glare is out with 25 degrees either side of their line of sight then any impacts will reduce to None.

Moving Receptors (Aviation)

Approach Paths

4.36. Each final approach path which has the potential to receive glint is assessed using the SGHAT model. The model assumes an approach bearing on the runway centreline, a 3-degree glide path with the origin 50ft (15.24m) above the runway threshold.

4.37. The computer model considers the pilots field of view. The azimuthal field of view (AFOV) or horizontal field of view (HFOV) as it is sometimes referred to, refers to the extents of the pilot's horizontal field of view measured in degrees left and right from directly in front of the cockpit. The vertical field of view (VFOV) refers to the extents of the pilot's vertical field of view measured in degrees from directly in front of the cockpit. The HFOV is modelled at 50 degrees left and right from the front of the cockpit whilst the VFOV is modelled at 30 degrees.

4.38. The FAA guidance states that there should be no potential for glare or '*low potential for after-image*' at any existing or future planned runway landing thresholds for the Proposed Development to be acceptable.

Air Traffic Control Tower (ATCT)

4.39. An air traffic controller uses the visual control room to monitor and direct aircraft on the ground, approaching and departing the aerodrome. It is essential that air traffic controllers have a clear unobstructed view of the aviation activity. The key areas on an aerodrome are the views towards the runway thresholds, taxiways and aircraft bays.

4.40. The FAA guidance states that no solar reflection towards the ATCT should be produced by a proposed solar development, however, this should be assessed on a site by site case and will depend on the operations at a particular aerodrome.

4.41. In order to determine the impact on the ATCT, the location and height of the tower will need to be fed into the SGHAT model and where there is a potential for 'low potential for After-Image' or more, then mitigation measures will be required.

Assessment Limitations

4.42. Below is a list of assumptions and limitations of the model and methods used within this report:

a. The model does not consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, vegetation, hills, buildings, etc;

b. The model does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results;

c. Due to variations in atmospheric composition, temperature, pressure and conditions, observed values may vary slightly from calculated positions;

d. The model does not account for the effects of diffraction; however, buffers are applied as a factor of safety; and

e. The model assumes clear skies at all times and does not account for meteorological effects such as cloud cover, fog, or any other weather event which may screen the sun.

4.43. Due to these assumptions and limitations the model overestimates the number of minutes of glint and glare which are possible at each receptor and presents the worst-case scenario. Where glint and glare are predicted a visibility assessment is carried out to determine a more accurate, real-world prediction of the impacts.

5. BASELINE CONDITIONS

GROUND BASED RECEPTORS REFLECTION ZONES

5.1. Based on the relatively flat topography in the area, solar reflections between five degrees below the horizontal plane to five degrees above it are described as near horizontal. Reflections from the Proposed Development within this arc have the potential to be seen by receptors at or near ground level.

5.2. Further analysis showed that this will only occur between the azimuth of 238.92 degrees and 298.18 degrees in the western direction (late day reflections) and 64.36 degrees and 129.27 degrees in the eastern direction (morning reflections) and therefore any ground-based receptor outside these arcs will not have any impact from solar reflections.

5.3. Figure 1A, 2 and 3 of Appendix A show the respective study areas whilst also subtracting from this the areas where solar reflections will not impact on ground-based receptors due to the reasons set out in paragraphs 5.1 to 5.2.

Residential Receptors

5.4. Residential receptors located within 1km of the Principal Site have been identified (Table 1). Glint was assumed to be possible if the receptor is located within the ground-based receptor zones as outlined previously.

5.5. There are 10 residential receptors (Receptors 204 - 213) which are within the no-reflection zones and are clearly identifiable in Figure 1A: Appendix A. The process of how these are calculated is explained in paragraphs 5.1 to 5.2 of this report.

5.6. As per the methodology section, where there are a number of residential receptors within close proximity, a representative dwelling or dwellings is/are chosen for detailed analysis as the impacts will not vary to any significant degree. Where small groups of receptors are evident, the receptors on either end of the group have been assessed in detail. The number in brackets indicates which residential area the receptor belongs.

Table 1: Residential Based Receptors

Receptor	Easting	Northing	Glint and Glare Possible
1	487963	365441	Yes
2	487978	365406	Yes
3	488253	365492	Yes

Receptor	Easting	Northing	Glint and Glare Possible
4 (1)	488070	365269	Yes
5 (1)	488225	365212	Yes
6	488225	365005	Yes
7	489304	365747	Yes
8	487179	364099	Yes
9	487216	364196	Yes
10	487317	364132	Yes
11	487443	364248	Yes
12	487579	364244	Yes
13 (2)	487697	364576	Yes
14 (2)	487714	364377	Yes
15 (2)	488000	364342	Yes
16 (2)	488004	364188	Yes
17 (2)	487901	364108	Yes
18 (2)	487930	363841	Yes
19 (2)	488065	363805	Yes
20	487650	363633	Yes
21	488188	363726	Yes
22	488319	363762	Yes
23 (3)	488400	364004	Yes
24 (3)	488421	363943	Yes
25	488440	363675	Yes
26	488495	363772	Yes
27	488575	363728	Yes
28	489433	364465	Yes
29	489737	364087	Yes

Receptor	Easting	Northing	Glint and Glare Possible
30	487862	363142	Yes
31	488023	363088	Yes
32	488084	363109	Yes
33	488127	363111	Yes
34	488174	363104	Yes
35	488786	362890	Yes
36	488861	362941	Yes
37	489019	363064	Yes
38 (4)	490121	364237	Yes
39 (4)	490193	364119	Yes
40 (4)	490220	364005	Yes
41 (4)	490182	363942	Yes
42	491200	366115	Yes
43 (5)	491341	366078	Yes
44 (5)	491449	366057	Yes
45 (5)	491545	366045	Yes
46	491653	366024	Yes
47	491699	366024	Yes
48	491079	365997	Yes
49	491024	365971	Yes
50 (6)	491035	365884	Yes
51 (6)	491017	365805	Yes
52 (7)	490416	365606	Yes
53 (7)	490500	365664	Yes
54 (7)	490658	365649	Yes
55 (7)	490790	365643	Yes

Receptor	Easting	Northing	Glint and Glare Possible
56 (7)	490802	365783	Yes
57 (7)	490926	365708	Yes
58 (7)	491030	365633	Yes
59 (7)	491007	365479	Yes
60 (7)	490997	365381	Yes
61 (7)	491108	365323	Yes
62 (7)	490882	365236	Yes
63 (7)	490816	365152	Yes
64 (7)	490763	365410	Yes
65 (7)	490653	365451	Yes
66 (7)	490518	365487	Yes
67 (7)	490452	365526	Yes
68 (8)	491312	365721	Yes
69 (8)	491399	365694	Yes
70 (8)	491329	365577	Yes
71	490487	365240	Yes
72	490931	364476	Yes
73 (9)	490909	364374	Yes
74 (9)	490940	364292	Yes
75	490868	364241	Yes
76	491022	364167	Yes
77	491116	364088	Yes
78	491529	364544	Yes
79	491987	363881	Yes
80	492065	363641	Yes
81	490603	363298	Yes

Receptor	Easting	Northing	Glint and Glare Possible
82	490525	363206	Yes
83	489864	636133	Yes
84	488267	362524	Yes
85	488297	362544	Yes
86	488309	362553	Yes
87 (10)	489141	362357	Yes
88 (10)	489142	362245	Yes
89 (10)	489181	362168	Yes
90 (10)	489372	362168	Yes
91 (10)	489587	362328	Yes
92 (10)	489789	362483	Yes
93 (10)	489938	362506	Yes
94 (10)	489978	362577	Yes
95 (10)	489987	362833	Yes
96 (10)	490126	362840	Yes
97 (10)	490187	362791	Yes
98 (10)	490203	362667	Yes
99 (10)	490140	362539	Yes
100 (10)	490158	362394	Yes
101 (10)	490171	362296	Yes
102 (10)	490185	362205	Yes
103 (10)	489961	362214	Yes
104 (10)	489761	362223	Yes
105 (10)	489549	362196	Yes
106 (10)	489573	362091	Yes
107 (10)	489637	361934	Yes

Receptor	Easting	Northing	Glint and Glare Possible
108 (10)	489711	361790	Yes
109 (10)	489751	361698	Yes
110 (10)	489610	361694	Yes
111 (10)	489506	361669	Yes
112 (10)	489488	361740	Yes
113 (10)	489339	361713	Yes
114 (10)	489239	361699	Yes
115 (10)	489163	361822	Yes
116 (10)	489139	361969	Yes
117 (11)	491495	363126	Yes
118 (11)	491386	362966	Yes
119 (11)	491669	363040	Yes
120 (11)	491569	362900	Yes
121	491904	362663	Yes
122	491650	362199	Yes
123 (12)	491796	362404	Yes
124 (12)	491858	362453	Yes
125	492021	362475	Yes
126 (13)	492420	362744	Yes
127 (13)	492180	362747	Yes
128 (13)	492248	362677	Yes
129 (13)	492275	362579	Yes
130 (13)	492466	362672	Yes
131 (13)	492586	362650	Yes
132	492578	362508	Yes
133	492596	362450	Yes

Receptor	Easting	Northing	Glint and Glare Possible
134 (14)	488938	361375	Yes
135 (14)	489077	361408	Yes
136 (15)	490771	361777	Yes
137 (15)	490843	361753	Yes
138 (15)	490801	361639	Yes
139 (16)	490626	361482	Yes
140 (16)	490660	361421	Yes
141 (16)	490722	361371	Yes
142 (16)	490797	361455	Yes
143 (17)	490693	361191	Yes
144 (17)	490696	361110	Yes
145	491117	360791	Yes
146	491563	361095	Yes
147	491616	361067	Yes
148	491811	361038	Yes
149	493266	361294	Yes
150	493322	361266	Yes
151	493174	360962	Yes
152 (18)	491565	360729	Yes
153 (18)	491498	360657	Yes
154 (18)	491565	360620	Yes
155	491708	360605	Yes
156	492287	360549	Yes
157	489986	360519	Yes
158	490606	360544	Yes
159	491040	360500	Yes

Receptor	Easting	Northing	Glint and Glare Possible
160	491089	360525	Yes
161	492182	360406	Yes
162	489156	360021	Yes
163	489150	359996	Yes
164	489979	359919	Yes
165	492346	360030	Yes
166	492449	360035	Yes
167	492974	359777	Yes
168	493675	359717	Yes
169 (19)	491234	360450	Yes
170 (19)	491369	360436	Yes
171 (19)	491475	360410	Yes
172 (19)	491533	360391	Yes
173 (19)	491529	360301	Yes
174 (19)	491529	360212	Yes
175 (19)	491553	360024	Yes
176 (19)	491465	359831	Yes
177 (19)	491443	359682	Yes
178 (19)	491248	359705	Yes
179 (19)	491145	359715	Yes
180 (19)	491012	359725	Yes
181 (19)	491026	359559	Yes
182 (19)	490897	359394	Yes
183 (19)	490723	359417	Yes
184 (19)	490728	359542	Yes
185 (19)	490769	359697	Yes

Receptor	Easting	Northing	Glint and Glare Possible
186 (19)	490898	359831	Yes
187 (19)	490907	359968	Yes
188 (19)	490923	360097	Yes
189 (19)	490942	360215	Yes
190 (19)	491013	360263	Yes
191 (19)	491108	360228	Yes
192 (19)	491193	360320	Yes
193	491210	359344	Yes
194 (20)	488311	359269	Yes
195 (20)	488454	359222	Yes
196 (21)	488760	359326	Yes
197 (21)	488740	359231	Yes
198 (21)	488860	359128	Yes
199 (21)	489018	359093	Yes
200 (21)	489166	359055	Yes
201 (21)	488983	358929	Yes
202 (21)	488764	359088	Yes
203 (21)	488600	359126	Yes
204 (22)	488992	362902	Yes
205 (22)	489088	362974	Yes
206 (22)	489220	363056	Yes
207 (22)	489329	363139	Yes
208 (22)	489436	363225	Yes
209 (22)	489525	363293	Yes
210 (22)	489602	363364	Yes
211 (22)	489682	363412	Yes

Receptor	Easting	Northing	Glint and Glare Possible
212 (22)	489768	363467	Yes
213 (22)	489860	363387	Yes
214 (22)	489921	363299	Yes
215 (22)	489789	363144	Yes
216 (22)	489873	363003	Yes
217 (22)	490078	363081	Yes
218 (22)	490154	363039	Yes
219 (22)	490102	362915	Yes
220 (22)	489936	362842	Yes
221 (22)	489932	362722	Yes
222 (22)	489711	362865	Yes
223 (22)	489598	362892	Yes
224 (22)	489449	362877	Yes
225 (22)	489302	362818	Yes
226 (22)	489300	362703	Yes
227 (22)	489126	362691	Yes
228 (22)	489015	362722	Yes
229 (23)	488956	366255	No
230 (23)	489230	366155	No
231 (24)	490225	366479	No
232 (24)	490275	366371	No
233 (24)	490248	366185	No
234 (24)	490355	366094	No
235 (25)	489998	365984	No
236 (25)	490149	365957	No
237 (26)	490838	366078	No

Receptor	Easting	Northing	Glint and Glare Possible
238 (26)	490867	366076	No

Road / Rail Receptors

5.7. There are 44 roads within the 1km Study Area that require a detailed Glint and Glare Assessment: A46, A1434, Moor Lane (West), Halfway House Lane, Green Lane, Southern Lane, Morton Lane, Beehive Lane, Morton Road, Moor Lane (North), Lincoln Lane, Middle Lane, Main Street, Little Thorpe Lane, Fosse Lane, Main Road, Bridge Road (North), Moor Lane (South), Norton Lane, Butts Lane, South Hykeham Road, Dovecote Lane, Bridge Road (East), Bassingham Road (West), Thurlby Road, Croft Lane, Harmston Road, Chapel Lane, Church Road, Bassingham Road (East), Lincoln Road, Carlton Road, Linga Lane, Pasture Lane, Clay Lane, Newark Road (West), Main Street, Old Brikkiln Lane, Rinks Lane, Newark Road (East), Eagle Lane, Station Road, Norton Road (South) and Norton Disney Road. There are some minor roads that serve dwellings; however, these have been dismissed as vehicle users of these roads will likely be travelling at low speeds and, therefore, there is a negligible risk of safety impacts resulting from glint and glare of the Proposed Development.

5.8. The ground receptor no-reflection zones are clearly identifiable on **Figure 2: Appendix A** and the process of how these are calculated is explained in **paragraphs 5.1 to 5.2** of this report.

5.9. **Table 2** shows a list of receptors points within the study area which are 200 apart.

Table 2: Road Based Receptors

Receptor	Easting	Northing	Glint and Glare Possible
1	488287	362472	Yes
2	488448	362593	Yes
3	488616	362704	Yes
4	488783	362815	Yes
5	488937	362940	Yes
6	489097	363056	Yes
7	489255	363175	Yes
8	489415	363300	Yes
9	489566	363412	Yes
10	489720	363534	Yes

Receptor	Easting	Northing	Glint and Glare Possible
11	489876	363647	Yes
12	490021	363755	Yes
13	490190	363880	Yes
14	490339	363998	Yes
15	490493	364112	Yes
16	490643	364222	Yes
17	490801	364341	Yes
18	490953	364447	Yes
19	491115	364557	Yes
20	491277	364676	Yes
21	491426	364786	Yes
22	491584	364896	Yes
23	491740	365016	Yes
24	491898	365129	Yes
25	492048	365259	Yes
26	492006	365451	Yes
27	491944	365646	Yes
28	491880	365833	Yes
29	492216	365368	Yes
30	487597	363197	Yes
31	487792	363175	Yes
32	487930	363100	Yes
33	488129	363088	Yes
34	488324	363052	Yes
35	488523	363016	Yes
36	488718	362969	Yes
37	488926	362724	Yes

Receptor	Easting	Northing	Glint and Glare Possible
38	487811	363309	Yes
39	487767	363502	Yes
40	487724	363697	Yes
41	487680	363891	Yes
42	487650	364089	Yes
43	487638	364289	Yes
44	487658	364488	Yes
45	487683	364688	Yes
46	487700	364860	Yes
47	487871	364956	Yes
48	488011	365090	Yes
49	488163	365212	Yes
50	488025	365347	Yes
51	487950	365523	Yes
52	487915	365711	Yes
53	488065	365531	Yes
54	488209	365661	Yes
55	488358	365783	Yes
56	488480	365935	Yes
57	488583	366094	Yes
58	487497	364200	Yes
59	487301	364162	Yes
60	491111	366086	Yes
61	491301	366055	Yes
62	491498	366020	Yes
63	491695	365987	Yes
64	490405	365652	Yes

Receptor	Easting	Northing	Glint and Glare Possible
65	490581	365639	Yes
66	490780	365624	Yes
67	490975	365576	Yes
68	491162	365533	Yes
69	491366	365529	Yes
70	491550	365454	Yes
71	491725	365376	Yes
72	491901	365299	Yes
73	490688	365487	Yes
74	491058	365938	Yes
75	490993	365773	Yes
76	490881	365466	Yes
77	490863	365270	Yes
78	490842	365066	Yes
79	490858	364865	Yes
80	490828	364674	Yes
81	490745	364495	Yes
82	490900	364131	Yes
83	491048	363995	Yes
84	491108	363811	Yes
85	491138	363612	Yes
86	491167	363421	Yes
87	491181	363217	Yes
88	491171	363020	Yes
89	491121	362829	Yes
90	491045	362677	Yes
91	490870	362681	Yes

Receptor	Easting	Northing	Glint and Glare Possible
92	490826	362486	Yes
93	490757	362309	Yes
94	490749	362107	Yes
95	490746	361908	Yes
96	490742	361706	Yes
97	490719	361508	Yes
98	490530	361463	Yes
99	490328	361483	Yes
100	490126	361486	Yes
101	489933	361492	Yes
102	489734	361492	Yes
103	489529	361482	Yes
104	489338	361464	Yes
105	489181	361501	Yes
106	489146	361699	Yes
107	489109	361891	Yes
108	489093	362090	Yes
109	489001	361414	Yes
110	488808	361362	Yes
111	488614	361313	Yes
112	490849	364518	Yes
113	491261	363314	Yes
114	491423	363199	Yes
115	491562	363064	Yes
116	491685	363008	Yes
117	491799	362901	Yes
118	491888	362729	Yes

Receptor	Easting	Northing	Glint and Glare Possible
119	491980	362545	Yes
120	491295	362944	Yes
121	491485	362968	Yes
122	491867	363062	Yes
123	492033	363157	Yes
124	492041	363340	Yes
125	492036	363540	Yes
126	492047	363732	Yes
127	490678	361328	Yes
128	490676	361115	Yes
129	490742	360912	Yes
130	490702	360717	Yes
131	490652	360536	Yes
132	490841	360506	Yes
133	491038	360486	Yes
134	491243	360474	Yes
135	491213	360328	Yes
136	492557	362710	Yes
137	492359	362707	Yes
138	492227	362636	Yes
139	492410	362642	Yes
140	492217	362588	Yes
141	492043	362508	Yes
142	491865	362434	Yes
143	491710	362310	Yes
144	491590	362150	Yes
145	491566	361990	Yes

Receptor	Easting	Northing	Glint and Glare Possible
146	491615	361828	Yes
147	491535	361655	Yes
148	491527	361461	Yes
149	491520	361260	Yes
150	491524	361063	Yes
151	491583	360916	Yes
152	491538	360722	Yes
153	491499	360529	Yes
154	491447	360343	Yes
155	491376	360211	Yes
156	491294	360038	Yes
157	491190	359886	Yes
158	491032	359759	Yes
159	490993	359571	Yes
160	490915	359386	Yes
161	490821	359207	Yes
162	490848	359007	Yes
163	491577	360197	Yes
164	491768	360217	Yes
165	491830	360072	Yes
166	492038	360034	Yes
167	492231	360017	Yes
168	492430	360020	Yes
169	492625	360003	Yes
170	492800	360015	Yes
171	492995	359971	Yes
172	493148	359895	Yes

Receptor	Easting	Northing	Glint and Glare Possible
173	493334	359832	Yes
174	493471	359747	Yes
175	493624	359656	Yes
176	490568	360360	Yes
177	490512	360170	Yes
178	490446	359982	Yes
179	490429	359793	Yes
180	490328	359660	Yes
181	490153	359636	Yes
182	489987	359632	Yes
183	489813	359514	Yes
184	489653	359395	Yes
185	489489	359283	Yes
186	489311	359223	Yes
187	489192	359099	Yes
188	488272	359266	Yes
189	488455	359190	Yes
190	488645	359136	Yes
191	488839	359103	Yes
192	489030	359060	Yes
193	491065	359389	Yes
194	491229	359303	Yes
195	491371	359168	Yes
196	490108	358665	Yes
197	490226	358812	Yes
198	490348	358962	Yes
199	490445	359076	Yes

Receptor	Easting	Northing	Glint and Glare Possible
200	490577	359217	Yes
201	490692	359378	Yes
202	490808	359542	Yes
203	490863	359734	Yes
204	491231	359732	Yes
205	491430	359737	Yes
206	491577	359661	Yes
207	491773	359639	Yes
208	491967	359637	Yes
209	488314	360698	Yes
210	488382	360509	Yes
211	488427	360314	Yes
212	488525	360138	Yes
213	488583	359953	Yes
214	488617	359757	Yes
215	488664	359567	Yes
216	488759	359447	Yes
217	488723	359250	Yes
218	488685	366264	No
219	488863	366363	No
220	489027	366260	No
221	489197	366155	No
222	489388	366099	No
223	489579	366059	No
224	489775	366015	No
225	489968	365973	No
226	490169	365938	No

Receptor	Easting	Northing	Glint and Glare Possible
227	490338	366036	No
228	490527	366075	No
229	490723	366096	No
230	490919	366096	No
231	490201	366509	No
232	490260	366318	No
233	490319	366126	No
234	490376	365845	No
235	489140	358953	No
236	489115	358763	No
237	489112	358570	No
238	488932	358524	No
239	489234	358672	No
240	489409	358706	No
241	489604	358661	No
242	489786	358605	No
243	489977	358537	No

5.10. There is one railway line, the Nottingham to Lincoln Line, within 1km of the Principal Site that requires a detailed Glint and Glare Assessment.

5.11. The ground receptor no-reflection zones are clearly identifiable on **Figure 3: Appendix A** and the process of how these are calculated is explained in **paragraphs 5.1 to 5.2** of this report.

5.12. **Table 3** shows a list of receptors points within the Study Area which are 200m apart.

Table 3: Rail Based Receptors

Receptor	Easting	Northing	Glint and Glare Possible
1	487057	364582	Yes
2	487205	364718	Yes

Receptor	Easting	Northing	Glint and Glare Possible
3	487353	364852	Yes
4	487501	364988	Yes
5	487647	365120	Yes
6	487794	365257	Yes
7	487941	365393	Yes
8	488087	365528	Yes
9	488233	365664	Yes
10	488388	365787	Yes
11	488548	365900	Yes
12	488717	366007	Yes
13	488892	366105	Yes
14	489075	366188	No
15	489261	366257	No
16	489449	366313	No
17	489645	366358	No
18	489837	366404	No
19	490034	366451	No
20	490225	366494	No

Bridleway Receptors

5.13. All bridleways within 1km of the Proposed Development have been considered. Other Public Right of Ways (PRoWs) have not been considered as the only PRoW with potential safety impacts because of glint and glare are bridleways due to the horse riders.

5.14. The ground receptor no-reflection zones are clearly identifiable on **Figure 4A: Appendix A** and the process of how these are calculated is explained in **paragraphs 5.1 to 5.2** of this report.

5.15. **Table 4** shows a list of receptors points within the study area which are 200m apart.

Table 4: Bridleway Based Receptors

Receptor	Easting	Northing	Glint and Glare Possible
1	488244	364983	Yes
2	488243	364790	Yes
3	488219	364600	Yes
4	488297	364415	Yes
5	488365	364235	Yes
6	488407	364038	Yes
7	489196	365662	Yes
8	489249	365469	Yes
9	489374	365386	Yes
10	489567	365430	Yes
11	489753	365492	Yes
12	490130	365543	Yes
13	490331	365528	Yes
14	489503	365325	Yes
15	489581	365146	Yes
16	489596	364952	Yes
17	490583	365489	Yes
18	490506	365323	Yes
19	490374	365189	Yes
20	490620	365225	Yes
21	490778	365150	Yes
22	488136	363471	Yes
23	488308	363571	Yes
24	488478	363674	Yes
25	488642	363606	Yes
26	488819	363658	Yes

Receptor	Easting	Northing	Glint and Glare Possible
27	488964	363785	Yes
28	489004	363934	Yes
29	488931	364055	Yes
30	488954	364244	Yes
31	489051	364388	Yes
32	489234	364437	Yes
33	489386	364436	Yes
34	489501	364325	Yes
35	489582	364146	Yes
36	489720	364078	Yes
37	489816	363956	Yes
38	489847	363758	Yes
39	489854	363104	Yes
40	489919	362921	Yes
41	489422	362383	Yes
42	489592	362378	Yes
43	489550	362474	Yes
44	489738	362490	Yes
45	491084	362668	Yes
46	491270	362603	Yes
47	491447	362677	Yes
48	491538	362338	Yes
49	491376	362468	Yes
50	491347	362615	Yes
51	491537	362667	Yes
52	491723	362714	Yes

Receptor	Easting	Northing	Glint and Glare Possible
53	492496	361894	Yes
54	492454	361708	Yes
55	492309	361684	Yes
56	492146	361653	Yes
57	492051	361495	Yes
58	491962	361330	Yes
59	491925	361139	Yes
60	491836	361009	Yes
61	491849	361343	Yes
62	491679	361441	Yes
63	491159	360779	Yes
64	491067	360661	Yes
65	489968	359912	Yes
66	489788	359988	Yes
67	489671	360081	Yes
68	489478	360121	Yes
69	489279	360162	Yes
70	490462	359869	Yes
71	490655	359827	Yes
72	490847	359771	Yes
73	491519	359959	Yes
74	491716	359932	Yes
75	491884	359963	Yes
76	492958	359760	Yes
77	492906	359569	Yes
78	490390	359003	Yes

Receptor	Easting	Northing	Glint and Glare Possible
79	490534	358867	Yes
80	489938	365550	No
81	489768	358602	No
82	489699	358414	No

Aviation Receptors

5.16. Aerodromes within 30km of the Principal Site can be found in **Table 5.**

Table 5: Airfields within close proximity

Airfield	Distance (km)	Use
Peacocks Farm	0.23	Small grass strip
South Hykeham Airfield	1.79	Small grass strip
South Scarle Airfield	2.76	Small grass strip
Blackmoor Farm	3.47	Small grass strip
RAF Waddington	5.93	Military
Thorney Airfield	7.33	Small grass strip
Heath Farm	7.49	Small grass strip
Grassthorpe Grange Airfield	8.43	Small grass strip
Griffins Farm	8.95	Small grass strip
Rectory Farm	12.51	Small grass strip
Glebe Farm	12.87	Small grass strip
Darlton Airfield	14	Small grass strip
RAF Scamptom	14.46	Military
Knapthorne Lodge Airfield	14.78	Small grass strip
The Cottage Farm	14.82	Small grass strip
RAF Cranwell	14.91	Military
Stow Airfield	15.84	Small grass strip

Airfield	Distance (km)	Use
Foston Airfield	16.59	Small grass strip
Headon Farm	17.2	Small grass strip
Forwood Farm	18.45	Small grass strip
RAF Barkston Heath	18.94	Military
RAF Syerston	19.08	Military
Ingham Airfield	19.13	Small grass strip
Grove Moor Farm	19.94	Small grass strip
Nanbeck Farm	20.01	Small grass strip
Old Manor Farm	20.91	Small grass strip
Retford/Gamston Airport	21.34	Licensed aerodrome
Sturgate Airfield	22.49	Small concrete strip
Bankwood Farm	23.65	Small grass strip
Wickenby Aerodrome	24.54	Licensed aerodrome
Hallyards Farm	25.59	Small grass strip
Jericho Farm	28.75	Small grass strip
RAF Conningsby	28.93	Military
Langar Airfield	29.43	Small concrete strip
Grange Farm	29.71	Small grass strip

5.17. As shown in **Table 5**, there are 35 aerodromes within 30km of the Principal Site. However, only RAF Waddington, Peacocks Farm, South Hykeham Airfield, South Scarle Airfield and Blackmoor Farm require a detailed assessment as the Principal Site is located within their safeguarding buffer zones, outlined in **paragraph 4.27 - 4.29.**

5.18. The other 30 aerodromes do not require detailed assessments due to their location in relation to the Principal Site falling outside of the buffer zones outlined in **paragraph 4.27 - 4.29.**

RAF Waddington

5.19. RAF Waddington (ICAO code EGXW) is a military aerodrome. It is located approximately 4 nautical miles (NM) or 7.4km south of Lincoln.

5.20. The elevation of the aerodrome is 230ft (70m). It has one blacktop concrete ends runway, details of which are given in **Table 6**.

Table 6: Runways at RAF Waddington

Runway Designation	True Bearing (°)	Length (m)	Width (m)
02	021.69	2399	58
20	201.70	2399	58

5.21. The threshold location and height of the runway at RAF Waddington are given in Table 7.

Table 7: Runway Threshold Locations and Heights

Runway Designation	Threshold Latitude	Threshold Longitude	Height AOD (m)
02	53° 09′ 15.66″ N	000° 31′ 54.02″ W	69
20	53° 10′ 36.99″ N	000° 31′ 00.19″ W	67

5.22. The ARP is located at the midpoint of Runway 02/20. The actual location of the ARP and the ATCT is given in Table 8. The height of the ATCT is estimated to be 10m based off images from Google Earth.

Table 8: RAF Waddington Reference Point

	Latitude	Longitude	Eastings	Northings
ARP	53° 09′ 58.86′′ N	000° 31′ 25.45′′ W	498790	364266
ATCT	53° 10′ 19.80′′ N	000° 31′ 25.68′′ W	498769	364911

Peacocks Farm

5.23. Peacocks Farm is a private VFR aerodrome. It is located approximately 2 nautical miles (NM) or 3.8km southwest of North Hykeham.

5.24. The elevation of the aerodrome is 36ft (11m). It has one grass runway, details of which are given in Error! Reference source not found..

Table 9: Runways at Peacocks Farm

Runway Designation	True Bearing (°)	Length (m)	Width (m)
06	061.00	440	18

24	241.00	440	18

5.25. The threshold location and height of the runway at Peacocks Farm are given in Table 10.

Table 10: Runway Threshold Locations and Heights

Runway Designation	Threshold Latitude	Threshold Longitude	Height AOD (m)
06	53° 08′ 56.55″ N	000° 37′ 37.46″ W	12
24	53° 09′ 03.45″ N	000° 37′ 16.16″ W	9

5.26. There is no ARP or ATCT at Peacocks Farm.

South Hykeham Airfield

5.27. South Hykeham Airfield is a VFR only aerodrome. It is located approximately 0.6 nautical miles (NM) or 1.2km southwest of North Hykeham.

5.28. The elevation of the aerodrome is approximately 23ft (7m). It has two grass strip runways, details of which are given in Table 11.

Table 11: Runways at South Hykeham Airfield

Runway Designation	True Bearing (°)	Length (m)	Width (m)
10	104.00	540	15
28	284.00	540	15
13	125.00	600	21
31	305.00	600	21

5.29. The threshold locations and heights of the runways at south Hykeham Airfield are given in Table 1212.

Table 1212: South Hykeham Airfield Runway Threshold Locations and Heights

Runway Designation	Threshold Latitude	Threshold Longitude	Height AOD (m)
10	53° 10′ 22.51′′ N	000° 36′ 29.15″ W	9
28	53° 10′ 17.45″ N	000° 36′ 01.21″ W	6
13	53° 10′ 28.05″ N	000° 36′ 31.55″ W	8

31	53° 10′ 17.77″ N	000° 36′ 06.70″ W	6

5.30. There is no Aerodrome Reference Point (ARP) or ATCT at South Hykeham Airfield.

South Scarle Airfield

5.31. South Scarle Airfield is a VFR only aerodrome. It is located approximately 1.2 nautical miles (NM) or 2.2km northeast of Collingham.

5.32. The elevation of the aerodrome is 39ft (12m). It has one grass strip runway, details of which are given in **Table 1313**.

Table 1313: Runways at South Scarle Airfield

Runway Designation	True Bearing (°)	Length (m)	Width (m)
10	102	480	12
28	282	480	12

5.33. The threshold locations and heights of the runways at South Scarle Airfield are given in **Table** 141414.

Table 1414: South Scarle Airfield Runway Threshold Locations and Heights

Runway Designation	Threshold Latitude	Threshold Longitude	Height AOD (m)
10	53° 09′ 35.30′′ N	000° 43′ 46.36″ W	12
28	53° 09′ 32.28″ N	000° 43 21.22″ W	12

5.34. There is no ARP or ATCT at South Scarle Airfield.

Blackmoor Farm

5.35. Blackmoor Farm is a private VFR only aerodrome. It is located approximately 1.3 nautical miles (NM) or 2.5km south of North Hykeham.

5.36. The elevation of the aerodrome is 20ft (6m). It has one grass strip runway, details of which are given in **Table 1515**.

Table 1515: Runways at Blackmoor Farm

Runway Designation	True Bearing (°)	Length (m)	Width (m)

06	57.00	340	10
24	237.00	340	10

5.37. The threshold locations and heights of the runways at Blackmoor Farm are given in Table 161616.

Table 1616: Blackmoor Farm Runway Threshold Locations and Heights

Runway Designation	Threshold Latitude	Threshold Longitude	Height AOD (m)
06	53° 09′ 28.26′′ N	000° 35′ 10.49″ W	6
24	53° 09′ 34.45″ N	000° 34′ 55.23″ W	6

5.38. There is no ARP or ATCT at Blackmoor Farm.

6. IMPACT ASSESSMENT

6.1. Following the methodology outlined earlier in this report, geometrical analysis comparing the azimuth and horizontal angle of the receptors from the Proposed Development and the solar reflection was conducted. Although this model did not take into account obstructions such as vegetation and buildings, discussion on the potentially impacted receptors is provided where necessary. Such obstructions have been taken into account during the visibility assessment and are discussed for each relevant receptor.

GROUND BASED RECEPTORS

Residential Receptors

6.2. Table 171717 identifies the receptors that will experience solar reflections based on solar reflection modelling and whether the reflections will be experienced in the morning (AM), evening (PM), or both. The number in brackets indicates which residential area the receptor belongs.

6.3. The 10 receptors which were within the no-reflection zones outlined previously have been excluded from the detailed modelling as they will never receive any glint and glare impacts from the Proposed Development.

6.4. Appendix BA - DC shows the analysis with the ground mounted solar panels at a tilt angle of between 5 and 45 degrees and with the tracker panels. Appendix BA, BB, BC and BD shows the analysis for Receptors 1 – 80, 81 – 160, 161 – 203 and 204 - 228 respectively with a tilt angle of 5 degrees, Appendix CA, CB. CC and CD shows the analysis for Receptors 1 – 80, 81 – 160, 161 – 203 and 204 - 228 respectively with a tilt angle of 45 degrees and Appendix DA, DB, DC and DD shows the analysis for Receptors 1 – 80, 81 – 160, 161 – 203 and 204 - 228 respectively with tracker panels.

6.5. Table 171717 shows the worst-case impact at each receptor, based on a theoretical modelled impact without consideration of local vegetation or other obstacles and assuming no cloud at any point in the year and shows which panel configuration (minimum or maximum angle for fixed south facing or single axis tracker (see paragraphs 4.17 to 4.19)) produces the highest impact upon the receptor.

Table 1717: Potential for Glint and Glare Impact on Residential Receptors

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact	Worst Case Tilt Angle (Degrees)
	AM	PM	Minutes	Hours		
1	No	No	0	0.00	None	N/A
2	No	No	0	0.00	None	N/A
3	No	No	0	0.00	None	N/A
4 (1)	No	No	0	0.00	None	N/A
5 (1)	Yes	No	282	4.70	Low	45
6	Yes	No	962	16.03	Low	45
7	Yes	No	69	1.15	Low	Tracker
8	Yes	No	905	15.08	Low	45
9	Yes	No	831	13.85	Low	45
10	Yes	No	1033	17.22	Low	45
11	Yes	No	1057	17.62	Low	45
12	No	No	1320	22.00	Medium	45
13 (2)	Yes	No	581	9.68	Low	45
14 (2)	Yes	No	1282	21.37	Medium	45
15 (2)	Yes	No	3091	51.52	High	5
16 (2)	Yes	No	3535	58.92	High	5
17 (2)	Yes	No	3354	55.90	High	5
18 (2)	Yes	No	2054	34.23	High	5
19 (2)	Yes	No	1888	31.47	High	5
20	Yes	No	1131	18.85	Low	5
21	Yes	No	1351	22.52	Medium	5
22	Yes	No	1367	22.78	Medium	5
23 (3)	Yes	No	3442	57.37	High	5
24 (3)	Yes	Yes	2345	39.08	High	5
25	Yes	No	201	3.35	Low	45

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact	Worst Case Tilt Angle (Degrees)
	AM	PM	Minutes	Hours		
26	Yes	No	739	12.32	Low	45
27	Yes	No	1041	17.35	Low	45
28	Yes	No	1231	20.52	Medium	45
29	Yes	Yes	6390	106.50	High	45
30	No	No	1319	21.98	Medium	5
31	No	No	1209	20.15	Medium	5
32	No	No	980	16.33	Low	5
33	No	No	1364	22.73	Medium	5
34	No	No	908	15.13	Low	5
35	No	No	0	0.00	None	N/A
36	No	No	0	0.00	None	N/A
37	No	No	0	0.00	None	N/A
38 (4)	Yes	Yes	6988	116.47	High	45
39 (4)	Yes	Yes	7100	118.33	High	45
40 (4)	Yes	Yes	4028	67.13	High	45
41 (4)	Yes	Yes	5141	85.68	High	45
42	No	No	0	0.00	None	N/A
43 (5)	No	Yes	183	3.05	Low	Tracker
44 (5)	No	No	121	2.02	Low	Tracker
45 (5)	No	No	133	2.22	Low	Tracker
46	No	Yes	173	2.88	Low	Tracker
47	No	Yes	213	3.55	Low	Tracker
48	Yes	No	0	0.00	None	N/A
49	Yes	Yes	63	1.05	Low	Tracker
50 (6)	Yes	Yes	177	2.95	Low	Tracker

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact	Worst Case Tilt Angle (Degrees)
	AM	PM	Minutes	Hours		
51 (6)	Yes	Yes	458	7.63	Low	Tracker
52 (7)	No	Yes	138	2.30	Low	Tracker
53 (7)	No	No	4	0.00	Low	Tracker
54 (7)	Yes	Yes	882	14.70	Low	Tracker
55 (7)	Yes	Yes	1245	20.75	Medium	Tracker
56 (7)	No	Yes	153	2.55	Low	Tracker
57 (7)	Yes	Yes	645	10.75	Low	Tracker
58 (7)	Yes	Yes	1069	17.82	Low	Tracker
59 (7)	Yes	Yes	1575	26.25	Medium	Tracker
60 (7)	Yes	Yes	1878	31.30	High	Tracker
61 (7)	Yes	Yes	1306	21.77	Medium	Tracker
62 (7)	Yes	Yes	2417	40.28	High	Tracker
63 (7)	Yes	Yes	1850	30.83	High	Tracker
64 (7)	Yes	Yes	2436	40.60	High	Tracker
65 (7)	Yes	Yes	1771	29.52	Medium	Tracker
66 (7)	No	Yes	822	13.70	Low	Tracker
67 (7)	No	Yes	141	2.35	Low	Tracker
68 (8)	No	No	326	5.00	Low	Tracker
69 (8)	No	Yes	336	5.60	Low	Tracker
70 (8)	No	Yes	377	6.28	Low	Tracker
71	No	Yes	1106	18.43	Low	45
72	No	Yes	2543	42.38	High	5
73 (9)	No	Yes	2043	34.05	High	5
74 (9)	No	Yes	1979	32.98	High	45
75	No	Yes	2116	35.27	High	45

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact	Worst Case Tilt Angle (Degrees)
	AM	PM	Minutes	Hours		
76	No	Yes	2138	35.63	High	45
77	No	Yes	2607	43.45	High	45
78	No	Yes	882	14.70	Low	45
79	No	Yes	133	2.22	Low	45
80	No	Yes	57	0.95	Low	45
81	Yes	Yes	2078	34.63	High	45
82	No	Yes	3411	56.85	High	5
83	Yes	No	3370	56.17	High	5
84	No	No	0	0.00	None	N/A
85	No	No	0	0.00	None	N/A
86	No	No	0	0.00	None	N/A
87 (10)	No	No	0	0.00	None	N/A
88 (10)	No	No	0	0.00	None	N/A
89 (10)	No	No	0	0.00	None	N/A
90 (10)	No	No	0	0.00	None	N/A
91 (10)	No	No	0	0.00	None	N/A
92 (10)	No	No	0	0.00	None	N/A
93 (10)	Yes	No	9	0.15	Low	5
94 (10)	Yes	No	71	1.18	Low	5
95 (10)	Yes	No	1159	19.32	Low	45
96 (10)	Yes	No	2102	35.03	High	45
97 (10)	Yes	No	1833	30.55	High	45
98 (10)	Yes	No	1179	19.65	Low	45
99 (10)	Yes	No	215	3.58	Low	5
100 (10)	Yes	No	2560	42.67	High	5

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact	Worst Case Tilt Angle (Degrees)
	AM	PM	Minutes	Hours		
101 (10)	Yes	No	4352	72.53	High	5
102 (10)	Yes	No	6032	100.53	High	5
103 (10)	Yes	No	2325	38.75	High	5
104 (10)	Yes	No	233	3.88	Low	45
105 (10)	No	No	0	0.00	None	N/A
106 (10)	Yes	No	5	0.08	Low	45
107 (10)	Yes	No	30	0.50	Low	45
108 (10)	Yes	No	1045	17.42	Low	5
109 (10)	No	No	0	0.00	None	N/A
110 (10)	Yes	No	947	15.78	Low	5
111 (10)	No	No	674	11.23	Low	5
112 (10)	No	No	387	6.45	Low	5
113 (10)	No	No	38	0.63	Low	5
114 (10)	No	No	0	0.00	None	N/A
115 (10)	No	Yes	0	0.00	None	N/A
116 (10)	No	No	0	0.00	None	N/A
117 (11)	No	No	379	6.32	Low	45
118 (11)	No	No	6	0.00	Low	45
119 (11)	No	Yes	93	1.55	Low	45
120 (11)	No	No	0	0.00	None	N/A
121	No	No	24	0.00	Low	Tracker
122	No	Yes	4163	69.38	High	5
123 (12)	No	No	387	6.45	Low	Tracker
124 (12)	No	No	108	1.80	Low	Tracker
125	No	No	1	0.02	Low	Tracker

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact	Worst Case Tilt Angle (Degrees)
	AM	PM	Minutes	Hours		
126 (13)	No	No	0	0.00	None	N/A
127 (13)	No	No	0	0.00	None	N/A
128 (13)	No	No	0	0.00	None	N/A
129 (13)	No	No	0	0.00	None	N/A
130 (13)	No	No	0	0.00	None	N/A
131 (13)	No	No	0	0.00	None	N/A
132	No	No	0	0.00	None	N/A
133	No	No	0	0.00	None	N/A
134 (14)	No	No	0	0.00	None	N/A
135 (14)	No	No	7	0.12	Low	5
136 (15)	No	No	2056	34.26	High	5
137 (15)	Yes	Yes	1929	32.15	High	5
138 (15)	Yes	No	1351	22.52	Medium	5
139 (16)	Yes	No	415	6.92	Low	45
140 (16)	Yes	No	615	10.25	Low	45
141 (16)	Yes	No	576	9.60	Low	45
142 (16)	Yes	No	835	13.92	Low	45
143 (17)	Yes	No	307	5.12	Low	45
144 (17)	Yes	No	106	1.77	Low	45
145	Yes	No	852	14.20	Low	45
146	No	Yes	17	0.28	Low	5
147	No	Yes	853	14.22	Low	5
148	No	Yes	3006	50.10	High	5
149	Yes	No	276	4.60	Low	45
150	Yes	No	299	4.98	Low	45

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact	Worst Case Tilt Angle (Degrees)
	AM	PM	Minutes	Hours		
151	Yes	No	803	13.38	Low	5
152 (18)	Yes	No	1003	16.72	Low	5
153 (18)	Yes	Yes	673	11.22	Low	45
154 (18)	Yes	Yes	764	12.73	Low	5
155	Yes	No	1529	25.48	Medium	5
156	Yes	Yes	1194	19.90	Low	5
157	Yes	No	4650	77.50	High	45
158	Yes	No	3577	59.62	High	45
159	Yes	No	313	5.22	Low	45
160	Yes	No	251	4.18	Low	45
161	Yes	Yes	32	0.53	Low	45
162	Yes	No	3372	56.20	High	5
163	Yes	No	3504	58.40	High	5
164	Yes	Yes	2460	41.00	High	5
165	No	No	0	0.00	None	N/A
166	No	No	0	0.00	None	N/A
167	No	No	0	0.00	None	N/A
168	No	No	0	0.00	None	N/A
169 (19)	Yes	Yes	493	8.22	Low	5
170 (19)	No	No	49	0.82	Low	5
171 (19)	No	Yes	104	1.73	Low	5
172 (19)	No	Yes	441	7.35	Low	5
173 (19)	No	Yes	86	1.43	Low	5
174 (19)	No	No	0	0.00	None	N/A
175 (19)	No	No	0	0.00	None	N/A

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact	Worst Case Tilt Angle (Degrees)
	AM	PM	Minutes	Hours		
176 (19)	No	No	0	0.00	None	N/A
177 (19)	No	No	0	0.00	None	N/A
178 (19)	No	Yes	5	0.08	Low	45
179 (19)	No	Yes	29	0.48	Low	45
180 (19)	No	Yes	389	6.48	Low	5
181 (19)	No	Yes	162	2.70	Low	45
182 (19)	No	Yes	549	9.15	Low	45
183 (19)	No	Yes	1165	19.42	Low	5
184 (19)	No	No	489	8.15	Low	45
185 (19)	Yes	Yes	339	5.65	Low	45
186 (19)	Yes	Yes	354	5.90	Low	5
187 (19)	Yes	Yes	167	2.78	Low	5
188 (19)	No	Yes	1199	19.98	Low	5
189 (19)	No	Yes	1007	16.78	Low	45
190 (19)	No	Yes	804	13.40	Low	45
191 (19)	Yes	No	435	7.25	Low	45
192 (19)	Yes	No	34	0.57	Low	45
193	Yes	No	209	3.48	Low	45
194 (20)	No	No	232	3.87	Low	5
195 (20)	No	No	387	6.45	Low	5
196 (21)	No	No	1397	23.28	Medium	5
197 (21)	No	No	1242	20.70	Medium	5
198 (21)	No	No	1353	22.55	Medium	5
199 (21)	Yes	No	1111	18.52	Low	5
200 (21)	No	No	0	0.00	None	N/A

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact	Worst Case Tilt Angle (Degrees)
	AM	PM	Minutes	Hours		
201 (21)	No	No	0	0.00	None	N/A
202 (21)	Yes	Yes	1205	20.08	Medium	5
203 (21)	No	No	565	9.42	Low	5
204 (22)	No	No	0	0.00	None	N/A
205 (22)	No	No	0	0.00	None	N/A
206 (22)	No	Yes	104	1.73	Low	5
207 (22)	Yes	Yes	3013	50.22	High	45
208 (22)	Yes	Yes	2821	47.02	High	45
209 (22)	Yes	Yes	3650	60.83	High	45
210 (22)	Yes	Yes	3375	56.25	High	45
211 (22)	Yes	Yes	655	10.92	Low	45
212 (22)	Yes	Yes	2996	49.93	High	5
213 (22)	Yes	Yes	4068	67.80	High	5
214 (22)	Yes	Yes	2966	49.43	High	5
215 (22)	Yes	Yes	1659	27.65	Medium	45
216 (22)	Yes	No	549	9.15	Low	5
217 (22)	Yes	Yes	3582	59.70	High	5
218 (22)	Yes	Yes	870	14.50	Low	45
219 (22)	Yes	No	1092	18.20	Low	45
220 (22)	Yes	No	1059	17.65	Low	45
221 (22)	Yes	No	272	4.53	Low	45
222 (22)	Yes	No	88	1.47	Low	5
223 (22)	No	No	100	1.67	Low	5
224 (22)	No	No	0	0.00	None	N/A
225 (22)	No	No	0	0.00	None	N/A

Receptor	Glint Possible from Site		Potential Glare Impact (per year)		Magnitude of Impact	Worst Case Tilt Angle (Degrees)
	AM	PM	Minutes	Hours		
226 (22)	No	No	0	0.00	None	N/A
227 (22)	No	No	0	0.00	None	N/A
228 (22)	No	No	0	0.00	None	N/A

6.6. As can be seen in Table 1717, there is a High impact at 48 receptors, including seven residential areas, Medium impact at 19 receptors, including two residential areas, Low impact at 111 receptors, including 11 residential areas and a None impact at 50 receptors, including one residential areas. Appendix BA - DD shows detailed analysis of when the glare impacts are possible, whilst also showing which parts of the solar farm the solar glare is reflected from.

6.7. Appendix Q shows Google Earth images that give an insight into how each receptor will be impacted by the glint and glare from the Principal Site. There is a mixture of images used, which include aerial, ground level and street level. The aerial images show the location of the receptor with the solar farm drawn as a white polygon and can be seen on the images when the solar farm is theoretically visible. The area of the solar farm from where reflections may be possible has been drawn as a yellow polygon. The ground level terrain is based on the height data of the surrounding land showing no intervening vegetation or buildings. The white and yellow polygons can be seen in this view also. The street view gives a good indication as to whether the area of the solar farm where reflections are theoretically possible will be visible from the receptor point.

Receptors 5 and 6 (Group A Receptors 5 and 6)

6.8. The 'Glare Reflections on PV Footprint' chart in Appendix CA shows that reflections from the northern half of Panel Area 2 (see Figure 6: Appendix A) of the Principal Site can potentially impact on the receptors.

6.9. The first image in Appendix Q is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site. This image shows dense vegetation between the Principal Site and the receptors. The second image is a ground level image taken from the position of Receptor 6 with an eastwards view towards Panel Area 2 in the Principal Site. This image confirms that the topography is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to None.

Receptor 7 (Group A Receptor 7)

6.10. The 'Glare Reflections on PV Footprint' chart in **Appendix DA** shows that reflections from a central section of Panel Area 2 and a central section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.11. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation between the Principal Site and the receptor. The second image is a street view image with a northwards view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 8 - 12 (Group A Receptor 8 - 12)

6.12. The 'Glare Reflections on PV Footprint' chart in **Appendix BA and CA** shows that reflections from a central section of Panel Area 1 and a northeast section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.13. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with a view of the vegetation to the east of the receptors. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 13 (Group A Receptor 13)

6.14. The 'Glare Reflections on PV Footprint' chart in **Appendix CA** shows that reflections from a small northern section of Panel Area 1 and a central section of Panel Area 2 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.15. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with an eastwards view towards Panel Areas 1 and 2 in the Principal Site. This image confirms that the vegetation is sufficient to screen all views of Panel Area 2 and filter views of Panel Area 1 in the Principal Site where glint and glare is possible. Therefore, the impact remains **Low**.

Receptor 14 (Group A Receptor 14)

6.16. The 'Glare Reflections on PV Footprint' chart in **Appendix BA and CA** shows that reflections from a small northern section of Panel Area 1, a southern section of Panel Area 2 and a northern

section of Panel Area 4(see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.17. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with an eastwards view towards Panel Areas 1 and 2 in the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 15 - 17 (Group A Receptors 15 - 17)

6.18. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, CA and DA** shows that reflections from a small central section of Panel Area 1, a central section of Panel Area 2 and a northern section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.19. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site. This image shows dense vegetation between the Principal Site and the receptors. The second and third images are ground level images taken from the position of Receptor 16 with an eastwards view towards Panel Areas 1, 2 and 4 in the Principal Site showing the position of the sun at 06:45 UTC on March 10th and at 07:15 UTC on June 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptors and that the topography is sufficient to screen all views of Panel Area 2 in the Principal Site where glint and glare is possible. Therefore, the impact reduces to **Low**.

Receptors 18 and 19 (Group A Receptors 18 and 19)

6.20. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, CA and DA** shows that reflections from a central section of Panel Area 1, a northern section of Panel Area 3 and a northern section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.21. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site. This image shows dense vegetation between the Principal Site and the receptors. The second and third images are ground level images taken from the position of Receptor 18 with an eastwards view towards Panel Areas 1, 3 and 4 in the Principal Site showing the position of the sun at 06:45 UTC on April 10th and at 07:00 UTC on May 15th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the

sun will be the main source of solar reflection at the receptors. Therefore, the impact reduces to **Low.**

Receptor 20 (Group A Receptor 20)

6.22. The 'Glare Reflections on PV Footprint' chart in **Appendix BA and BC** shows that reflections from a central section of Panel Area 1, a northern section of Panel Area 3 and a central section of Panel Are 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.23. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with a view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 21 - 27 (Group A Receptors 21 - 27)

6.24. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, CA and DA** shows that reflections from a southeastern and a western section of Panel Area 1 and a southern section of Panel Area 2, a northern section of Panel Area 3 and a central section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.25. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptors. The second and third images are ground level images taken from the position of Receptor 24 with an eastwards view towards Panel Areas 1, 2, 3 and 4 in the Principal Site showing the position of the sun at 06:45 UTC on March 25th and at 07:15 UTC on June 1st respectively. The fourth and fifth images are ground level images taken from the position of Receptor 24 with an eastwards view towards Panel Area 1 in the Principal Site showing the position of the sun at 17:15 UTC on April 15th and at 19:00 UTC on July 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptors and that the topography is sufficient to screen all views of Panel Area 2 in the Principal Site where glint and glare is possible. Therefore, the impact reduces to **Low**.

Receptor 28 (Group A Receptor 28)

6.26. The 'Glare Reflections on PV Footprint' chart in **Appendix BA and CA** shows that reflections from a northern section of Panel Area 1 and a southwest section of Panel Area 2 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.27. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptor. The second, third and fourth images are ground level images taken from the position of the receptor with an eastwards view towards Panel Area 2 in the Principal Site showing the position of the sun at 06:30 UTC on March 15th, at 06:45 UTC on April 15th and at 04:45 UTC on June 15th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. The fifth image is a ground level image taken from the position of the receptor with a westwards view towards Panel Area 1 in the Principal Site. This image confirms that the topography is sufficient to screen all views of Panel Area 1 in the Principal Site were glint and glare is possible. Therefore, the impact reduces to **Low.**

Receptor 29 (Group A Receptor 29)

6.28. The 'Glare Reflections on PV Footprint' chart in **Appendix BA and CA** shows that reflections from a central section of Panel Area 1, a northern section of Panel Area 3 and a western section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.29. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptor. The second and third images are ground level images taken from the position of the receptor with an eastwards view towards Panel Area 4 in the Principal Site showing the position of the sun at 06:30 UTC on April 1st and at 06:45 UTC on July 1st respectively. The fourth and fifth images are ground level images taken from the position of the receptor with a westwards view towards Panel Areas 1 and 3 in the Principal Site showing the position of the sun at 17:45 UTC on April 1st and at 17:00 UTC on May 15th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptors. Therefore, the impact reduces to **Low.**

Receptors 30 - 34 (Group A Receptors 30 - 34)

6.30. The 'Glare Reflections on PV Footprint' chart in **Appendix BA and BC** shows that reflections from a central section of Panel Area 3 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.31. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with a view towards the Principal Site. This image confirms

that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 37 (Group A Receptor 37)

6.32. The 'Glare Reflections on PV Footprint' chart in **Appendix BA** shows that reflections from a southern section of Panel Area 3 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.33. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation between the Principal Site and the receptor. The second image is a street view image with a view towards the Principal Site. This image confirms that the vegetation is sufficient to filter all views of the Principal Site where glint and glare is possible. Therefore, the impact remains **Low**.

Receptor 38 (Group A Receptor 38)

6.34. The 'Glare Reflections on PV Footprint' chart in **Appendix BA and CA** shows that reflections from a northern section of Panel Area 1 and a western, a northwest section and an eastern section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.35. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptor. The second and third images are ground level images taken from the position of the receptor with an eastwards view towards Panel Area 4 in the Principal Site showing the position of the sun at 06:30 UTC on April 1st and at 07:00 UTC on July 15th respectively. The fourth and fifth images are ground level images taken from the position of the receptor with a westwards view towards Panel Area 1 in the Principal Site showing the position of the sun at 17:45 UTC on April 1st and at 17:00 UTC on July 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptors. Therefore, the impact remains **Low.**

Receptors 39 and 40 (Group A Receptors 39 and 40)

6.36. The 'Glare Reflections on PV Footprint' chart in **Appendix BA and CA** shows that reflections from a central section of Panel Area 1, a northern section of Panel Area 3 and a western section and an eastern section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.37. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site

and the receptor. The second and third images are ground level images taken from the position of receptor 39 with an eastwards view towards Panel Area 4 in the Principal Site showing the position of the sun at 06:30 UTC on April 1st and at 07:15 UTC on July 1st respectively. The fourth and fifth images are ground level images taken from the position of receptor 39 with a westwards view towards Panel Areas 1, 3 and 4 in the Principal Site showing the position of the sun at 18:00 UTC on June 1st and at 17:00 UTC on May 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptors. Therefore, the impact reduces to **Low.**

Receptor 41 (Group A Receptor 41)

6.38. The 'Glare Reflections on PV Footprint' chart in **Appendix BA and CA** shows that reflections from a central section of Panel Area 1, a northern section of Panel Area 3, a western section of Panel Area 4 and a northern section of Panel Area 6 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.39. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken. This image shows vegetation between the Principal Site and the receptor. The second image is a street view image with a view towards Panel Area 6 in the Proposed Development. This image confirms that the vegetation is sufficient to screen all views of Panel Area 6 in the Proposed Development where glint and glare is possible. The third and fourth images are ground level images taken from the position of the receptor with aa westwards view towards Panel Areas 1, 3 and 4 in the Principal Site showing the position of the sun at 17:45 UTC on April 1st and at 17:00 UTC on May 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptors. Therefore, the impact reduces to **Low.**

Receptors 42 and 43 (Group A Receptors 42 and 43)

6.40. The 'Glare Reflections on PV Footprint' chart in **Appendix DA** shows that reflections from a central section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.41. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with an eastwards view of the vegetation south of the receptors. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 44 - 47 (Group A Receptors 44 - 47)

6.42. The 'Glare Reflections on PV Footprint' chart in **Appendix DA** shows that reflections from all, except a southern section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.43. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with a view of the vegetation to the south of the receptors. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 48 - 51 (Group A Receptors 48 - 51)

6.44. The 'Glare Reflections on PV Footprint' chart in **Appendix DA** shows that reflections from the western half of Panel Area 4 and the southern half of Panel Area 6 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.45. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with a view towards Panel Areas 4 and 6 in the Principal Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 52 (Group A Receptor 52)

6.46. The 'Glare Reflections on PV Footprint' chart in **Appendix DA** shows that reflections from a central section of Panel Area 2 and an eastern section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.47. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptors. The second and third images are a ground level image taken from the position of the receptor with a westwards view towards Panel Area 2 in the Principal Site and the fourth and fifth images are ground level images taken from the position of the receptor with a southwards view towards Panel Area 4 in the Principal Site showing the position of the sun at 15:30 UTC on January 1st, 17:00 UTC on March 1st and at 12:00 UTC on January 1st and December 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptors. Therefore, the impact reduces to **Low.**

Receptor 53 (Group A Receptor 53)

6.48. The 'Glare Reflections on PV Footprint' chart in **Appendix DA** shows that reflections from a central section of Panel Area 2 and an eastern section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.49. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with a view of the vegetation to the south of the receptor. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 54 - 58 (Group A Receptors 54 – 58)

6.50. The 'Glare Reflections on PV Footprint' chart in **Appendix DA** shows that reflections from all, except a southern and an eastern section, of Panel Area 4 and all, except a western section, of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.51. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation and intervening buildings between the Principal Site and the receptors. The second image is a street view image with a view towards the receptors. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 59 - 62 (Group A Receptors 59 – 62)

6.52. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, CA and DA** shows that reflections from a northern section of Panel Area 2, the northern half of Panel Area 4 and all, except a western section, of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.53. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation and intervening buildings between the Principal Site and the receptors. The second image is a street view image with a view towards the receptors. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 63 (Group A Receptor 63)

6.54. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, CA and DA** shows that reflections from a northern section of Panel Area 2, the northern half of Panel Area 4 and all, except a western section, of Panel Area 6 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.55. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation between the Principal Site and the receptor. The second image is a street view image with a view towards the receptor. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 64 - 67 (Group A Receptors 64 - 67)

6.56. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, CA and DA** shows that reflections from a northern section of Panel Area 2, all, except a southern and an eastern section, of Panel Area 4 and all, except a western section, of Panel Area 6 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.57. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptor. The second image is a ground level image taken from the position of Receptor 66 with a view towards the Panel Area 5 in the Principal Site showing the position of the sun at 12:00 UTC on January 1st. The third image is a ground level image taken from the position of Receptor 66 with a view towards the Panel Area 2 in the Principal Site showing the position of the sun at 17:15 UTC on October 1st. The fourth image is a ground level image taken from the position of Receptor 66 with a view towards the Panel Area 4 in the Principal Site showing the position of the sun at 14:30 UTC on December 1st However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptors. Therefore, the impact reduces to **Low.**

Receptors 68 - 70 (Group A Receptors 68 - 70)

6.58. The 'Glare Reflections on PV Footprint' chart in **Appendix DA** shows that reflections from all, except a southern section, of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.59. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation and intervening buildings between the Principal Site and the receptors. The second image is a street view image with a view towards Panel Area 4 in the

Principal Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 71 (Group A Receptor 71)

6.60. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, CA and DA** shows that reflections from a central section of Panel Area 2, an eastern section and a western section of Panel Area 4 and a northern section of Panel Area 6 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.61. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptor. The second and third images are ground level images taken from the position of the receptor with a westwards view towards the Panel Area 2 in the Principal Site showing the position of the sun at 17:45 UTC on March 15th and at 17:00 UTC on April 1st respectively. The fifth image is a ground level image taken from the position of the receptor with a southwards view towards the Panel Area 6 in the Principal Site showing the position of the sun at 12:45 UTC on January 1st. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptors. Therefore, the impact reduces to **Low.**

Receptor 72 (Group A Receptor 72)

6.62. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, CA and DA** shows that reflections from a central section of Panel Area 2, two southern sections of Panel Area 4 and a northern section and eastern section of Panel Area 6 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.63. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows vegetation and intervening buildings between the Principal Site and the receptors. The second and third images are street view images with westwards views towards Panel Areas 2 and 4 and Panel Area 6 in the Principal Site respectively. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 73 - 75 (Group A Receptors 73 - 75)

6.64. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, CA and DA** shows that reflections from a northern section of Panel Area 1, a central section of Panel Area 2, a central section and

western section of Panel Area 4 and all of Panel Area 6 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.65. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows dense vegetation between the Principal Site and the receptors. The second and third images are street view images with westwards views towards Panel Areas 1, 2 and 4 and Panel Area 6 in the Principal Site respectively. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 76 and 77 (Group A Receptors 76 and 77)

6.66. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, CA and DA** shows that reflections from a northern section of Panel Area 1, a central section of Panel Area 2, a central section of Panel Area 4 and all of Panel Area 6 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.67. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with an eastwards view towards the receptors. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 78 (Group A Receptor 78)

6.68. The 'Glare Reflections on PV Footprint' chart in **Appendix BA and CA** shows that reflections from a central section of Panel Area 2 and a northeast section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.69. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with a westwards view towards Panel Areas 2 and 4 in the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 79 and 80 (Group A Receptors 79 and 80)

6.70. The 'Glare Reflections on PV Footprint' chart in **Appendix CA** shows that reflections from a western section of Panel Area 4 and a northern section of Panel Area 6 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.71. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with an eastwards view towards the receptors. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 81 (Group B Receptor 1)

6.72. The 'Glare Reflections on PV Footprint' chart in **Appendix BA, BB and CB** shows that reflections from a an eastern section of Panel Area 3, a southern section of Panel Area 6 and a northern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.73. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second and third images are street view images with an eastwards and westwards view towards Panel Area 5 and Panel Areas 3 and 7 in the Principal Site respectively. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 3 and 6 in the Principal Site where glint and glare is possible. Therefore, the impact remains **Low**.

Receptor 82 (Group B Receptor 2)

6.74. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a central section of Panel Area 1, a western section of Panel Area 3 and a northern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.75. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptor. The second and third images are ground level images taken from the position of the receptor with a westwards view towards the Panel Areas 1, 3 and 7 in the Principal Site showing the position of the sun at 17:45 UTC on March 15th and at 16:45 UTC on May 25th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptors. Therefore, the impact reduces to **Low.**

Receptor 83 (Group B Receptor 3)

6.76. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a wester section of Panel Area 3 and a northern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.77. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image of the vegetation to the south of Panel Area 3 in the Principal Site. The third image is a photo from Google Earth with a westwards view towards the receptor. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 93 and 94 (Group B Receptor 13 and 14)

6.78. The 'Glare Reflections on PV Footprint' chart in **Appendix BB and CB** shows that reflections from a central section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.79. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation and intervening buildings between the Principal Site and the receptors. The second image is a street view image with an eastwards view towards Panel Area 6 in the Principal Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 95 (Group B Receptor 15)

6.80. The 'Glare Reflections on PV Footprint' chart in **Appendix BB and CB** shows that reflections from a western section of Panel Areal 3 and a central section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.81. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with a view towards Panel Area 3 in the Principal Site and the third image is a street view image with an eastwards view towards Panel Area 7 in the Principal Site. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 96 (Group B Receptor 16)

6.82. The 'Glare Reflections on PV Footprint' chart in **Appendix CB** shows that reflections from a western section of Panel Area 3 and a central section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.83. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows vegetation between the Principal Site and the receptors. The second image is a street view image with a view towards the receptor and the third image is a street view image with an eastwards view towards Panel Area 6 in the Principal Site. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 97 and 98 (Group B Receptors 17 and 18)

6.84. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a western section of Panel Area 3 and a central section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.85. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows vegetation between the Principal Site and the receptors. The second image is a street view image with a view towards the receptors. This image confirms that the vegetation is sufficient to screen all views of Panel Area 3 in the Principal Site where glint and glare is possible. The third image is a street view image with an eastwards view towards Panel Area 7 in the Principal Site. This image confirms that the vegetation is insufficient to screen all views of Panel Area 7 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 99 (Group B Receptor 19)

6.86. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a central section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.87. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation and intervening buildings between the Principal Site and the receptor. The second image is a street view image with an eastwards view towards Panel Area 6 in the Principal Site. This image confirms that the intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 100 (Group B Receptor 20)

6.88. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a central section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.89. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptor. The second image is a ground level image taken from the position of the receptor with an eastwards view towards Panel Area 6 in the Principal Site. This image confirms that the topography is insufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact remains **Low**.

Receptors 101 and 102 (Group B Receptors 21 and 22)

6.90. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a central section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.91. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptors. The second image is a ground level image taken from the position of Receptor 101 with an eastwards view towards Panel Area 7 in the Principal Site. This image confirms that the topography is insufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptors 103 and 104 (Group B Receptors 23 and 24)

6.92. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a central section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.93. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation and intervening buildings between the Principal Site and the receptors. The second image is a Google Earth photo with an eastwards view towards Panel Area 6 in the Principal Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 106 (Group B Receptor 26)

6.94. The 'Glare Reflections on PV Footprint' chart in **Appendix CB** shows that reflections from a central section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.95. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation and intervening buildings between the Principal Site and the receptors. The second image is a ground level image taken from the position of the receptor with an eastwards view towards Panel Area 7 in the Principal Site. This image confirms that the topography is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 107 (Group B Receptor 27)

6.96. The 'Glare Reflections on PV Footprint' chart in **Appendix CB** shows that reflections from a southern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.97. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptors. The second image is a ground level image taken from the position of the receptor with an eastwards view towards Panel Area 7 in the Principal Site. This image confirms that the topography is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 108 (Group B Receptor 28)

6.98. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a southern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.99. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptors. The second image is a ground level image taken from the position of the receptor with an eastwards view towards Panel Area 7 in the Principal Site. This image confirms that the topography is insufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact remains **Low**.

Receptors 110 – 113 and 115 (Group B Receptors 30 – 33 and 35)

6.100. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a southern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.101. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation and intervening buildings between the Principal Site and the receptors. The second image is a street view image with an eastwards view towards Panel Area 6 in the Principal Site. This image confirms that the vegetation and intervening buildings

are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 117 and 119 (Group B Receptors 37 and 39)

6.102. The 'Glare Reflections on PV Footprint' chart in **Appendix CB** shows that reflections from a central section of Panel Area 3 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.103. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation between the Principal Site and the receptors. The second image is a street view image with an eastwards view towards the receptors. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 122 (Group B Receptor 42)

6.104. The 'Glare Reflections on PV Footprint' chart in **Appendix CB** shows that reflections from a southern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.105. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation between the Principal Site and the receptors. The second image is a street view image with an eastwards view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 136 - 138 (Group B Receptors 56 - 58)

6.106. The 'Glare Reflections on PV Footprint' chart in **Appendix BB and CB** shows that reflections from a central section of Panel Area 10 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.107. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second images was taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with a westwards view towards the receptors. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 139 - 142 (Group B Receptors 59 - 62)

6.108. The 'Glare Reflections on PV Footprint' chart in **Appendix BB and CB** shows that reflections from all, except a northern section, of Panel Area 9 and a northwest section of Panel Area 11 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.109. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with a westwards view towards Panel Area 9 in the Principal Site and the third image is a street view image with a westwards view towards the receptors. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 143 and 144 (Group B Receptors 63 and 64)

6.110. The 'Glare Reflections on PV Footprint' chart in **Appendix CB** shows that reflections from a northern section of Panel Area 11 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.111. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with an eastwards view towards Panel Area 11 in the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 145 (Group B Receptor 65)

6.112. The 'Glare Reflections on PV Footprint' chart in **Appendix CB** shows that reflections from a southern section of Panel Area 11 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.113. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with an eastwards view towards Panel Area 11 in the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 146 and 147 (Group B Receptors 63 and 64)

6.114. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a central section of Panel Area 11 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.115. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation and intervening buildings between the Principal Site and the receptors. The second image is a street view image with an eastwards view towards Panel Area 11 in the Principal Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 148 (Group B Receptor 68)

6.116. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a central section of Panel Area 11 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.117. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows dense vegetation between the Principal Site and the receptor. The second image is a ground level image taken from the position of the receptor with an eastwards view towards Panel Area 11 in the Principal Site. This image confirms that the topography is insufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptors 149 and 150 (Group B Receptors 69 and 70)

6.118. The 'Glare Reflections on PV Footprint' chart in **Appendix BB and CB** shows that reflections from a northern section of Panel Area 11 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.119. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site. This image shows dense vegetation between the Principal Site and the receptor. The second image is a ground level image taken from the position of Receptor 149 with an eastwards view towards Panel Area 11 in the Principal Site. This image confirms that the topography is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 151 (Group B Receptor 71)

6.120. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a central section of Panel Area 11 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.121. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows dense vegetation between the Principal Site and the receptor. The second, third and fourth images are ground level images taken from the position of the receptor with a westwards view towards the Panel Area 11 in the Principal Site showing the position of the sun at 17:45 UTC on March 20th, at 19:00 UTC on May 1st and at 19:15 UTC on July 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact remains **Low.**

Receptors 152 - 154 (Group B Receptors 72 - 74)

6.122. The 'Glare Reflections on PV Footprint' chart in **Appendix BB and CB** shows that reflections from a southern section of Panel Area 11 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.123. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptors. The second image is a street view image with an eastwards view towards Panel Area 11 in the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 155 (Group B Receptor 75)

6.124. The 'Glare Reflections on PV Footprint' chart in **Appendix BB and CB** shows that reflections from a southern section of Panel Area 11 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.125. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with an eastwards view towards Panel Area 11 in the Principal Site. This image confirms that the vegetation is insufficient to screen all views of in the Principal Site where glint and glare is possible. Therefore, the impact remains **Medium**.

Receptor 156 (Group B Receptor 76)

6.126. The 'Glare Reflections on PV Footprint' chart in **Appendix BB and CB** shows that reflections from a southern section of Panel Area 11 and a northern section of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.127. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images

were taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with a westwards view towards Panel Area 11 in the Principal Site. The third image is a street view image with a view towards Panel Area 12 in the Principal Site. These images confirm that the vegetation is insufficient to screen all views of Panel Area 12 in the Principal Site where glint and glare is possible. Therefore, the impact remains **Low**.

Receptor 157 (Group B Receptor 77)

6.128. The 'Glare Reflections on PV Footprint' chart in **Appendix BB, CB and DB** shows that reflections from a southern section of Panel Area 11, a northern section of Panel Area 13 and a southern section of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.129. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with a westwards view towards the receptor in the Principal Site. This image confirms that the vegetation is sufficient to screen all views of Panel Area 11 in the Principal Site where glint and glare is possible. The third and fourth images are ground level images taken from the position of the receptor with a westwards view towards Panel Area 13 and an eastwards view towards Panel Area 14 in the Principal Site respectively. These images confirm that the topography is insufficient to screen all views of Panel Area 13 and 14 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 158 (Group B Receptor 78)

6.130. The 'Glare Reflections on PV Footprint' chart in **Appendix CB** shows that reflections from a southern section of Panel Area 11 and a northern section of Panel Area 13 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.131. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with an eastwards view towards Panel Area 11 in the Principal Site and the third image is a street view image with a westwards view towards Panel Area 13 in the Principal Site. These images confirm that the vegetation is sufficient to screen all views of Panel Area 11 in the Principal Site and the intervening buildings are sufficient to screen all ground floor view of Panel Area 13 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 159 and 160 (Group B Receptor 79 and 80)

6.132. The 'Glare Reflections on PV Footprint' chart in **Appendix CB** shows that reflections from a southern section of Panel Area 11 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.133. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image as taken (red dot). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with a westwards view towards the receptors. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact remains **Low**.

Receptor 161 (Group C Receptor 1)

6.134. The 'Glare Reflections on PV Footprint' chart in **Appendix CC** shows that reflections from a central section of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.135. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation and intervening buildings between the Principal Site and the receptor. The second image is a street view image with a view towards the receptor. This image confirms that the intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact remains **Low**.

Receptors 162 and 163 (Group C Receptors 2 and 3)

6.136. The 'Glare Reflections on PV Footprint' chart in **Appendix BC, CC and DC** shows that reflections from a central section of Panel Area 13 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.137. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a view towards the receptor. This image confirms that the vegetation is insufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 164 (Group C Receptor 4)

6.138. The 'Glare Reflections on PV Footprint' chart in **Appendix BC, CC and DC** shows that reflections from a central section of Panel Area 13, a eastern section of Panel Area 14 and a southern section of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.139. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a view towards the receptor. This image confirms that the vegetation is insufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact remains **Low**.

Receptors 16 – 173, 178 - 183 and 185 - 192 (Group C Receptors 9, 11 – 13 and 18 - 32)

6.140. The 'Glare Reflections on PV Footprint' chart in **Appendix BC and CC** shows that reflections from a southeast section of Panel Area 11, all, except a southern and northern section, of Panel Area 13, all of Panel Area 14 and all, except a northern section and small southern section, of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.141. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second, third and fourth images were taken (red, yellow and blue dots dot respectively). This image shows dense vegetation between the Principal Site and the receptor. The second image is a street view image with a southwest view towards the receptors. This image confirms that the vegetation is sufficient to screen all views of Panel Area 11 in the Principal Site where glint and glare is possible. The third and fourth images are street view images with eastwards views towards the receptors. These images confirm that the vegetation is insufficient to screen views of Panel Areas 13, 14 and 15 in the Principal Site from Receptors 183, 185 and 187 – 190. The fifth, sixth and seventh images are ground level images taken from the position of Receptor 187 with a westwards view towards Panel Areas 13, 14 and 15 in the Principal Site showing the position of the sun at 17:45 UTC on March 25th, at 17:00 UTC on May 1st and at 19:00 UTC on June 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at Receptors 183, 185 and 187 - 190. Therefore, the impact upon Receptors 183, 185 and 187 - 190 remains **Low** and the impact upon Receptors 16 – 173, 178 - 186, 191 and 192 reduces to **None**.

Receptor 193 (Group C Receptor 33)

6.142. The 'Glare Reflections on PV Footprint' chart in **Appendix and CC** shows that reflections from a southern section of Panel Area 13 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.143. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows dense vegetation and intervening buildings between the Principal Site and the receptor. The second image is a street view image with a view towards Panel Area 13 in the Principal Site. This image confirms that the vegetation and intervening buildings are

sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 194, 195 and 203 (Group C Receptors 34, 35 and 43)

6.144. The 'Glare Reflections on PV Footprint' chart in **Appendix BC and CC** shows that reflections from a southern section of Panel Area 13 (see **Figure 6: Appendix A**) of the Solar PV Site can potentially impact on the receptors.

6.145. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Solar PV Site, and the location from which the second image was taken (red dot). This image shows dense vegetation and intervening buildings between the Solar PV Site and the receptor. The second image is a street view image with a view towards Panel Area 13 in the Solar PV Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Solar PV Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 196 and 197 (Group C Receptors 36 and 37)

6.146. The 'Glare Reflections on PV Footprint' chart in **Appendix BC and CC** shows that reflections from a southern section of Panel Area 13 (see **Figure 6: Appendix A**) of the Solar PV Site can potentially impact on the receptors.

6.147. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Solar PV Site, and the location from which the second image was taken (red dot). This image shows dense vegetation between the Solar PV Site and the receptor. The second image is a street view image with a view towards Panel Area 13 in the Solar PV Site. This image confirms that the vegetation is insufficient to screen all views of the Solar PV Site where glint and glare is possible. Therefore, the impact remains **Medium**.

Receptor 198 (Group C Receptor 38)

6.148. The 'Glare Reflections on PV Footprint' chart in **Appendix BC** shows that reflections from a southern section of Panel Area 13 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.149. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptor. The second and third images are ground level images taken from the position of the receptor with an eastwards view towards Panel Area 13 in the Principal Site showing the position of the sun at 05:30 UTC on May 1st and at 05:00 UTC on July 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar

array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact remains **Low.**

Receptor 199 (Group C Receptor 39)

6.150. The 'Glare Reflections on PV Footprint' chart in **Appendix BC** shows that reflections from a southern section of Panel Area 13 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.151. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. This image shows vegetation between the Principal Site and the receptor. The second and third images are ground level images taken from the position of the receptor with an eastwards view towards Panel Area 13 in the Principal Site showing the position of the sun at 05:00 UTC on May 15th and at 05:00 UTC on July 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact remains **Low.**

Receptor 202 (Group C Receptor 42)

6.152. The 'Glare Reflections on PV Footprint' chart in **Appendix BC and CC** shows that reflections from a southern section of Panel Area 13 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.153. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation and intervening buildings between the Principal Site and the receptor. The second image is a street view image with a view towards Panel Area 13 in the Principal Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 206 (Group D Receptor 3)

6.154. The 'Glare Reflections on PV Footprint' chart in **Appendix BD** shows that reflections from a northern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.155. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation between the Principal Site and the receptor. The second image is a street view image with a view towards Panel Area 7 in the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 207 - 210 (Group D Receptors 4 - 7)

6.156. The 'Glare Reflections on PV Footprint' chart in **Appendix BD and CD** shows that reflections from a western section of Panel Area 3 and a northern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.157. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows vegetation between the Principal Site and the receptor. The second image is a street view image with a view of the vegetation to the north of the receptors and the third image is a street view image with a view towards Panel Area 7 in the Principal Site. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 211 - 214 (Group D Receptors 8 - 11)

6.158. The 'Glare Reflections on PV Footprint' chart in **Appendix BD and CD** shows that reflections from a western section of Panel Area 1, a western section of Panel Area 3 and a northern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.159. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows vegetation s between the Principal Site and the receptor. The second image is a street view image with a view of the vegetation to the north of the receptors and the third image is a street view image with a view towards Panel Area 7 in the Principal Site. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 215 and 216 (Group D Receptors 12 and 13)

6.160. The 'Glare Reflections on PV Footprint' chart in **Appendix BD and CD** shows that reflections from a western section of Panel Area 3 and a northern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.161. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows vegetation between the Principal Site and the receptor. The second image is a street view image with a view of the vegetation to the north of the receptors and the third image is a street view image with a view towards Panel Area 7 in the Principal Site. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptors 217 - 219 (Group D Receptors 14 - 16)

6.162. The 'Glare Reflections on PV Footprint' chart in **Appendix BD and CD** shows that reflections from a western section of Panel Area 3 and a northern section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.163. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second image was taken (red dot). This image shows vegetation between the Principal Site and the receptor. The second image is a street view image with a view of the vegetation to the north of the receptors and the third image is a ground level image taken from the position of Receptor 18 with a view towards Panel Area 7 in the Principal Site showing the position of the sun at 06:45 UTC on April 15th.. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the vegetation is sufficient to screen all views Panel Area 3 in the Principal Site that the sun will be the main source of solar reflection at the receptor from Panel Area 7 where glint and glare is possible. Therefore, the impact reduces to **Low**.

Receptors 220 and 221 (Group D Receptors 17 and 18)

6.164. The 'Glare Reflections on PV Footprint' chart in **Appendix BD and CD** shows that reflections from a western section of Panel Area 3 and a central section of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptors.

6.165. The first image in **Appendix Q** is an aerial view which shows the location of the receptors (yellow pins) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). This image shows vegetation between the Principal Site and the receptor. The second image is a street view image with a view towards Panel Area 3 in the Principal Site and the third image is a street view image with a view towards Panel Area 7 in the Principal Site. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 222 (Group D Receptor 19)

6.166. The 'Glare Reflections on PV Footprint' chart in **Appendix BD** shows that reflections from a western section of Panel Area 3 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.167. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). This image shows vegetation between the Principal Site and the receptor. The second image is a street view image with a view towards Panel Area 3 in the Principal Site.

This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Residential Area 1

6.168. This encompasses a number of residential receptors including those at Receptors 4 and 5 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these two receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 2

6.169. This encompasses a number of residential receptors including those at Receptors 13 - 19 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments these seven receptors, the impacts on the other receptors within this area are assessed as being **Low (worst case scenario)**.

Residential Area 3

6.170. This encompasses a number of residential receptors including those at Receptors 23 and 24 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these two receptors, the impacts on the other receptors within this area are assessed as being **Low (worst case scenario)**.

Residential Area 4

6.171. This encompasses a number of residential receptors including those at Receptors 38 - 41 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these four receptors, the impacts on the other receptors within this area are assessed as being **Low (worst case scenario)**.

Residential Area 5

6.172. This encompasses a number of residential receptors including those at Receptors 43 - 45 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these three receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 6

6.173. This encompasses a number of residential receptors including those at Receptors 50 and 51 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these two receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 7

6.174. This encompasses a number of residential receptors including those at Receptors 52 - 67 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these 16 receptors, the impacts on the other receptors within this area are assessed as being **Low (worst case scenario)**.

Residential Area 8

6.175. This encompasses a number of residential receptors including those at Receptors 68 - 70 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these three receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 9

6.176. This encompasses a number of residential receptors including those at Receptors 73 and 74 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed

for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these two receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 10

6.177. This encompasses a number of residential receptors including those at Receptors 87 - 116 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these 30 receptors, the impacts on the other receptors within this area are assessed as being **High (worst case scenario)**.

Residential Area 11

6.178. This encompasses a number of residential receptors including those at Receptors 117 - 120 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these four receptors, the impacts on the other receptors within this area are assessed as being **Low (worst case scenario)**.

Residential Area 12

6.179. This encompasses a number of residential receptors including those at Receptors 123 and 124 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these two receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 13

6.180. This encompasses a number of residential receptors including those at Receptors 126 - 131(assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these six receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 14

6.181. This encompasses a number of residential receptors including those at Receptors 134 and 135 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these two receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 15

6.182. This encompasses a number of residential receptors including those at Receptors 136 - 138 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these three receptors, the impacts on the other receptors within this area are assessed as being **Medium (worst case scenario)**.

Residential Area 16

6.183. This encompasses a number of residential receptors including those at Receptors 139 - 142 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these four receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 17

6.184. This encompasses a number of residential receptors including those at Receptors 143 and 144 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these two receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 18

6.185. This encompasses a number of residential receptors including those at Receptors 152 - 154 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple

receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these three receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 19

6.186. This encompasses a number of residential receptors including those at Receptors 169 - 192 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these 24 receptors, the impacts on the other receptors within this area are assessed as being **Low (worst case scenario)**.

Residential Area 20

6.187. This encompasses a number of residential receptors including those at Receptors 194 and 195 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these two receptors, the impacts on the other receptors within this area are assessed as being **None (worst case scenario)**.

Residential Area 21

6.188. This encompasses a number of residential receptors including those at Receptors 196 - 203 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these eight receptors, the impacts on the other receptors within this area are assessed as being **Low (worst case scenario)**.

Residential Area 22

6.189. This encompasses a number of residential receptors including those at Receptors 204 - 228 (assessed previously) (See **Figure 1: Appendix A**). Each receptor assessed represents multiple receptors as they are in close proximity of each other, so the worst-case scenario is assumed for the impact of glint and glare. All receptors were considered within the visibility assessment, and it was concluded their impacts were similar. As per the assessments of these 25 receptors,

the impacts on the other receptors within this area are assessed as being **Low (worst case scenario)**.

Road Receptors

6.190. **Table** 181818 shows a summary of the modelling results for each of the Road Receptor Points and shows which panel configuration (minimum or maximum angle for fixed tilt or single axis tracker) produces the highest impact upon the receptor, whilst the detailed results and ocular impact charts can be viewed in **Appendix EA - GC**.

6.191. **Appendix EA, EB and EC** shows the analysis for Receptors 1 – 80, 81 - 157 and 158 – 200 respectively with a tilt angle of 5 degrees, **Appendix FA, FB and FC** shows the analysis for Receptors 1 – 79, 80 - 151 and 152 – 215 respectively with a tilt angle of 45 degrees and **Appendix GA, GB and GC** shows the analysis for Receptors 1 – 80, 81 - 153 and 154 – 217 respectively with tracker panels.

6.192. The 26 receptors (218 - 243) within the no-reflection zones outlined previously have been excluded from the detailed modelling as they will never receive glint and glare impacts from the Proposed Development.

Table 1818: Potential for Glint and Glare Impact on Road Based Receptors

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
1	5442	0	0	Low	45 (FSF)
2	5561	0	0	Low	45 (FSF)
3	5954	0	0	Low	45 (FSF)
4	6131	0	0	Low	45 (FSF)
5	6504	0	0	Low	45 (FSF)
6	6743	0	0	Low	45 (FSF)
7	8834	4986	0	High	45 (FSF)
8	8052	4626	0	High	45 (FSF)
9	5290	2737	0	High	5 (FSF)
10	3833	2237	0	High	5 (FSF)
11	7326	2677	0	High	5 (FSF)
12	10559	8687	0	High	45 (FSF)

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
13	10371	7791	0	High	45 (FSF)
14	8205	4173	0	High	45 (FSF)
15	9815	7515	0	High	45 (FSF)
16	7732	6465	0	High	45 (FSF)
17	6351	3492	0	High	45 (FSF)
18	3137	2803	0	High	5 (FSF)
19	6015	2438	0	High	45 (FSF)
20	4505	1346	0	High	45 (FSF)
21	3339	729	0	High	45 (FSF)
22	1869	601	0	High	45 (FSF)
23	1405	369	0	High	45 (FSF)
24	1231	20	0	High	45 (FSF)
25	936	0	0	Low	45 (FSF)
26	1276	0	0	Low	Tracker (SAT)
27	1438	0	0	Low	Tracker (SAT)
28	1338	0	0	Low	Tracker (SAT)
29	800	0	0	Low	Tracker (SAT)
30	9553	579	0	High	45 (FSF)
31	5578	589	0	High	5 (FSF)
32	4836	969	0	High	5 (FSF)
33	4678	1153	0	High	5 (FSF)
34	8997	69	0	High	45 (FSF)
35	9233	33	0	High	45 (FSF)
36	4703	50	0	High	5 (FSF)
37	6049	0	0	Low	45 (FSF)

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
38	9183	463	0	High	45 (FSF)
39	5782	1049	0	High	5 (FSF)
40	5593	1526	0	High	5 (FSF)
41	4857	3073	0	High	5 (FSF)
42	5057	2450	0	High	5 (FSF)
43	7534	1269	0	High	45 (FSF)
44	7639	763	0	High	45 (FSF)
45	4853	784	0	High	45 (FSF)
46	2851	663	0	High	45 (FSF)
47	2644	694	0	High	45 (FSF)
48	2098	485	0	High	45 (FSF)
49	1669	200	0	High	45 (FSF)
50	1004	0	0	Low	45 (FSF)
51	555	0	0	Low	Tracker (SAT)
52	582	0	0	Low	Tracker (SAT)
53	422	0	0	Low	Tracker (SAT)
54	175	0	0	Low	Tracker (SAT)
55	50	0	0	Low	Tracker (SAT)
56	0	0	0	None	N/A
57	150	0	0	Low	Tracker (SAT)
58	7399	1209	0	High	45 (FSF)
59	7538	971	0	High	45 (FSF)
60	3463	0	0	Low	Tracker (SAT)
61	2443	0	0	Low	Tracker (SAT)
62	2252	45	0	High	Tracker (SAT)

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
63	1635	102	0	High	Tracker (SAT)
64	4039	0	0	Low	Tracker (SAT)
65	5073	406	0	High	Tracker (SAT)
66	4846	1263	0	High	Tracker (SAT)
67	4585	957	0	High	Tracker (SAT)
68	3689	765	0	High	Tracker (SAT)
69	3050	283	0	High	Tracker (SAT)
70	1879	81	0	High	Tracker (SAT)
71	1414	0	0	Low	Tracker (SAT)
72	846	0	0	Low	45 (FSF)
73	5383	1265	0	High	Tracker
74	3420	91	0	High	Tracker
75	3823	110	0	High	Tracker
76	2905	917	0	High	45 (FSF)
77	4275	781	0	High	Tracker
78	5046	1589	0	High	Tracker
79	3381	1207	0	High	45 (FSF)
80	5305	7422	0	High	45 (FSF)
81	3039	4921	0	High	Tracker
82	8660	5271	0	High	45 (FSF)
83	9526	6873	0	High	45 (FSF)
84	11772	3879	0	High	45 (FSF)
85	12004	3564	0	High	45 (FSF)
86	13381	8094	0	High	45 (FSF)
87	10128	800	0	High	45 (FSF)

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
88	9268	348	0	High	45 (FSF)
89	7359	120	0	High	45 (FSF)
90	4418	0	0	Low	45 (FSF)
91	6164	530	0	High	45 (FSF)
92	4762	163	0	High	45 (FSF)
93	6703	3788	0	High	45 (FSF)
94	4545	3199	0	High	5 (FSF)
95	5067	1997	0	High	5 (FSF)
96	5727	1469	0	High	5 (FSF)
97	7437	710	0	High	45 (FSF)
98	3174	247	0	High	45 (FSF)
99	6141	1944	0	High	45 (FSF)
100	9622	2647	0	High	45 (FSF)
101	5179	4172	0	High	45 (FSF)
102	6331	1756	0	High	45 (FSF)
103	8162	391	0	High	45 (FSF)
104	4743	237	0	High	5 (FSF)
105	5310	0	0	Low	45 (FSF)
106	3069	0	0	Low	45 (FSF)
107	4028	0	0	Low	45 (FSF)
108	3566	0	0	Low	45 (FSF)
109	7008	0	0	Low	45 (FSF)
110	4924	0	0	Low	45 (FSF)
111	4366	0	0	Low	45 (FSF)
112	3052	3052	0	High	5 (FSF)

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
113	11116	5238	0	High	45 (FSF)
114	13296	583	0	High	45 (FSF)
115	11954	210	0	High	45 (FSF)
116	12441	31	0	High	45 (FSF)
117	11652	0	0	Low	45 (FSF)
118	9718	0	0	Low	45 (FSF)
119	2057	9	0	High	Tracker
120	8793	15	0	High	45 (FSF)
121	10101	23	0	High	45 (FSF)
122	13904	51	0	High	45 (FSF)
123	14370	115	0	High	45 (FSF)
124	13439	159	0	High	45 (FSF)
125	12488	0	0	Low	45 (FSF)
126	10415	57	0	High	45 (FSF)
127	5014	164	0	High	45 (FSF)
128	4402	109	0	High	45 (FSF)
129	651	311	0	High	Tracker
130	4274	3956	0	High	45 (FSF)
131	5194	1478	0	High	45 (FSF)
132	5772	860	0	High	45 (FSF)
133	5113	423	0	High	45 (FSF)
134	2510	78	0	High	5 (FSF)
135	3523	35	0	High	5 (FSF)
136	13217	0	0	Low	45 (FSF)
137	12328	0	0	Low	45 (FSF)

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
138	10530	0	0	Low	45 (FSF)
139	11697	0	0	Low	45 (FSF)
140	10018	0	0	Low	45 (FSF)
141	8378	61	0	High	5 (FSF)
142	1623	9	0	High	Tracker
143	2304	714	0	High	Tracker
144	12440	7107	0	High	5 (FSF)
145	12464	6187	0	High	45 (FSF)
146	11520	4509	0	High	45 (FSF)
147	7366	7547	0	High	45 (FSF)
148	5305	2288	0	High	45 (FSF)
149	5412	1253	0	High	45 (FSF)
150	5161	475	0	High	45 (FSF)
151	4097	217	0	High	45 (FSF)
152	3270	148	0	High	45 (FSF)
153	2210	36	0	High	45 (FSF)
154	5051	2	0	High	5 (FSF)
155	4132	17	0	High	45 (FSF)
156	4407	8	0	High	45 (FSF)
157	707	6	0	High	45 (FSF)
158	2414	86	0	High	45 (FSF)
159	634	505	0	High	45 (FSF)
160	4918	710	0	High	5 (FSF)
161	2243	1842	0	High	5 (FSF)
162	2287	1153	0	High	5 (FSF)

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
163	5967	0	0	Low	5 (FSF)
164	4237	0	0	Low	5 (FSF)
165	4679	0	0	Low	5 (FSF)
166	330	0	0	Low	Tracker
167	1144	0	0	Low	5 (FSF)
168	1138	0	0	Low	45 (FSF)
169	1566	0	0	Low	45 (FSF)
170	1767	0	0	Low	5 (FSF)
171	2604	0	0	Low	5 (FSF)
172	2651	0	0	Low	5 (FSF)
173	2865	0	0	Low	45 (FSF)
174	2929	0	0	Low	45 (FSF)
175	3231	0	0	Low	45 (FSF)
176	5086	1329	0	High	45 (FSF)
177	5417	8699	0	High	45 (FSF)
178	3583	3460	0	High	45 (FSF)
179	5778	2067	0	High	5 (FSF)
180	4241	2270	0	High	5 (FSF)
181	4444	4651	0	High	5 (FSF)
182	12291	15063	0	High	5 (FSF)
183	16122	16121	0	High	5 (FSF)
184	13152	15581	0	High	5 (FSF)
185	16663	6070	0	High	5 (FSF)
186	3665	3445	0	High	5 (FSF)
187	279	77	0	High	SAT

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
188	6096	1559	0	High	5 (FSF)
189	5144	2566	0	High	5 (FSF)
190	4712	2709	0	High	5 (FSF)
191	5498	2594	0	High	5 (FSF)
192	4423	1542	0	High	5 (FSF)
193	621	502	0	High	45 (FSF)
194	612	175	0	High	45 (FSF)
195	587	38	0	High	SAT
196	0	0	0	None	N/A
197	1276	0	0	Low	5 (FSF)
198	2174	737	0	High	5 (FSF)
199	3614	877	0	High	5 (FSF)
200	2873	2248	0	High	5 (FSF)
201	3295	2406	0	High	5 (FSF)
202	562	774	0	High	45 (FSF)
203	6371	519	0	High	5 (FSF)
204	616	12	0	High	SAT
205	8809	0	0	Low	5 (FSF)
206	8119	0	0	Low	5 (FSF)
207	3111	0	0	Low	5 (FSF)
208	2322	0	0	Low	5 (FSF)
209	6546	0	0	Low	45 (FSF)
210	5260	160	0	High	45 (FSF)
211	6035	736	0	High	45 (FSF)
212	9047	1004	0	High	5 (FSF)

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
213	8451	2960	0	High	5 (FSF)
214	8988	3157	0	High	5 (FSF)
215	7587	3607	0	High	5 (FSF)
216	6896	4107	0	High	5 (FSF)
217	5349	3294	0	High	5 (FSF)

6.193. As can be seen in Table 1818, there are 156 receptor points that have potential glare impacts with the "potential for after-image" (Yellow Glare), which is a High impact, and 59 receptors with the "low potential for after-image" (Green Glare), which is a Low impact. Appendix GA - GC show detailed analysis of when the glint and glare impacts are possible, whilst also showing from which parts of the Principal Site the solar glint is reflected.

6.194. Appendix Q shows Google Earth images taken towards the Principal Site location at each of the receptor points where an impact is anticipated. The first image is a ground level terrain view and is based on the height data of the surrounding land showing no intervening vegetation or buildings. The Principal Site has been drawn as a white polygon and can be seen on the images when the Principal Site is theoretically visible. The area of the Principal Site from where reflections may be possible has been drawn as a yellow or green polygon. The second image is a street view image pointing in the same direction as the terrain image. This gives a good indication as to whether the area of the Principal Site where reflections are theoretically possible will be visible from the receptor point. For some receptors, a field of view (FOV) has been drawn between two red lines, where the glare is situated outside this FOV, and therefore the impact is reduced to None.

6.195. As can be seen in Appendix Q, views of the Principal Site from those receptors with a potential glare impact, except receptors 13 – 16, 45, 78 - 80, 82 – 84, 98 – 101, 113, 144 – 148 and 177 – 182, are blocked by a mixture of intervening vegetation, topography and buildings or are outside the field of view of the driver. Therefore, impacts upon these receptors reduce to None. The impact upon receptors 13 – 16, 45, 78 - 80, 82 – 84, 98 – 101, 113, 144 – 148 and 177 – 182 remains High.

Rail Receptors

6.196. Table 1919 shows a summary of the modelling results for each of the Rail Receptor Points and shows which panel configuration (minimum or maximum angle for fixed tilt or single axis tracker) produces the highest impact upon the receptor, whilst the detailed results and ocular impact charts can be viewed in Appendix H, I and J.

6.197. **Appendix H** shows the analysis for a tilt angle of 5 degrees, **Appendix I** shows the analysis for a tilt angle of 45 degrees and **Appendix J** shows the analysis for the tracker panels.

6.198. The seven receptors (14 - 20) within the no-reflection zones outlined previously have been excluded from the detailed modelling as it will never receive glint and glare impacts from the Proposed Development.

Table 1919: Potential for Glint and Glare Impact on Rail Based Receptors

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
1	3503	200	0	High	45
2	2431	327	0	High	45
3	1263	286	0	High	45
4	1029	255	0	High	45
5	884	110	0	High	45
6	705	0	0	Low	Tracker
7	763	0	0	Low	Tracker
8	616	0	0	Low	Tracker
9	213	0	0	Low	Tracker
10	771	0	0	Low	Tracker
11	692	0	0	Low	Tracker
12	838	0	0	Low	Tracker
13	780	0	0	Low	Tracker

6.199. As can be seen in **Table 1919**, there are five receptor points have potential glare impacts with the "potential for after-image" (Yellow Glare), which is a **High** impact, and eight receptors with the "low potential for after-image" (Green Glare), which is a **Low** impact. **Appendix H, I and J** show detailed analysis of when the glint and glare impacts are possible, whilst also showing from which parts of the Principal Site the solar glint is reflected from.

6.200. **Appendix Q** shows Google Earth images that give an insight into how each receptor will be impacted by the glint and glare from the Principal Site. There is a mixture of images used, which include aerial, ground level and street level. The aerial images show the location of the receptor with the solar farm drawn as a white polygon and can be seen on the images when the solar

farm is theoretically visible, as well as the field of view of a train driver drawn between two red lines. The area of the solar farm from where reflections may be possible has been drawn as a yellow or green polygon. The ground level terrain is based on the height data of the surrounding land showing no intervening vegetation or buildings. The white and yellow polygons can be seen in this view also. The street view gives a good indication as to whether the area of the solar farm where reflections are theoretically possible will be visible from the receptor point.

Receptor 1

6.201. The 'Glare Reflections on PV Footprint' chart in Appendix H - J shows that reflections from the northeast half of Panel Area 1, all, except a small southern corner, of Panel Area 2, the eastern half of Panel Area 3, a northeast section of Panel Area 4, all of Panel Area 6, all of Panel Area 12 and a northeast section of Panel Area 14 (see Figure 6 Appendix A) of the Principal Site can potentially impact on the receptor.

6.202. The first image in Appendix Q is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view west towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to None.

Receptor 2

6.203. The 'Glare Reflections on PV Footprint' chart in Appendix H - J shows that reflections from the northeast half of Panel Area 1, all, except a southwest section, of Panel Area 2, and eastern section of Panel Area 4 and the northern half and a southern section of Panel Area 12 (see Figure 6 Appendix A) of the Principal Site can potentially impact on the receptor.

6.204. The first image in Appendix Q is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view west towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to None.

Receptor 3

6.205. The 'Glare Reflections on PV Footprint' chart in Appendix H - J shows that reflections from a northern section of Panel Area 1, all, except a southern section, of Panel Area 2, the northern half and a southern section of Panel Area 6 and the southern half and a northern section of

Panel Area 12 (see **Figure 6 Appendix A**) of the Principal Site can potentially impact on the receptor.

6.206. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view west towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to **None**.

Receptor 4

6.207. The 'Glare Reflections on PV Footprint' chart in **Appendix H - J** shows that reflections from a northern section of Panel Area 1, the northern half of Panel Area 2, a northern and a southern section of Panel Area 5 and all of Panel Area 12 (see **Figure 6 Appendix A**) of the Principal Site can potentially impact on the receptor.

6.208. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view west towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to **None**.

Receptor 5

6.209. The 'Glare Reflections on PV Footprint' chart in **Appendix H - J** shows that reflections from a northern section of Panel Area 1, a northern section of Panel Area 2, a northern and southern section of Panel Area 5and all of Panel Area 12 (see **Figure 6 Appendix A**) of the Principal Site can potentially impact on the receptor.

6.210. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view northwest towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to **None**.

Receptor 6

6.211. The 'Glare Reflections on PV Footprint' chart in **Appendix H - J** shows that reflections from a northern section of Panel Area 2, the southern half section of Panel Area 5 and all of Panel Area 12 (see **Figure 6 Appendix A**) of the Principal Site can potentially impact on the receptor.

6.212. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view west towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to **None**.

Receptor 7

6.213. The 'Glare Reflections on PV Footprint' chart in **Appendix H - J** shows that reflections from a small northern section and small northeast corner of Panel Area 2, a western section of Panel Area 5 and all, except a small southwest corner, of Panel Area 12 (see **Figure 6 Appendix A**) of the Principal Site can potentially impact on the receptor.

6.214. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view west towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to **None**.

Receptor 8

6.215. The 'Glare Reflections on PV Footprint' chart in **Appendix H - J** shows that reflections from all of Panel Area 5 and a northeast section of Panel Area 12 (see **Figure 6 Appendix A**) of the Principal Site can potentially impact on the receptor.

6.216. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view southeast towards the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to **None**.

Receptor 9

6.217. The 'Glare Reflections on PV Footprint' chart in **Appendix H - J** shows that reflections from all, except an eastern section of Panel, Area 4 and a western section, a northern section and a southern section of Panel Area 5(see **Figure 6 Appendix A**) of the Principal Site can potentially impact on the receptor.

6.218. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view southeast towards the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to **None**.

Receptor 10

6.219. The 'Glare Reflections on PV Footprint' chart in **Appendix H - J** shows that reflections from all, except a southern section, of Panel Area 4 and all of Panel Area (see **Figure 6 Appendix A**) of the Principal Site can potentially impact on the receptor.

6.220. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view southeast towards the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to **None**.

Receptor 11

6.221. The 'Glare Reflections on PV Footprint' chart in **Appendix H - J** shows that reflections from all of Panel Area 4 (see **Figure 6 Appendix A**) of the Principal Site can potentially impact on the receptor.

6.222. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view south towards the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to **None**.

Receptor 12

6.223. The 'Glare Reflections on PV Footprint' chart in Appendix H - J shows that reflections from all, except a western section, of Panel Area 4 (see Figure 6 Appendix A) of the Principal Site can potentially impact on the receptor.

6.224. The first image in Appendix Q is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view northwest towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to None.

Receptor 13

6.225. The 'Glare Reflections on PV Footprint' chart in Appendix H - J shows that reflections from all, except a western section, of Panel Area 4 (see Figure 6 Appendix A) of the Principal Site can potentially impact on the receptor.

6.226. The first image in Appendix Q is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, the field of view (FOV) of a train driver (red lines) and the location from which the second image was taken (red dot). The second image is street view image with a view northwest towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible and the areas of the Principal Site where glint and glare is possible is outside the driver's field of view. Therefore, the impact reduces to None.

Bridleway Receptors

6.227. Table 2020 shows a summary of the modelling results for each of the Bridleway Receptor Points whilst the detailed results and ocular impact charts can be viewed in Appendix K, L and M.

6.228. Appendix K shows the analysis for a tilt angle of 5 degrees, Appendix L shows the analysis for a tilt angle of 45 degrees and Appendix M shows the analysis for the tracker panels.

6.229. The three receptors (80 - 82) within the no-reflection zones outlined previously has been excluded from the detailed modelling as they will never receive glint and glare impacts from the Proposed Development.

Table 2020: Summary of Bridleway Glare Results

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
1	1780	979	0	High	45
2	4860	2310	0	High	5
3	3673	22344	0	High	5
4	6404	17358	0	High	45
5	6196	12364	0	High	45
6	4928	5219	0	High	5
7	1456	12	0	High	Tracker
8	1910	9	0	High	Tracker
9	4178	1086	0	High	Tracker
10	2781	2096	0	High	5
11	3144	1856	0	High	5
12	4353	41	0	High	Tracker
13	7879	871	0	High	Tracker
14	140082	53098	0	High	5
15	146795	53668	0	High	5
16	6476	14277	0	High	5
17	9502	2864	0	High	Tracker
18	9012	2293	0	High	Tracker
19	3817	1736	0	High	5
20	8593	2813	0	High	Tracker
21	8166	1790	0	High	Tracker
22	8092	376	0	High	45
23	5318	0	0	Low	45
24	6365	82	0	High	45
25	7746	1611	0	High	45

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
26	7415	2567	0	High	45
27	8883	12416	0	High	5
28	9217	9409	0	High	5
29	27408	22260	0	High	5
30	172091	41452	0	High	5
31	15961	11205	0	High	5
32	3556	1952	0	High	5
33	5351	1673	0	High	45
34	5768	2916	0	High	45
35	6399	13332	0	High	45
36	7900	7965	0	High	45
37	6164	17731	0	High	45
38	9049	12912	0	High	45
39	5526	2079	0	High	5
40	7808	388	0	High	45
41	3233	0	0	Low	45
42	2294	0	0	Low	45
43	1311	0	0	Low	5
44	3998	0	0	Low	5
45	5887	361	0	High	5
46	6058	212	0	High	5
47	7184	0	0	Low	45
48	13021	5509	0	High	5
49	6376	279	0	High	5
50	6467	8	0	High	5

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
51	7841	0	0	Low	45
52	9172	0	0	Low	45
53	10070	0	0	Low	5
54	11588	556	0	High	45
55	12778	857	0	High	45
56	72352	53766	0	High	5
57	25941	52959	0	High	5
58	7659	3400	0	High	5
59	7939	7752	0	High	5
60	4930	3211	0	High	5
61	4741	43	0	High	45
62	5803	1370	0	High	45
63	3517	666	0	High	45
64	5699	1091	0	High	45
65	9451	3002	0	High	5
66	8840	5086	0	High	5
67	82353	50698	0	High	5
68	3505	34948	0	High	5
69	23915	45953	0	High	5
70	4160	1434	0	High	45
71	2578	873	0	High	5
72	6714	1105	0	High	5
73	8672	0	0	Low	5
74	7243	0	0	Low	5
75	5655	0	0	Low	5

Receptor	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Magnitude of Impact	Worst Case Tilt Angle (degrees)
76	1946	0	0	Low	5
77	1389	0	0	Low	5
78	2869	408	0	High	5
79	2623	8	0	High	5

6.230. As can be seen in Table 2020, there are 65 receptor points which have potential glare impacts with the "potential for after-image" (Yellow Glare), which is a High impact, and 14 receptor points which have potential glare impacts with the "low potential for after-image" (Green Glare), which is a Low impact. Appendix K - M show detailed analysis of when the glint and glare impacts are possible, whilst also showing from which parts of the Principal Site the solar glint is reflected from.

6.231. Appendix Q shows Google Earth images that give an insight into how each receptor will be impacted by the glint and glare from the Principal Site. There is a mixture of images used, which include aerial, ground level and street level. The aerial images show the location of the receptor with the solar farm drawn as a white polygon and can be seen on the images when the solar farm is theoretically visible, as well as the field of view of a train driver drawn between two red lines. The area of the solar farm from where reflections may be possible has been drawn as a yellow or green polygon. The ground level terrain is based on the height data of the surrounding land showing no intervening vegetation or buildings. The white and yellow polygons can be seen in this view also. The street view gives a good indication as to whether the area of the solar farm where reflections are theoretically possible will be visible from the receptor point. Also, where appropriate images that have been taken from within the Application Site have been used to show up to date imagery.

Receptor 1

6.232. The 'Glare Reflections on PV Footprint' chart in Appendix K – M shows that reflections from the northern half of the Panel Area 2, a northeast section of Panel Area 4, a southern section of Panel Area 6 and all of Panel Area 12 (see Figure 6: Appendix A) of the Principal Site can potentially impact on the receptor.

6.233. The first image in Appendix Q is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second image is a ground level image taken from the position of the receptor a view towards the Principal Site. This image confirms that the vegetation and topography are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to None.

Receptor 2

6.234. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a small northern section of the Panel Area 1, all, except a southern section, of Panel Area 2, all, except a central and an eastern section, of Panel Area 4, a northern and southern section of Panel Area 5 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.235. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor views eastwards and westwards respectively towards the Principal Site. These images confirm that the vegetation and topography are sufficient to screen all eastwards views of the Principal Site and insufficient to screen westward views of the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 3

6.236. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a northern section of the Panel Area 1, all, except a northwest and southwest section, of Panel Area 2, the northern half of Panel Area 5 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.237. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor views eastwards and westwards respectively towards the Principal Site. These images confirm that the vegetation and topography are insufficient to screen views of Panel Area 1 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 4

6.238. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from two northern sections of the Panel Area 1, all, except a northern section, of Panel Area 2, an eastern section of Panel Area 4, the northern half of Panel Area 5 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.239. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor views eastwards and westwards respectively towards the Principal Site. These images confirm that the vegetation and topography are views of Panel Area 1 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 5

6.240. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from two central sections of the Panel Area 1, the southern half of Panel Area 2, the northern half of Panel Area 4, all, except a northern and a southern section, of Panel Area 5 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.241. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor views eastwards and westwards respectively towards the Principal Site. These images confirm that the vegetation and topography are views of Panel Area 1 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 6

6.242. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from two central sections of the Panel Area 1, a southern section of Panel Area 2, all, except a two southern sections of Panel Area 4, all, except a southern section, of Panel Area 5 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.243. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with views eastwards and westwards respectively towards the Principal Site. These images confirm that the vegetation and topography are insufficient to screen views of Panel Area 1 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 7

6.244. The 'Glare Reflections on PV Footprint' chart in **Appendix M** shows that reflections from the eastern half of Panel Area 4 and the northern half of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.245. The first image in **Appendix N** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second image is a ground level image taken from the position with a view towards the Principal Site. This image confirms that the vegetation and topography are sufficient to screen views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 8

6.246. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from the eastern half and a small northern section of Panel Area 2, all, except a western section, of Panel

Area 4 and all, except a southern corner of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.247. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are a ground level image taken from the position of the receptor with views southwards and westwards respectively towards the Principal Site. This image confirms that the vegetation and topography are insufficient to screen views of Panel Area 2 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 9

6.248. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from an eastern and a northwest section of Panel Area 2, the eastern half of Panel Area 4 and all, except a southern section of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.249. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with views south eastwards and westwards respectively towards the Principal Site. These images confirm that the vegetation and topography are insufficient to screen views of Panel Area 2 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 10

6.250. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a northeast and northwest section of Panel Area 2, the eastern half and a western section of Panel Area 4 and all, except a southern section, of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.251. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with views south eastwards and westwards respectively towards the Principal Site. These images confirm that the vegetation and topography are insufficient to screen views of Panel Area 2 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 11

6.252. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a northeast corner and northwest section of Panel Area 2, an eastern and a western section of Panel Area 4 and all, except a southern and western section, of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.253. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are a ground level images taken from the position of the receptor with views south eastwards and westwards respectively towards the Principal Site. This image confirms that the vegetation and topography are insufficient to screen views of the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 12

6.254. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from the northern half of Panel Area 2, an eastern and western section of Panel Area 4 and a western corner of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.255. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second, third and fourth images are ground level images taken from the position of the receptor with views westwards (second and third images) and southwards (fourth images) respectively towards the Principal Site. These images confirms that the vegetation and topography are insufficient to screen views of Panel Area 2 in the Principal Site where glint and glare is possible. The second and third images are ground level images taken from the position of the receptor with a westwards view towards the Principal Site showing the position of the sun at 16:30 UTC on October 15th and at 15:30 UTC on November 30th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact reduces to **Low**.

Receptor 13

6.256. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a central section of Panel Area 2, a central, eastern and western section of Panel Area 4 and a northern section of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.257. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second, third and fourth images are ground level images taken from the position of the receptor with views westwards (second and third images) and southwards (fourth images) respectively towards the Principal Site. These images confirms that the vegetation and topography are insufficient to screen views of Panel Areas 2 and 4 in the Principal Site where glint and glare is possible. The second and third images are ground level images taken from the position of the receptor with a westwards view towards the Principal Site showing the position of the sun at 15:30 UTC on January 1st and at 17:00 UTC on October 5th respectively. The fourth image is a ground level image taken from the position of

the receptor with a southwards view towards the Principal Site showing the position of the sun at 12:00 UTC on January 1st. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact reduces to **Low**.

Receptor 14

6.258. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from northern sections of Panel Area 2, the eastern half and a western section of Panel Area 4 and all, except a southern section, of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.259. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second, third and fourth images are ground level images taken from the position of the receptor with views eastwards, westwards and southwards respectively towards the Principal Site. These images confirm that the vegetation and topography are insufficient to screen views of Panel Area 2 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 15

6.260. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from eastern and western sections of Panel Area 2, the eastern half and a western section of Panel Area 4and the northern half of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.261. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second, third and fourth images are ground level images taken from the position of the receptor with views eastwards, westwards and southwards respectively towards the Principal Site. These images confirm that the vegetation and topography are insufficient to screen views of the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 16

6.262. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from an eastern and two western sections of Panel Area 2 and the eastern half and a western section of Panel Area 4 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.263. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second, third and fourth images are Google Earth Photos taken from the position of the receptor with views eastwards, westwards and

southwards respectively towards the Principal Site. These images confirm that the vegetation and topography are insufficient to screen views of the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 17

6.264. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a western section, of Panel Area 2, an eastern and a western section of Panel Area 4 and all of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.265. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second image is a ground level image taken from the position of the receptor with a westwards view towards the Principal Site showing the position of the sun at 17:30 UTC on March 1st. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. The third image is a street view image taken from the position of the receptor with a view southward towards the Principal Site. These images confirm that the vegetation and topography are sufficient to screen views of Panel Areas 4 and 5 in the Principal Site where glint and glare is possible. Therefore, the impact reduces to **Low**.

Receptor 18

6.266. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a central section, of Panel Area 2, an eastern section and a western corner of Panel Area 4 and all, except an eastern section, of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.267. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second, third, fourth and fifth images are ground level images taken from the position of the receptor with views westwards (second and third images) and southwards (fourth images) respectively towards the Principal Site. These images confirms that the vegetation and topography are insufficient to screen views of Panel Area 2 in the Principal Site where glint and glare is possible. The second and third images are ground level images taken from the position of the receptor with a westwards view towards the Principal Site showing the position of the sun at 17:45 UTC on March 20th and at 17:30 UTC on April 15th respectively. The fourth and fifth images are ground level images taken from the position of the receptor with a southwards view towards the Principal Site showing the position of the sun at 12:15 UTC on January 1st and at 12:00 UTC on December 5th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar

array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact reduces to **Low**.

Receptor 19

6.268. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a northern, a central and a southern section of Panel Area 2, two eastern sections and a wester corner of Panel Area 3 and a western section of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.269. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second, third, fourth, fifth and sixth images are ground level images taken from the position of the receptor with views westwards (second, third and fourth images) and southwards (fifth and sixth images) respectively towards the Principal Site. The second, third and fourth images are ground level images taken from the position of the receptor with a westwards view towards the Principal Site showing the position of the sun at 17:45 UTC on March 15th, at 17:00 UTC on May 5th and at 17:15 UTC on October 1st respectively. The fifth and sixth images are ground level images taken from the position of the receptor with a southwards view towards the Principal Site showing the position of the sun at 09:15 UTC on January 1st and at 12:15 UTC on December 5th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact reduces to **Low**.

Receptor 20

6.270. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a northern and a southern section, of Panel Area 2, an eastern and a western section of Panel Area 4 and all, except an eastern section of Panel Area 5 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.271. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second, third, fourth, fifth, sixth and seventh images are ground level images taken from the position of the receptor with views westwards (second and third images) and southwards (fourth, fifth, sixth and seventh images) respectively towards the Principal Site. The second and third images are ground level images taken from the position of the receptor with a westwards view towards the Principal Site showing the position of the sun at 17:45 UTC on March 20th and at 17:15 UTC on April 20th respectively. The fourth, fifth, sixth and seventh images are ground level images taken from the position of the receptor with a southwards view towards the Principal Site showing the position of the sun at 11:45 UTC on January 1st, at 13:00 UTC on December 1st, at 14:45 UTC on January 1st and at 14:30 UTC on December 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far

greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact reduces to **Low**.

Receptor 21

6.272. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a northern and a southern section, of Panel Area 2, a northern section and eastern section of Panel Area 4 and all of Panel Area 6 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.273. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a view towards Panel Area 2. This image confirms that the vegetation is sufficient to screen all views of Panel Area 2 in the Principal Site where glint and glare is possible. The third, fourth, fifth, and sixth images are ground level images taken from the position of the receptor with views southwards towards the Principal Site showing the position of the sun at 11:30 UTC on January 5th , at 12:45 UTC on December 1st, at 14:45 UTC on January 1st and at 15:45 UTC on February 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact reduces to **Low**.

Receptor 22

6.274. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southern section of Panel Area 1, a southern section, of Panel Area 2, all, except a southern section of Panel Area 3, all, except a southern section, of Panel Area 4, all, except a southern section, of Panel Area 5, a northern section of Panel Area 6 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.275. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with a westwards view towards the Principal Site showing the position of the sun at 06:45 UTC on April 1st and at 07:15 UTC on August 15th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. The fourth image is a ground level image taken from the position of the receptor with a view southwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Area 12 in the Principal Site where glint and glare is possible. Therefore, the impact reduces to **Low**.

Receptor 23

6.276. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southern section of Panel Area 1, a southern section, of Panel Area 2, all, except a southern section of Panel Area 3, all, except a southern section, of Panel Area 4, all, except a southern section, of Panel Area 5, a northern section of Panel Area 6 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.277. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with a westwards view towards the Principal Site showing the position of the sun at 06:30 UTC on April 1st and at 07:00 UTC on May 15th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. The fourth image is a ground level image taken from the position of the receptor with a view southwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Area 12 in the Principal Site where glint and glare is possible. Therefore, the impact reduces to **Low**.

Receptor 24

6.278. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southern section of Panel Area 1, a northern section, of Panel Area 3, all, except a southern section, of Panel Area 4, the northern half of Panel Area 5, a northern section of Panel Area 6 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.279. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with a westwards view towards the Principal Site showing the position of the sun at 06:30 UTC on April 1st and at 07:00 UTC on May 15th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. The fourth image is a ground level image taken from the position of the receptor with a view southwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Area 12 in the Principal Site where glint and glare is possible. Therefore, the impact reduces to **Low**.

Receptor 25

6.280. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a small southern section of Panel Area 1, a northern section of Panel Area 3, all, except a southern section, of Panel Area 4, the northern half of Panel Area 5, a northern section of Panel Area 6 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.281. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with a view towards Panel Area 1 in the Principal Site showing the position of the sun at 05:00 UTC on May 15th and July 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. The fourth images is a ground level image taken from the position of the receptor with a view southwards towards the Principal Site. This image confirms that the topography is sufficient to screen views of Panel Areas 3, 4, 5, 6 and 8 in the Principal Site where glint and glare is possible. Therefore, the impact reduces to **Low**.

Receptor 26

6.282. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from an eastern and small southern section of Panel Area 1, a northern section of Panel Area 3, all, except a southern section, of Panel Area 4, the northern half of Panel Area 5, a northern section of Panel Area 6 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.283. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second image is a ground level images taken from the position of the receptor with a view northward towards the Principal Site. This image confirms that the topography is insufficient to screen views of Panel Area 1 in the Principal Site where glint and glare is possible. The third and third fourth are ground level images taken from the position of the receptor with a view towards Panel Areas 3, 4 and 5 in the Principal Site showing the position of the sun at 06:30 UTC on April 1st and at 07:00 UTC on July 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. The fifth image is a ground level image with a view southward. This image confirms that the topography is sufficient to screen views of Panel Areas 5, 6 and 12 in the Principal Site where glint and glare is possible. Therefore, the impact remains **Low**.

Receptor 27

6.284. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southern section of Panel Area 1, a northern section of Panel Area 3, a northern section of Panel Area 5, a northeast section of Panel Area 6 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.285. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second image is a ground level image with an eastwards view towards the Principal Site. This image confirms that the topography is insufficient to screen all view of Panel Area 3 in the Principal Site where glint and glare is possible. The third and fourth images are ground level images taken from the position of the receptor with a view towards Panel Area 1 in the Principal Site showing the position of the sun at 19:00 UTC on July 1st and at 17:00 UTC on October 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. The fifth image is a ground level image taken from the position of the receptor with a southwards view towards Panel Areas 5, 6 and 12 in the Principal Site. These images confirm that the topography is sufficient to screen views of Panel Areas 5, 6, 8 and 10 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 28

6.286. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a western section of Panel Area 1, a northern section of Panel Area 3, all, except a southern section, of Panel Area 4, all, except a southern section, of Panel Area 11 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.287. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second image is ground level image taken from the position of the receptor with a view towards Panel Areas 3 and 4 in the Principal Site. This image confirms that the topography is insufficient to screen views of the Principal Site where glint and glare is possible. The third image is a ground level image taken from the position of the receptor with westwards view towards Panel Area 1 in the Principal Site. This image confirms that the topography is insufficient to screen views of Panel Area 1 in the Principal Site where glint and glare is possible. The fourth image is a ground level image with a southwards view towards Panel Areas 11 and 12 in the Principal Site. This image confirms that the topography is sufficient to screen all views of Panel Areas 11 and 12 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 29

6.288. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a central section of Panel Area 1, a northern section of Panel Area 3, the northern half of Panel Area 4, all, except a southern section, of Panel Area 11 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.289. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with a view towards Panel Area 3 and 4 in the Principal Site showing the position of the sun at 07:00 UTC on March 15th and at 05:30 UTC on May 10th respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. The fourth image is a ground level image taken from the position of the receptor with westwards view towards Panel Area 1 in the Principal Site. This image confirms that the topography is insufficient to screen views of Panel Area 1 in the Principal Site where glint and glare is possible. The fifth image is a ground level image with a southwards view towards Panel Areas 11 and 12 in the Principal Site. This image confirms that the topography is sufficient to screen all views of Panel Areas 11 and 12 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 30

6.290. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from an eastern and western section of Panel Area 1, a southern section of Panel Area 2, a northern section of Panel Area 3, the northern half of Panel Area 4, all, except a southern section, of Panel Area 11 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.291. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with views eastwards and westwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Areas 1, 2, 3 and 4 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 31

6.292. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from the northern half of Panel Area 1, a southern section of Panel Area 2, an eastern section of Panel Area 3, the northern half of Panel Area 4, all, except a central section, of Panel Area 5 the northeast half of Panel Area 11 and all, except a southwest section, of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.293. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with views eastwards and westwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Areas 1, 3 and 4 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 32

6.294. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a northern section of Panel Area 1, a southern section of Panel Area 2, a northeast section of Panel Area 3, a northeast section of Panel Area 4,s northeast section of Panel Area 11 and a northeast section of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.295. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second, third and fourth images are ground level images taken from the position of the receptor with views eastwards, southwards and westwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Areas 2, 3 and 4 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 33

6.296. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a northern section of Panel Area 1, a southern section of Panel Area 2, a northern and a southern section of Panel Area 5 and a small northeast corner of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.297. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second, third and fourth images are ground level images taken from the position of the receptor with views eastwards, southwards and westwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Area 2 in the Principal Site where glint and glare is possible. Therefore, the impact reduces to **Low**.

Receptor 34

6.298. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from the northern half of Panel Area 1, the northern half of Panel Area 4, all, except a central section, of Panel Area 5 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.299. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken

from the position of the receptor with views eastwards and westwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Areas 1 and 4 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 35

6.300. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a northern section of Panel Area 1, two northern sections of Panel Area 3, the northern half of Panel Area 4, all, except a northern and a southern section, of Panel Area 5 and a small northeast corner of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.301. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with views eastwards and westwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Areas 1, 3 and 4 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 36

6.302. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a northern section of Panel Area 1, a northern section of Panel Area 3, a central section of Panel Area 4, a central and a southern section of Panel Area 5 and a small northeast corner of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.303. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with views eastwards and westwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Areas 1, 3 and 4 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 37

6.304. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a southern section, of Panel Area 1, a northern section of Panel Area 3, two southern sections of Panel Area 4, all, except two central sections, of Panel Area 5, a northeast section of Panel Area 11 and a small northeast corner of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.305. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with views eastwards and westwards respectively towards

the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Areas 1, 3 and 4 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 38

6.306. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a northeast section, of Panel Area 1, a central section of Panel Area 3, two southern sections of Panel Area 4, the northeast half of Panel Area 11, and the northern half of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.307. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site. The second and third images are ground level images taken from the position of the receptor with views eastwards and westwards respectively towards the Principal Site. These images confirm that the topography is insufficient to screen views of Panel Areas 1, 3 and 4 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 39

6.308. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southern and a western section of Panel Area 1, a western section of Panel Area 3, the southern half of Panel Area 5, all, except a southern section, of Panel Area 11 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.309. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the locations from which the second and third images were taken (red and yellow dots respectively). The second image is a street view image with a view of the vegetation to the south of Panel Area 3. The third image is a street view image with a view towards the receptor. The fourth image is a ground level image taken from the position of the receptor with views eastwards towards the Principal Site. These images confirm that the vegetation and topography is sufficient to screen views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 40

6.310. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a western and southern section of Panel Area 1, a western section of Panel Area 3, a central section of Panel Area 6, and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.311. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the locations from which the second and third images were taken (red dot). The second image is a street view image with a view of the vegetation to the south of Panel Area 3. The third image is a street view image with a view towards the

receptor. The fourth image is a ground level image with an eastwards view towards the Principal Site. These images confirm that the vegetation and topography are sufficient to screen views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to None.

Receptor 41

6.312. The 'Glare Reflections on PV Footprint' chart in Appendix K – M shows that reflections from the southern half of Panel Area 5 and a central section of Panel Area 6 (see Figure 6: Appendix A) of the Principal Site can potentially impact on the receptor.

6.313. The first image in Appendix Q is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a view towards the Principal Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to None.

Receptor 42

6.314. The 'Glare Reflections on PV Footprint' chart in Appendix K – M shows that reflections from a southern section of Panel Area 5, a central section of Panel Area 6 and all, except a northern section, of Panel Area 12 (see Figure 6: Appendix A) of the Principal Site can potentially impact on the receptor.

6.315. The first image in Appendix Q is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a view towards the Principal Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to None.

Receptor 43

6.316. The 'Glare Reflections on PV Footprint' chart in Appendix K – M shows that reflections from a southern section of Panel Area 5 and all, except a northern section, of Panel Area 12 (see Figure 6: Appendix A) of the Principal Site can potentially impact on the receptor.

6.317. The first image in Appendix Q is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a view towards the Principal Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to None.

Receptor 44

6.318. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southern section of Panel Area 5, a central section of Panel Area 7 and all of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.319. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a view towards the Principal Site. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 45

6.320. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except an eastern section, of Panel Area 1, all, except and eastern section, of Panel Area 3, a central section of Panel Area 6 and a small northeast corner of Panel Area 12 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.321. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with an eastwards view towards Panel Area 12 in the Principal Site. This image confirms that the vegetation is insufficient to screen all views of Panel Area 10 in the Principal Site where glint and glare is possible. The third and fourth images are ground level images taken from the position of the receptor with a westwards view towards Panel Areas 1, 3 and 6 in the Principal Site showing the position of the sun at 19:00 UTC on May 15th and at 19:30 UTC on July 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact reduces to **Low**.

Receptor 46

6.322. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all of Panel Area 1, all, except an eastern section, of Panel Area 3 and all, except a southern section, of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.323. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). The second image is a street view image with a north westwards view towards Panel Areas 1 and 3 in the Principal Site. The third image is a street view image with a view towards the receptor. These images confirm that the vegetation

is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 47

6.324. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all of Panel Area 1, all, except a northeast section, of Panel Area 3, a southwest corner of Panel Area 4 and all of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.325. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). The second image is a street view image with a north westwards view towards Panel Areas 1, 3 and 4 in the Principal Site. The third image is a street view image with a view towards the receptor. these images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 48

6.326. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a northeast section, of Panel Area 1, all, except an eastern section, of Panel Area 3, a central section of Panel Area 6, a northern section of Panel Area 7 and all of Panel Area 8 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.327. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken. The second image is a street view image with a view towards the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 49

6.328. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except al northeast section, of Panel Area 1, all, except an eastern section, of Panel Area 3, a central section of Panel Area 6, a southern section of Panel Area 7 and all of Panel Area 8 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.329. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a Google Earth photo with a view towards the Principal Site. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 50

6.330. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a northeast section, of Panel Area 1, all, except a northeast section, of Panel Area 3 and all of Panel Area 7 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.331. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the locations from which the second and third images were taken. The second image is a street view image with a westwards view towards Panel Areas 1 and 3 in the Principal Site. The third image is a street view image with a view towards the receptor. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 51

6.332. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all of Panel Area 1, a small western section of Panel Area 2, all, except a northeast section, of Panel Area 3, a small southwest corner of Panel Area 4, all of Panel Area 7 and all, except a southeast corner, of Panel Area 8 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.333. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). The second image is a street view image with a north westwards view towards Panel Areas 1, 2, 3 and 4 in the Principal Site. The third image is a street view image with a view towards the receptor. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where yellow glare is possible. Therefore, the impact reduces to **None**.

Receptor 52

6.334. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all of Panel Area 1, a western section of Panel Area 2, all of Panel Area 3, a southwest corner of Panel Area 4, all of Panel Area 7 and all of Panel Area 8 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.335. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). The second image is a street view image with a north westwards view towards Panel Areas 1, 2, 3 and 4 in the Principal Site. The third image is a street view image with a view towards the receptor. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where yellow glare is possible. Therefore, the impact reduces to **None**.

Receptor 53

6.336. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all of Panel Area 1, a western section of Panel Area 2, all, except a northeast section, of Panel Area 3, a southwest corner of Panel Area 4, all, except a northeast corner, of Panel Area 6, all of Panel Area 7, all, except a southern section, of Panel Area 8, all, except a southern section of Panel Area 9, all of Panel Area 10, a northern section of Panel Area 11, all of Panel Area 13 and all of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.337. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). The second image is a street view image with a westwards view of the vegetation to the west of the receptor and the third image is a street view image with a view towards Panel Areas 1, 2, 3, 4, 6 and 7 in the Principal Site. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 54

6.338. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except two eastern sections, of Panel Area 1, all, except an eastern section, of Panel Area 3, all, except a northeast corner, of Panel Area 6, all of Panel Area 7, all of Panel Area 8, all of Panel Area 9, all of Panel Area 10, a northwest section of Panel Area 11, all of Panel Area 13 and all of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.339. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 1, 3, 6, 7, 8, 9 and 10 in the Principal Site. The third image is a ground level images with a southwest view towards Panel Areas 11, 13 and 14 in the Principal Site. This image confirms that the topography is insufficient to screen all views of Panel Area 11 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 55

6.340. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except an eastern section, of Panel Area 1, all, except an eastern section, of Panel Area 3, all, except a northern section, of Panel Area 6, all of Panel Area 7, all of Panel Area 8, all of Panel Area 9, all of Panel Area 10, a northwest section of Panel Area 11 and all of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.341. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 1, 3, 6, 7, 8, 9, 10 and 14 in the Principal Site. The second image is a ground level image with a westwards view towards Panel Area 11 in the Principal Site. This image confirms that the topography is insufficient to screen all views of Panel Area 11 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 56

6.342. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from the western half of Panel Area 1, the western half of Panel Area 3, the southern half of Panel Area 6, all of Panel Area 7, all of Panel Area 8, all of Panel Area 9, a northern section of Panel Area 11, a northeast corner of Panel Area 12, all of Panel Area 13 and all of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.343. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). The second image is a street view image with a view towards Panel Areas 1, 3, 6, 7, 8, and 9 in the Principal Site. The third image is a street view image with a view towards the Receptor. The fourth image is a ground level image taken from the position of the receptor with a view towards Panel Areas 11 and 12 in the Principal Site. These images confirms that the vegetation is sufficient to screen all views of Panel Areas 1, 3, 6, 7, and 8 in the Principal Site and the topography is sufficient to screen all views of Panel Area 12 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 57

6.344. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a western and a southern section, of Panel Area 1, a western section of Panel Area 3, the southern half of Panel Area 6,, all, except a northeast corner, of Panel Area 7, all of Panel Area 8, the southern half of Panel Area 9, two northern sections of Panel Area 11, the northern half of Panel Area 12, a northern section of Panel Area 13 and all of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.345. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). The second and third images are street view images with westwards and eastwards views towards the Principal Site respectively. These images confirm that the vegetation is insufficient to screen all views of Panel Areas 9 and 11 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 58

6.346. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southern and a western section of Panel Area 1, a western section of Panel Area 3, a southern section of Panel Area 6, a southern section of Panel Area 7, all of Panel Area 8, a southern section of Panel Area 9, an eastern and a western section of Panel Area 11, all, except a southwest corner, of Panel Area 12 and all of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.347. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with an eastwards view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 1, 3,6 7, 8, 9 and 14 in the Principal Site. The third image is a ground level image with an eastwards view towards the Principal Site. This image confirms that the topography is insufficient to screen all views of Panel Area 11 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 59

6.348. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a western section of Panel Area 1, a western section of Panel Area 3, the southern half of Panel Area 6, a small southern section of Panel Area 7, all of Panel Area 8, an eastern section of Panel Area 11, the southern half of Panel Area 12, all, except a northern section, of Panel Area 13 and all of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.349. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a westwards view towards Panel Areas 1, 3, 6, 7, 8, 13 and 14in the Principal Site. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 1, 3, 6, 7, 8, 13 and 14 in the Principal Site. The third image is a ground level image with an eastwards view towards the Principal Site. This image confirms that the topography is insufficient to screen all views of Panel Area 11 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 60

6.350. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southern and a western section of Panel Area 1a southern section of Panel Area 6, a southern section of Panel Area 8, an eastern section of Panel Area 11, a northern and southern section of Panel Area 12, all, except a northern section of Panel Area 13 and all of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.351. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with an eastwards view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 1, 6, 8, 13 and 14 in the Principal Site. The third image is a ground level image with an eastwards view towards the Principal Site. This image confirms that the topography is insufficient to screen all views of Panel Area 11 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 61

6.352. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a western section of Panel Area 1, a western section of Panel Area 3, the southern half of Panel Area 6, the southern half of Panel Area 7, all of Panel Area 8, a small southern section of Panel Area 9, an eastern section of Panel Area 11, all of Panel Area 12 and all of Panel area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.353. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with a westwards view towards Panel Areas 1, 3, 6, 7 and 8 in the Principal Site. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 1, 3, 6, 7 and 8 in the Principal Site. The third image is a ground level image with an eastwards view towards the Principal Site. This image confirms that the topography is insufficient to screen all views of Panel Area 11 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 62

6.354. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a western section of Panel Area 1, a western section of Panel Area 3, the southern half of Panel Area 6, the southern half of Panel Area 7, all of Panel Area 8, an eastern and a northern section of Panel Area 11, allof Panel Area 12, all, except a northern section, of Panel Area 13 and all of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.355. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second and third images are street view images with eastwards and westwards views towards the Principal Site respectively. These images confirm that the vegetation is sufficient to screen all views of Panel Areas 1, 3, 6, 7, 8, 13 and 14 in the Principal Site and insufficient to screen all views of Panel Area 11 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 63

6.356. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all of Panel Area 8, a central section of Panel Area 11, all of Panel Area 12, a northern, all, except a northern section, of Panel Area 13, a northwest and southeast section of Panel Area 14 and the northwest half of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.357. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second, third and fourth images were taken (red, yellow and blue dots respectively). The second image is a street view image with an eastwards view towards Panel Area 11 and 12 in the Principal Site. The third image is a street view image with a northwards view towards Panel Area 8 in the Principal Site. The fourth image is a street view image with a northeast view towards the receptor. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 64

6.358. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southwest corner of Panel Area 8, a central and southern section of Panel Area 11, all of Panel Area 12 and a northwest and southeast section of Panel Area 14 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.359. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second, third and fourth images were taken (red, yellow and blue dots respectively). The second image is a street view image with an eastwards view towards Panel Area 11 and 12 in the Principal Site. The third image is a street view image with an north eastwards view towards the receptor. The fourth image is a street view image with a northwards view towards Panel Area 8 in the Principal Site. These images confirm that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 65

6.360. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a northwest section, of Panel Area 11, all of Panel Area 12, a central section of Panel Area 13, a southeast section of Panel Area 14 and all, except a southern section, of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.361. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). The second image is a street view image with a westwards view towards the receptor. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of Panel Areas 11, 12, 14 and 15 in the Principal Site

where glint and glare is possible. The third image is a street view image with a westwards view towards Panel Area 13 in the Principal Site. This image confirms that the vegetation is insufficient to screen all views Panel Area 13 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 66

6.362. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a northwest section, of Panel Area 11, all of Panel Area 12, a central section of Panel Area 13, all of Panel Area 14 and all, except a southern section, of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.363. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). The second image is a street view image with an eastwards view towards Panel Areas 11, 12 and 15. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of Panel Areas 11 and 12 in the Principal Site where glint and glare is possible. The third image is a street view image with a westwards view towards the receptor and Panel Area 13 in the Principal Site. This image confirms that the vegetation is insufficient to screen all views Panel Area 13, 14 and 15 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 67

6.364. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all of Panel Area 11, all of Panel Area 12, a central section of Panel Area 13, all, except a southeast corner of Panel Area 14 and the northern half of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.365. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). The second image is a street view image with an eastwards view towards Panel Areas 11, 12 and 15. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of Panel Areas 11 and 12 in the Principal Site where glint and glare is possible. The third image is a street view image with a westwards view towards the receptor and Panel Area 13 in the Principal Site. This image confirms that the vegetation is insufficient to screen all views Panel Area 13, 14 and 15 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 68

6.366. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a small southern corner of Panel Area 9, an eastern section of Panel Area 10, all of Panel Area 11, all of Panel Area 12, a central section of Panel Area 13, the northern half of Panel Area 14 and

the northern half of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.367. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). The second image is a street view image with an eastwards view towards Panel Areas 9, 10, 11, 12 and 15. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of Panel Areas 9, 10, 11 and 12 in the Principal Site where glint and glare is possible. The third image is a street view image with a westwards view towards the receptor and Panel Area 13 in the Principal Site. This image confirms that the vegetation is insufficient to screen all views Panel Area 13, 14 and 15 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 69

6.368. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from the eastern half of Panel Area 9, all of Panel Area 10, all of Panel Area 11, all of Panel Area 12, a northern section of Panel Area 13, the northern half of Panel Area 14 and a northern section of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.369. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). The second image is a street view image with an eastwards view towards Panel Areas 9, 10, 11, 12 and 15. This image confirms that the vegetation and intervening buildings are sufficient to screen all views of Panel Areas 9, 10, 11 and 12 in the Principal Site where glint and glare is possible. The third image is a street view image with a westwards view towards the receptor and Panel Area 13 in the Principal Site. This image confirms that the vegetation is insufficient to screen all views Panel Area 13, 14 and 15 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 70

6.370. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from the southeast half of Panel Area 11, all of Panel Area 12, a northern section of Panel Area 13 and a southern section of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.371. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). The second image is a street view image with an eastwards view towards Panel Areas 11, 12 and 15. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 11, 12 and 15 in the Principal Site where glint and glare is possible. The third image is a street view image with a westwards view towards Panel Area 13 in the Principal

Site. This image confirms that the vegetation is insufficient to screen all views Panel Area 13 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 71

6.372. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southern and an eastern section of Panel Area 11, all of Panel Area 12, a northern section of Panel Area 13, a southwest section of Panel Area 14 and a southern section of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.373. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). The second image is a street view image with an eastwards view towards Panel Areas 11, 12 and 15. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 11 and 12 in the Principal Site where glint and glare is possible. The third image is a street view image with a westwards view towards Panel Area 13 in the Principal Site. This image confirms that the vegetation is insufficient to screen all views Panel Area 13 in the Principal Site where glint and glare is possible. Therefore, the impact remains **High**.

Receptor 72

6.374. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a southern and an eastern section of Panel Area 11, all of Panel Area 12, all of Panel Area 13, a southwest section of Panel Area 14 and a southern section of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.375. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). The second image is a street view image with an eastwards view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 13, 14 and 15 in the Principal Site where glint and glare is possible. The third image is a street view image with a westwards view towards the receptor. This image confirms that the vegetation and intervening buildings are sufficient to screen all views Panel Area 13 in the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 73

6.376. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all of Panel Area 12, the northern half and a southern section of Panel Area 13, all of Panel Area 14 and all, except a southern section, of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.377. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images

were taken (red dot). The second image is a street view image with an eastwards view towards Panel Area 12 in the Principal Site. The third image is a street view image with a westwards view towards Panel Areas 13, 14 and 15 in the Principal Site. These images confirms that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 74

6.378. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from an eastern section of Panel Area 11, all of Panel Area 12, the northern half of Panel Area 13, all of Panel Area 14 and all, except a southern section, of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.379. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red and yellow dots respectively). The second image is a street view image with a westwards view towards the receptor. The third image is a street view image with a westwards view towards Panel Areas 13, 14 and 15 in the Principal Site. These images confirm that the vegetation and intervening buildings are sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 75

6.380. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a northeast section of Panel Area 8, all, except a northwest corner, of Panel Area 12, the northern half of Panel Area 13, all of Panel Area 14 and all, except a southern section, of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.381. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second and third images were taken (red dot). The second image is a street view image with a northeast view towards Panel Area 12 in the Principal Site. This image confirms that the vegetation is insufficient to screen all views of Panel Area 12 in the Principal Site where glint and glare is possible. The third image is a street view image with a southwest view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of Panel Areas 13, 14 and 15 in the Principal Site where glint and glare is possible. Therefore, the impact reduces to **Low**.

Receptor 76

6.382. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from a small western section of Panel Area 1, a southern section of Panel Area 6, all of Panel Area 8, a southern section of Panel Area 11, the northern half of Panel Area 13, all of Panel Area 14 and all of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.383. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with an eastwards view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 77

6.384. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all of Panel Area 8, all, except a southern section, of Panel Area 13, all of Panel Area 14, and all of Panel Area 15 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.385. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with an eastwards view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Receptor 78

6.386. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all of Panel Area 12 and a southern section of Panel Area 13 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.387. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second, third and fourth images were taken (red dot). The second image is a street view image with an eastwards view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of Panel Area 12 in the Principal Site where glint and glare is possible. The third and fourth images are ground level images a westwards view towards Panel Area 13 in the Principal Site showing the position of the sun at 19:00 UTC on May 25th and at 19:15 UTC on July 1st respectively. However, the impacts occur when the Sun is low in the sky and behind the solar array at the time of glare impacts. Hence, the Sun's reflections will be far greater than those reflections from the solar array, as outlined in **paragraph 4.16**. These images confirm that the sun will be the main source of solar reflection at the receptor. Therefore, the impact reduces to **Low**.

Receptor 79

6.388. The 'Glare Reflections on PV Footprint' chart in **Appendix K – M** shows that reflections from all, except a northwest corner, of Panel Area 12 and a southern section of Panel Area 13 (see **Figure 6: Appendix A**) of the Principal Site can potentially impact on the receptor.

6.389. The first image in **Appendix Q** is an aerial view which shows the location of the receptor (yellow pin) in relation to the Principal Site, and the location from which the second image was taken (red dot). The second image is a street view image with an eastwards view towards the receptor. This image confirms that the vegetation is sufficient to screen all views of the Principal Site where glint and glare is possible. Therefore, the impact reduces to **None**.

Aviation Receptors

6.390. **Appendix N** shows the analysis for a tilt angle of 5 degrees, **Appendix O** shows the analysis for a tilt angle of 45 degrees and **Appendix P** shows the analysis for the tracker panels.

6.391. Table 21: Summary of Aviation Glare Results shows a summary of the modelling results for each of the runway approach paths and the ATCTs and shows which panel configuration (minimum or maximum angle for fixed tilt or single axis tracker) produces the highest impact upon the receptor, whilst the detailed results and ocular impact charts can be viewed in **Appendix N, O and P.** Eastern and western circuit paths for RAF Waddington have also been modelled. These extend for 2 nautical miles along the runway heading, before turning 90 degrees for another 2 nautical miles and finally turning 90 degrees for the downwind leg of the circuit path up to an altitude of 1000 feet.

6.392. **Appendix N** shows the analysis for a tilt angle of 5 degrees, **Appendix O** shows the analysis for a tilt angle of 45 degrees and **Appendix P** shows the analysis for the tracker panels.

Table 21: Summary of Aviation Glare Results

Component	Green Glare (mins per year)	Yellow Glare (mins per year)	Red Glare (mins per year)	Worst Case Tilt Angle (degrees)
RAF Waddington				
Runway 02	0	0	0	N/A
Runway 20	1029	0	0	Tracker
Circuit Path East	35246	0	0	5
Circuit Path West	65610	7156	0	5
ATCT	1429	0	0	5
Peacocks Farm				
Runway 06	20505	28692	0	5
Runway 24	9919	1770	0	5
South Hykeham Airfield				

Runway 10	283	0	0	5
Runway 28	5085	256	0	45
Runway 13	0	0	0	N/A
Runway 31	7757	593	0	45
South Scarle Airfield				
Runway 01	7394	462	0	45
Runway 19	0	0	0	N/A
Blackmoor Farm				
Runway 06	17496	0	0	45
Runway 24	6260	0	0	Tracker

6.393. As can be seen in **Appendix N shows the** analysis for a tilt angle of 5 degrees, **Appendix O** shows the analysis for a tilt angle of 45 degrees and **Appendix P** shows the analysis for the tracker panels.

6.394. Table 21: Summary of Aviation Glare Results**Table 21** shows there are no Glare impacts for the Runway 13 approach path at South Hykeham Airfield, the Runway 28 approach path at South Scarle Airfield or the Runway 02 approach path at RAF Waddington. There is green glare potential for the Runway 10 approach path at South Hykeham Airfield, the Runway 06 and 24 approach paths at Blackmoor Farm and the Runway 20 approach path, the eastern circuit path and ATCT at RAF Waddington. Green glare is an **acceptable impact** upon runways and a **not acceptable impact** upon ATCTs according to FAA guidance. There is yellow glare and green glare potential for the Runway approach paths at Peacocks Farm, the Runway 28 and 31 approach paths at South Hykeham Airfield, the Runway 10 approach at South Scarle Airfield and the western circuit path at RAF Waddington. Yellow glare is a **not acceptable impact** upon runways according to FAA guidance.

6.395. To determine the actual impact of glare for the ATCT at RAF Waddington, an assessment of the ground elevation between the ATCT and the Principal Site has been undertaken, with ground elevation profiles visible in **Appendix R**.

6.396. It is important to note that these predicted results are the absolute worst-case scenario as the model does not account for variations such as cloud cover. Once cloud cover is considered, the total duration of predicted glare will decrease significantly and as such, will decrease impact further. Additionally, as outlined within the updated policy from the FAA and the CAA's CAP738 document, glare impacts have not been reported to cause pilots more impact than other existing infrastructure, such as; car parks, glass buildings and water bodies. Thus, the FAA have reduced the assessment criteria to only assess glare impacts ATCTs.

6.397. To determine the actual impact of glare for pilots upon approach at Peacocks Farm, South Hykeham Airfield, South Scarle Airfield and Blakmoor Farm, a visibility assessment of where the sun will be located at the time of impact in relation to each array has been undertaken, with these images visible in **Appendix Q**. The approach path to the runways have been drawn as a red line and the field of view of a pilot has been drawn as yellow lines.

RAF Waddington

6.398. As can be seen in **Appendix Q**, potential yellow glare impacts occur upon the western circuit path for RAF Waddington either in the afternoon and evening periods when the sun is low in the sky and behind the areas of the Principal Site that have potential glare impacts within a pilot's field of view (FOV). These impacts will be no worse than the current impacts observed when flying towards a setting sun. Furthermore, if the panel type within Array 7, 11 and 13 is fixed south facing at 45 degrees then the total impact reduces to 499 minutes of yellow glare per year. These impacts only occur for a maximum of 25 minutes per day in mid-April/August at 6pm. The model also shows impacts as being far worse than they would be in reality due to the model limitations outlined within **paragraph 4.41**. Therefore, the impacts can be deemed **acceptable** providing the panel types used within Array 7, 11 and 13 are fixed south facing with a 45 degree tilt

6.399. As can be seen in **Appendix R**, the ground elevation profile between the air traffic control tower at RAF Waddington and the Principal Site shows a terrain feature approximately 1km from the ATCT which is elevated approximately 10m AOD higher than the ATCT and approximately 35 - 65m AOD higher than the Principal Site. This terrain feature will block all views of the Principal Site from the ATCT at RAF Waddington. Therefore, the impact on the ATCT at RAF Waddington is **None**.

Peacocks Farm

6.400. As can be seen in **Appendix Q**, potential yellow glare impacts occur upon the Runway 06 approach path to Peacocks Farm either early in the morning or when the sun is low in the sky and behind the areas of the Principal Site that have potential glare impacts within a pilot's field of view (FOV). Therefore, the impacts can be deemed **acceptable**.

6.401. As can be seen in **Appendix Q**, potential yellow glare impacts occur upon the Runway 24 approach path to Peacocks Farm either late in the evening or when the sun is low in the sky and behind the areas of the Principal Site that have potential glare impacts within a pilot's field of view (FOV). Therefore, the impacts can be deemed **acceptable**.

South Hykeham Airfield

6.402. As can be seen in **Appendix Q**, potential yellow glare impacts occur upon the Runway 28 approach path to South Hykeham Airfield when the sun is low in the sky and behind the areas of the Principal Site that have potential glare impacts within a pilot's field of view (FOV). Therefore, the impacts can be deemed **acceptable**.

6.403. As can be seen in **Appendix Q**, potential yellow glare impacts occur upon the Runway 31 approach path to South Hykeham Airfield late in the evening. Additionally, yellow glare is only predicted to impact the approach path for less than 10 hours per year. Therefore, the impacts can be deemed **acceptable**.

South Scarle Airfield

6.404. As can be seen in **Appendix Q**, potential yellow glare impacts occur upon the Runway 10 approach path to South Scarle Airfield when the sun is low in the sky and behind the areas of the Principal Site that have potential glare impacts within a pilot's field of view (FOV). Therefore, the impacts can be deemed **acceptable**.

Impact Rating Justification

6.405. As outlined in **paragraph 4.16** the sun's reflections will be far greater than those reflections from the solar array. Pilots on approach are often landing into the sun at sunset or sunrise. The sun's impact can be mitigated by wearing sunglasses, using darkened cockpit sun visors, overflying and inspecting the runway, landing in the opposite direction if wind conditions allow and planning their flight to land outside the times when sun glare if possible. In addition, given the glare impacts which occur at or just after sunrise and the type of aircraft using these airfields, it is unlikely that these aircraft will be setting off early enough to arrive at the times at which glare is predicted to occur for approaches to Runway 06 approach path at Peacocks Farm, Runway 10 at South Scarle Airfield. Given the glare impacts which occur at or just before sunset and the type of aircraft using these airfields, it is unlikely that these aircraft will be approaching the unlit grass strips late enough to arrive at the times which glare is predicted to occur for approaches to Runway 24 at Peacocks Farm and Runway 31 at South Hykeham Airfield.

6.406. As outlined in **Section 4**, the UK Government and the FAA do not consider glint and glare impacts from solar farms to result in significant impairment on aircraft safety.

6.407. Overall impacts on Aviation receptors are therefore **Low** and **Not Significant**.

7. GROUND BASED RECEPTOR MITIGATION

7.1. **Mitigation** is required due to the impacts found for the Residential Receptors 97, 98, 101, 102, 148, 155, 157 – 160, 196 and 197, Road Receptors 13 - 16, 45, 78 - 80, 82 – 84, 98 – 104, 113, 144 – 148 and 177 - 182 and Bridleway Receptors 2 – 6, 8 – 11, 14 – 16, 27 –38, 54 – 62 and 65 – 71 being **High** or **Medium**. This includes:

f. The hedges and trees along panel boundaries, field boundaries and bridleway boundaries as shown in **Figure 7.15-1: Landscape Masterplan,** presented within the **Framework LEMP [EN010154/APP/7.15**in the Principal Site being managed to deliver a minimum height at least the same as the upper edge of the panels, which is currently proposed at a maximum 3.5m. This will screen views from Residential Receptors 97, 98, 101, 102, 148, 155, 157 – 160, 196 and 197, Road Receptors 13 - 16, 45, 78 - 80, 82 – 84, 98 – 104, 113, 144 – 148 and 177 - 182 and Bridleway Receptors 2 – 6, 8 – 11, 14 – 16, 27 – 38, 54 – 62 and 65 – 71. Therefore, the impacts reduce to **None**.

g. The mitigation measures outlined above will also screen the **Low** impact views from Residential Receptors 23, 28, 38 – 41, 81, 82, 100, 156, 161 and 164 and Bridleway Receptors 25, 26, 45, 46 and 75.

7.2. **Table 22, Table 23, Table 24 and Table 25** show the impacts at each stage of the glint and glare analysis, with the final residual impacts considered once the mitigation is in place.

Table 22: Residual Glint and Glare Impacts on Residential Receptors

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
1	None	None	**None**
2	None	None	**None**
3	None	None	**None**
4 (1)	None	None	**None**
5 (1)	Low	None	**None**
6	Low	None	**None**
7	Low	None	**None**
8	Low	None	**None**

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
9	Low	None	None
10	Low	None	None
11	Low	None	None
12	Medium	None	None
13 (2)	Low	Low	Low
14 (2)	Medium	None	None
15 (2)	High	Low	Low
16 (2)	High	Low	Low
17 (2)	High	Low	Low
18 (2)	High	Low	Low
19 (2)	High	Low	Low
20	Low	None	None
21	Medium	Low	Low
22	Medium	Low	Low
23 (3)	High	Low	None
24 (3)	High	Low	Low
25	Low	Low	Low
26	Low	Low	Low
27	Low	Low	Low
28	Medium	Low	None
29	High	Low	Low
30	Medium	None	None
31	Medium	None	None
32	Low	None	None
33	Medium	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
34	Low	None	None
35	None	None	None
36	None	None	None
37	None	None	None
38 (4)	High	Low	None
39 (4)	High	Low	None
40 (4)	High	Low	None
41 (4)	High	Low	None
42	None	None	None
43 (5)	Low	None	None
44 (5)	Low	None	None
45 (5)	Low	None	None
46	Low	None	None
47	Low	None	None
48	None	None	None
49	Low	None	None
50 (6)	Low	None	None
51 (6)	Low	None	None
52 (7)	Low	Low	Low
53 (7)	Low	None	None
54 (7)	Low	None	None
55 (7)	Medium	None	None
56 (7)	Low	None	None
57 (7)	Low	None	None
58 (7)	Low	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
59 (7)	Medium	None	None
60 (7)	High	None	None
61 (7)	Medium	None	None
62 (7)	High	None	None
63 (7)	High	None	None
64 (7)	High	Low	Low
65 (7)	Medium	Low	Low
66 (7)	Low	Low	Low
67 (7)	Low	Low	Low
68 (8)	Low	None	None
69 (8)	Low	None	None
70 (8)	Low	None	None
71	Low	Low	Low
72	High	None	None
73 (9)	High	None	None
74 (9)	High	None	None
75	High	None	None
76	High	None	None
77	High	None	None
78	Low	None	None
79	Low	None	None
80	Low	None	None
81	High	Low	None
82	High	Low	None
83	High	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
84	None	None	None
85	None	None	None
86	None	None	None
87 (10)	None	None	None
88 (10)	None	None	None
89 (10)	None	None	None
90 (10)	None	None	None
91 (10)	None	None	None
92 (10)	None	None	None
93 (10)	Low	None	None
94 (10)	Low	None	None
95 (10)	Low	None	None
96 (10)	High	None	None
97 (10)	High	High	None
98 (10)	Low	High	None
99 (10)	Low	None	None
100 (10)	High	Low	None
101 (10)	High	High	None
102 (10)	High	High	None
103 (10)	High	None	None
104 (10)	Low	None	None
105 (10)	None	None	None
106 (10)	Low	None	None
107 (10)	Low	None	None
108 (10)	Low	Low	Low

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
109 (10)	None	None	None
110 (10)	Low	None	None
111 (10)	Low	None	None
112 (10)	Low	None	None
113 (10)	Low	None	None
114 (10)	None	None	None
115 (10)	None	None	None
116 (10)	None	None	None
117 (11)	Low	None	None
118 (11)	Low	None	None
119 (11)	Low	None	None
120 (11)	None	None	None
121	Low	None	None
122	High	None	None
123 (12)	Low	None	None
124 (12)	Low	None	None
125	Low	None	None
126 (13)	None	None	None
127 (13)	None	None	None
128 (13)	None	None	None
129 (13)	None	None	None
130 (13)	None	None	None
131 (13)	None	None	None
132	None	None	None
133	None	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
134 (14)	None	None	None
135 (14)	Low	None	None
136 (15)	High	None	None
137 (15)	High	None	None
138 (15)	Medium	None	None
139 (16)	Low	None	None
140 (16)	Low	None	None
141 (16)	Low	None	None
142 (16)	Low	None	None
143 (17)	Low	None	None
144 (17)	Low	None	None
145	Low	None	None
146	Low	None	None
147	Low	None	None
148	High	High	None
149	Low	None	None
150	Low	None	None
151	Low	Low	Low
152 (18)	Low	None	None
153 (18)	Low	None	None
154 (18)	Low	None	None
155	Medium	Medium	None
156	Low	Low	None
157	High	High	None
158	High	High	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
159	Low	High	None
160	Low	High	None
161	Low	Low	None
162	High	High	None
163	High	High	None
164	High	Low	None
165	None	None	None
166	None	None	None
167	None	None	None
168	None	None	None
169 (19)	Low	None	None
170 (19)	Low	None	None
171 (19)	Low	None	None
172 (19)	Low	None	None
173 (19)	Low	None	None
174 (19)	None	None	None
175 (19)	None	None	None
176 (19)	None	None	None
177 (19)	None	None	None
178 (19)	Low	None	None
179 (19)	Low	None	None
180 (19)	Low	None	None
181 (19)	Low	None	None
182 (19)	Low	None	None
183 (19)	Low	Low	Low

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
184 (19)	Low	None	Low
185 (19)	Low	Low	Low
186 (19)	Low	None	None
187 (19)	Low	Low	Low
188 (19)	Low	Low	Low
189 (19)	Low	Low	Low
190 (19)	Low	Low	Low
191 (19)	Low	None	None
192 (19)	Low	None	None
193	Low	None	None
194 (20)	Low	None	None
195 (20)	Low	None	None
196 (21)	Medium	Medium	None
197 (21)	Medium	Medium	None
198 (21)	Medium	Low	Low
199 (21)	Low	Low	Low
200 (21)	None	None	None
201 (21)	None	None	None
202 (21)	Medium	None	None
203 (21)	Low	None	None
204 (22)	None	None	None
205 (22)	None	None	None
206 (22)	Low	None	None
207 (22)	High	None	None
208 (22)	High	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
209 (22)	High	None	None
210 (22)	High	None	None
211 (22)	High	None	None
212 (22)	High	None	None
213 (22)	Low	None	None
214 (22)	High	None	None
215 (22)	Low	None	None
216 (22)	Low	Low	None
217 (22)	Medium	None	Low
218 (22)	High	Low	Low
219 (22)	Medium	Low	Low
220 (22)	Low	None	None
221 (22)	Low	None	None
222 (22)	Low	None	None
223 (22)	None	None	None
224 (22)	None	None	None
225 (22)	None	None	None
226 (22)	None	None	None
227 (22)	None	None	None
228 (22)	None	None	None

Table 23: Residual Glint and Glare Impacts on Road Receptors

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
1	Low	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
2	Low	None	None
3	Low	None	None
4	Low	None	None
5	Low	None	None
6	Low	None	None
7	High	None	None
8	High	None	None
9	High	None	None
10	High	None	None
11	High	None	None
12	High	None	None
13	High	High	None
14	High	High	None
15	High	High	None
16	High	High	None
17	High	None	None
18	High	None	None
19	High	None	None
20	High	None	None
21	High	None	None
22	High	None	None
23	High	None	None
24	High	None	None
25	Low	None	None
26	Low	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
27	Low	None	None
28	Low	None	None
29	Low	None	None
30	High	None	None
31	High	None	None
32	High	None	None
33	High	None	None
34	High	None	None
35	High	None	None
36	High	None	None
37	Low	None	None
38	High	None	None
39	High	None	None
40	High	None	None
41	High	None	None
42	High	None	None
43	High	None	None
44	High	None	None
45	High	High	None
46	High	None	None
47	High	None	None
48	High	None	None
49	High	None	None
50	Low	None	None
51	Low	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
52	Low	None	None
53	Low	None	None
54	Low	None	None
55	Low	None	None
56	None	None	None
57	Low	None	None
58	High	None	None
59	High	None	None
60	Low	None	None
61	Low	None	None
62	High	None	None
63	High	None	None
64	Low	None	None
65	High	None	None
66	High	None	None
67	High	None	None
68	High	None	None
69	High	None	None
70	High	None	None
71	Low	None	None
72	Low	None	None
73	High	None	None
74	High	None	None
75	High	None	None
76	High	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
77	High	None	None
78	High	High	None
79	High	High	None
80	High	High	None
81	High	None	None
82	High	High	None
83	High	High	None
84	High	High	None
85	High	None	None
86	High	None	None
87	High	None	None
88	High	None	None
89	High	None	None
90	Low	None	None
91	High	None	None
92	High	None	None
93	High	None	None
94	High	None	None
95	High	None	None
96	High	None	None
97	High	None	None
98	High	High	None
99	High	High	None
100	High	High	None
101	High	High	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
102	High	High	None
103	High	High	None
104	High	High	None
105	Low	None	None
106	Low	None	None
107	Low	None	None
108	Low	None	None
109	Low	None	None
110	Low	None	None
111	Low	None	None
112	High	None	None
113	High	High	None
114	High	None	None
115	High	None	None
116	High	None	None
117	Low	None	None
118	Low	None	None
119	High	None	None
120	High	None	None
121	High	None	None
122	High	None	None
123	High	None	None
124	High	None	None
125	Low	None	None
126	High	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
127	High	None	None
128	High	None	None
129	High	None	None
130	High	None	None
131	High	None	None
132	High	None	None
133	High	None	None
134	High	None	None
135	High	None	None
136	Low	None	None
137	Low	None	None
138	Low	None	None
139	Low	None	None
140	Low	None	None
141	High	None	None
142	High	None	None
143	High	None	None
144	High	High	None
145	High	High	None
146	High	High	None
147	High	High	None
148	High	High	None
149	High	None	None
150	High	None	None
151	High	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
152	High	None	None
153	High	None	None
154	High	None	None
155	High	None	None
156	High	None	None
157	High	None	None
158	High	None	None
159	High	None	None
160	High	None	None
161	High	None	None
162	High	None	None
163	Low	None	None
164	Low	None	None
165	Low	None	None
166	Low	None	None
167	Low	None	None
168	Low	None	None
169	Low	None	None
170	Low	None	None
171	Low	None	None
172	Low	None	None
173	Low	None	None
174	Low	None	None
175	Low	None	None
176	High	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
177	High	High	None
178	High	High	None
179	High	High	None
180	High	High	None
181	High	High	None
182	High	High	None
183	High	None	None
184	High	None	None
185	High	None	None
186	High	None	None
187	High	None	None
188	High	None	None
189	High	None	None
190	High	None	None
191	High	None	None
192	High	None	None
193	High	None	None
194	High	None	None
195	High	None	None
196	None	None	None
197	Low	None	None
198	High	None	None
199	High	None	None
200	High	None	None
201	High	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
202	High	None	None
203	High	None	None
204	High	None	None
205	Low	None	None
206	Low	None	None
207	Low	None	None
208	Low	None	None
209	Low	None	None
210	High	None	None
211	High	None	None
212	High	None	None
213	High	None	None
214	High	None	None
215	High	None	None
216	High	None	None
217	High	None	None

Table 24: Residual Glint and Glare Impacts on Rail Receptors

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
1	High	None	None
2	High	None	None
3	High	None	None
4	High	None	None
5	High	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
6	Low	None	None
7	Low	None	None
8	Low	None	None
9	High	None	None
10	High	None	None
11	High	None	None
12	High	None	None
13	High	None	None

Table 25: Residual Glint and Glare Impacts on Bridleway Receptors

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
1	High	None	None
2	High	High	None
3	High	High	None
4	High	High	None
5	High	High	None
6	High	High	None
7	Low	None	None
8	Low	High	None
9	Low	High	None
10	Low	High	None
11	High	High	None
12	High	Low	Low
13	Low	Low	Low

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
14	High	High	None
15	High	High	None
16	High	High	None
17	Low	Low	Low
18	Low	Low	Low
19	Low	Low	Low
20	High	Low	Low
21	High	Low	Low
22	High	Low	Low
23	High	Low	Low
24	High	Low	Low
25	High	Low	None
26	High	Low	None
27	High	High	None
28	High	High	None
29	High	High	None
30	High	High	None
31	High	High	None
32	High	High	None
33	High	Low	None
34	High	High	None
35	High	High	None
36	High	High	None
37	High	High	None
38	High	High	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
39	Low	None	None
40	Low	None	None
41	Low	None	None
42	Low	None	None
43	Low	None	None
44	High	None	None
45	High	Low	None
46	High	Low	None
47	High	None	None
48	High	None	None
49	High	None	None
50	High	None	None
51	High	None	None
52	Low	None	None
53	Low	None	None
54	Low	High	None
55	Low	High	None
56	High	High	None
57	High	High	None
58	Low	High	None
59	High	High	None
60	High	High	None
61	High	High	None
62	Low	High	None
63	Low	None	None

Receptor	Magnitude of Impact		
	After Geometric Analysis	After Visibility assessment	Residual Impacts
64	Low	None	None
65	High	High	None
66	High	High	None
67	High	High	None
68	High	High	None
69	High	High	None
70	High	High	None
71	High	High	None
72	High	None	None
73	High	None	None
74	High	None	None
75	High	Low	None
76	High	None	None
77	High	None	None
78	High	None	None
79	High	None	None

7.3. **Table 2626, Table 27, Table 28 and Table 29** show the overall impacts for all residential, road and rail receptors.

Table 2626: Solar Reflection: Receptors

Magnitude	Theoretical Visibility	Actual Visibility (No Mitigation)	Actual Visibility with Mitigation
High	48	11	0
Medium	19	3	0
Low	111	44	36
None	50	170	192

- **High –** Solar reflections impacts of over 30 hours per year or over 30 minutes per day
- **Medium -** Solar reflections impacts between 20 and 30 hours per year or between 20 minutes and 30 minutes per day
- **Low -** Solar reflections impacts between 0 and 20 hours per year or between 0 minutes and 20 minutes per day
- **None -** Effects not geometrically possible or no visibility of reflective surfaces likely due to high levels of intervening screening

Table 2727: Solar Reflection: Road Receptors

Magnitude	Theoretical Visibility	Actual Visibility (No Mitigation)	Actual Visibility with Mitigation
High	156	30	0
Low	59	0	0
None	2	187	217

- **High -** Solar reflections impacts with yellow glare (potential for after-image).
- **Low -** Solar reflections impacts with only green glare (low potential for after-image)
- **None -** Effects not geometrically possible or no visibility of reflective surfaces likely due to high levels of intervening screening or being outside the drivers' field of view

Table 2828: Solar Reflection: Rail Receptors

Magnitude	Theoretical Visibility	Actual Visibility (No Mitigation)	Actual Visibility with Mitigation
High	5	0	0
Low	8	0	0
None	0	13	13

- **High -** Solar reflections impacts with yellow glare (potential for after-image).
- **Low -** Solar reflections impacts with only green glare (low potential for after-image)
- **None -** Effects not geometrically possible or no visibility of reflective surfaces likely due to high levels of intervening screening or being outside the drivers' field of view

Table 2929: Solar Reflection: Bridleway Receptors

Magnitude	Theoretical Visibility	Actual Visibility (No Mitigation)	Actual Visibility with Mitigation
High	65	40	0
Low	14	15	10

None	0	24	69

- **High -** Solar reflections impacts with yellow glare (potential for after-image).
- **Low -** Solar reflections impacts with only green glare (low potential for after-image)
- **None -** Effects not geometrically possible or no visibility of reflective surfaces likely due to high levels of intervening screening or being outside the drivers' field of view

8. SUMMARY

8.1. This assessment considers the potential impacts on ground-based receptors such as roads, rail and residential dwellings as well as aviation assets from Fosse Green Energy project (the 'Proposed Development'). A 1km study area around the Principal Site is considered adequate for the assessment of ground-based (residential, road, rail and bridleway) receptors, whilst a 30km study area is chosen for aviation receptors. Within the ground-based study areas of the Principal Site, there are 238 residential receptors, including 26 residential areas, 243 road receptors, 20 rail receptors and 82 bridleway receptors that were considered. As per the methodology section, where there are several residential receptors within close proximity, a representative dwelling or dwellings is/are chosen for full assessment as the impacts will not vary to any significant degree. Where small groups of receptors have been evident, the receptors on either end of the group have been assessed in detail. 10 residential receptors, including four residential areas, 26 road receptors, seven rail receptors and three bridleway receptors were dismissed as they are located within the no reflection zones (see paragraph 5.1 – 5.3). 35 aerodromes are located within the 30km study area; five of which, RAF Waddington, Peacocks Farm, South Hykeham Airfield, South Scarle Airfield and Blackmoor Farm required detailed assessments as the Principal Site is located within their respective safeguarding buffer zones. The other 30 aerodromes did not require a detailed assessment due to their size and/or orientation in relation to the Principal Site.

8.2. Geometric analysis was conducted at 228 individual residential receptors, including 22 residential areas, 217 road receptors, 13 rail receptors and 79 bridleway receptors. Also, geometric analysis was conducted at 12 runway approach paths, two circuit paths and one Air Traffic Control Tower (ATCT) at RAF Waddington, Peacocks Farm, South Hykeham Airfield, South Scarle Airfield and Blackmoor Farm.

8.3. The assessment concludes that:

a. Solar reflections are possible at 178 of the 238 residential receptors assessed within the 1km study area. The initial bald-earth scenario identified potential impacts as High at 48 receptors, including six residential areas, Medium at 19 receptors, including two residential areas, Low at 111 receptors, including 10 residential areas, and None at the remaining 50 receptors, including three residential area. Upon reviewing the actual visibility of the receptors, impacts remain High at 11 receptors, including one residential area, and Medium at three receptors, including one residential area, and reduce to Low at 44 receptors, including eight residential areas, and to None at all remaining receptors, including 12 residential areas. Once mitigation measures were considered, impacts reduce to Low at 36 receptors and to None at all remaining receptors. Therefore, overall impacts on residential receptors are considered to be Low.

b. Solar reflections are possible at 215 of the 217 road receptors assessed within the 1km study area. The initial bald-earth scenario identified potential impacts as **High** at 156 receptors, **Low** at 59 receptors and **None** at the remaining two receptors. Upon reviewing the actual visibility of the receptors, glint and glare impacts remain **High** at 30 receptors and reduce **None** for all remaining road receptors. Once mitigation measures were considered, impacts reduce to **None** at all receptors. Therefore, overall impacts are considered to be **None**.

c. Solar reflections are possible at all the 13 rail receptors assessed within the 1km study area. The initial bald-earth scenario identified potential impacts as **High** at five receptors and **Low** at eight receptors. Upon reviewing the actual visibility of the receptors, glint and glare impacts reduce to **None** for all rail receptors. Therefore, overall impacts on rail receptors are considered to be **None**.

d. Solar reflections are possible at all the 79 bridleway receptors assessed within the 1km study area. The initial bald-earth scenario identified potential impacts as **High** at 65 receptors and **Low** at 14 receptors. Upon reviewing the actual visibility of the receptors, glint and glare impacts remain **High** at 40 receptors and reduce to **Low** at 15 receptors and to **None** at 24 receptors. Once mitigation measures were considered, impacts reduce to **Low** at 10 receptors and to **None** at all remaining receptors. Therefore, overall impacts on bridleway receptors are considered to be **Low**.

e. 12 runway approach paths and one ATCT were assessed in detail at RAF Waddington, Peacocks Farm, South Hykeham Airfield, South Scarle Airfield and Blackmoor Farm. Only green glare impacts were predicted for the Runway 20 approach path, eastern circuit path and ATCT at RAF Waddington, the Runway 10 approach path at South Hykeham Airfield and the Runway 06 and 24 approach paths at Blackmoor Farm. Green glare and yellow glare impacts were predicted for the western circuit path at RAF Waddington Runway 08 and 24 approach paths at Peacocks Farm, the Runway 28 and 31 approach paths at South Hykeham Airfield and the Runway 10 approach path at South Scarle Airfield. Green glare is an **acceptable impact** upon runways according to FAA guidance. Upon reviewing the ground elevation profile between the ATCT at RAF Waddington and the Principal Site, the impacts upon the ATCT reduce to **None**. Upon inspection of the type of aircraft using Peacocks Farm and South Hykeham Airfield, time of impact, position of the sun and use of existing pilot mitigation strategies when landing in the direction of the sun, as well as the current UK and US guidance, all impacts at Peacocks Farm, South Hykeham Airfield

and South Scarle Airfield can be deemed **acceptable**. Overall impacts on aviation assets are **acceptable** and **Not Significant**.

8.4. **Mitigation** is required due to the impacts found for Residential Receptors 97, 98, 101, 102, 148, 155, 157 – 160, 196 and 197, Road Receptors 13 - 16, 45, 78 - 80, 82 – 84, 98 – 104, 113, 144 - 148 and 177 - 182 and Bridleway Receptors 2 – 6, 8 – 11, 14 – 16, 27 –38, 54 – 62 and 65 – 71 being **High** or **Medium**. The recommended mitigation measures will also screen the **Low impact** views from Residential Receptors 23, 28, 38 – 41, 81, 82, 100, 156, 161 and 164and Bridleway Receptors 25, 26, 45, 46 and 75. This includes the hedges and trees along panel boundaries, field boundaries and bridleway boundaries as shown in the **Figure 7.15-1: Landscape Masterplan,** presented within the **Framework LEMP [EN010154/APP/7.15** being managed to deliver a minimum height at least the same as the upper edge of the panels, which is currently proposed to be a maximum 3.5m..

8.5. The effects of glint and glare and their impact on local receptors has been analysed in detail and there is predicted to be **Low** impacts at nine runway approach paths, whilst the remaining aviation receptors are predicted to have **No Impacts**. Impacts upon ground-based receptors are predicted to be **Low** or **None.** Therefore, overall impacts are **Not Significant**.

Abbreviations

AGL	Above Ground Level
ALP	Approved Layout Plan
ANO	Air Navigation Order
ARC	Anti-Reflective Coating
ATCT	Air Traffic Control Tower
BST	British Summer Time
BESS	Battery Energy Storage System
CAA	Civil Aviation Authority
CAP738	CAA-CAP738: Safeguarding of Aerodromes
CLLP	Central Lincolnshire Local Plan
CLJSPC	Central Lincolnshire Joint Strategic Planning Committee
DCO	Development Consent Order
FAA	Federal Aviation Administration
GMT	Greenwich Mean Time
GIS	Geographic Information System
HFOV	Horizontal Field of View
kV	Kilovolt
LEMP	Landscape and Ecological Management Plan
MW	Megawatt
NPPG	National Planning Policy Guidance
PV	Photovoltaic
SGHAT	Solar Glare Hazard Analysis Tool
SK	Grid reference prefix (used in British National Grid)
SPV	Solar Photovoltaic
STA	Solar Trade Association
UTC	Coordinated Universal Time
VFOV	Vertical Field of View

9. APPENDICES

APPENDIX A: FIGURES

a. Figure 1A: Residential Receptor Map Overall

b. Figure 1B: Residential Receptor Map Sheet 1B

c. Figure 1C: Residential Receptor Map Sheet 1C

d. Figure 2A: Road Receptor Map

e. Figure 2B: Road Receptor Map Sheet 2B

f. Figure 2C: Road Receptor Map Sheet 2C

g. Figure 3: Rail receptor Map

h. Figure 4A: Bridleway Receptor Map

i. Figure 4B: Bridleway Receptor Map Sheet 4B

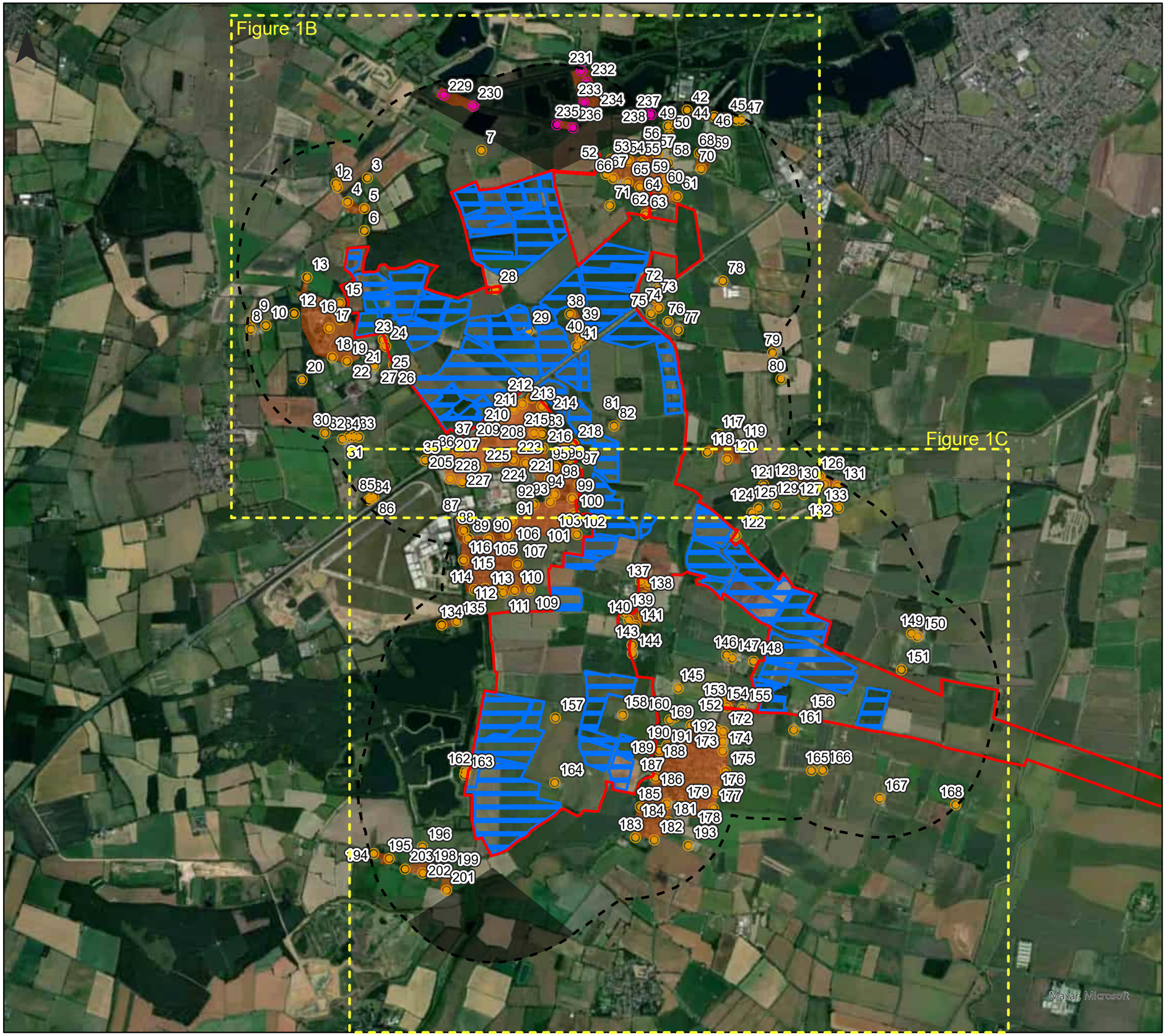
j. Figure 4C: Bridleway Receptor Map Sheet 4C

k. Figure 5: Site Layout

l. Figure 6: Panel Area Labels

m. Figure 7: RAF Waddington Aerodrome Chart

Fosse Green Solar Farm
Residential Based Receptors
Figure 1A



Key

- Development Boundary
- Panel Boundary
- 1km Study Area
- Glare Not Possible at Receptor
- Glare Possible at Receptor
- Residential Area
- Non-Reflection Zone

0 0.75 1.5 3 Kilometers

Neo Office Address:
Wright Business Centre, 1 Lonmay Road, Glasgow, G33 4EL

Date: 07/02/2025
Drawn By: David Thomson
Scale (A3): 1:35,000
Drawing No: NEO01357/001I/D

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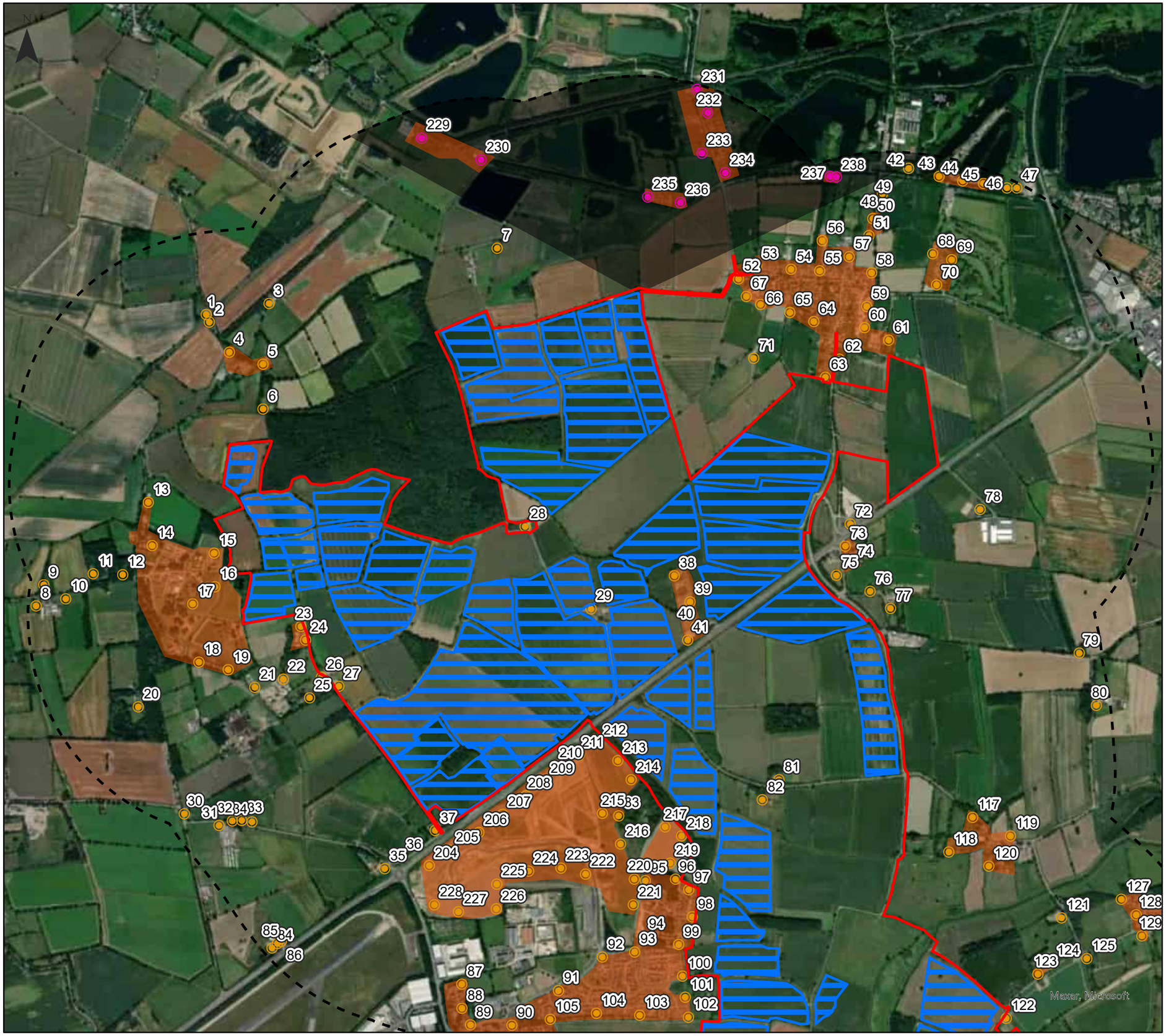
Fosse Green Solar Farm
Residential Based Receptors
Figure 1B



0 0.25 0.5 1 Kilometers

Key

- Development Boundary
- Panel Boundary
- 1km Study Area
- Glare Not Possible at Receptor
- Glare Possible at Receptor
- Residential Area
- Non-Reflection Zone

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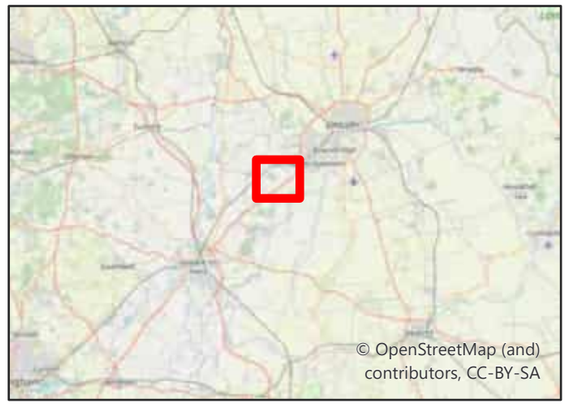

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Fosse Green Solar Farm
Residential Based Receptors
Figure 1C

Key

- Development Boundary
- Panel Boundary
- 1km Study Area
- Glare Not Possible at Receptor
- Glare Possible at Receptor
- Residential Area
- Non-Reflection Zone

0 0.25 0.5 1 Kilometers

Neo Office Address:
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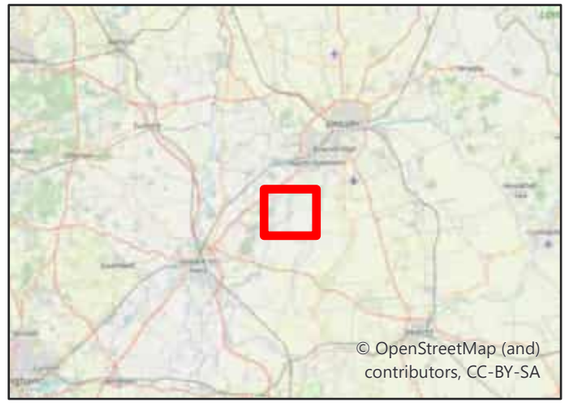

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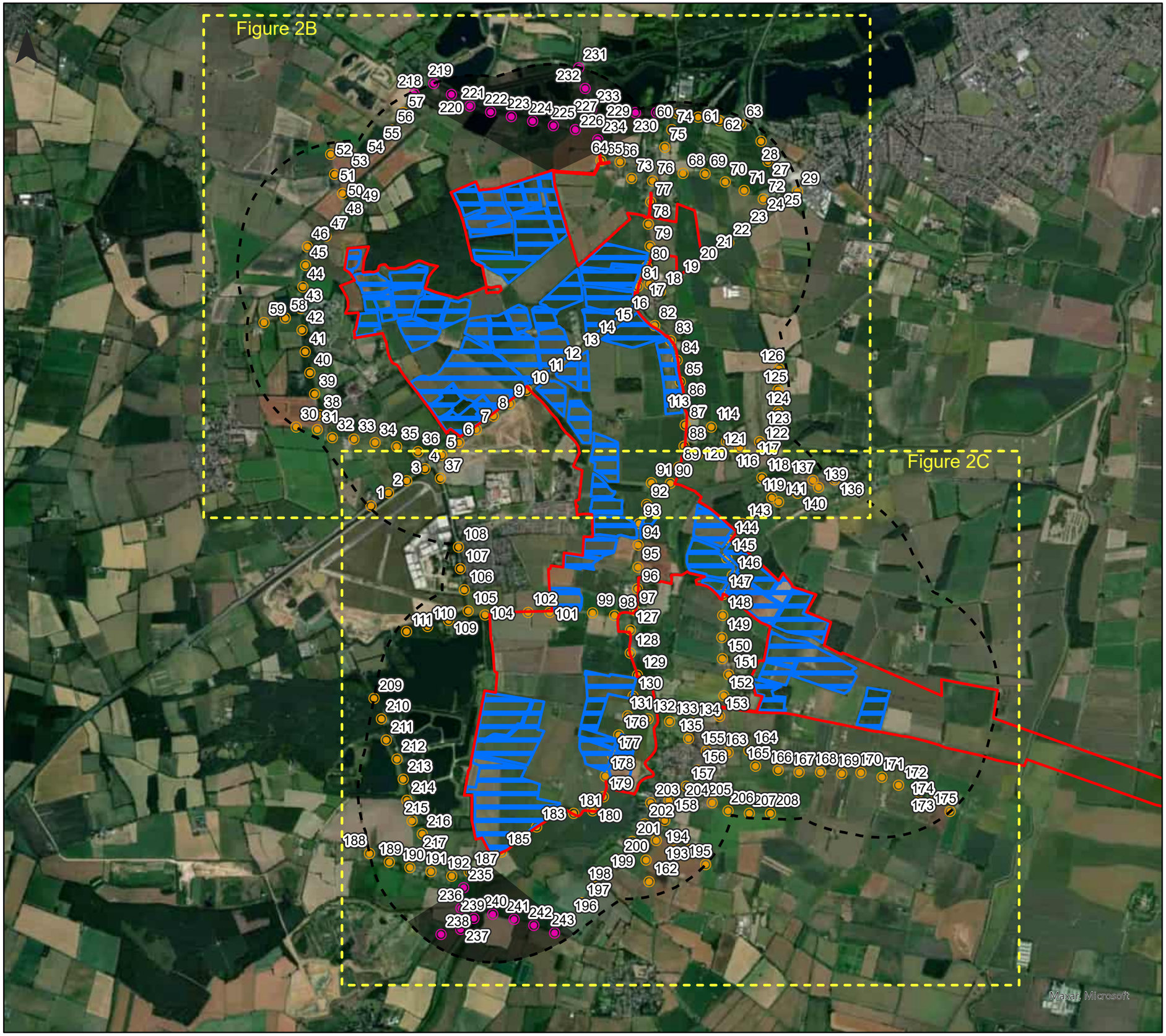
Fosse Green Solar Farm
Road Based Receptors
Figure 2A



Key

- Development Boundary
- Panel Boundary
- 1km Study Area
- Glare Not Possible at Receptor
- Glare Possible at Receptor
- Non-Reflection Zone

0 0.75 1.5 3 Kilometers

Neo Office Address:
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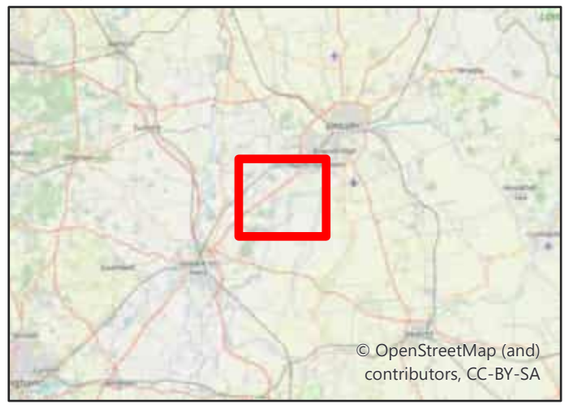

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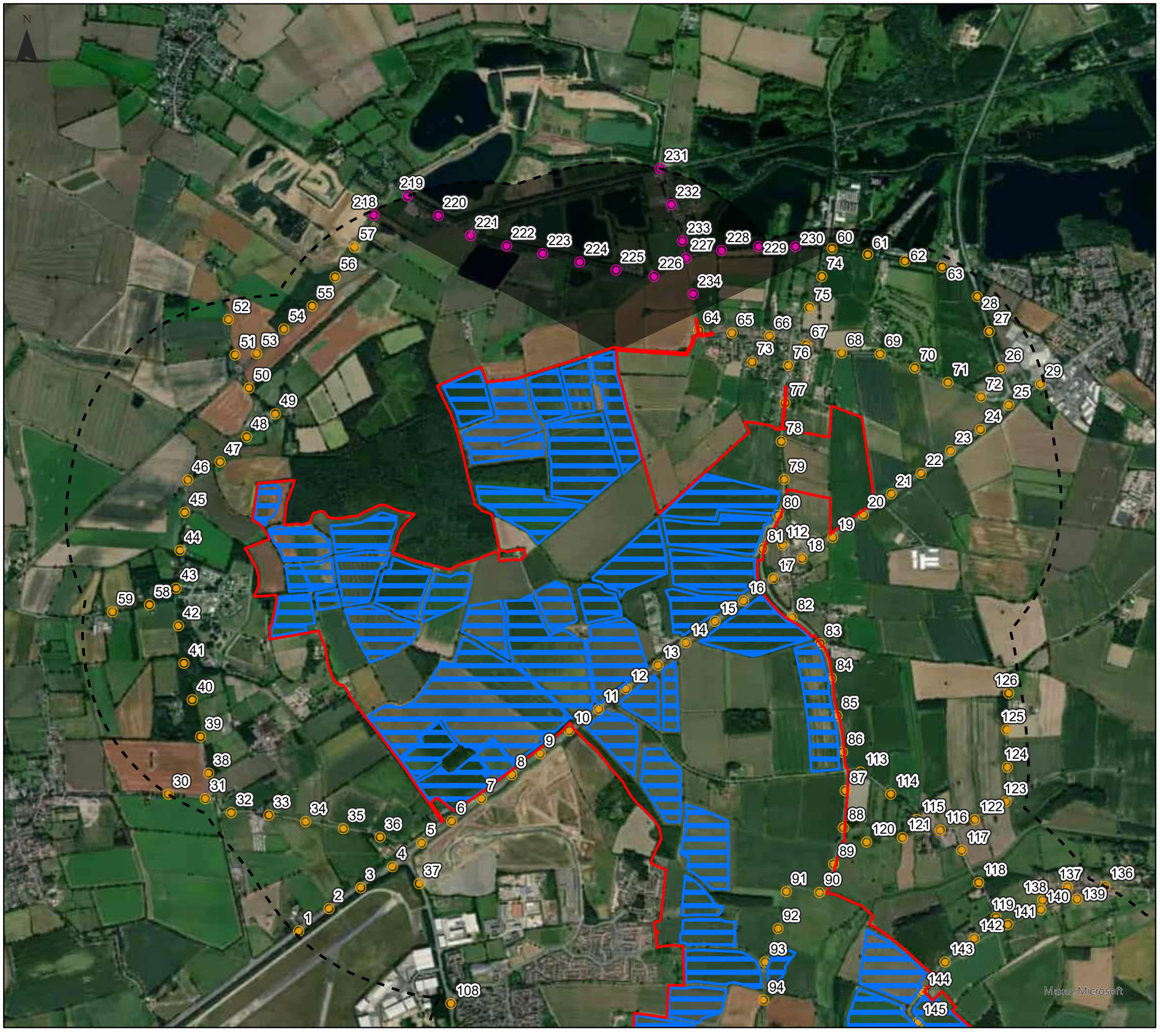
Fosse Green Solar Farm
Road Based Receptors
Figure 2B



0 0.5 1 2 Kilometers

Key

- Development Boundary
- Panel Boundary
- 1km Study Area
- Glare Not Possible at Receptor
- Glare Possible at Receptor
- Non-Reflection Zone

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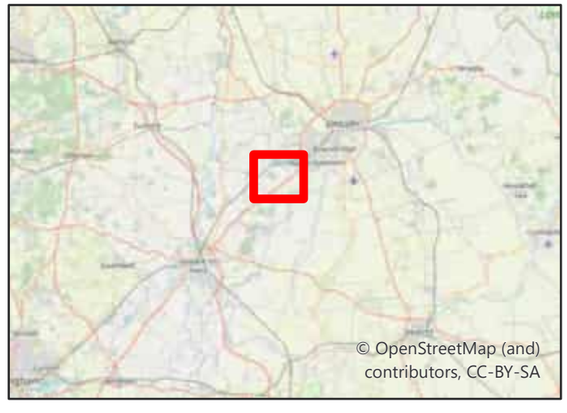

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Fosse Green Solar Farm
Road Based Receptors
Figure 2C

Key

- Development Boundary
- Panel Boundary
- 1km Study Area
- Glare Not Possible at Receptor
- Glare Possible at Receptor
- Non-Reflection Zone

0 0.5 1 2 Kilometers

Maxar, Microsoft

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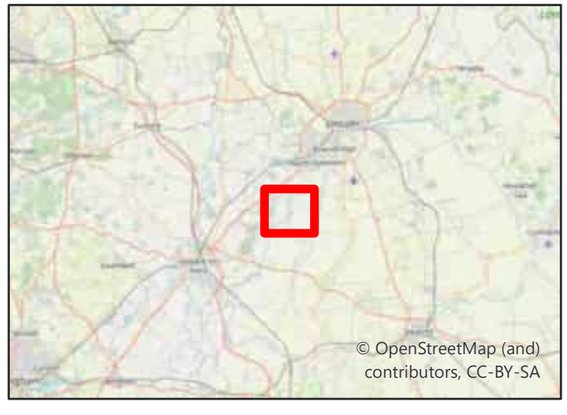

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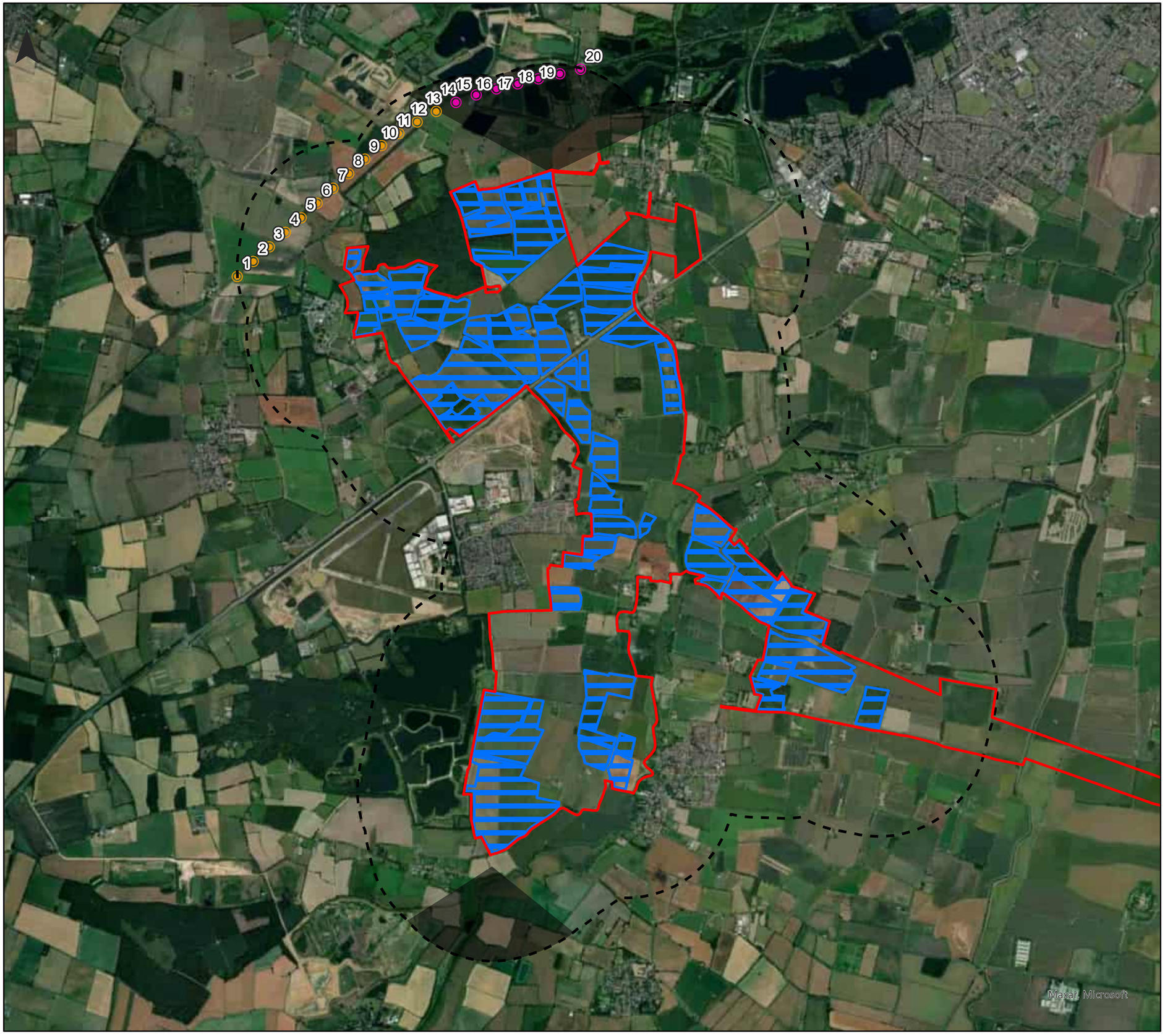
Fosse Green Solar Farm
Rail Based Receptors
Figure 3



Key

- Development Boundary
- Panel Boundary
- 1km Study Area
- Glare Not Possible at Receptor
- Glare Possible at Receptor
- Non-Reflection Zone

0 0.75 1.5 3 Kilometers

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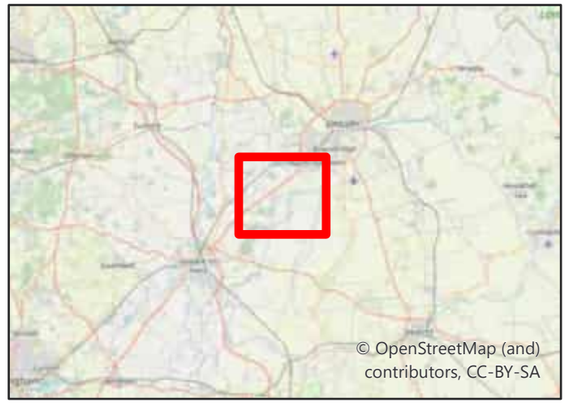

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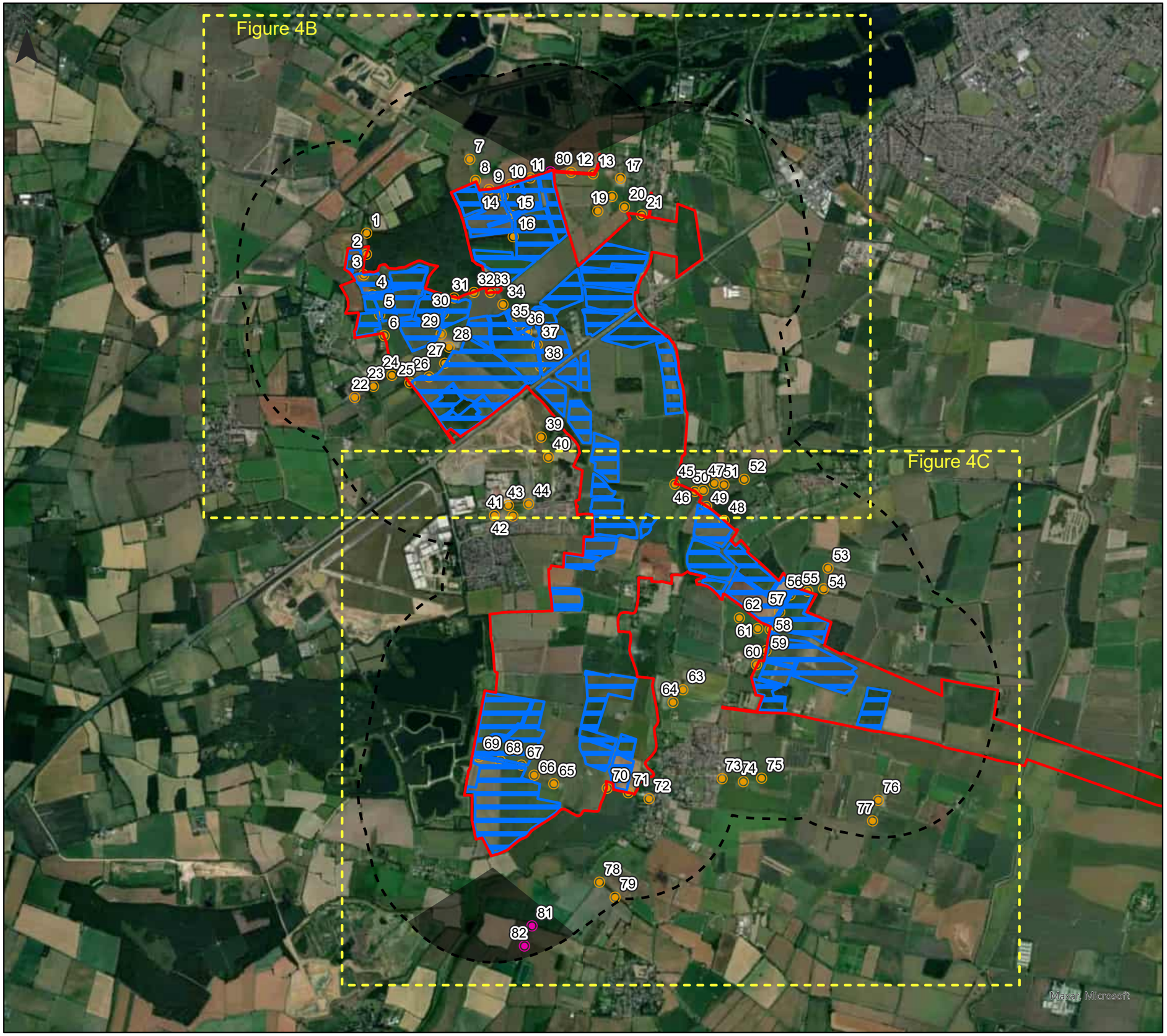
Fosse Green Solar Farm
Bridleway Based Receptors
Figure 4A



0 0.75 1.5 3 Kilometers

Key

- Development Boundary
- Panel Boundary
- 1km Study Area
- Glare Not Possible at Receptor
- Glare Possible at Receptor
- Non-Reflection Zone

Neo Office Address:
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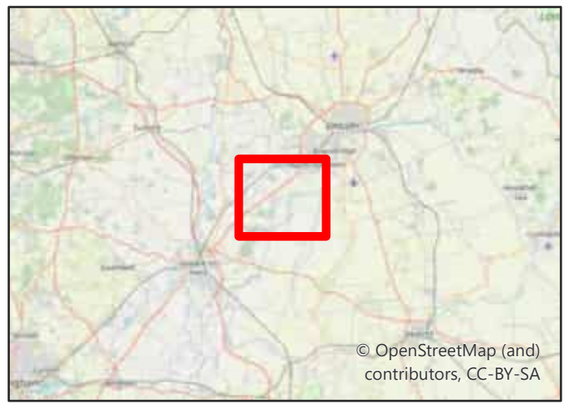

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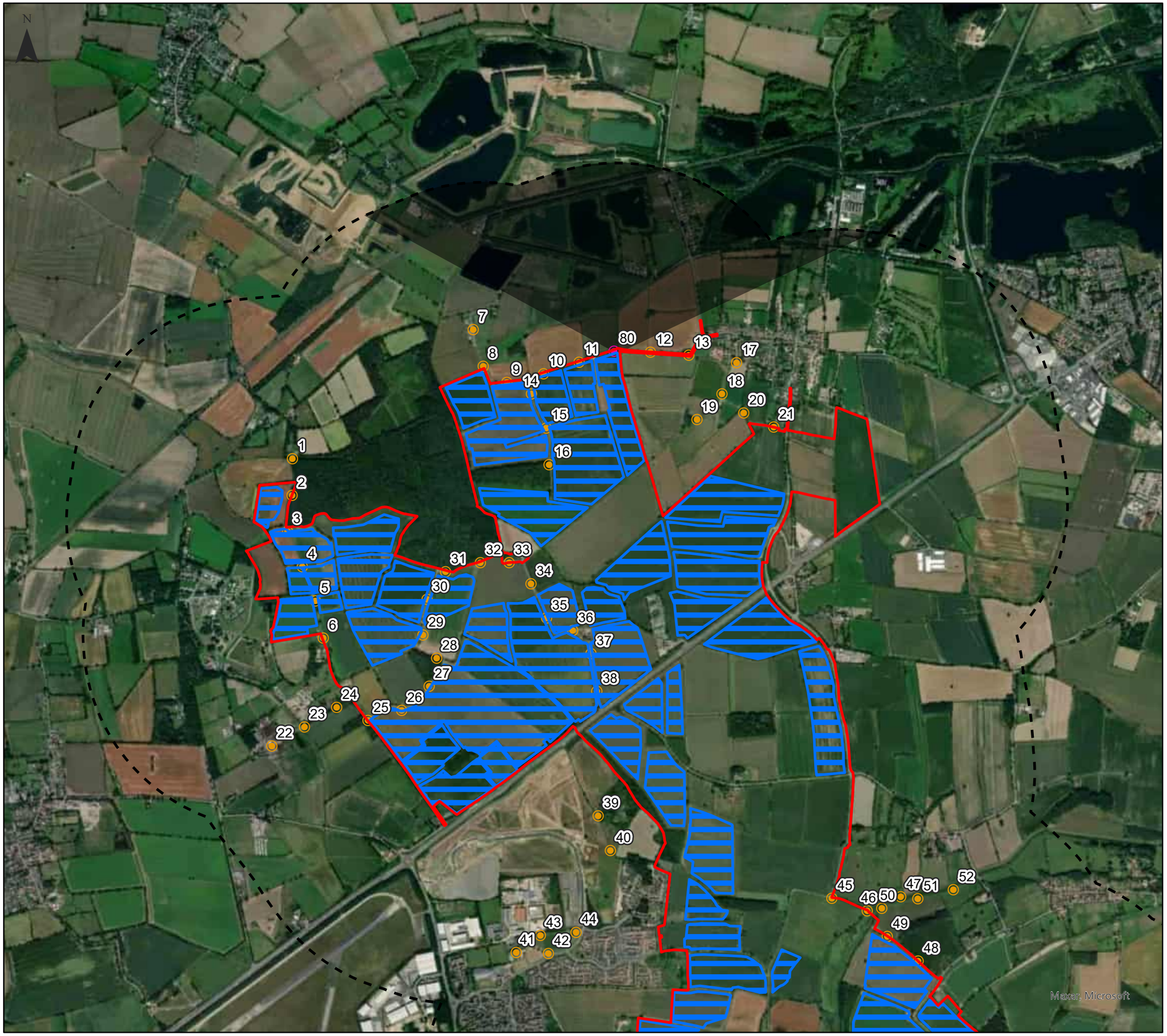
Fosse Green Solar Farm
Bridleway Based Receptors
Figure 4B



Key

- Development Boundary
- Panel Boundary
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- Glare Not Possible at Receptor
- Glare Possible at Receptor
- Non-Reflection Zone

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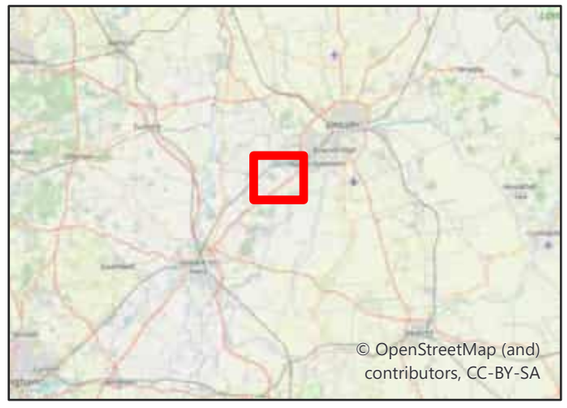

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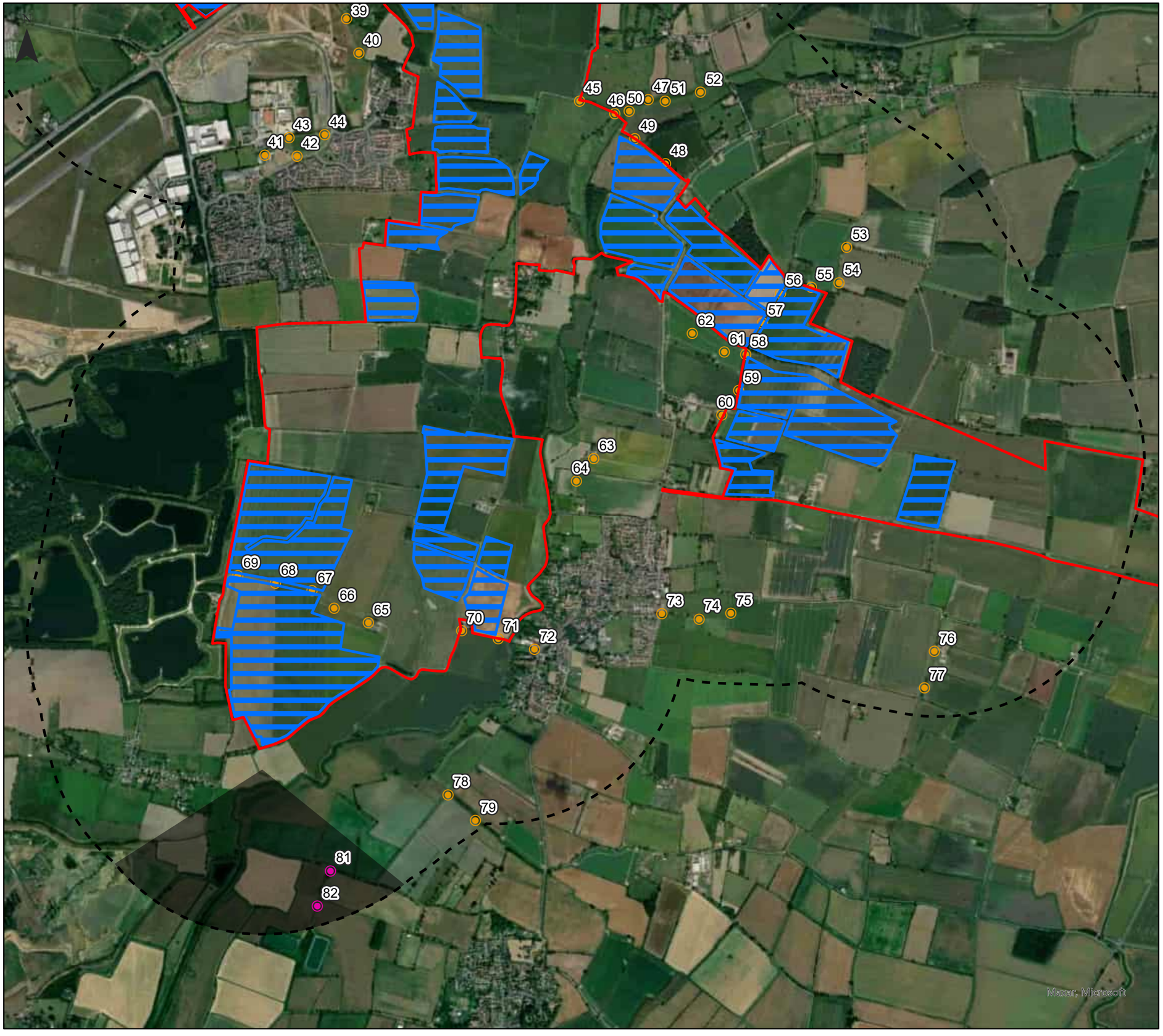
Fosse Green Solar Farm
Bridleway Based Receptors
Figure 4C



0 0.5 1 2 Kilometers

Key

- Development Boundary
- Panel Boundary
- 1km Study Area
- Glare Not Possible at Receptor
- Glare Possible at Receptor
- Non-Reflection Zone

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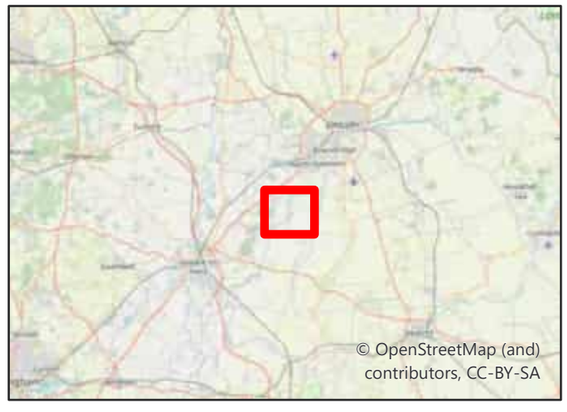

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Sheet 5 of 10

Sheet 3 of 10

Sheet 6 of 10

Sheet 7 of 11

Sheet 10 of 11

Sheet 11 of 11

Sheet 8 of 11

Inset 8A

0 0.5 1 1.5km

Key

- Site Boundary
- Existing Public Rights of Way
- Proposed Permissive Paths
- Existing Hedgerow
- Existing Woodland
- Existing Trees
- Proposed Hedgerows
- Proposed Belt of Trees
- Proposed Individual Trees
- Proposed Grassland Enhancement
- Proposed Species Rich Grassland
- Proposed Orchard
- Land for potential environmental mitigation. Where not required, existing land use will be retained

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Fosse Green Energy Limited

Fosse Green Energy - East West Installation

Landscape Mitigation Plan DRAFT
Sheet 1 of 11

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KL	BG	SG

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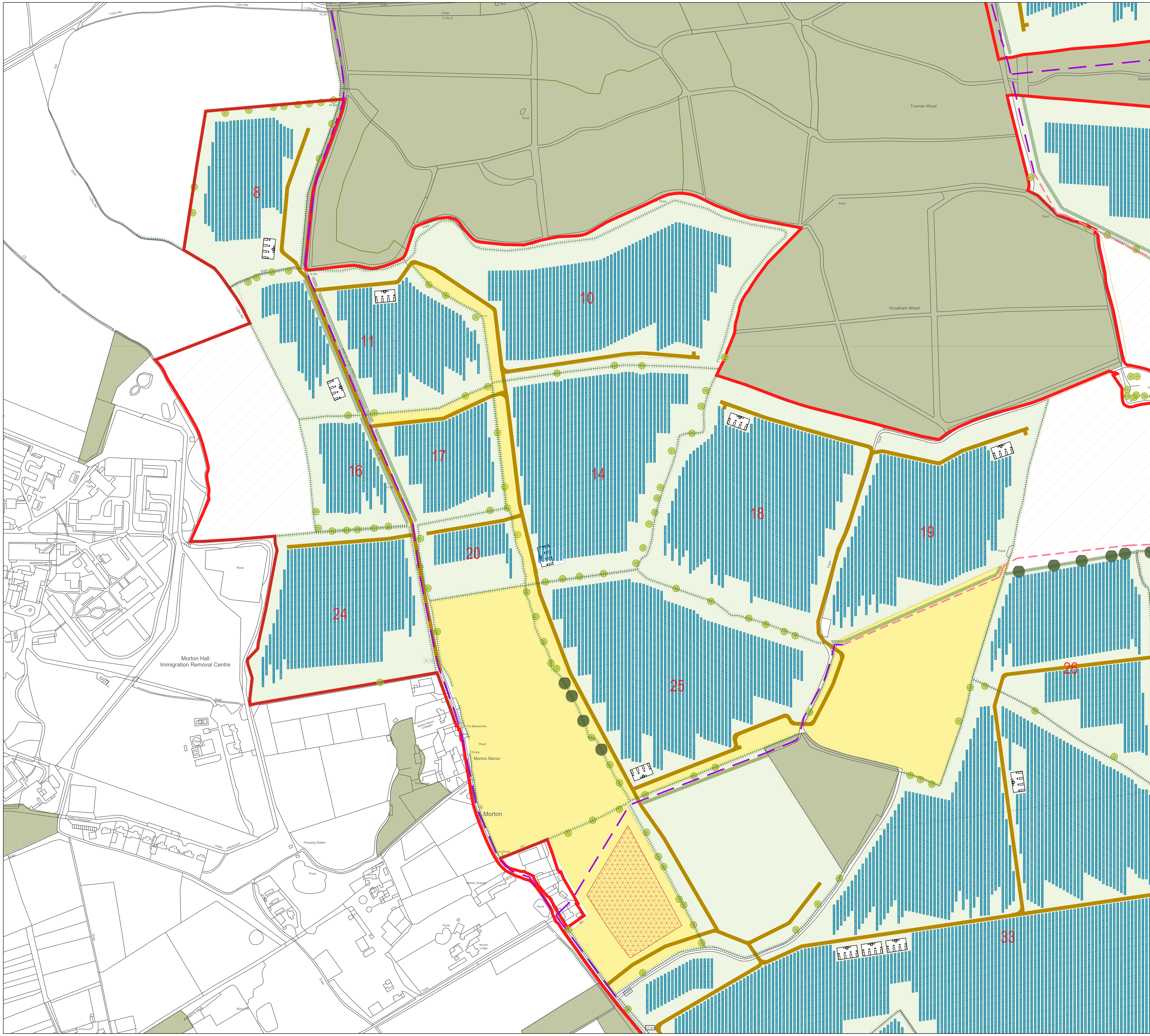
23-128	23-128-DL100	A



Key

- Site Boundary
- Existing Public Rights of Way
- Proposed Permissive Paths
- Existing Hedgerow
- Existing Woodland
- Existing Trees
- Proposed Hedgerows
- Proposed Belt of Trees
- Proposed Individual Trees
- Proposed Grassland Enhancement
- Proposed Species Rich Grassland
- Proposed Orchard
- Land for potential environmental mitigation. Where not required, existing land use will be retained

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Fosse Green Energy - East West Installation

Landscape Mitigation Plan DRAFT
Sheet 2 of 11

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KL	BG	SG

SCALE @ A1	DATE
1:2500	25/02/2025

PROJECT NO.	DRAWING NO.	REV.
23-128	23-128-DL100	A

Key

- Site Boundary
- Existing Public Rights of Way
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- Proposed Orchard
- Land for potential environmental mitigation. Where not required, existing land use will be retained

ICENI PROJECTS LIMITED
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LONDON
EC1N 8FH

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Fosse Green Energy Limited

Fosse Green Energy - East West Installation

Landscape Mitigation Plan DRAFT
Sheet 3 of 11

DRAWN BY	CHECKED BY	APPROVED BY
KL	BG	SG

SCALE @ A1	DATE
1:2500	25/02/2025

PROJECT NO.	DRAWING NO.	REV.
23-128	23-128-DL100	A

Scotland Farm
Gamekeepers Cottage
Cocked Hat Plantation
Tunman Wood
Stocking Wood
Housham Wood
Housham Wood Farm
Track
Pond
Lane
West
1
2
3
4
5
6
9
13

Key

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Sheet 6 of 11

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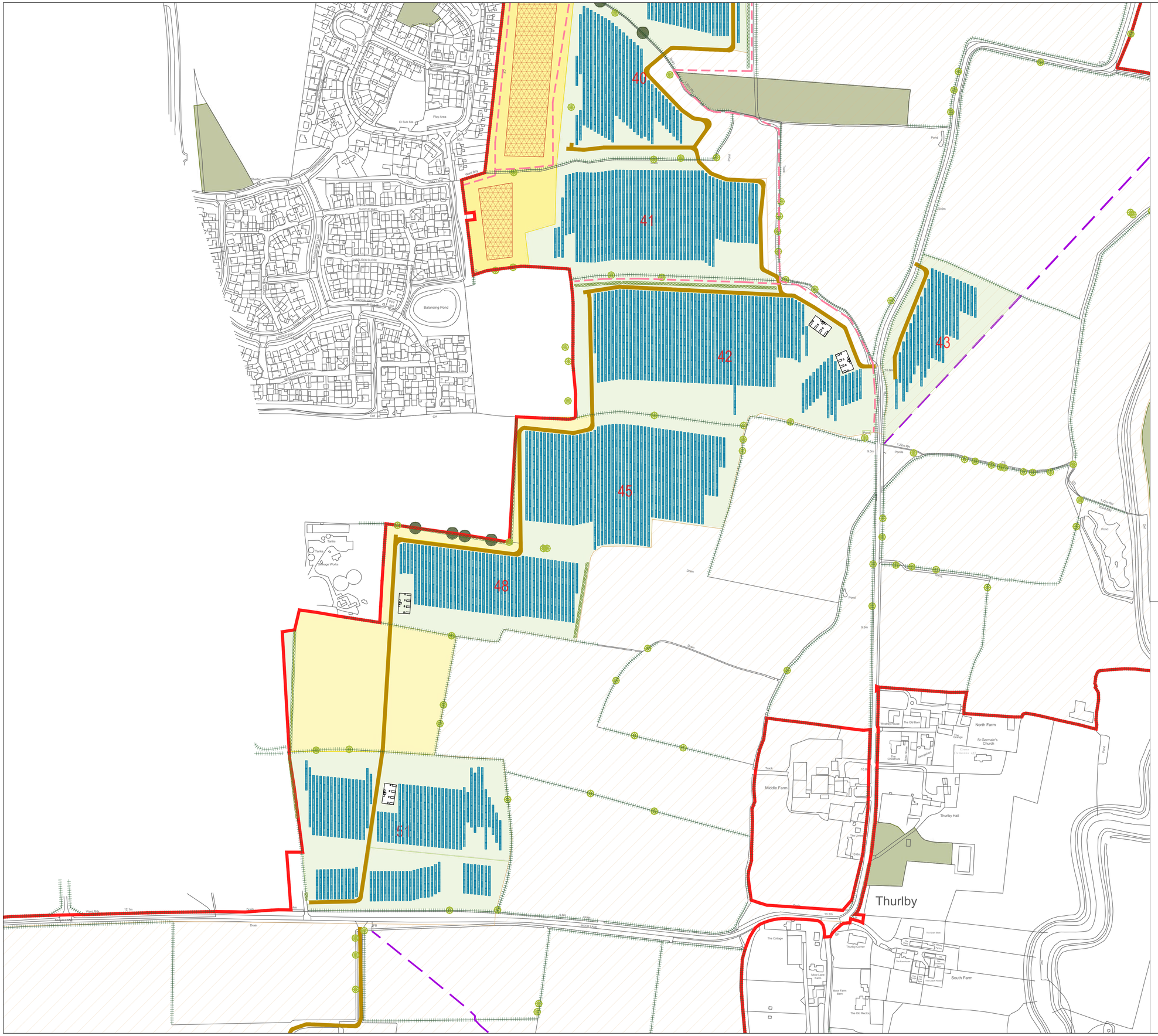
23-128	23-128-DL100	A



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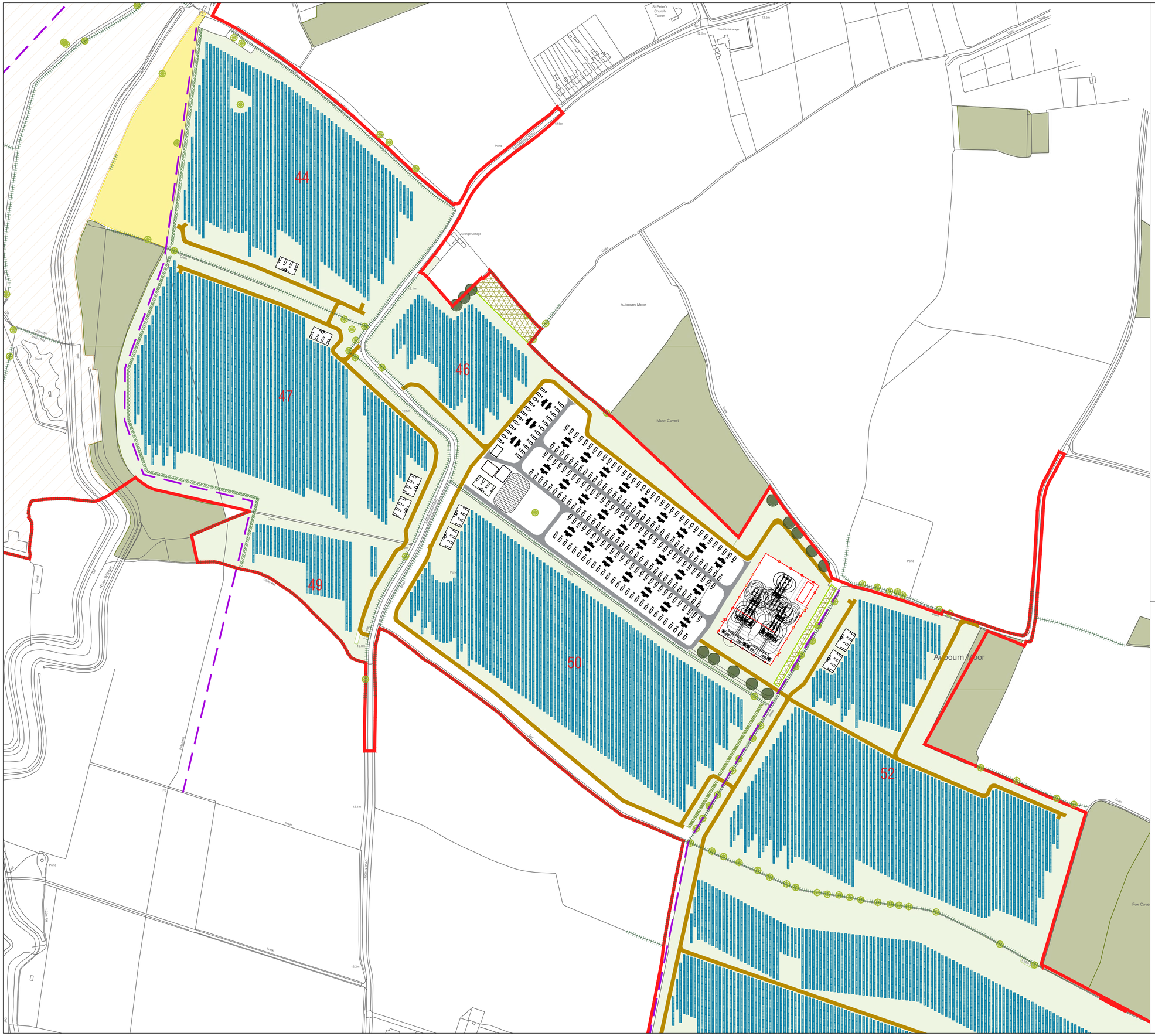
23-128	23-128-DL100	A

INSET 8A



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Sheet 9 of 11

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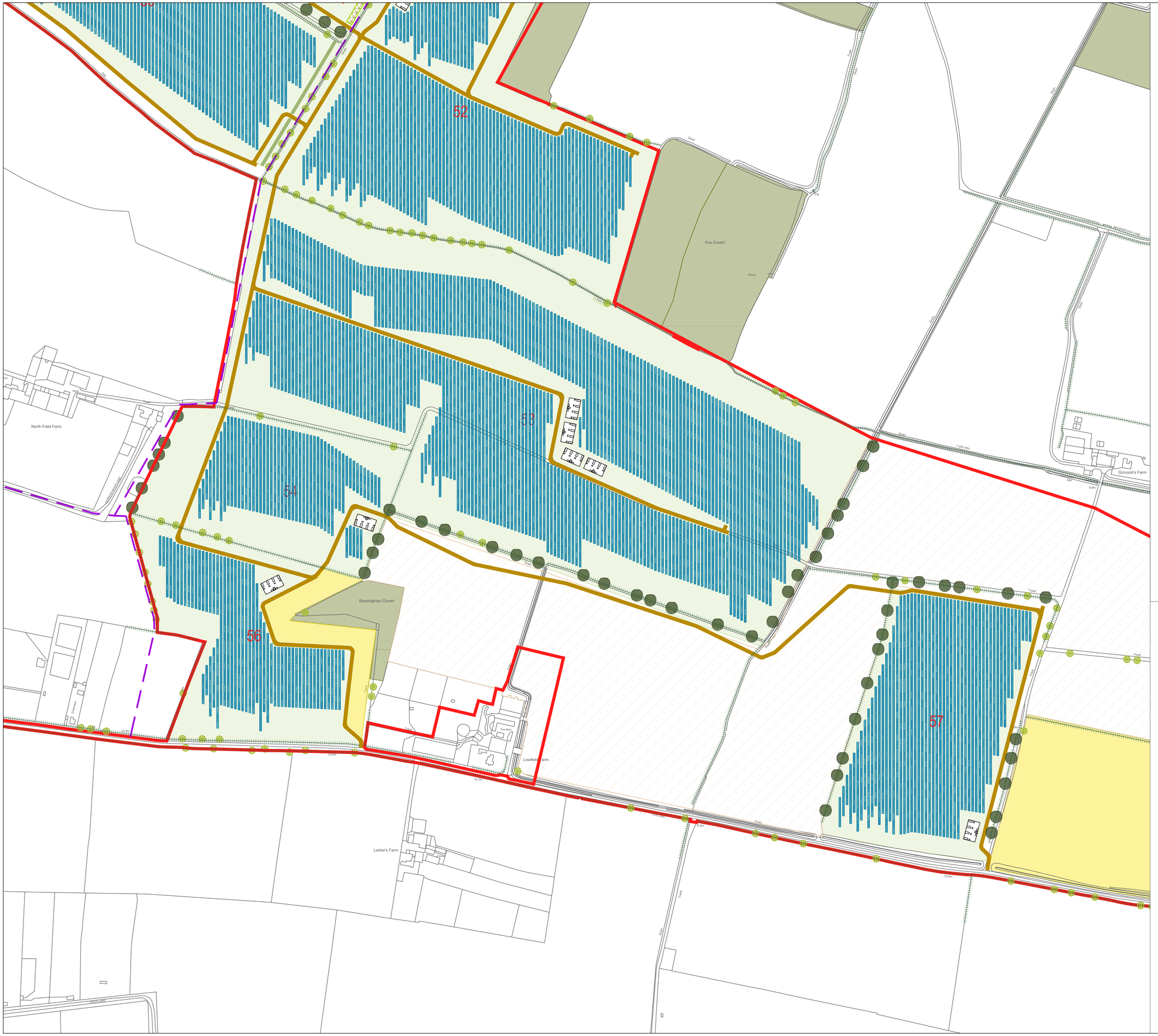

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Sheet 10 of 11

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1:2500	25/02/2025

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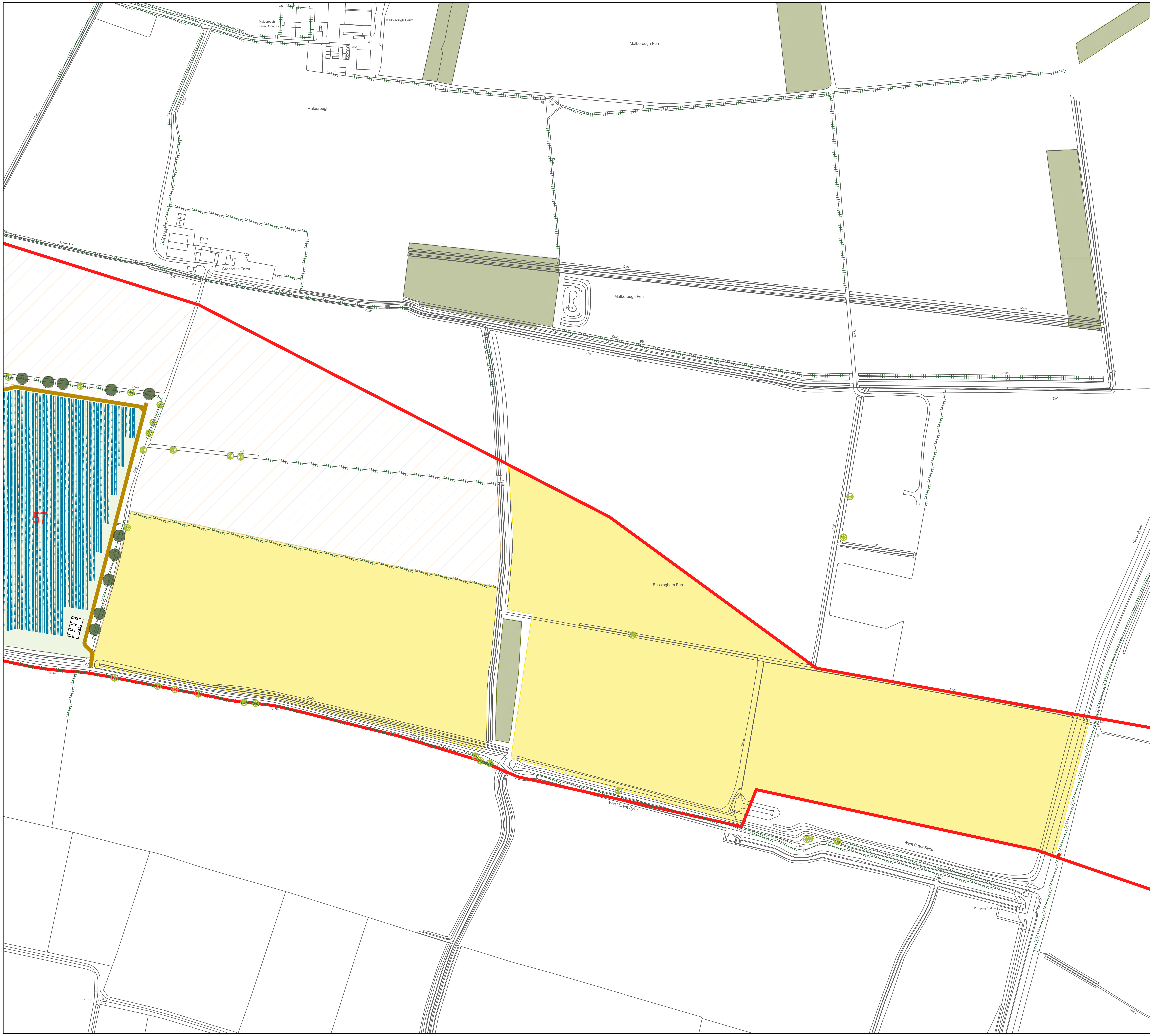

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Landscape Mitigation Plan DRAFT
Sheet 11 of 11

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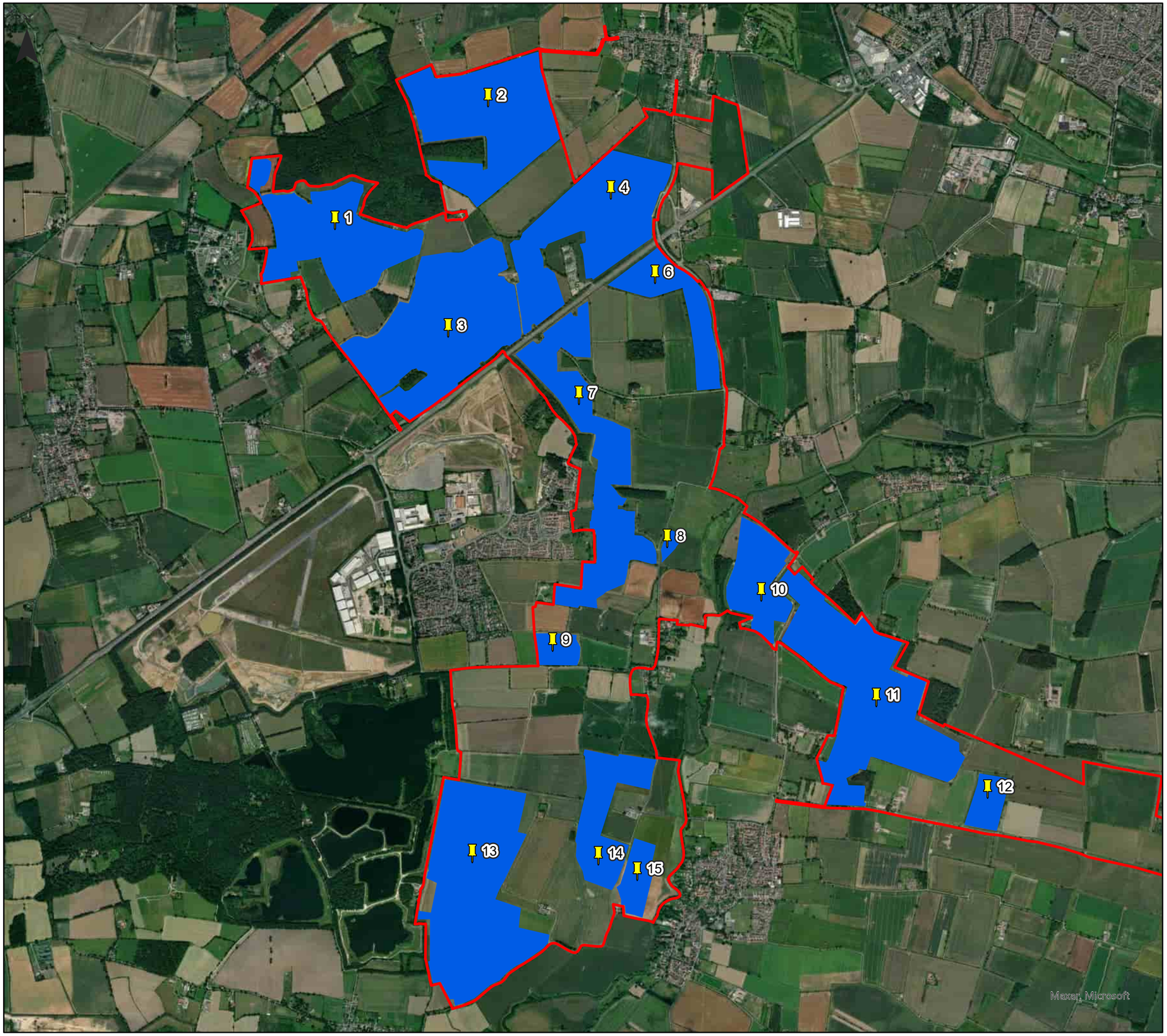
Fosse Green Solar Farm
Panel Area Labels
Figure 6

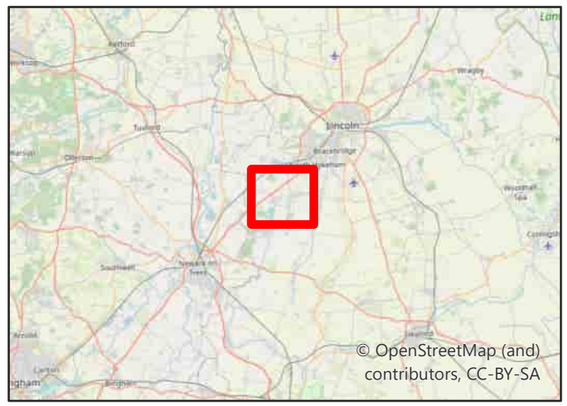


0 0.5 1 2 Kilometers

Key

- Development Boundary
- Panel Area Label
- Panel Area

Neo Office Address:
Wright Business Centre, 1 Lonmay Road, Glasgow, G33 4EL



Date: 07/02/2025
Drawn By: David Thomson
Scale (A3): 1:25,000
Drawing No: NEO01357/012I/D

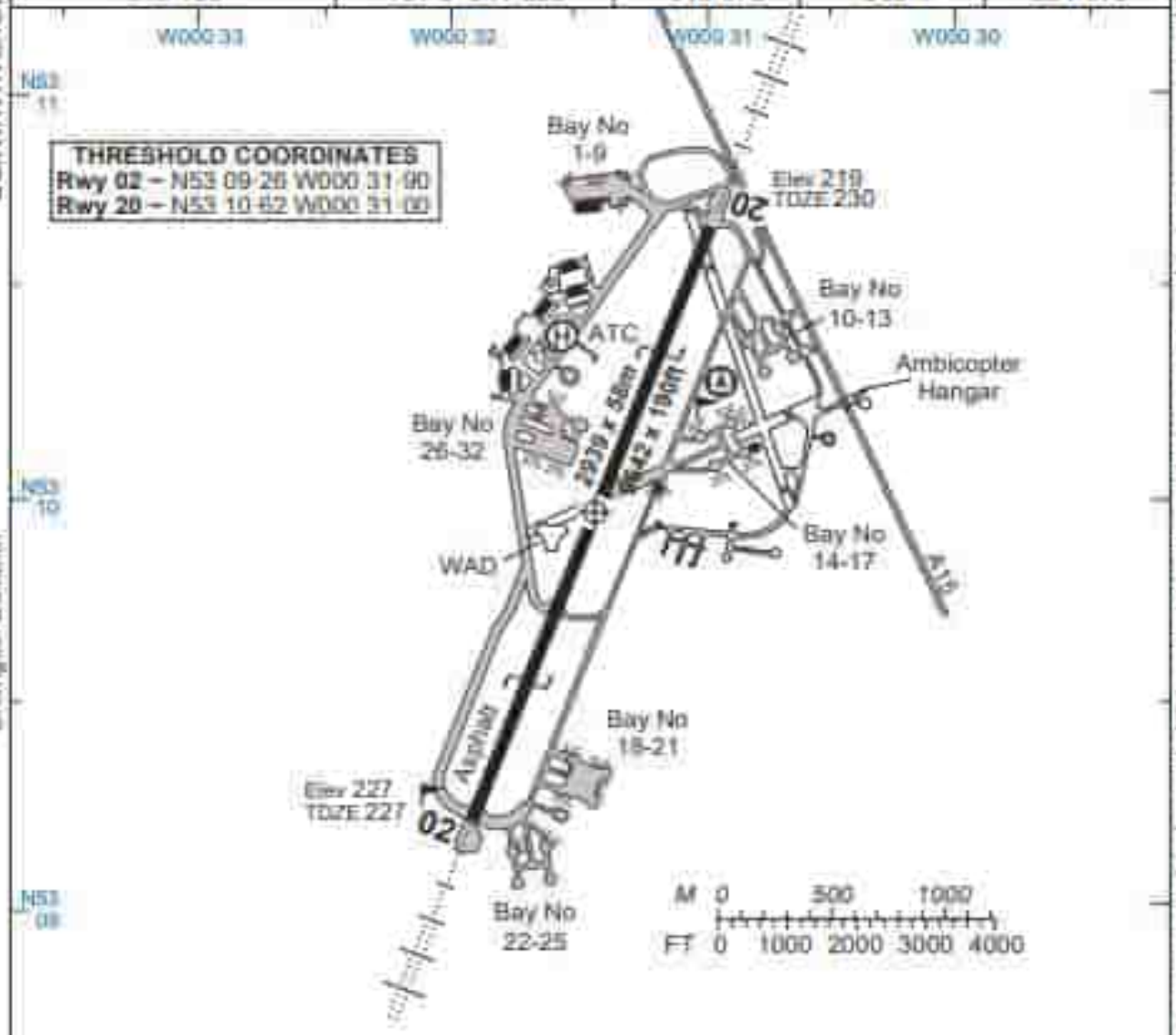
neo ENVIRONMENTAL

05 OCT 23

AERODROME WADDINGTON

Elev 230	Var 0°	ARP N53 09·97 W000 31·43 (WGS 84)	05 OCT 23	D1

WADDINGTON GROUND	TOWER	APPROACH	OPS	ATIS
342·125	121·3 241·325	345·075	369·4	291·675



RWY	SLOPE	LDA m/ft	APP LGT		RWY LGT
02 (022°T) 20 (202°T)	0·08%D 0·08%U	2705/8875	P3° (46) P3° (44)	CL-5B (H)	RTHL:REDL (H):RCLL(H)15m❶:RENL

1. **WARNING.** Strong Westerly winds can produce unexpected turbulence in the final stages of approach to Rwy 20.
2. Circuits: Normal –**1300** 1000.
3. RHAG installations 18 inches high; 35ft from rwy edge. RHAG inset:
   a. Rwy 02 – 2050ft.
   b. Rwy 20 – 2000ft.

   For normal ops approach cable DERIGGED, overrun cable UP.
   20min DAY and 25min NIGHT PNR approach cable to be configured UP.
4. **CIRC prohibited** W of the Rwy 02/20 extended centreline.
5. Public road crosses approach to Rwy 20.
6. NW twy has 9m wide tarmac shoulders (non-load bearing).
❶ Non-standard RCLL at 15m spacing (instead of 30m) to allow LVP ops.
8. To achieve the full declared distance on Rwy 02RH, a back track via the turn pad is required.

WADDINGTON AERODROME

Changes: Editorial

No 1 AIDU Last Amended 11 AUG 23