

HOARE LEA LIGHTING

**RAIL CENTRAL**

**APPENDIX 21.1 – SRFI Pre-Development Baseline Survey**

APPENDIX 21.1-DOC-1602403-20180301-Rail Central-DDM-IIP 001-P8

March 2018



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## 0.0 Introduction

### **Purpose of Report**

The purpose of this report is to demonstrate the obtrusive light condition to survey locations in and surrounding the PDA location of Rail Central, Northamptonshire to provide an understanding of the current artificial lighting condition and pre development Environmental Zone classifications of the PDA and surrounding areas.

## I.0 Study Area

### Extent of Study Area

#### Existing Lighting Measurement Locations

- Sample locations are recorded within and adjacent to the PDA to provide an overview of the existing lighting conditions in order to ascertain the current Environmental Zone classifications.



Figure I.1: Extent of Study Area (external lighting within close proximity to the PDA)

# 1.0 Study Area

## Extent of Study Area

### Baseline Survey Locations

The following locations are recorded in terms of relevant obtrusive light conditions to provide a baseline understanding of the current experience within and outside of the PDA, with respect to Ecological constraints as advised by applicant Ecologist.

### Ecology

- **E1 to E25: Ecology locations - Potential Bat Roosts / Habitats, Foraging/Commuting routes**
- **C1 to C4 – Grand Union Canal**
- **C5 to C8 – Northampton Aram**



Figure 1.2: Extent of Study Area and Identification of Ecological Constraints



# I.0 Study Area

## Extent of Study Area

### Baseline Survey Locations

The following locations are recorded in terms of relevant obtrusive light conditions to provide a baseline understanding of the current experience within and outside of the PDA, with respect to Residential constraints.

### Residential

- **R1: Properties on Barn Lane**
- **R2: Properties on Rectory Lane**
- **R3: Mortimers/The Old Rectory**
- **R4: Rathvilly Farm (\*)**
- **R5: Lodge Farm (\*)**
- **R6: Manor Farm (\*)**
- **R7: Nursery (\*)**
- **R8: Gaytonway / Spring Gardens / Parley Pole / Woodbury**
- **R9: Deveron House**
- **R10: Property adjacent to James King Plant**
- **R11: Property adjacent to J B J Business Park**
- **R12: Property within Youngs Nursery**
- **R13: Terraced properties**
- **R14: Properties on Station Road**
- **R15: Highcliffe Farm**
- **R16: Properties off Courteenhall Road (opposite Allotment gardens)**
- **R17: Properties on Station Road**
- **R18: Walnut Tree Hotel**
- **R19: Blisworth Park**
- **R20: Properties on Station Road**
- **R21: Blisworth Marina**
- **R22: Properties adjacent to The Old Toll House – Blisworth Arm**
- **R23: Gayton Marina**
- **R24: Hill Farm**
- **R25: Chapel Hill Farm**
- **R26: Village of Blisworth – Representative zone of Residential Receptors**
- **R27: Village of Milton Malsor – Representative zone of Residential Receptors**

\* - Proposed development replaces sensitive receptor location



Figure I.3: Extent of Study Area and Identification of Residential Constraints

# I.0 Study Area

## Extent of Study Area

### Baseline Survey Locations

The following locations are recorded in terms of relevant obtrusive light conditions to provide a baseline understanding of the current experience within and outside of the PDA, with respect to Heritage constraints as advised by applicant Cultural Heritage consultant.

### Heritage

- **H1: Milton Malsor – Representative zone of Heritage receptors**
- **H2: Railway Bridge (Grade II listed)**
- **H3: Grafton Villas (Grade II listed)**
- **H4: Blisworth – Representative zone of Heritage receptors**



Figure I.4: Extent of Study Area and Identification of Heritage Constraints

## 2.0 The Survey

### Introduction

#### Survey

- The survey was undertaken between approximately 15.00pm and 00.00am, on Tuesday 12<sup>th</sup> and Tuesday 19<sup>th</sup> April 2016.
- The weather was generally dry and the sky had a degree of cloud cover during the night hours.
- The Moon was present in the sky, however was partially obscured by cloud when lighting measurements were taken.
- Unscreened Moonlight Condition measured as peak - 0.10 Lux (Horizontal) and 0.13 Lux (Vertical).

#### Technical

- Light Readings (illuminance levels in Lux) were taken using a hand held Konica Minolta T-10A illuminance meter.
- All horizontal lux readings were taken on the ground, all vertical lux readings were taken at arms length from a standing position; approximately 1.5m above ground.
- Photographs were taken using a Canon EOS 600D DSLR camera. Exposure times are variable.



PDA - View from Milton Crossing Foot Bridge



## 2.0 The Survey

### Existing Lighting



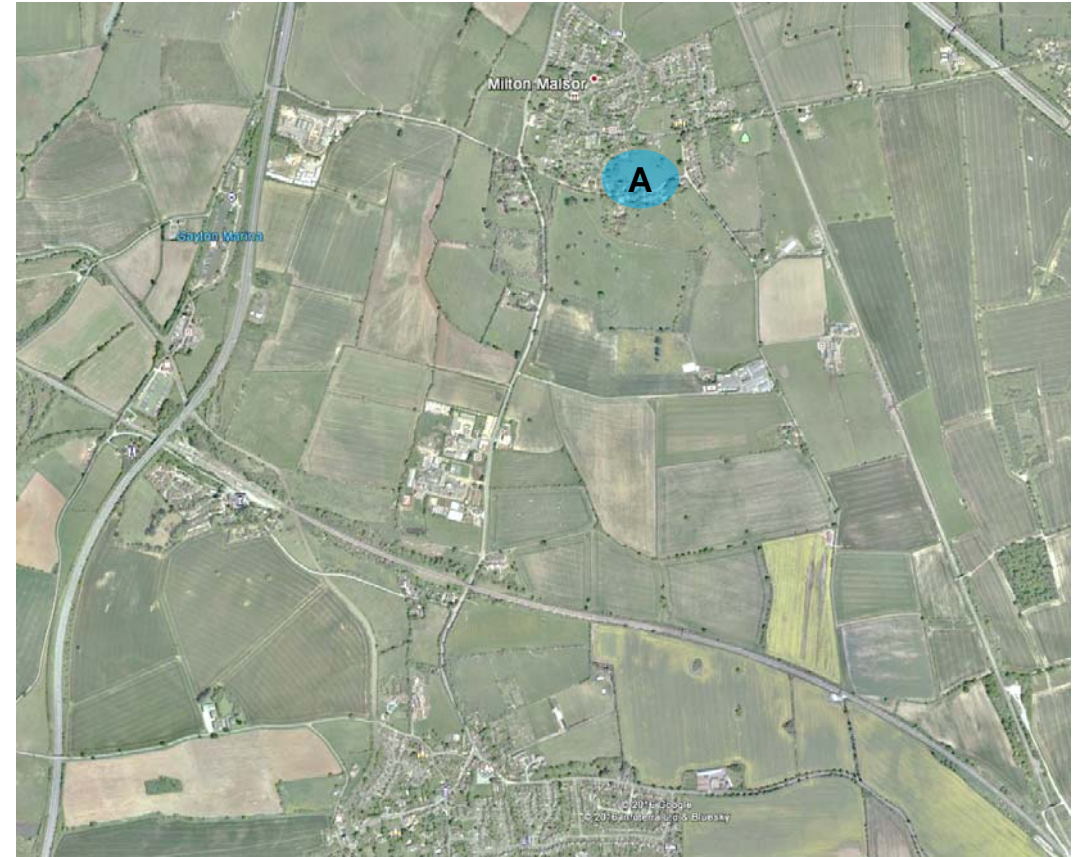
#### Existing Lighting A – Rectory Lane

Roadway is currently artificially lit with approximately 6m column mounted discharge lanterns to achieve an average light level of 6 Lux.

Average light levels equivalent to a S4 classification (BS 5489-1:2013)

Typical of an E2 Zone: Rural / Village Low district brightness

Grid reference: SP 73594 55362



Existing Lighting within close proximity to the PDA



## 2.0 The Survey

### Existing Lighting



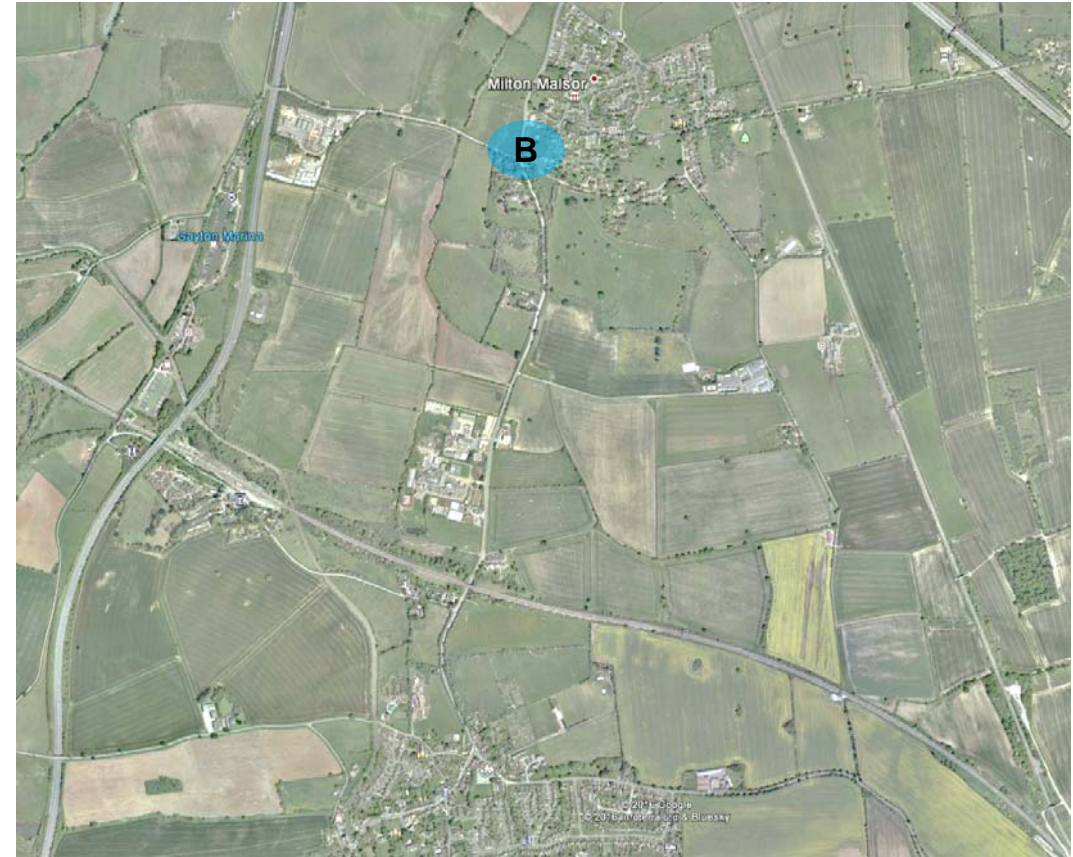
#### Existing Lighting B – Rectory Lane / Towcester Road

Roadway is currently artificially lit with approximately 8m column mounted discharge lanterns to achieve an average light level of 9 Lux.

Average light levels equivalent to a S3 classification (BS 5489-1:2013)

Typical of an E2 Zone: Rural / Village Low district brightness

Grid reference: SP 73158 55463



#### Existing Lighting within close proximity to the PDA

## 2.0 The Survey

### Existing Lighting



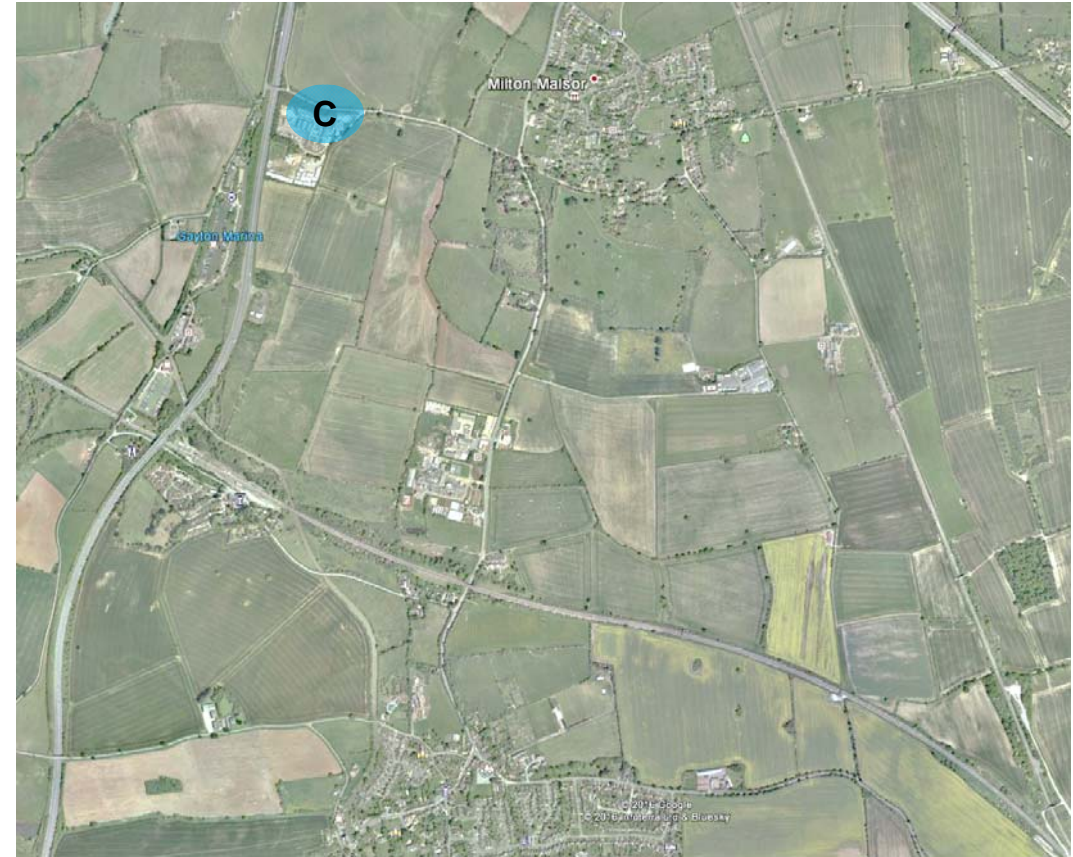
#### Existing Lighting C – Industrial / Commercial premises (Gayton Road)

Building mounted floodlight equipment to Industrial / Commercial premises.

Due to access limitations light level measurements were not taken, however based on professional judgement it can be assumed as being average horizontal light levels of 10 lux at ground level commensurate with parking areas / security lighting.

Typical of an E2 Zone: Rural / Village Low district brightness

Grid reference: SP 72607 55683



#### Existing Lighting within close proximity to the PDA



## 2.0 The Survey

### Existing Lighting



#### Existing Lighting D – Northampton Road

Roadway is currently artificially lit with approximately 10m column mounted discharge lanterns to achieve an average light level of 9 Lux. Floodlighting to adjacent commercial premises can be noted to contribute to the overall existing obtrusive light condition.

Average light levels equivalent to a S2 / S3 classification (BS 5489-1:2013)

Typical of an E2 Zone: Rural / Village Low district brightness

Grid reference: SP 72947 54579



#### Existing Lighting within close proximity to the PDA



## 2.0 The Survey

### Existing Lighting



#### Existing Lighting E – Northampton Road

Lighting equipment was non-operational.

Partial sections of the highway were observed as being unlit at the time of survey and this is attributed to current engineering works being undertaken by the local lighting authority

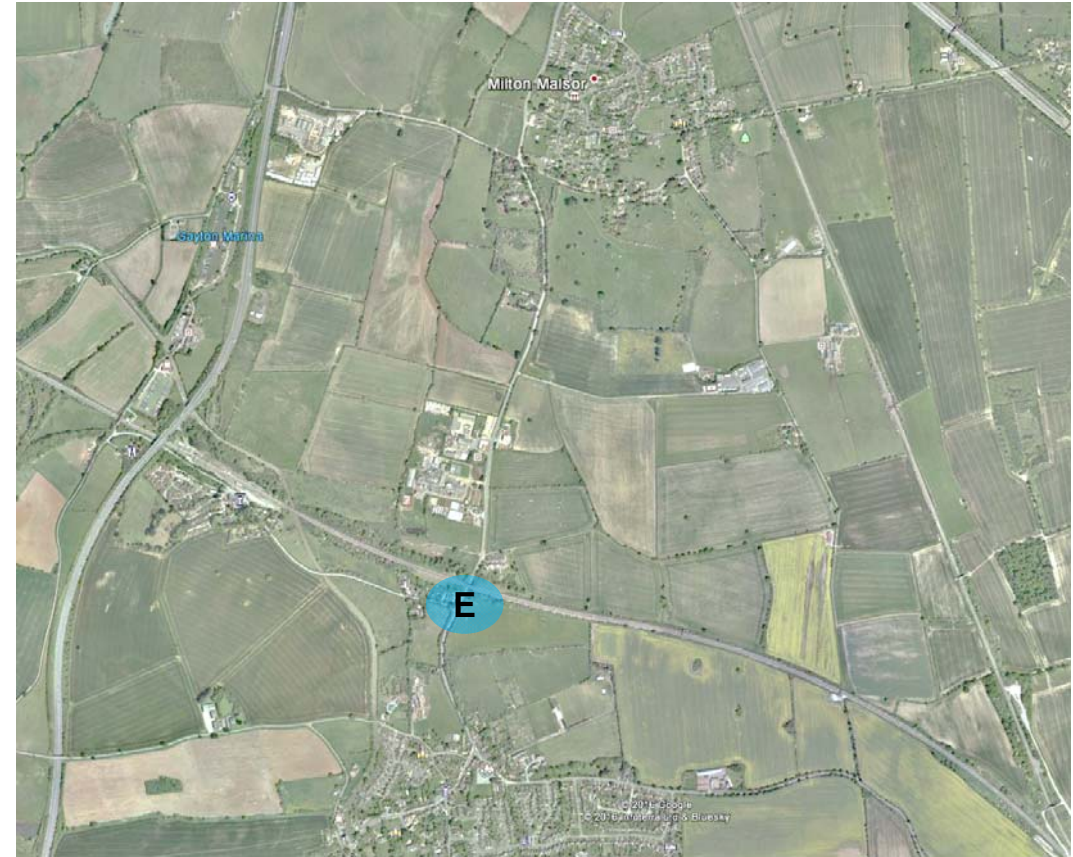
However it is noted that lighting columns and luminaires present were comparable with those installed as measured at Location D.

Therefore it can be adjudged that whilst operational the average light level is likely to be of approximately 9 Lux.

Average light levels equivalent to a S2 / S3 classification (BS 5489-1:2013)

Typical of an E2 Zone: Rural / Village Low district brightness

Grid reference: SP 72811 54116



#### Existing Lighting within close proximity to the PDA

## 2.0 The Survey

### Existing Lighting



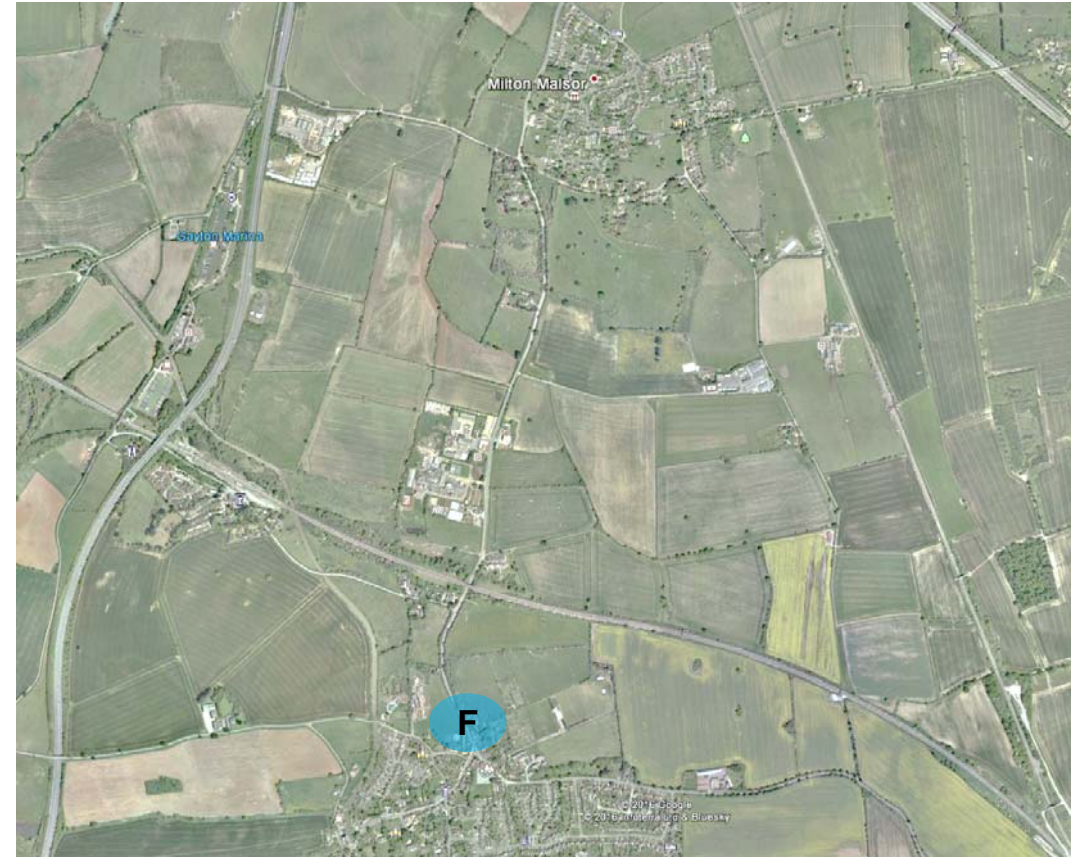
#### Existing Lighting F – Northampton Road

Roadway is currently artificially lit with approximately 8m column mounted discharge lanterns to achieve an average light level of 6 Lux.

Average light levels equivalent to a S3 / S4 classification (BS 5489-1:2013)

Typical of an E2 Zone: Rural / Village Low district brightness

Grid reference: SP 72771 53741



#### Existing Lighting within close proximity to the PDA



## 2.0 The Survey

### Existing Lighting



#### Existing Lighting G – Courteenhall Road / Windmill Avenue

Roadway is currently artificially lit with approximately 5m column mounted LED lanterns to achieve an average light level of 13 Lux.

Average light levels equivalent to a S1 / S2 classification (BS 5489-1:2013)

Typical of an E2 Zone: Rural / Village Low district brightness

Grid reference: SP 73014 53524



Existing Lighting within close proximity to the PDA

## 2.0 The Survey

### Existing Lighting



#### Existing Lighting H – Courteenhall Road / Connegar Leys

Roadway is currently artificially lit with approximately 5m column mounted compact fluorescent and discharge lanterns to achieve an average light level of 5 Lux.

Average light levels equivalent to a S4 / S5 classification (BS 5489-1:2013)

Typical of an E2 Zone: Rural / Village Low district brightness

Grid reference: SP 73118 53523



#### Existing Lighting within close proximity to the PDA



## 2.0 The Survey

### Existing Lighting



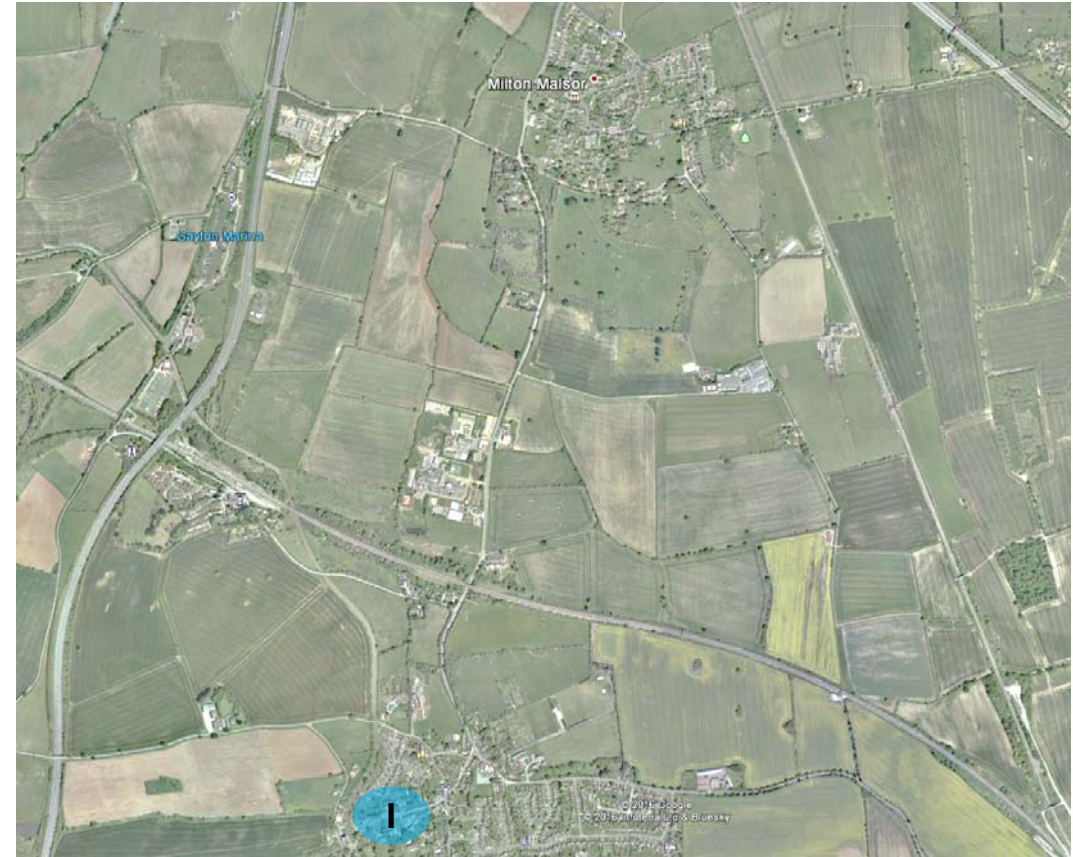
#### Existing Lighting I – High Street

Roadway is currently artificially lit with approximately 8m column mounted discharge lanterns to achieve an average light level of 6 Lux.

Average light levels equivalent to a S3 / S4 classification (BS 5489-1:2013)

Typical of an E2 Zone: Rural / Village Low district brightness

Grid reference: SP 72429 53419



Existing Lighting within close proximity to the PDA

## 2.0 The Survey

### Survey Locations

#### E1 – E13: Ecological Constraints

##### Constraints:

Potential bat roosts/commuting and foraging location

##### External Lighting Condition:

Village or relatively dark outer suburban / Intrinsically dark location

##### Current Obtrusive Light Condition:

Having a potential direct view of the PDA with changes in topography and minimal natural screening. Receptors judged to receive a baseline condition due to naturally occurring light levels only.

#### Illuminance Readings (LUX)

Measured peak horizontal illuminance @ Ground – 0.10 Lux (Moonlight condition)

Measured peak vertical illuminance @ 1.5m AFL – 0.13 Lux (Moonlight condition)

Survey Location	Grid Reference	Peak Illuminance Measurement (Lux) Vertical @ 1.5m + AFL	Peak Illuminance Measurement (Lux) Horizontal @ Ground level
E1	SP 74307 55231	0.13	0.10
E2	SP 74144 55185	0.13	0.10
E3	SP 74105 55082	0.13	0.10
E4	SP 73770 55198	0.13	0.10
E5	SP 73710 55126	0.13	0.10
E6	SP 74102 54855	0.13	0.10
E7	SP 73671 54749	0.13	0.10
E8	SP 73890 54678	0.13	0.10
E9	SP 73914 54528	0.13	0.10
E10	SP 73957 54455	0.13	0.10
E11	SP 74030 54259	0.13	0.10
E12	SP 73926 54205	0.13	0.10
E13	SP 74019 54213	0.13	0.10



Ecological Constraints



## 2.0 The Survey

### Survey Locations

#### E14 – E25: Ecological Constraints

##### Constraints:

Potential bat roosts/commuting and foraging location

##### External Lighting Condition:

Village or relatively dark outer suburban / Intrinsically dark location

##### Current Obtrusive Light Condition:

Having a potential direct view of the PDA with changes in topography and minimal natural screening. Receptors judged to receive a baseline condition due to naturally occurring light levels only.

#### Illuminance Readings (LUX)

Measured peak horizontal illuminance @ Ground – 0.10 Lux (Moonlight condition)

Measured peak vertical illuminance @ 1.5m AFL – 0.13 Lux (Moonlight condition)

Survey Location	Grid Reference	Peak Illuminance Measurement (Lux) Vertical @ 1.5m + AFL	Peak Illuminance Measurement (Lux) Horizontal @ Ground level
E14	SP 73448 54036	0.13	0.10
E15	SP 73561 53930	0.13	0.10
E16	SP 73758 53918	0.13	0.10
E17	SP 74116 53652	0.13	0.10
E18	SP 73354 55323	0.13	0.10
E19	SP 73006 55005	0.13	0.10
E20	SP 72363 54553	0.13	0.10
E21	SP 72363 54553	0.13	0.10
E22	SP 73263 54326	0.13	0.10
E23	SP 72764 55613	0.13	0.10
E24	SP 72255 55071	0.13	0.10
E25	SP 72062 55032	0.13	0.10



Ecological Constraints

## 2.0 The Survey

### Survey Locations

#### Grand Union Canal / Northampton Arm (tow path) - Ecology Constraints

##### Constraints:

Potential commuting and foraging location for Bats

##### External Lighting Condition:

Village or relatively dark outer suburban

##### Current Obtrusive Light Condition:

Natural screening provided by existing tree lines and hedgerows, with changes in topography in relation to the PDA. This resulted in a reduction in measured moonlight condition.

Peak illuminance levels (C2) are likely to be a result of artificial lighting associated with Blisworth Marina.

##### Illuminance Readings (LUX)

Measured peak horizontal illuminance C2 @ Ground Level – 0.09 Lux

Measured peak vertical illuminance C2 @ 1.5m AFL – 0.79 Lux

Survey Location	Grid Reference	Peak Illuminance Measurement (Lux) Vertical @ 1.5m + AFL	Peak Illuminance Measurement (Lux) Horizontal @ Ground level
C1	SP 71970 54976	0.14	0.07
C2	SP 71991 54891	0.79	0.09
C3	SP 72036 54781	0.04	0.03
C4	SP 72104 54697	0.03	0.02
C5	SP 72152 55199	0.09	0.15
C6	SP 72206 55297	0.08	0.16
C7	SP 72260 55505	0.03	0.04
C8	SP 72316 55688	0.02	0.03



Ecological Constraints



## 2.0 The Survey

### Survey Locations

#### RI - R13:

#### Constraints:

Residential

#### External Lighting Condition:

Village or relatively dark outer suburban

#### Current Obtrusive Light Condition:

The majority of receptors with elevations having a potential direct view of the PDA are judged to receive a baseline condition due to naturally occurring light levels only. However this excludes R10 which was measured to receive a peak condition associated with existing highway lighting to Northampton/Towcester Road.

#### Illuminance Readings (LUX)

Measured peak vertical illuminance R10 @ 1.5m AFL – 2.72 Lux

#### Environmental Zone Setting

E2: Low District Brightness

Survey Location	Grid Reference	Peak Illuminance Measurement (Lux) Vertical @ 1.5m + AFL	Environmental Zone
R1	SP 73687 55373	0.25	E2
R2	SP 73548 55320	0.13	E2
R3	SP 73444 55301	0.13	E2
R4	SP 73892 55081	0.13	E2
R5	SP 74066 54843	0.13	E2
R6	SP 73668 54695	0.13	E2
R7	SP 73899 54511	0.13	E2
R8	SP 73130 55407	0.13	E2
R9	SP 73123 55028	0.13	E2
R10	SP 73005 54636	2.72	E2
R11	SP 72911 54547	0.13	E2
R12	SP 72886 54379	0.13	E2
R13	SP 72932 54233	0.13	E2



Residential Constraints

## 2.0 The Survey

### Survey Locations

Constraint	Type	Environmental Zone	Conditions Relative to the Site	Existing Lighting Guidance Compliant
R1	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance.	Yes
R2	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance.	Yes
R3	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes
R4	Residential	E2	Within the 'Order Limits' and replaces sensitive receptor location, as such this is no longer considered as part of the assessment.	Yes
R5	Residential	E2	Within the 'Order Limits' and replaces sensitive receptor location, as such this is no longer considered as part of the assessment.	Yes
R6	Residential	E2	Within the 'Order Limits' and replaces sensitive receptor location, as such this is no longer considered as part of the assessment.	Yes
R7	Residential	E2	Within the 'Order Limits' and replaces sensitive receptor location, as such this is no longer considered as part of the assessment.	Yes
R8	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance.	Yes
R9	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance.	Yes
R10	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance.	No, peak vertical illuminance 2.72lux. Associated with street lighting.
R11	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance.	Yes
R12	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance.	Yes
R13	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance.	Yes

## 2.0 The Survey

### Survey Locations

#### R14 – R25:

#### Constraints:

Residential

#### External Lighting Condition:

Village or relatively dark outer suburban

#### Current Obtrusive Light Condition:

Natural screening provided by existing tree lines and hedgerows, with changes in topography in relation to the PDA therefore experiencing a limited direct view from elevations facing the PDA perimeter. Receptors are judged to receive a baseline condition due to naturally occurring light levels only.

#### Illuminance Readings (LUX)

Measured peak vertical illuminance R21-R23@ 1.5m AFL – 0.13 Lux (Moonlight Condition)

#### Environmental Zone Setting

E2: Low District Brightness

Survey Location	Grid Reference	Peak Illuminance Measurement (Lux) Vertical @ 1.5m + AFL	Environmental Zone
R14	SP 72742 54126	0.13	E2
R15	SP 72814 53724	0.13	E2
R16	SP 72934 53616	0.13	E2
R17	SP 72248 54420	0.13	E2
R18	SP 72129 54506	0.13	E2
R19	SP 72050 54542	0.13	E2
R20	SP 71833 54730	0.13	E2
R21	SP 71899 54890	0.13	E2
R22	SP 72031 55072	0.13	E2
R23	SP 72125 55339	0.13	E2
R24	SP 72012 53829	0.13	E2
R25	SP 72580 53762	0.13	E2



Residential Constraints

## 2.0 The Survey

### Survey Locations

Constraint	Type	Environmental Zone	Conditions Relative to the Site	Existing Lighting Guidance Compliant
R14	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes
R15	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes
R16	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes
R17	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance.	Yes
R18	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes
R19	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes
R20	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes
R21	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance.	Yes
R22	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance	Yes
R23	Residential	E2	<100m to the 'Order Limits' creates a degree of potential for light disturbance	Yes
R24	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes
R25	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes



## 2.0 The Survey

### Survey Locations

#### R26 and R27 (Representative Zones)

##### Constraints:

Residential

##### External Lighting Condition:

Village or relatively dark outer suburban

##### Current Obtrusive Light Condition:

Natural screening provided by existing tree lines and hedgerows, with changes in topography in relation to the PDA resulting in a limited direct view to elevation facing the PDA perimeter. Representative zone is judged to receive a baseline condition due to naturally occurring light levels only.

##### Illuminance Readings (LUX)

Measured peak vertical illuminance R27 @ 1.5m AFL – 0.13 Lux (Moonlight Condition)

##### Environmental Zone Setting

E2: Low District Brightness

Survey Location	Grid Reference	Peak Illuminance Measurement (Lux) Vertical @ 1.5m + AFL	Environmental Zone
R26	SP 72736 53510	0.13	E2
R27	SP 73377 55485	0.13	E2



Residential Constraints

## 2.0 The Survey

### Survey Locations

Constraint	Type	Environmental Zone	Conditions Relative to the Site	Existing Lighting Guidance Compliant
R26	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes
R27	Residential	E2	>100m from the 'Order Limits' creates limited potential for light disturbance.	Yes

## 2.0 The Survey

### Survey Locations

#### H1 – H4

##### Constraints:

Heritage

##### External Lighting Condition:

Village or relatively dark outer suburban

##### Current Obtrusive Light Condition:

Natural screening provided by existing tree lines and hedgerows, with changes in topography in relation to the PDA resulting in a limited direct view to elevations facing the PDA perimeter. Receptors judged to receive a baseline condition due to naturally occurring light levels.

##### Illuminance Readings (LUX)

Measured peak vertical illuminance: H1 @ 1.5m AFL – 0.13 Lux (Moonlight condition)

##### Environmental Zone Setting

E2: Low District Brightness

Survey Location	Grid Reference	Peak Illuminance Measurement (Lux) Vertical @ 1.5m + AFL
H1	SP 73377 55485	0.13
H2	SP 72834 54149	0.13
H3	SP 72784 54113	0.13
H4	SP 72736 53510	0.13



Heritage Constraints



### 3.0 Sky Glow – Site and Wider Area

Figure 3.1 adjacent, CPRE – Night Blight within the East Midlands gives a broad brush indication of the upwards light (sky glow) experienced for the year 2000 for the PDA location and further afield locations.

Satellite measurements range from 0 (being a dark sky) to 255 (being a saturated bright sky at night – city centre).

Taken on a local scale existing saturated sky glow is notable from major urban development of Northampton and associated conurbation.






CPRE – Night Blight Data		
0 to 1.70 – Very Dark Equivalent to Dark Sky Reserve / E0 Zone		Areas substantially remote to Development
1.71 to 50 – Dark / Brighter Equivalent to Dark Sky / Rural / E1 Zone		Areas remote to Development
50.01 to 150 – Brighter Equivalent to Rural / E1 and E2 Zones		Areas within close proximity to Development
150.1 to 240 – Brighter / Saturated Equivalent to Suburban / E3 Zone		Pockets of Development equivalent to Suburban, e.g. Collingtree, Roade, and Towcester, etc.
240.01 to 255 – Saturated Equivalent to City / E4 Zone		Major Development equivalent to City Centre, e.g. Northampton.

Table 3.1 – Night Blight data comparing to Site classifications

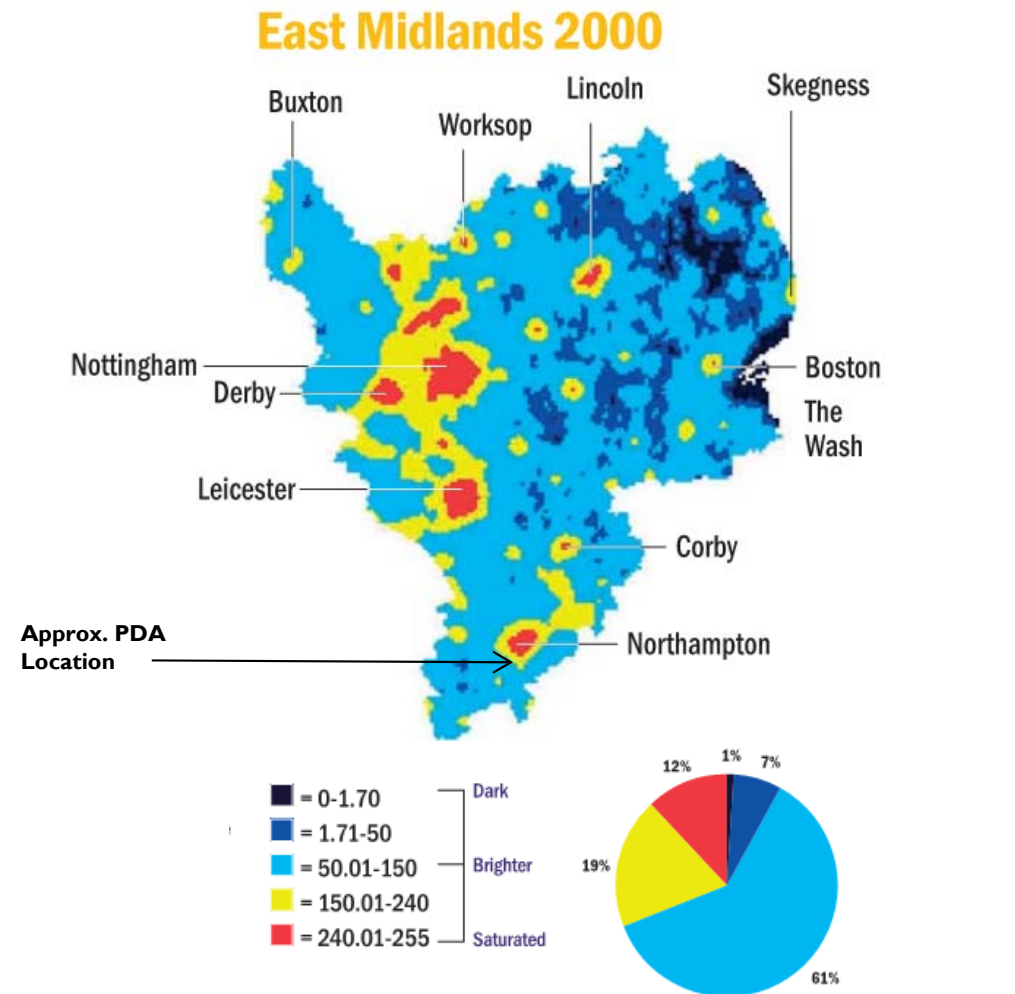


Figure 3.1: Night Sky Brightness (Sky Glow) within The East Midlands (2000)

## 4.0 The Survey – Environmental Zone Classification


### The Site and Environmental Zone Classification

Assessment of the designation, use, habitat and external lighting condition dictates the classification of Environmental Zones across the PDA and surrounding areas. The Environmental Zones relate to limiting guidance published by the Institute of Lighting Professionals ILP for obtrusive light (residential and highway) - ILP Guidance Notes for the Reduction of Obtrusive Light (2011).

Areas surrounding the PDA are considered to be lit to the equivalent of an E2 Zone classification (Rural, low district brightness – Village or relatively dark outer suburban locations) these are in combination with unlit natural areas.

This is considered this to be a fair representation of the existing Environmental Zone classifications and should the proposed lighting developments proceed within these parameters the overall obtrusive light impact is regarded to be no greater than what is currently experienced.

Obtrusive Light Limitations for Exterior Lighting Installations – General						
Observers						
Environment al Zone	Sky Glow ULR [Max %] <sup>(1)</sup>	Light Intrusion (into Windows) E <sub>v</sub> [lux] <sup>(2)</sup>		Luminaire Intensity I [candelas] <sup>(3)</sup>		Building Luminance Pre-curfew (4)
		Pre- curfew	Post- curfew	Pre- curfew	Post- curfew	
E0	0	0	0	0	0	0
E1	0	2	0 (1*)	2,500	0	0
E2	2.5	5	1	7,500	500	5
E3	5.0	10	2	10,000	1,000	10
E4	15	25	5	25,000	2,500	25

 E2 Zone classification.

Figures 4.1 and 4.2 provide a daytime and night-time panoramic views of the PDA.



View of PDA, with light pollution visible from regional and localised sources.



View of typical lighting equipment within Milton Malsor.



View of existing lighting to Northampton/Towcester Road

## 4.0 The Survey - Environmental Zone Classification

**Figure 4.1 – Day and Night Time Panorama**



Day time panorama 15:25pm (I6-02403 – RAIL CENTRAL IMG-2016-04-12 D)



Night time panorama 21:05pm (I6-02403 – RAIL CENTRAL IMG-2016-04-12 N)

View from Milton Crossing Foot Bridge of PDA  
19 April 2016  
GRID REF: SP 73979 53703

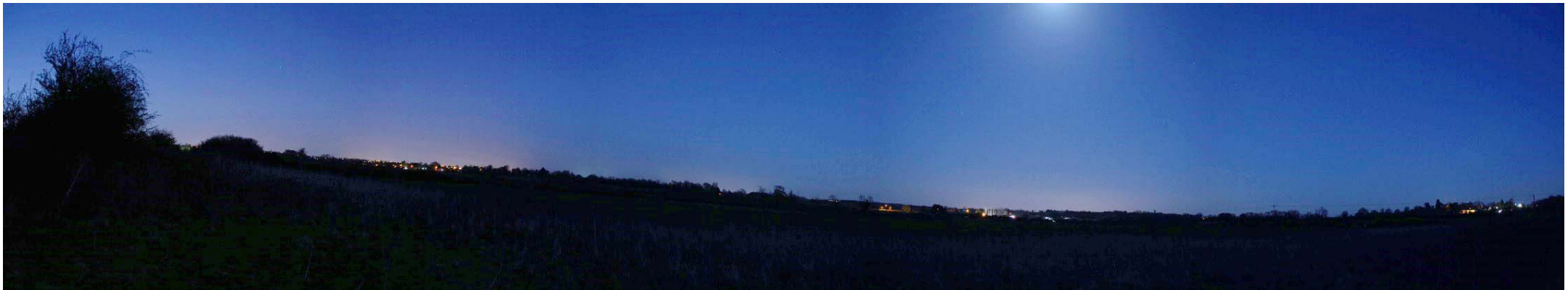


## 4.0 The Survey - Environmental Zone Classification

**Figure 4.2 – Day and Night Time Panorama**



Day time panorama 18:05pm (16-02403 – RAIL CENTRAL IMG-2016-04-19 D)



Night time panorama 21:18pm (16-02403 – RAIL CENTRAL IMG-2016-04-19 N)

View from Western aspect of PDA adjacent to A43 highway

19 April 2016

GRID REF: SP 72320 55087

## Audit Sheet

Rev.	Description	Prepared and checked by	Reviewed by	Date by
P1	Draft Issue	CC	LG	05.05.16
P2	Revised - Conditions Relative to the Site	CC	LG	18.11.16
P3	Revised - Conditions Relative to the Site	LG	CC	24.11.16
P4	Revised – Receptor Layouts	LG	CC	30.11.16
P5	Revised – EZ	LG	CC	30.11.16
P6	Draft Issue	LG	CC	07.12.16
P7	Amended to Illustrative Masterplan	LG	CC	11.05.17
P8	General Amendments for 2 <sup>nd</sup> Draft	CC	DDM	07.07.17
P9	Final Issue	DDM	DDM	01.03.18

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