Wignall, Peter

From: Peter Radmall [firbank@callnetuk.com]
Sent: 13 September 2016 21:28
To: Samuel Durham
Cc: Ian Segre; Dave.Shore@shepway.gov.uk; Andy.Jarrett@shepway.gov.uk; Julian Bore
Subject: Re: Prince's Parade - Lighting consultant
Attachments: image005.jpg; image006.jpg; ~WRD000.jpg

Thanks, Sam. Ian, by copy, could you provide an example of the sort of lighting impact report you normally prepare? I'll then be able to confirm whether that's what we need.

Regards,

Peter

---- Original Message ----
From: Samuel Durham
To: Ian Segre
Cc: Peter Radmall ; Dave.Shore@shepway.gov.uk ; Andy.Jarrett@shepway.gov.uk
Sent: Tuesday, September 13, 2016 11:43 AM
Subject: FW: Prince's Parade - Lighting consultant

REFERENCE EML-OUT/3609/Clt/20160913-114103-999

Ian,

See below from client for Prince's Parade (request for fee proposal from Elementa).

Peter Radmall (email address in below chain) may be the best person to contact to establish a scope for the fee proposal.

Kind regards,

--

Samuel Durham BSc (Hons) ACIEEM
Senior Ecologist

Lloyd Bore Ltd.
33 St. George's Place, Canterbury, Kent CT1 1UT | T: 01227 464 340
59 Lambeth Walk, London, SE11 6DX | T: 02075 822 363
www.lloydbore.co.uk | E: samuel.durham@lloydbore.co.uk | M: 07471 036 663

From: Dave.Shore@shepway.gov.uk [mailto:Dave.Shore@shepway.gov.uk]
Sent: 13 September 2016 09:22
To: Samuel Durham <samuel.durham@lloydbore.co.uk>
Cc: Andy.Jarrett@shepway.gov.uk; matt.shillito@tibbalds.co.uk; sue.rowlands@tibbalds.co.uk; claire.perrott@tibbalds.co.uk; Julian Bore <julian.bore@lloydbore.co.uk>; firbank@callnetuk.com
Subject: RE: Prince's Parade - Lighting consultant

Samuel

Grateful if you could request a proposal from Elementa.

Regards

Dave

David Shore

Strategic Development Projects Manager

t: 01303 853459

m: 07976 958486

f: 01303 853502

Shepway District Council, Civic Centre,

Castle Hill Avenue, Folkestone, Kent, CT20 2QY.

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From: Samuel Durham [mailto:samuel.durham@lloydbore.co.uk]
Sent: 12 September 2016 16:37
To: Peter Radmall
Cc: Shore, Dave; Jarrett, Andy; Matt Shillito; Sue Rowlands; claire.perrott@tibbalds.co.uk; Julian Bore
Subject: RE: Prince's Parade - Lighting consultant

REFERENCE EML-OUT/3609/20160912-163443-192

Agreed. It is definitely an important part of my impact scoping exercise for bats.

I'm sure Ian would be able to assist / discuss to ensure that an appropriate fee proposal is provided by Elementa.

Kind regards,

--

Samuel Durham BSc (Hons) ACIEEM
Senior Ecologist

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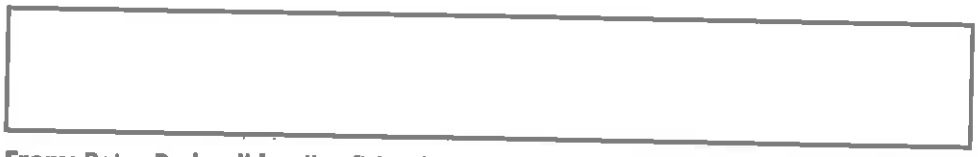

From: Peter Radmall [mailto:firbank@callnetuk.com]
Sent: 12 September 2016 16:28
To: Samuel Durham <samuel.durham@lloydbore.co.uk>
Cc: Dave.Shore@shepway.gov.uk; Andy.Jarrett@shepway.gov.uk; **Matt Shillito** <matt.shillito@tibbalds.co.uk>; Sue Rowlands <sue.rowlands@tibbalds.co.uk>; claire.perrott@tibbalds.co.uk; Julian Bore <julian.bore@lloydbore.co.uk>
Subject: Re: Prince's Parade - Lighting consultant

Sam,

Many thanks for this. As we discussed last week, since lighting has been raised in the scoping opinion, we need to address it somehow. My current thinking is to prepare a technical assessment of the sort you describe and to present this as an appendix to the ES, which others can then draw on, rather than having lighting as a separate topic with its own chapter etc. The assessment will need to be suitable for use by the LVIA as well as yourselves. Since it's been asked for as part of the EIA, it will have to be done as part of this submission and therefore cannot really kick off until we have an agreed scheme (although I guess baseline measurements could be done now). It will also need to reflect the difference in information between the ARC (for which we should have full details of lighting) and the outline element (for which we will need to adopt sensible assumptions re street lighting etc). Happy for others to comment as necessary, but I suggest we ask Elementa for a proposal.

Regards,

Peter

---- Original Message ----
From: Samuel Durham
To: firbank@callnetuk.com
Cc: Ian Segre ; andy.jarrett@shepway.gov.uk ; sue.rowlands@tibbalds.co.uk ; matt.shillito@tibbalds.co.uk ; claire.perrott@tibbalds.co.uk ; Dave.Shore@shepway.gov.uk ; mgowdridge@gt3architects.com ; Julian Bore
Sent: Monday, September 12, 2016 4:20 PM
Subject: Prince's Parade - Lighting consultant

REFERENCE EML-OUT/3609/20160912-154856-484

Good afternoon Peter.
During the Prince's Parade DTM last Thursday, you asked if anyone was aware of any lighting consultants that could be used, when required, to model illumination / light spill for the proposed development.
I have recently been working with Ian Segre of Elementa Consulting on light spill modelling in relation to a river corridor used by bats as a foraging / commuting resource.
Ian is well aware of bat / lighting conflicts and bat-sensitive design and I am putting his name forward as we have experience of working with him on this matter.
Ian has confirmed that Elementa would be interested in providing a fee proposal for any such lighting assessment / modelling for the Prince's Parade project, once a scope has been agreed amongst the project team.
For reference, I feel that light spill / illumination modelling would be a very useful exercise in terms of assessing potential impacts upon bats. If I am to produce a robust assessment in the ES, I would need evidence of light levels/changes.
However, I understand that there may be a discussion to be had about whether this is done at the preferred options (now), outline application (before November) or detailed application stage.
Kind regards,

--

Samuel Durham **BSc (Hons) ACIEEM**
Senior Ecologist

Lloyd Bore Ltd.
33 St. George's Place, Canterbury, Kent CT1 1UT | T: 01227 484 340
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Appendices

Tables & Figures

LIGHTING

18.1 INTRODUCTION

18.1.1 An external lighting environmental impact assessment is required for the proposed development on the Surbiton Seething Wells Filter Beds within the Metropolitan Open Land. The assessment will establish the potential impact on the local community, adjacent areas along the Thames and the more sensitive areas of the site currently home to the Bat roosts and nature designations identified.

This external lighting environmental impact assessment is based on site assessment and surveys (day/night) and desktop exercise to establish the baseline conditions and the likely impact of any proposed lighting scheme on the surrounding environment of the proposed development.

18.2 THE SITE AND ITS SETTING

Site Location

18.2.1 PRC Type Here

The Proposed Development Site

18.2.2 PRC Type Here

18.3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The Proposed Development

18.9.1 PRC Type Here

18.9.2

-
-
-
-
-
-
-
-

Alternatives

18.3.3 PRC Type Here

The options chosen for the proposed lighting scheme provided the best solution to overcome the sensitivity of the proposed development location and the closed proximity to the Bat roosts, river Thames and nature designations.

18.4 POLICY & LEGISLATIVE CONTEXT

18.4.1 Legal Requirements

This section summarises government policy on the environment with respect to external lighting.

18.4.2 Statutory Documents

The research paper 'The Clean Neighbourhoods and Environment Bill', Bill 11 of 2005 suggests under Town and County Planning (Assessment of Environmental Effects) Regulations 1988, developers should submit an assessment of the impact proposed external lighting will have on the environment. While not specifically requiring external lighting schemes to be submitted for approval it does suggest planning authorities have the right to request such information as part of the approval process.

The 'Clean Neighbourhoods and Environment Act 2005 c16' has made light pollution a statutory nuisance under the 'Environmental Protection Act 1990 c43', which came into force on 6 April 2006. Section 79 (fb) of the Act was amended as follows: "artificial light emitted from premises so as to be prejudicial to health or a nuisance".

No prescriptive limits or rules are set for such assessments, but the following guidance documents have been referred to while compiling this assessment:

- Guidance notes for the reduction of obtrusive light – The Institute of Lighting Engineers (ILE)
- Environmental considerations for exterior lighting – Chartered Institute of Building Services Engineers (CIBSE)
- Outdoor Environment Lighting Guide 6 – CIBSE

All bats and their roosts are protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and the Wildlife and Countryside Act 1981 (as amended).

This legislation, unless subject to a European Protected Species Licence (ESPL), makes it an offence to recklessly or intentionally disturb a bat, significantly affect the local distribution or abundance and to damage or destroy a bat's breeding site or resting place.

The Royal Borough of Kingston does not appear to have a specific lighting policy. The general light pollution policy taken from the Royal Borough of Kingston website refers to the April 2006 Environmental Protection Act.

18.5 ASSESSMENT METHODOLOGY

The proposed development assessments and surveys took place on the following dates:

- Tuesday 12th July 2011 at 13:00 Hrs in the afternoon, at the time the weather conditions were dry and overcast
- Tuesday 19th July 2011 at 21:30 Hrs in the late evening, at the time weather conditions were damp and overcast.
- Friday 26th August 2011 at 13:00 Hrs in the afternoon, at the time the weather conditions were damp and overcast.
- Tuesday 30th August 2011 between 16:00 - 21:30 Hrs, at the time the weather conditions were dry and overcast.

The site assessments and surveys were performed by Ian Segré BEng (Hons) CEng MIET MIHEEM a Technical Director from Elementa Consulting a building and environmental consultants.

Ian Segré has experience in designing external lighting schemes for the following developments:

- Bermondsey Square Regeneration
- Chatham Place Public Realm
- Kew Gardens - Herbarium

The test equipment used to assess the lighting surveys was as follows:

- Macam L103A Light Meter Lux (Appendix 18H – Certification of Calibration).

Desktop lighting plots have been calculated using a similar SON lamp source to the existing lighting column lanterns along the Portsmouth Road.

18.6 BASELINE CONDITIONS

18.5.1 The following describes the site in relation to existing sources of lighting and the sensitive receptors to light be identified. A review of areas and features of the landscape are also described.

The proposed development will be built alongside the river Thames adjacent to an existing Thames Ditton Marina and The Harts Boatyard Restaurant. The site is within Metropolitan Open Land with its nature designation and in particular Daubenton Bat roosts.

The immediate surrounding area on the opposite side of the Portsmouth Road to the proposed development consists of Residential, Commercial and University Campus properties, together with the general street lighting along the Portsmouth Road. The immediate surrounding areas on the river Thames boundary consist of residential barges, with Barge Walk on the opposite side of the river Thames.

Daytime

The baseline conditions from the daylight assessment and survey observations are divided into the following key areas. The existing daylight levels across these key areas were measured and recorded in excess of the 10,000Lux for full daylight (not direct sun).

Portsmouth Road Properties

The assessment and survey of the properties on the opposite side of the Portsmouth Road identified a number of two and three storey residential properties, high rise residential property, commercial properties including a Laithwaites Wines and Fox & Hound Pub. The properties that are higher than two storeys are in position to overlook a limited amount of the proposed development, but the lower properties, two storeys and below are not in position to overlook the proposed development. These properties benefit from un-obscured ambient daylight levels from the West.

Portsmouth Road

The assessment and survey of the Portsmouth Road highlighted that the existing site street level from the road becomes considerably higher than the proposed development site, progressing north from the entrance of the proposed development. The survey also identified a number of street lighting columns installed with varying spaces on both sides along the Portsmouth Road and positioned for the majority of the columns at the back of the public footpath. The lighting columns were approximately 8 – 10 metres in height with single head lanterns on a 2 - 2.5 metre arms over the public footpath (Photograph 8 & 12) to provide the required night time ambient lighting levels.

Sites Adjacent on the Portsmouth Road

The assessment and survey of the sites adjacent to the proposed development, the Harts Boatyard Restaurant, a Thames Water Authority site and the Thames Ditton Marina. These sites are hidden from the proposed development by tree line boundaries separating the sites. The sites benefit from good all round ambient daylight levels.

Proposed Development Site Specific Areas

The assessment and survey of the proposed development site for the restaurant/parking, marina, pontoon residences, retained reservoir and access paths/river walks, highlighted the existing site levels from the entrance declines gradually along the boundary adjacent to the Portsmouth Road for 35 metres approx. at a point generally adjacent to Laithwaites (Photographs 3 & 4) Wines. The difference between the existing site levels to the Portsmouth Road is 3 – 3.5 metres approx. The existing site levels from this point declines rapidly continuing along the boundary for another 20 metres approx. at a point approximately adjacent to the junction of the Portsmouth Road and Brighton Road (Photographs 5 & 6). The difference between the existing site levels to the Portsmouth Road increase to 8 - 10 metres approx. From this point on the existing site levels are fairly flat. The proposed development site also benefits from good all round ambient daylight levels.

River Thames

The assessment and survey of the river Thames adjacent to the proposed development site identified a clear area to the South-West of the site towards the river Thames and a dense overgrown woodlands area towards the North-West of the site towards the river Thames was hidden. The South-West area of the site adjacent the river Thames boundary benefited from un-obscured ambient daylight levels.

Barge Walk

The assessment and survey of Barge Walk on the opposite side of the river Thames highlighted the area is mostly hidden from the proposed development by tree line boundaries along the edge of the river Thames. Barge Walk benefits from good, but sometimes obscured all round ambient daylight levels.

Nature Conservation

The assessment and survey of the sensitive areas for Bat roosts and nature designations on the proposed development site identified dense overgrown woodland areas and open water feature.

Night Time

The baseline conditions from the night time assessment and survey is again divided into the following key areas:

Area/Zone	Measurement Locations	Lighting Levels
Portsmouth Road (Residential) Properties	Footpath Boundaries (1, 3, 6, 8, 10 & 13)	<5 Lux
Portsmouth Road (Commercial) Properties	Footpath Boundaries (5 & 11)	0 - 50 Lux
Portsmouth Road	Footpath (2, 4, 7, 9, 13 & 15)	<5 - 20 Lux
Site Adjacent to Portsmouth Road	Car Parks (16 thru 18)	<1 – 2 Lux
Proposed Development Site	Area 1	0 Lux

	Area 2 Area 3 Area 4 Area 5 Area 6 Area 7 Area 8	1.6 Lux 0.75 Lux 1.25 Lux 0.6 Lux 0.6 Lux 0.6 Lux 1.6 Lux
River Thames	Residential Barge Pontoons (32 thru 34)	0 Lux
Barge Walk	Footpath	0 Lux
Nature Conservation	Area 8	0 Lux

Portsmouth Road Properties

The assessment and survey of the properties on the opposite side of the Portsmouth Road highlighted the artificial ambient lighting levels recorded at several locations on the property's boundary with the footpath (including Laithwaites Wines and the Fox & Hound Public House), produced by the street lighting along the Portsmouth Road, were measured at an average less than 5Lux, with the exception of the Fox & Hound Public House where their own artificial lighting increased the level to an average of 50Lux and Laithwaites Wines where no artificial lighting was present.

Portsmouth Road

The assessment and survey of the Portsmouth Road highlighted the artificial ambient lighting levels recorded at several locations on the proposed development boundary with the footpath, produced by the street lighting on the Portsmouth Road, were measured at an average of 10-20Lux close to the lighting columns on the public footpath and reducing to an average of less than 5Lux midway between the lighting columns.

Sites Adjacent on the Portsmouth Road

The assessment and survey of the other sites on the Portsmouth Road adjacent to the proposed development indicated the artificial ambient lighting levels recorded at a number of locations within the associated car parks, produced by the street lighting on the Portsmouth Road, were measured at the Harts Boatyard Restaurant car park at an average of less than 2Lux and the Thames Ditton Marina car park at an average of less than 1Lux.

Proposed Development Site Specific Areas

The assessment and survey of the proposed development site indicated the artificial ambient lighting levels produced by the spill of light from street lighting on the Portsmouth Road, were recorded at a chosen number locations within the site at varying lighting levels.

Area 1

The lighting levels recorded at locations 1 thru 5 in the existing area adjacent to the boundary with the river Thames were measured at an average of 0 Lux.

Area 2

The lighting levels recorded at locations 8, 10 & 14 in the proposed entrances to the Restaurant and Car Park areas were measured at an average of 1.6 Lux.

Area 3

The lighting levels recorded at locations 7, 6 & 11 thru 13 in the existing Bat area were measured at an average of 0.75 Lux.

Area 4

The lighting levels recorded at locations 9, 18, 20 thru 22 in the proposed Marina Pontoons and Access Path areas were measured at an average of 0.5 Lux.

Area 5

The lighting levels recorded at locations 15, 16, & 23 in the Road area were measured at an average of 1.25 Lux. The highest lighting levels were recorded where the location was close to the light spill from the street lighting on the Portsmouth Road.

Areas 6 & 7

The lighting levels recorded at locations 17 & 18 in the proposed Access Road and Buildings entrance areas were measured at an average of 0.6 Lux.

Area 8

The lighting levels recorded at three locations (23 thru 31) in the proposed Access Paths/River Walk areas were measured at an average of 1.6 Lux. The highest lighting levels were recorded where the location was close to the light spill from the street lighting on the Portsmouth Road.

River Thames

The assessment and survey of the proposed development site from the river Thames indicated the artificial ambient lighting levels produced by the spill of light from the adjacent existing Stewart Marina residential barge pontoon, were recorded at two locations.

The lighting levels recorded at locations 32 thru 34 on the existing pontoon were measured at an average of 0 Lux.

Barge Walk

The assessment and survey of the proposed development site from Barge Walk indicated the artificial ambient lighting levels produced by the spill of light from the adjacent existing residential barge pontoon, were recorded at several locations.

The lighting levels recorded at these locations on Barge Walk were measured at an average of 0 Lux.

Nature Conservation

The assessment and survey of the proposed development site indicated the artificial ambient lighting levels produced by the spill of light from street lighting on the Portsmouth Road, were recorded at three locations within the site at varying lighting levels.

The lighting levels recorded at locations 26, 28 & 30 in the existing nature conservation area were measured at an average of 0.6 Lux.

The baseline conditions measurement locations for the proposed development site, Portsmouth Road and river Thames are illustrated on site plans (Appendix 18C).

The recorded results for the daytime and night time baseline conditions for the proposed development, Portsmouth Road and the river Thames lighting levels and the trespass lighting levels are illustrated on site plans (Appendix 18D and 18E). The night time site plan lighting plot highlights the location and spread of lighting levels from the existing lighting columns along the Portsmouth Road.

Using Table 18.1 as a reference, would indicate that the night time baseline condition lighting levels on the Portsmouth Road would be classified as E2 (low district brightness area) and both the proposed development site and river Thames would be classified as E1 (intrinsically dark landscapes).

18.7 LIGHTING STRATEGY

The designed lighting scheme for the proposed development has been designed to pay particular attention to the sensitive Bat roosts and nature designations.

The lighting scheme for the proposed development is divided in the eight individual areas.

The areas will be as follows:

- Area 1 – Existing landscaped area closed to the river Thames
- Area 2 – Proposed entrances to car park and restaurant
- Area 3 – Proposed landscaped pedestrian access footpath
- Area 4 – Proposed marina pontoons, barge moorings and pedestrian footpath access
- Area 5 – Proposed Residential buildings vehicle and pedestrian private road access
- Area 6 – Proposed Residential buildings terraces and roof decks
- Area 7 – Proposed Residential buildings private road, pedestrian footpath and entrances
- Area 8 – Proposed public and riverside walkways

There is no lighting scheme proposed for Area 1 on the proposed development.

The lighting scheme proposed for Area 2 will be designed using low level bollard luminaires to define vehicle movement in the car park and pedestrian footpath access for security and safety. The lighting design luminaires proposed will incorporate particular lamp sources to minimise infrared and UV light components. The lighting scheme will ensure the lighting is controlled during the night time hours avoid obtrusive light on to the adjacent Portsmouth Road or Residential/Commercial properties.

The lighting scheme proposed for Area 3 will be designed using low level bollard luminaires to define the pedestrian footpath access for security and safety. The lighting design luminaires proposed will incorporate particular lamp sources to minimise the infrared and UV light components. The lighting scheme will ensure the lighting is controlled during the night time hours to avoid obtrusive light on to the adjacent Portsmouth Road or Residential/Commercial properties.

The lighting scheme proposed for Area 4 will be designed using a combination of mooring bollard mounted low level luminaires and wall mounted luminaires to give directional downlight with sharp

cut-off characteristics, to define the pedestrian footpaths and step access for security and safety. The lighting design luminaires proposed will incorporate particular lamp sources to minimise the infrared and UV light component.

The lighting scheme proposed for Area 5 will be designed using a combination of low level bollards and discrete hand rail luminaires to define the vehicle and pedestrian private road access for security and safety. The lighting design luminaires proposed will incorporate particular lamp sources to minimise the infrared and UV light components. The lighting scheme will also ensure there will be no obtrusive light from the proposed development on to the adjacent Portsmouth Road or Residential/Commercial properties.

The lighting scheme for Area 6 will be designed using wall mounted luminaires to give directional downlight with sharp cut-off characteristics to provided low key illumination to the private residential terraces and roof decks. The lighting design luminaires proposed will incorporate particular lamp sources to minimise the infrared and UV light components. The lighting scheme will also ensure there will be no obtrusive light from the proposed development to the adjacent Portsmouth Road or Residential/Commercial properties.

The lighting scheme for Area 7 will be designed using surfaced mounted or in-ground luminaires with a combination of asymmetric light distribution to give reduced glare and louvres to reduce obtrusive light for the landscaped trees, to define the private road/pedestrian footpaths access and wall water feature. The lighting scheme will also include wall mounted luminaires to give directional downlight with sharp cut-off characteristics, to define residential entrances for safety and security. The design luminaires proposed will incorporate particular lamp sources to minimise the infrared and UV light components.

There is no lighting scheme proposed for Area 8 on the proposed development. The proposal for the area is for it to be closed to the public during the hours from dusk to dawn.

The lighting scheme luminaire layout for the proposed development and the calculated lighting levels are illustrated on site plans (Appendix 18F and 18G).

18.8 SIGNIFICANCE OF EFFECTS

18.8.1 The external lighting environmental impact assessment was carried out for the proposed development on the Surbiton Seething Wells Filter Beds within the Metropolitan Open Land. The assessments and surveys were to establish the potential impact or more importantly the significance of the effects on the local community, adjacent areas along the Thames and the more sensitive areas of the proposed development site currently home to the Bat roosts and other nature designations.

The external lighting assessment based on site assessments and surveys carried out during day and night time hours, and desktop exercise to establish the baseline conditions and the likely impact of any lighting scheme design on the surrounding environment of the proposed development.

The significance of effects compared with the baseline conditions can be again divided into the following key areas:

Portsmouth Road Properties

Comparison with the measured existing lighting levels at the boundary of the Portsmouth Road residential/commercial properties and Table 18.1, the existing lighting levels along the Portsmouth

Road has a **minor** impact producing an average of less than 5Lux at their boundaries. The proposed designed lighting scheme levels within the proposed development will result in a **minor** or **negligible** impact due to the lighting design and the positioning of the lighting scheme.

Portsmouth Road

Comparison with the measured existing lighting levels along the Portsmouth Road and Table 18.1, the existing lighting levels has a **minor** impact producing an average of less than 5Lux at the proposed development boundary. The proposed lighting scheme levels within the proposed development will result in a **minor or negligible** impact due to the lighting design and the positioning of the lighting scheme.

Sites Adjacent on the Portsmouth Road

Comparison with the measure of existing lighting levels along the boundary of the adjacent properties on the Portsmouth Road and Table 18.1, the existing lighting levels along the Portsmouth Road has **minor** impact producing an average of less than 5Lux at their boundaries. The designed lighting scheme levels within the proposed development will result in a **minor or negligible** impact due to the lighting design and the positioning of the lighting scheme.

River Thames

Comparison with the observed existing lighting levels along the river Thames adjacent to the proposed development and Table 18.1, the existing lighting levels along the River Thames has **negligible** impact producing an average of 0 Lux at the boundary. The designed lighting scheme levels within the proposed development will result in a **moderate or minor** impact due to the lighting design and the positioning of the lighting scheme.

Barge Walk

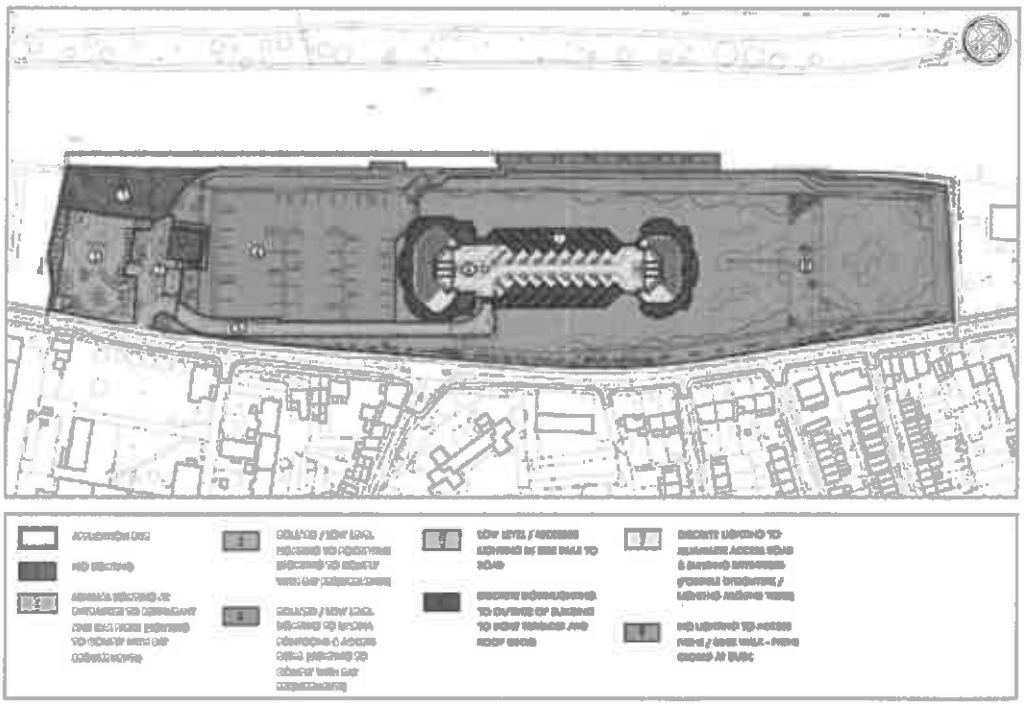
Comparison with the observed existing lighting levels along Barge Walk on the opposite side of the river Thames adjacent to the proposed development and Table 18.1, the existing lighting levels along Barge Walk has **negligible** impact producing an average of 0 Lux at the boundary. The designed lighting scheme levels within the proposed development will result in a **moderate or minor** impact due to the lighting design and the positioning of the lighting scheme.

Nature Conservation

Comparison with the observed existing lighting levels in the sensitive Bats/Nature designation areas on the proposed development and Table 18.1, the existing lighting levels along the Portsmouth Road has **minor or negligible** impact producing an average of less than 1Lux. The designed lighting scheme levels within the proposed development will result in a **minor or negligible** impact due to the lighting design and the positioning of the lighting scheme.

18.9 MITIGATION

18.9.4 The lighting scheme for the proposed development will be divided in eight individual areas and will take in consideration the sensitivity of each area.



The areas will be as follows:

- Area 1 – Existing landscaped area closed to the river Thames
- Area 2 – Proposed entrances to car park and restaurant
- Area 3 – Proposed landscaped pedestrian access footpath
- Area 4 – Proposed marina pontoons, barge moorings and pedestrian footpath access
- Area 5 – Proposed Residential buildings vehicle and pedestrian private road access
- Area 6 – Proposed Residential buildings terraces and roof decks
- Area 7 – Proposed Residential buildings private road, pedestrian footpath and entrances
- Area 8 – Proposed public and riverside walkways

There is no lighting scheme proposed for Area 1 on the proposed development due to the sensitive nature of the area being home to an existing Bat roosts.

The lighting scheme proposed for Area 2 will take into consideration the close proximity to the sensitivity of Area 1 and will be designed using low level bollard luminaires to define vehicle movement in the car park and pedestrian footpath access for security and safety. The lighting design luminaires proposed will incorporate particular lamp sources to minimise infrared and UV light components, which would affect the Bat roosts and their flight lines. The lighting scheme will ensure the lighting is controlled during the night time hours to avoid obtrusive light on to the adjacent Portsmouth Road or Residential/Commercial properties.

The lighting scheme proposed for Area 3 will again take into consideration the close proximity to sensitivity of Area 1 and will be designed using low level bollard luminaires to define the pedestrian footpath access for security and safety. The lighting design luminaires proposed will incorporate particular lamp sources to minimise the infrared and UV light components, which would affect the

Bat roosts and their flight lines. The lighting scheme will ensure the lighting is controlled during the night time hours to avoid obtrusive light on to the adjacent Portsmouth Road or Residential/Commercial properties.

The lighting scheme proposed for Area 4 will again take into consideration the close proximity to the sensitivity of Area 1 and the river Thames adjacent properties. The lighting design luminaires proposed will be a combination of mooring bollard mounted low level luminaires and wall mounted luminaires to give directional downlight with sharp cut-off characteristics, to define the pedestrian footpaths access for security and safety. The design luminaires proposed will incorporate particular lamp sources to minimise the infrared and UV light components, which would affect the Bat roosts and their flight lines.

The lighting scheme proposed for Area 5 will again take into consideration the close proximity to the sensitivity of Area 1 and will be designed using a combination of low level bollards and discrete hand rail luminaires to define the vehicle and pedestrian private road access for security and safety. The lighting design luminaires proposed will incorporate particular lamp sources to minimise the infrared and UV light components, which would affect the Bat roosts and their flight lines. The lighting scheme will also ensure there will be no obtrusive light from the proposed development on to the adjacent Portsmouth Road or Residential/Commercial properties.

The lighting scheme for Area 6 will be designed using wall mounted luminaires to give directional downlight with sharp cut-off characteristics to provided low key illumination to the private residential terraces and roof decks. The design luminaires proposed will incorporate particular lamp sources to minimise the infrared and UV light components, which could influence the Bat their flight lines. The lighting scheme will also ensure there will be no obtrusive light from the proposed development to the adjacent Portsmouth Road or Residential/Commercial properties.

The lighting scheme for Area 7 will be designed using surfaced mounted or in-ground luminaires with a combination of asymmetric light distribution to give reduced glare and louvres to reduce obtrusive light for the landscaped trees, to define the private road/pedestrian footpaths access and wall water feature. The lighting scheme will also include wall mounted luminaires also to give directional downlight with sharp cut-off characteristics, to define residential entrances for safety and security. The design luminaires proposed will incorporate particular lamp sources to minimise the infrared and UV light components, which could influence the Bat flight lines.

There is no lighting scheme proposed for Area 8 on the proposed development due to the sensitive nature of the area being nature conservation area and the proposal for the area to be closed to the public during the hours from dusk to dawn.

18.7 RESIDUAL AND CUMULATIVE IMPACT

18.7.1 The proposed development site on a commercial and residential basis, therefore the operating times of the lighting scheme will have to be monitored and adjusted accordingly to the site operations. As with any new development and proposed soft/hard landscaping, overtime the external lighting scheme will settle in and become an integral part of the new environment and the local community.

18.7.2 The cumulative impact will be moderate as a result of the change to the proposed development caused by the insertion of new external lighting scheme within the overall surrounding area. If the lighting scheme was designed to be uniform across the proposed development the lighting levels would be exaggerated in this dark area, but in this instance the strategy of the lighting scheme has

been to sacrifice uniformity in order not to exaggerate the lighting levels and design a lighting scheme to provide directional indicators for the users of the proposed development. This is particularly important along the edge of the river Thames in order to maintain and not to exceed the currently lighting levels.

18.7.3 In summary it is the considered opinion from the assessment and surveys carried out, the lighting scheme for the proposed development will have negligible residual and cumulative impact on the immediate physiological and ecological environment with respect to obtrusive and trespass lightings.

The significance of the proposed development lighting scheme sensitivity, magnitude of impact, duration and effects are negligible for the Portsmouth Road properties and the sensitive areas.

The adjacent Thames Ditton Marina and the Harts Boatyard restaurant are two current examples of low key external lighting solutions that at the time surveyed had not residual and/or cumulative impact on the neighbouring residences.

18.11 CONCLUSIONS

In conclusion the proposed development lighting scheme will safeguard and enhance the night-time environment, but ensure that the neighbouring properties and more sensitive areas will not be subjected to obtrusive light commonly referred to as light pollution that would be deemed to unacceptable in line with current guidelines.

To minimise the physiological and ecological impact of the proposed development lighting scheme on the Bat roosts/flight lines and nature designations careful consideration will not only be given to the direction and level of lighting, but careful consideration will also be given to the choice of lamp sources to be utilised throughout the design of the scheme.

The LED lamp source has minimal Infrared and minimal UV light component, which will be more sympathetic to the Bat roosts and will have a neutral effect on the nature designations.

It is proposed that the lighting impact can be further minimised by using accepted methods of lighting control, essentially limiting the luminance and controlling light pollution.

The external landscape area lighting will consider low level bollard luminaries selected to give no upward light component and used to define the pedestrian routes only. The general external lighting will consider wall mounted luminaires selected to give directional downlight with sharp cut off characteristics to provide safety and security without obstructive light on the boundary of the proposed development.

The lighting control will consider a combination of photocell control to automatically turn the lighting 'On' at dusk, 'Off' at dawn and time-clock control to turn off lighting during the time when the site is inaccessible to the public or passive infrared detectors (PIR) to activate the lighting temporarily only when required to reduce obtrusive light and reduce unnecessary energy consumption and dimming to control the lighting levels.

The lighting scheme will be designed to limit obtrusive light outside the boundary and the sensitive areas to less 1Lux, when this is considered against moonlight at 1Lux the levels designed to will be extremely low.

The sensitive receptors, with reference to the proposed development, would be the Bats roosts and nature designations located on the proposed development.

The site assessment and surveys with the desktop assessment of the existing site and proposed development indicate (with respect to identified sensitive receptors) that overall obtrusive levels will not be significantly influenced by the proposed development. It is proposed that the lighting impact can be minimised using accepted methods of lighting control, essentially limiting luminance and controlling obtrusive light pollution.

APPENDIX 18A

Daytime Site Assessment and Survey Photographs

Photograph #1 – North view along the Portsmouth Road from the proposed development main entrance

Photograph #2 – South view along the Portsmouth Road from the proposed development main entrance

Photograph #3 – North view from the proposed development entrance along boundary adjacent to the Portsmouth Road

Photograph #4 – North view from the proposed development entrance further along boundary adjacent to the Portsmouth Road

Photograph #5 – South East view further along boundary adjacent to the Portsmouth Road

Photograph #6 – North East view further along boundary adjacent to the Portsmouth Road

Photograph #7 – Residential properties overlooking the proposed development on the opposite side of the Portsmouth Road

Photograph #8 – 8-10m lighting columns with single head lantern on 2-2.5m arms along the Portsmouth Road

Photograph #9 – North view along the Portsmouth Road from South edge boundary of the proposed development

Photograph #10 – East view of Kingston University London Seething Wells Campus from the proposed development entrance

Photograph #11 – North view continued along the Portsmouth Road

Photograph #12 – 8-10m lighting columns with single head lantern along the Portsmouth Road

Photograph #13 – North view continued along the Portsmouth Road

Photograph #14 – North view continued along the Portsmouth Road

Photograph #15 – Commercial property on the opposite side of the Portsmouth Road

Photograph #16 – Residential properties potentially overlooking the proposed development on the opposite side of the Portsmouth Road

Photograph #17 – Residential properties potentially overlooking the proposed development on the opposite side of the Portsmouth Road

Photograph #18 – Existing building on site to be refurbished in the proposed development.

Photograph – North-West views of the river Thames

Photograph – North-West views of the river Thames

Photograph – North-West views of the river Thames and Barge Walk

Photograph – North-West views of the river Thames

Photograph – North-West views of the river Thames

Photograph – North-West views of the river Thames and Barge Walk

APPENDIX 18B

Night Time Site Assessment and Survey Photographs

Photograph #19 – South view along the Portsmouth Road from North edge boundary of the proposed development

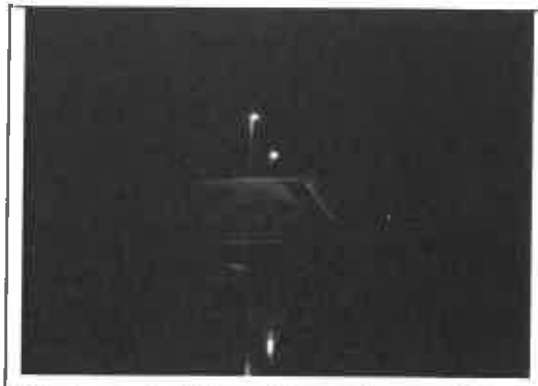
Photograph #20 – North view along the Portsmouth Road

Photograph #21 – South view along the Portsmouth Road

Photograph #22 – The Harts Boatyard building lighting adjacent to the North end of the proposed development

Photograph #23 – The Harts Boatyard car park lighting adjacent to the North end of the proposed development site

Photograph #24 – The Thames Ditton Marina adjacent to the South end of the proposed development site



Photograph #25 – The Thames Ditton Marina mooring lighting and pedestrian access

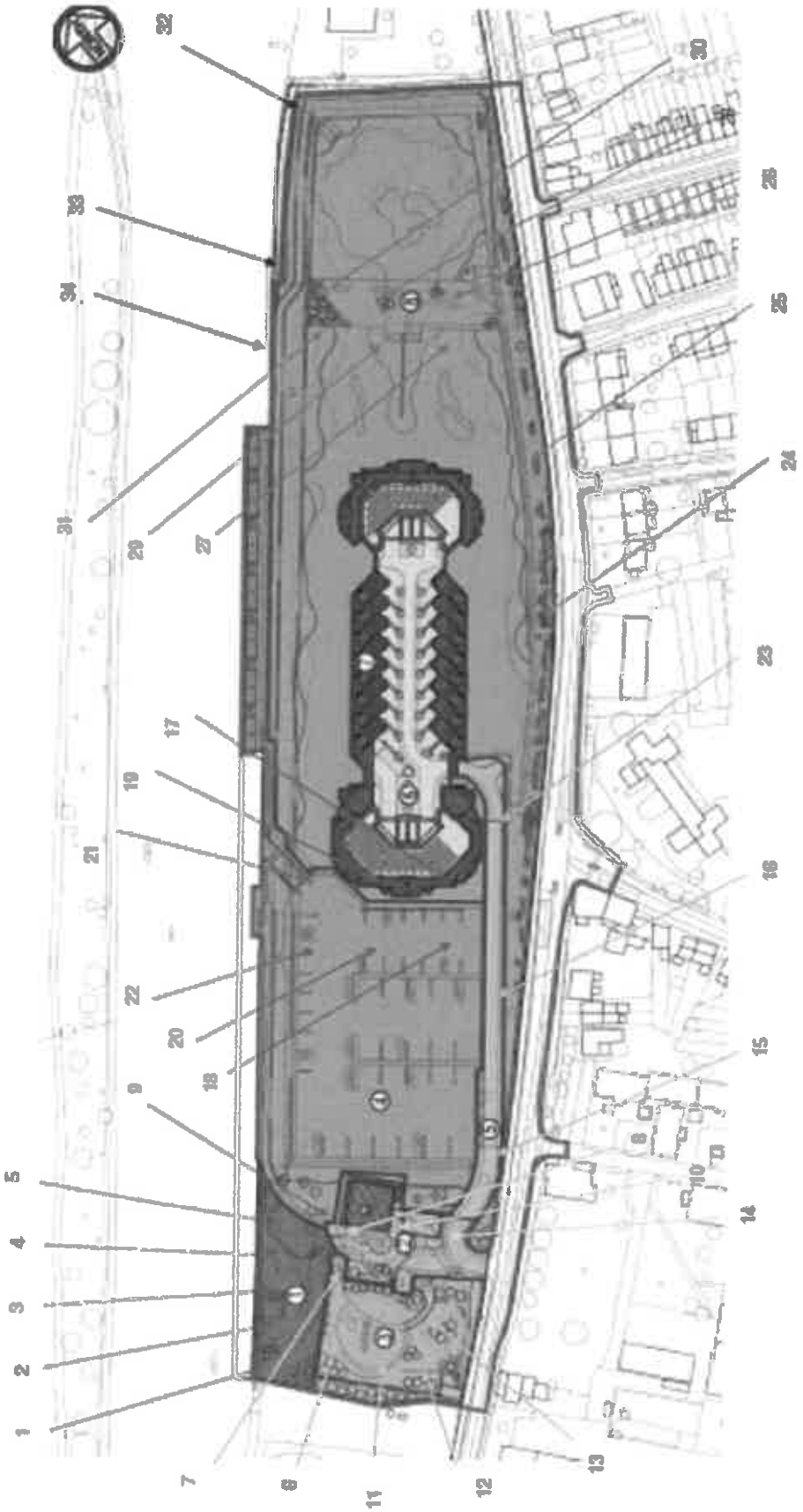
Photograph #26 – Residential barge mooring South-West view of the river Thames.

Photograph #27 – Adjacent residential barge mooring North access to the river Thames.

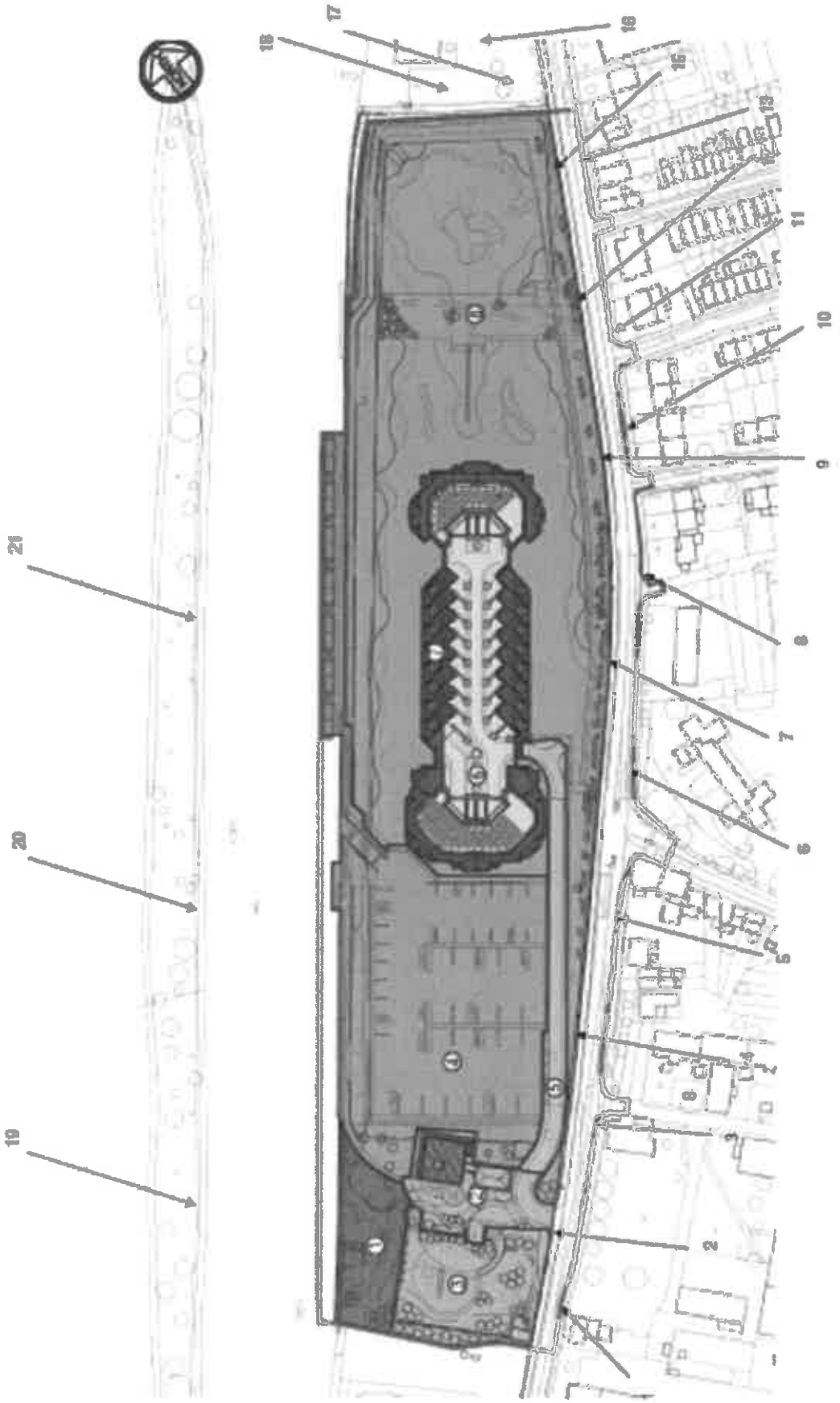
Photograph #28 – Adjacent residential barge mooring pontoons North on the river Thames.

APPENDIX 18C

Baseline Conditions Measurement Locations Site Plans



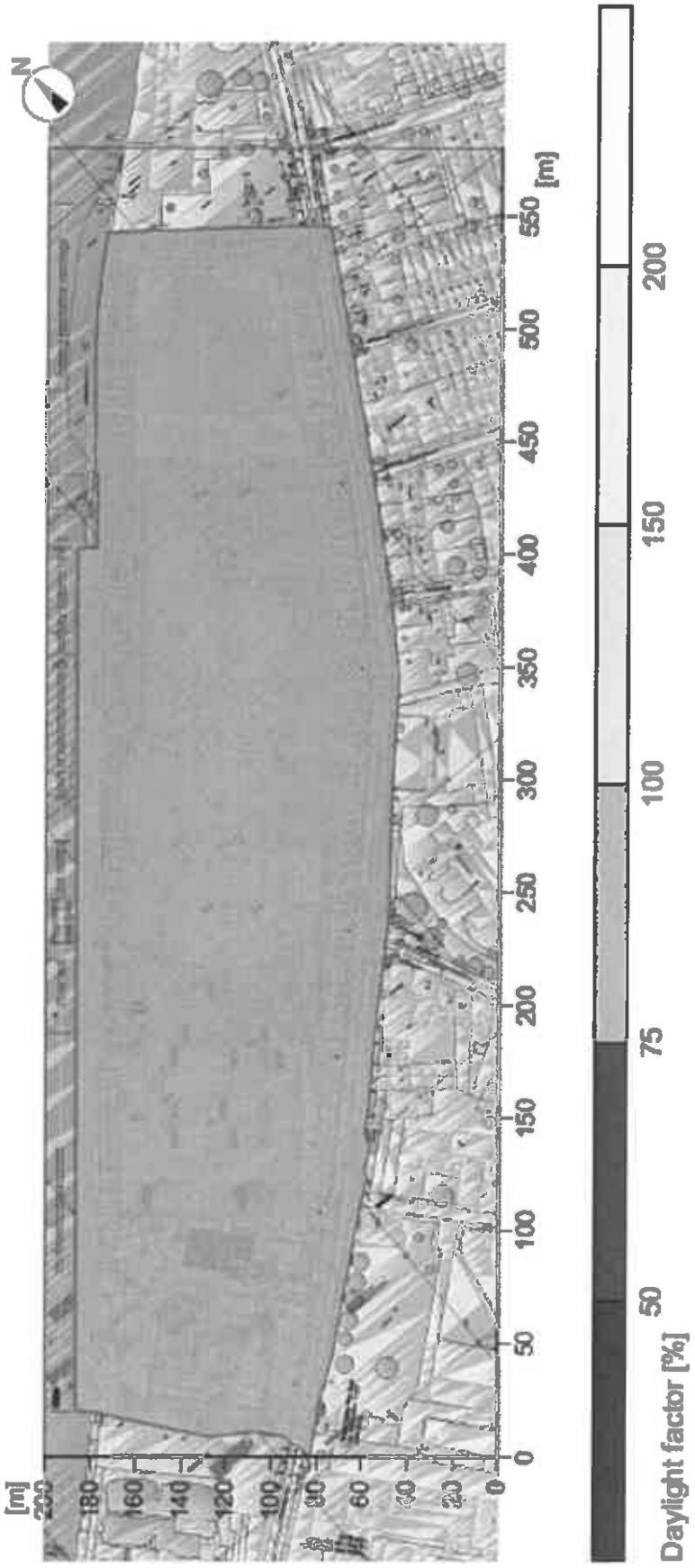
Baseline Conditions – Proposed Development Measurement Locations



Baseline Conditions – Portsmouth Road & Barge Walk Measurement Locations

APPENDIX 18D

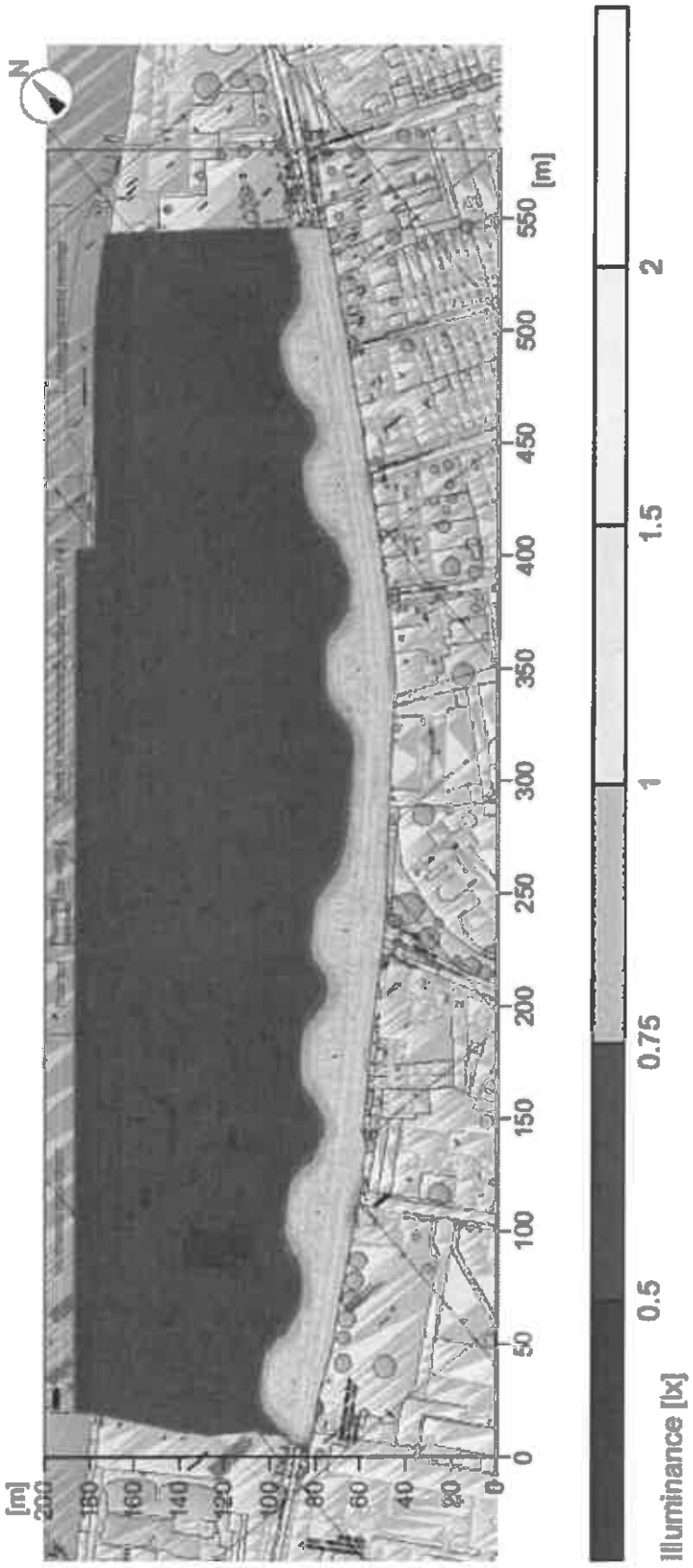
Baseline Conditions Day Lighting Levels Site Plan


N
[m]
0
50
100
150
200
250
300
350
400
450
500
550
[m]
0
20
40
60
80
100
120
140
160
180
200
Daylight factor [%]
50
75
100
150
200

APPENDIX 18E

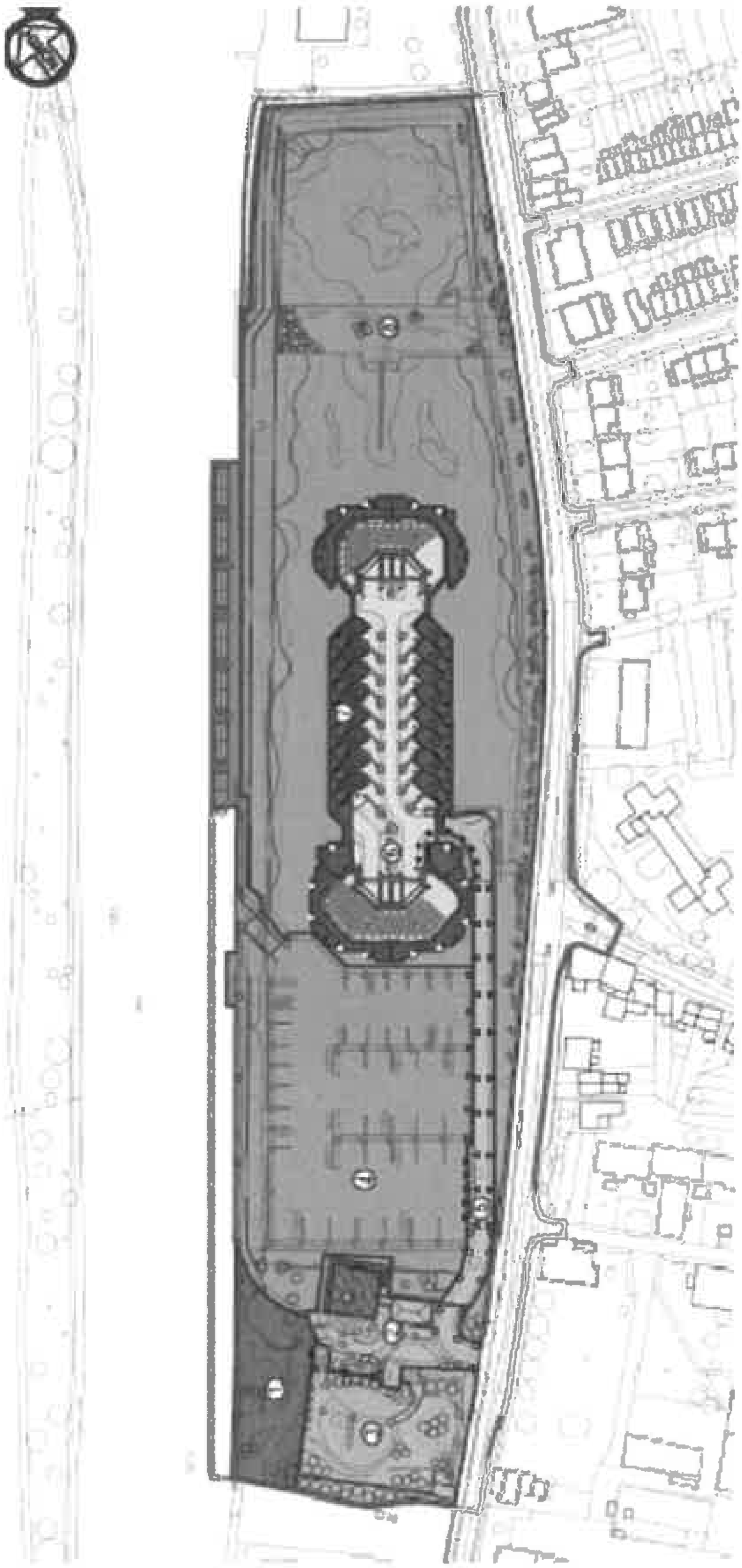
Baseline Conditions Night Time Lighting Levels Site Plan

The following lighting plots have been calculated using a similar SON lamp source to the existing lighting column lanterns along the Portsmouth Road


N
[m]
0
50
100
150
200
250
300
350
400
450
500
550
[m]
0
20
40
60
80
100
120
140
160
180
200
Illuminance [lx]
0.5
0.75
1
1.5
2

APPENDIX 18F

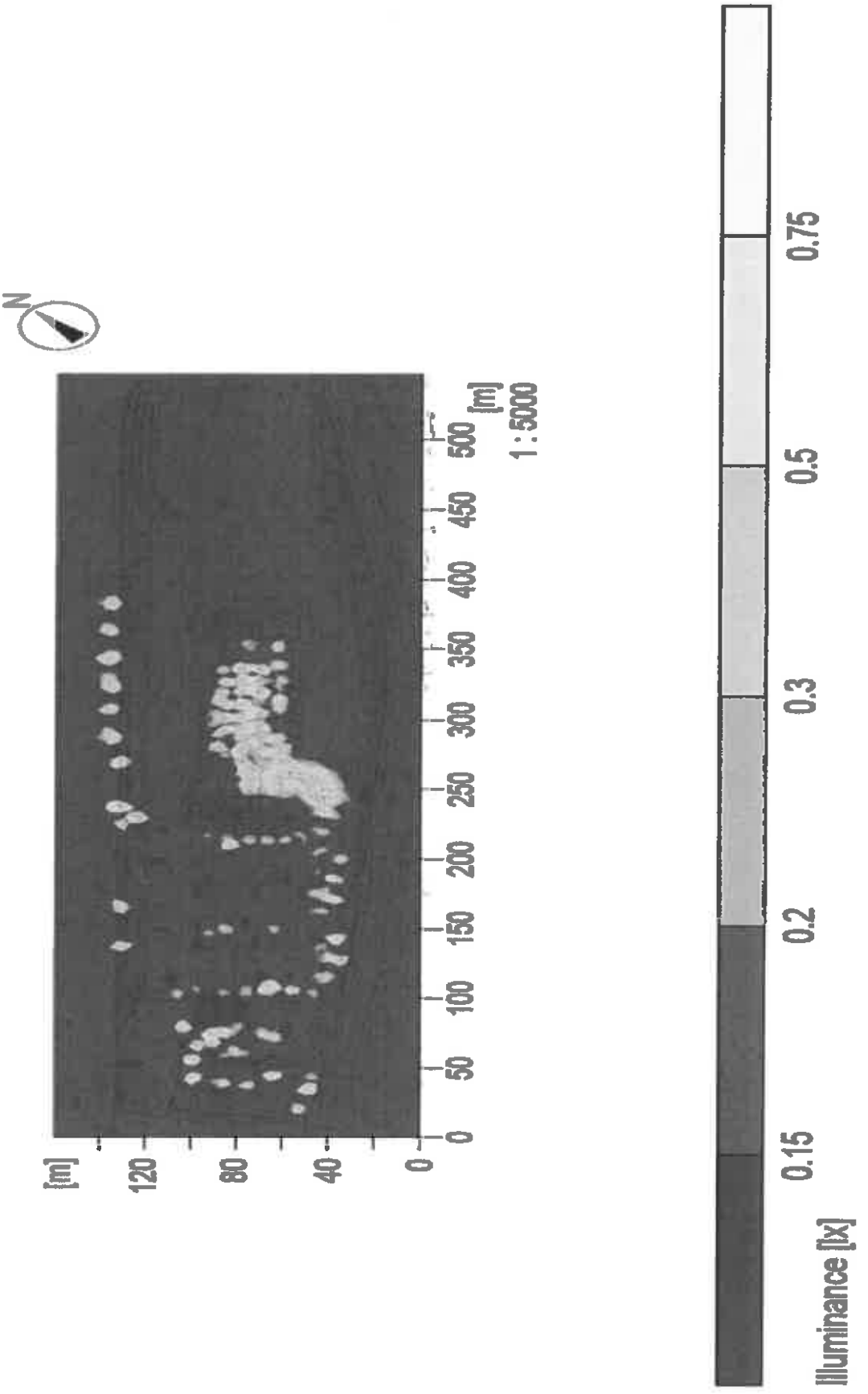
Lighting Scheme - Luminaire Layout Site Plan



Lighting Strategy – Luminaire Layout

APPENDIX 18G

Lighting Scheme – Calculated Lighting Levels Site Plan


N
[m]
120
80
40
0
0
50
100
150
200
250
300
350
400
450
500 [m]
1 : 5000
Illuminance [lx]
0.15
0.2
0.3
0.5
0.75

APPENDIX 18H

Certification of Calibration

CERTIFICATE OF CALIBRATION

Issued By BSRIA Instrument Solutions
Date of Issue 17 August 2011

Certificate Number
STD39550

Hire Calibration Sales
BSRIA
Instrument Solutions

BSRIA Instrument Solutions
Old Bracknell Lane West, Bracknell, Berkshire RG12 7AH UK
Tel: +44 (0) 1344 465314 Fax: +44 (0) 1344 465556
e mail: info@bis.fm website: www.bis.fm

BSRIA Quality Approved

Approved Signatory

Customer : BSRIA Instrument Solutions
Old Bracknell Lane West, Bracknell
Berks RG12 7AH

Date Received : 22 February 2010

Instrument -

System ID :	104060	Job Number : H18202-1	
Description :	Lightmeter; Illuminance/Lumin	Ref. Number : 104060	
Manufacturer :	Macam		
Model Number :	L103A		
Serial Number :	5117	Last Certificate Number : STD35173	
Procedure Version :	6F2V5	Last Calibration Date :	15/02/2011

Environmental Conditions

Temperature : 20°C +/- 4°C
Relative Humidity : <70% +/- %
Mains Voltage : 240V +/- 10V
Mains Frequency : 50Hz +/- 1Hz

Comments

Instrument "zeroed" on each range prior to start of procedure.
Instrument allowed to stabilise prior to reading.
Measurements made using a tungsten filament with colour temperature of 2856k.
Functional test only conducted on Luminance range.
2610

Traceability Information

Instrument description	*Serial number*	*Certificate number*	*Cal Date*	*Cal. Period*
Light Bench, Illuminance ZZ/MLB/01	3815 & 38	65542	11/11/2010	52

Calibrated By : A. Lennard

Date of Calibration : 17 August 2011

TABLE 18.1

Obtrusive Light Limitations for Exterior Installations

Table 18.1: Obtrusive Light Limitations for Exterior Lighting Installations
Guidelines and threshold values for the environmental zones published by the ILE provides a guideline on technical limits.

Environmental Zones	Sky Glow ULR [Max %]	Light into Windows E_v [Lux)] (1)		Source Intensity I [kcd] (2)		Building Luminance Before curfew (3)	
		Before curfew	After curfew	Before curfew	After curfew	Average L [cd/m²]	Maximum L [cd/m²]
E1 Intrinsically dark landscapes	0	2	1*	0	0	0	0
E2 Low district brightness areas	2.5	5	1	20	0.5	5	10
E3 Medium district brightness areas	5	10	2	30	1	10	60
E4 High district brightness areas	15	25	5	30	2.5	25	150

Where:

ULR = **(Upward Light Ratio of the Installation) and is the maximum permitted percentage of luminaire flux for the total installation that goes directly into the sky. (formerly UWLR)**
E_v = **Vertical Illuminance in Lux normal to glazing**
I = **Light Intensity in Candelas**
L = **Luminance in Candelas per square met**

We need to include a comparison table showing how the existing and proposed situation ties in with this table.

Wignall, Peter

From: Ian Segre [ian.segre@elementaconsulting.com]
Sent: 15 September 2016 16:33
To: Peter Radmall; Samuel Durham
Cc: Dave.Shore@shepway.gov.uk; Andy.Jarrett@shepway.gov.uk; Julian Bore
Subject: RE: Prince's Parade - Lighting consultant
Attachments: 018 Lighting (Elementa Consulting Report Input 010911).pdf

Good Afternoon Peter,

Apologies I was out of the office this morning and was just going to request some project scope information in order to prepare our fee proposal, when I saw your email.

I have attached a copy of a lighting report section that was compiled for a previous project planning submission, which was relevant Bat roosts.

Please do not hesitate to give me a call if you have any questions.

Kind regards,

Ian Segré | Associate Principal

elementa
Member of Integral Group

Unit 1 Library Avenue, Harwell Oxford, Didcot, Oxfordshire, OX11 0SG
| t +44(0) 1235 820300 **| dd** +44(0) 1235 441986 **| m** +44(0) 7889 363655
www.elementaconsulting.com
Supporting Teenage Cancer Trust – Helping young people fight cancer
Trust | Nurture | Inspire

From: Peter Radmall [mailto:firbank@callnetuk.com]
Sent: 13 September 2016 21:28
To: Samuel Durham <samuel.durham@lloydbore.co.uk>
Cc: Ian Segre <ian.segre@elementaconsulting.com>; Dave.Shore@shepway.gov.uk; Andy.Jarrett@shepway.gov.uk; Julian Bore <julian.bore@lloydbore.co.uk>
Subject: Re: Prince's Parade - Lighting consultant

Thanks, Sam. Ian, by copy, could you provide an example of the sort of lighting impact report you normally prepare? I'll then be able to confirm whether that's what we need.

Regards,

Peter

---- Original Message -----
From: Samuel Durham
To: Ian Segre
Cc: Peter Radmall ; Dave.Shore@shepway.gov.uk ; Andy.Jarrett@shepway.gov.uk
Sent: Tuesday, September 13, 2016 11:43 AM
Subject: FW: Prince's Parade - Lighting consultant

REFERENCE EML-OUT/3609/Clt/20160913-114103-999

Ian,

See below from client for Prince's Parade (request for fee proposal from Elementa).

Peter Radmall (email address in below chain) may be the best person to contact to establish a scope for the fee proposal.

Kind regards,

--

Samuel Durham BSc (Hons) ACIEEM
Senior Ecologist

Lloyd Bore Ltd.
33 St. George's Place, Canterbury, Kent CT1 1UT | T: 01227 464 340
59 Lambeth Walk, London, SE11 6DX | T: 02075 822 363
www.lloydbore.co.uk | E: samuel.durham@lloydbore.co.uk | M: 07471 036 663

From: Dave.Shore@shepway.gov.uk [mailto:Dave.Shore@shepway.gov.uk]
Sent: 13 September 2016 09:22
To: Samuel Durham <samuel.durham@lloydbore.co.uk>
Cc: Andy.Jarrett@shepway.gov.uk; matt.shillito@tibbalds.co.uk; sue.rowlands@tibbalds.co.uk; claire.perrott@tibbalds.co.uk; Julian Bore <julian.bore@lloydbore.co.uk>; firbank@callnetuk.com
Subject: RE: Prince's Parade - Lighting consultant

Samuel

Grateful if you could request a proposal from Elementa.

Regards

Dave

David Shore

Strategic Development Projects Manager

t: 01303 853459

m: 07976 958486

f: 01303 853502

Shepway District Council, Civic Centre,

Castle Hill Avenue, Folkestone, Kent, CT20 2QY.

E: dave.shore@shepway.gov.uk

www.shepway.gov.uk

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From: Samuel Durham [mailto:samuel.durham@lloydbore.co.uk]
Sent: 12 September 2016 16:37
To: Peter Radmall
Cc: Shore, Dave; Jarrett, Andy; Matt Shillito; Sue Rowlands; claire.perrott@tibbalds.co.uk; Julian Bore
Subject: RE: Prince's Parade - Lighting consultant

REFERENCE EML-OUT/3609/20160912-163443-192

Agreed. It is definitely an important part of my impact scoping exercise for bats.

I'm sure Ian would be able to assist / discuss to ensure that an appropriate fee proposal is provided by Elementa.

Kind regards,

--

Samuel Durham BSc (Hons) ACIEEM
Senior Ecologist

Lloyd Bore Ltd.
33 St. George's Place, Canterbury, Kent CT1 1UT | T: 01227 464 340
59 Lambeth Walk, London, SE11 6DX | T: 02075 822 363

www.lloydbore.co.uk | E: samuel.durham@lloydbore.co.uk | M: 07471 036 663

From: Peter Radmall [mailto:firbank@callnetuk.com]
Sent: 12 September 2016 16:28
To: Samuel Durham <samuel.durham@lloydbore.co.uk>
Cc: Dave.Shore@shepway.gov.uk; Andy.Jarrett@shepway.gov.uk; Matt Shillito <matt.shillito@tibbalds.co.uk>; Sue Rowlands <sue.rowlands@tibbalds.co.uk>; claire.perrott@tibbalds.co.uk; Julian Bore <julian.bore@lloydbore.co.uk>
Subject: Re: Prince's Parade - Lighting consultant

Sam,

Many thanks for this. As we discussed last week, since lighting has been raised in the scoping opinion, we need to address it somehow. My current thinking is to prepare a technical assessment of the sort you describe and to present this as an appendix to the ES, which others can then draw on, rather than having lighting as a separate topic with its own chapter etc. The assessment will need to be suitable for use by the LVIA as well as yourselves. Since it's been asked for as part of the EIA, it will have to be done as part of this submission and therefore cannot really kick off until we have an agreed scheme (although I guess baseline measurements could be done now). It will also need to reflect the difference in information between the ARC (for which we should have full details of lighting) and the outline element (for which we will need to adopt sensible assumptions re street lighting etc). Happy for others to comment as necessary, but I suggest we ask Elementa for a proposal.

Regards,

Peter

—— Original Message ——
From: Samuel Durham
To: firbank@callnetuk.com
Cc: Ian Segre ; andy.jarrett@shepway.gov.uk ; sue.rowlands@tibbalds.co.uk ; matt.shillito@tibbalds.co.uk ; claire.perrott@tibbalds.co.uk ; Dave.Shore@shepway.gov.uk ; mgowdridge@gt3architects.com ; Julian Bore
Sent: Monday, September 12, 2016 4:20 PM
Subject: Prince's Parade - Lighting consultant

REFERENCE EML-OUT/3609/20160912-154856-484

Good afternoon Peter.
During the Prince's Parade DTM last Thursday, you asked if anyone was aware of any lighting consultants that could be used, when required, to model illumination / light spill for the proposed development.
I have recently been working with Ian Segre of Elementa Consulting on light spill modelling in relation to a river corridor used by bats as a foraging / commuting resource.
Ian is well aware of bat / lighting conflicts and bat-sensitive design and I am putting his name forward as we have experience of working with him on this matter.
Ian has confirmed that Elementa would be interested in providing a fee proposal for any such lighting assessment / modelling for the Prince's Parade project, once a scope has been agreed amongst the project team.
For reference, I feel that light spill / illumination modelling would be a very useful exercise in terms of assessing potential impacts upon bats. If I am to produce a robust assessment in the ES, I would need evidence of light levels/changes.
However, I understand that there may be a discussion to be had about whether this is done at the preferred options (now), outline application (before November) or detailed application stage.

Kind regards,

Samuel Durham BSc (Hons) ACIEEM
Senior Ecologist

Lloyd Bore Ltd.
33 St. George's Place, Canterbury, Kent CT1 1UT | T: 01227 464 340
59 Lambeth Walk, London, SE11 6DX | T: 02075 822 363
www.lloydbore.co.uk | E: samuel.durham@lloydbore.co.uk | M: 07471 036 663

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Shepway District Council

Proposed Development at Princes Parade Hythe

EIA Scoping Report

July 2016

Peter Radmall Associates
environmental planning and assessment

Contents

1. Introduction

Background

1.1 Proposals are being brought forward for the development of housing, an affordable recreation centre, public open space and ancillary commercial uses on land at Princes Parade in Hythe. The proposals qualify as a Schedule 2 development under the Town and Country Planning (Environmental Impact Assessment) Regulations, 2015, being an "urban development project" greater than 5 hectares in area (Schedule 2, 10[b]). As a result, the proposals should be screened to determine whether they may give rise to "likely significant effects", and – if so – an EIA must be carried out.

1.2 Preliminary environmental work has already been completed on the site, such that the potential issues are already known. These include the presence of contamination from historic landfill activities, flood risk, visual impact and proximity to the Royal Military Canal, which is a Scheduled Monument.

1.3 The characteristics of the development and the sensitivity of the site are such that a possibility of significant effects cannot be ruled out. It has therefore been decided that an EIA will be carried out in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations, 2011[1]. The preparation of a voluntary EIA is acknowledged as a legitimate approach in the Planning Practice Guidance (PPG, March 2014), and means that the application must be determined as "EIA development" as defined in the Regulations.

Purpose and Structure of this Report

1.4 EIA is a structured process for identifying the "likely significant effects" of a development and the mitigation that may be required in order to address any adverse effects, and is reported in the form of an Environmental Statement (ES). The Regulations allow applicants to ask the LPA for a Scoping Opinion, which sets out the scope of the EIA. Whilst not mandatory, this is regarded as good practice, since it reduces the likelihood that further information may be requested after the ES has been submitted.

1.5 This report supports a request to the Council for a Scoping Opinion and provides the following information, as required under Regulation 13(2):

(a) a plan sufficient to identify the land;
(b) a brief description of the nature and purpose of the development and of its possible effects on the environment; and
(c) such other information or representations as the person making the request may wish to provide or make.

1.6 The remainder of the report is organised as follows:

- Section 2 explains the approach to scoping;
- Section 3 describes the characteristics of the site and surrounding area;
- Section 4 describes the characteristics of the proposed development;
- Section 5 identifies the likely significant effects;
- Section 6 sets out the proposed scope of the EIA;
- Section 7 describes the proposed scope and methodology for each topic; and
- Section 8 describes the proposed structure of the ES.

[1] Which remain the prevailing regulations; the 2015 Regs merely amended the "applicable thresholds and criteria" for urban development projects.

2. Approach

Requirements for the Technical Content of an ES

2.1 Schedule 4 of the Regulations identifies the "Information for inclusion in environmental statements". This comprises two parts. The information in Part 2 is a minimum requirement, whilst the information in Part 1 should be provided where it "is reasonably required to assess the environmental effects of the development" and where "the applicant can, having regard in particular to current knowledge and methods of assessment, reasonably be required to compile [it]".

2.2 The Part 1 information refers to the following technical aspects:

- (in relation to residues and emissions): "water, air and soil pollution, noise, vibration, light, heat, radiation etc";
- (in relation to those aspects of the environment likely to be significantly affected): "population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage [and] landscape"; and
- (in relation to the description of effects): "the use of natural resources, the emission of pollutants, the creation of nuisances and the elimination of waste"

Guidance

2.3 Current UK guidance on the EIA process forms part of the PPG. This updates and simplifies the guidance previously provided in "Environmental Impact Assessment: A Guide to the Procedures" (DCLG, 2000). Specific advice on scoping is provided in "Guidance on EIA Scoping" (European Commission, 2001), which remains a useful reference even though the European and UK regulations relating to EIA have since changed.

Bespoke Checklist

2.4 The EC Guidance includes a Scoping Checklist, Part 1 of which comprises a series of criteria for identifying whether the characteristics of a development are likely to give rise to environmental effects. In addition, the Planning Inspectorate provides a screening proforma for use by LPAs which includes a checklist of the following technical matters (in summary):

- Physical changes to topography, land-use etc;
- Use of natural resources, especially if non-renewable;
- Use or production of substances potentially harmful to the environment or human health;
- Production of solid wastes;
- Air-borne release of hazardous, toxic or noxious substances;
- Emissions of noise, vibration, light, heat or electromagnetic radiation;
- Contamination risk to land or water;
- Presence of existing pollution or environmental damage;
- Accident risk;
- Social changes (e.g. to employment or demographics);
- Areas of ecological importance or sensitivity;
- Protected, important or sensitive species;
- Inland, coastal, marine or underground waters;
- Areas or features of high landscape or scenic value;
- Potential to be highly visible to a large number of people;

- Proximity to routes used for public recreation;
- Congested or environmentally damaging transport routes;
- Areas or features of historic or cultural importance;
- Loss of greenfield land;
- Loss of/impact on existing or future land uses;
- Proximity to densely built-up areas;
- Proximity to sensitive uses (e.g. schools);
- Areas containing important, high-quality or scarce resources (e.g. minerals); and
- Risk of geotechnical instability or extreme climatic conditions.

2.5 No single checklist will be applicable to every project, and the PPG advises that scoping should be tailored to the specific circumstances in each case. Taking account of the guidance and the regulatory requirements, the following bespoke checklist of topics (with associated tests for potentially significant effects) has been developed for the purposes of this scoping exercise:

Topic	Tests for Potentially Significant Effects
1. Land, Soils and Geology	• change of use/loss of material assets/changes to utility networks • loss of agricultural soils, particularly those of "best and most versatile" quality • disturbance of existing contamination • risk of introducing new contamination • sterilisation of mineral resources • risk of geological instability (landslips etc)
2. Air and Noise	• introduction of sensitive receptors (e.g. residents) into an area of poor air quality or high ambient noise levels • introduction of new sources of airborne pollution, odour, noise or vibration • potential to affect air quality with an Air Quality Management Area • risk of causing nuisance due to fugitive dust emissions during construction • introduction of sources of radioactivity or electromagnetic interference • physical interference with electronic communications
3. Water	• physical changes to/abstraction from surface- or ground-waters • pollution risk to water bodies or aquifers • introduction of sensitive receptors into an area of flood risk • risk of increasing surfacewater runoff • changes to off-site flood risk • need for additional foul drainage or water supply capacity
4. Natural Resources, Waste, Energy and Climate	• consumption of materials during construction (e.g. aggregates) • generation of solid waste and its impact on the waste management regime • contribution to climate change due to GHG emissions • implications for climate change resilience and adaptation • implications for microclimate (overshadowing and ground-level wind conditions)
5. Biodiversity	• loss/value of existing site habitats • opportunities for habitat creation/enhancement • risk of impacts on designated habitats, especially statutory/SPA/SAC/Ramsar sites • risk of impacts on notable species (especially those protected under European law).
6. Cultural Heritage and Landscape	• risk of disturbing or damaging archaeological assets, particularly where designated (e.g. scheduled) • demolition or physical changes/alterations to designated buildings (typically listed) • potential change to setting of designated assets or historic landscapes/townscapes • impacts on landscape character, views and visual amenity, particularly within designated landscapes • loss of significant vegetation (e.g. protected hedgerows/trees)

7. Access and Movement	• physical changes to existing networks and/or provision of new infrastructure • capacity, amenity and safety implications of construction and operational traffic • capacity implications of new pedestrian/cycle/public transport trips, routes or services • implications for sustainable transport choice
8. Community and Economy	• displacement of existing uses • generation of employment (construction/operation/direct/indirect etc) • impact on housing supply • impact on retail hierarchy • demographic impact and implications for labour market, child yield etc • provision of/demand for social infrastructure (schools, healthcare etc) • impact on local/district economy, regeneration and social deprivation

Identifying the Likely Significant Effects

2.6 The EIA Regulations require an ES to identify the "likely significant effects" of a development. The primary purpose of scoping is to ensure that the assessment is focussed on the topics likely to give rise to such effects. At the same time, topics that are unlikely to give rise to significant effects can be "scoped out" of the assessment.

2.7 Likelihood and significance are derived from interaction between the characteristics of the development and the characteristics of the receiving environment, as described in Sections 3 and 4 of this report. Whether the resulting effects are likely and significant will depend on the nature of this interaction, on the importance or sensitivity of the environmental resources or receptors, and on the extent to which adverse effects can be avoided or reduced through mitigation.

2.8 The bespoke checklist above has been used to identify the likely significant effects and the topics that are of potential relevance in this case. Topics that are unlikely to give rise to significant effects have also been identified. Scoping is necessarily carried out at the beginning of the EIA process, when not all the relevant information may be available. The scope may evolve as the assessment proceeds and as feedback is obtained from consultees; this report should therefore be regarded as the starting point for an ongoing process.

3. Characteristics of the Local Environment

Application Site

3.1 The application site is shown on **Figure 1**. It is 7.2 hectares in area, comprising a triangle of land bounded to the north by the Royal Military Canal, to the south by Princes Parade and to the west by the Hythe Imperial golf course.

3.2 The site lies at an elevation of about 6-7m AOD, which is broadly the same as that of Princes Parade. It slopes down to the canal and to the western boundary, representing a level change of c4-5m. The eastern end of the site is occupied by a public car park, with an adjoining playground and picnic area, together with temporary storage facilities used by the canoe club. The remainder of the site is occupied by tall ruderal vegetation, together with areas of scrub (blackthorn, bramble, willow etc) and ephemeral vegetation/bare ground.

3.3 The site is publicly accessible, via a path from close to the car park/play area, although access to much of it is precluded by the dense vegetation. A public right-of-way (PROW) adjoins the western boundary, linking a footbridge over the canal (Seabrook Lodge Bridge) with Princes Parade. A second footpath runs across the centre of the site, linking Sea

Road with Princes Parade via another footbridge (Seaview Bridge). Princes Parade is a secondary road linking Hythe and Sandgate, providing an alternative to the main A259/Seabrook Road.

Site History

3.4 The site originally formed part of a shingle ridge and by the end of the 19thc had been excavated for gravel, with the western part laid out as a recreation ground. Gravel extraction appears to have continued up to the mid-20thC, after which most of the site was used as a landfill for wastes such as demolition rubble, scrap metal and household refuse. From the 1980s, the western part was occupied by a highways maintenance depot, whilst canal dredgings were tipped on the eastern part and were then spread across the site, which was allowed to re-vegetate.

Landuse Context

3.5 The residential area of Seabrook lies to the north of the site, beyond the canal. The terrain rises conspicuously beyond the Seabrook Road, forming an escarpment that is partly wooded and partly built-up, with most properties having seaward views across the general area of the site. Development extends northwards up the valley of the Seabrook Stream, a minor watercourse that flows into the canal, and westwards towards Hythe, the centre of which is located about 1.5km from the site. Development also extends eastwards along the escarpment to Sandgate, about 1.5km from the site. The crest of the escarpment is occupied by military uses associated with Shorncliffe Camp, with the built-up area of Coolinge and Folkestone to the east.

3.6 The area has a high level of recreational use. Much of this is focussed on the beach, which is accessed from Princes Parade, where on-street and some off-street parking is available. The canoe club has permission to erect a purpose-built clubhouse on land immediately to the north of the canal opposite the car park (Ref Y14/1428/SH). A designated walking/cycling route, the Royal Military Canal Path, runs along the northern side of the canal. To the west, beyond the golf course, lies the Hythe Imperial Hotel, and then a mix of residential and recreational uses such as a recreation ground and the Hythe municipal swimming pool.

Planning Context

3.7 Planning policy for Shepway is set out in the Shepway Core Strategy Local Plan, adopted in September 2013. This includes a range of policies supporting the delivery of sustainable development that improves the economic, social and environmental conditions of the area, a target to deliver at least 400 homes per annum by 2026, the provision of 30% affordable housing within major residential schemes, and the expanding and upgrading of visitor and leisure attractions in Hythe.

3.8 The Princes Parade site is covered by saved policy LR9 of the Shepway District Local Plan Review 2006, which seeks to provide an adequate level of public open space for leisure, recreational and amenity purposes by protecting existing and potential areas of open space and by facilitating new provision by means of negotiation and agreement. In addition, the eastern part of the site is covered by saved policy TM8, which supports the granting of planning permission for small-scale, low-rise recreational/community facilities. The policy specifies that any such facility should be of high-quality design, should take advantage of and enhance the appearance of the canal and the coastline, should ensure that the majority of the site remains open and should not adversely affect the character of the canal.

3.9 It is understood that the Council are in the process of reviewing site-specific policies and that a draft policy covering the Princes Parade site will be included in the Shepway Places and Policies Local Plan Preferred Options document. The development of an up-to-date

policy is required to ensure that future development of the site supports the delivery of the Shepway Core Strategy Local Plan and the objectives of national planning policy as set out in the NPPF. The recently revised Shepway Local Development Scheme (LDS) indicates that the Preferred Options document will be subject to public consultation in October 2016, with submission of the Places and Policies Local Plan to the Planning Inspectorate scheduled for July 2017.

4. Characteristics of the Proposed Development

4.1 The development is currently envisaged to comprise the following uses:

- An Affordable Recreation Centre (ARC);
- Up to 150 new homes;
- A significant area of enhanced public open space;
- New premises for the Hythe and Saltwood Sailing Club; and
- Ancillary uses such as cafes, bars, ice cream kiosks and a seafood restaurant.

4.2 The ARC would comprise a 25m swimming pool, teaching pool, gym and sports hall within a purpose-built and distinctive two-storey (approx. 9m high) building of approx. 4,000sqm that delivers both high standards of design and affordable running costs. It is intended to replace Hythe Swimming Pool, which has reached the end of its design life.

4.3 The public open space would comprise a mix of green space and urban public realm, offering a range of new recreation opportunities for residents and visitors, and amounting to approx. 3 hectares. It is likely to include improvements to the promenade and to the canal-side, where public access is currently limited. The existing playground and picnic area may be replaced. Discussions are ongoing to provide new premises for the sailing club and the canoe club, provided that their access requirements can be met.

4.4 The new homes would comprise a mix of open-market and affordable units, with the aim of attracting a range of residents to the site, including young families and retirees. The affordable component is expected to comply with the relevant Council policy. The precise form, scale and layout of the residential units has yet to be determined, but is anticipated to comprise a mix of houses and flats within buildings of up to four storeys, similar to the recently completed Fisherman's Beach scheme in Hythe. The dwellings would be designed to the highest standards of amenity and efficiency, including compliance with Lifetime Homes criteria.

4.5 Vehicular access would be provided from Princes Parade. Options are being considered to divert the road through the site, so as to free up access to the promenade and beach, whilst retaining it as a through route. Public, residential and business parking would be provided in accordance with the Council's standards, including re-provision of any parking lost from the existing car park and along Princes Parade. Existing pedestrian/cycle access into and across the site would be retained and enhanced, facilitating connectivity between the beach, the canal and the built-up area to the north.

5. Likelihood of Significant Effects

5.1 The likelihood of significant effects is set out below in relation to the bespoke checklist of topics. As advised in the PPG, account has been taken of the potential effectiveness of mitigation in considering whether residual effects (i.e. those following mitigation) are likely to remain significant.

5.2 Likelihood has been defined as high, medium, low or none as follows:

High	Definitely or likely to give rise to a significant effect in the absence of mitigation
Medium	May give rise to a significant effect in the absence of mitigation, but the residual effect is unlikely to remain significant
Low	Unlikely to give rise to a significant effect even in the absence of mitigation
None	Relevant resources/receptors or sources of impact are absent

5.3 Cells showing a "greater than low" likelihood of significant effects have been highlighted, since these are considered to be of most relevance to the scoping process.

Predicted Effects by Topic

Topic	Significance Test	Likelihood of Significant Effects	Comment
Land, Soils and Geology	Loss of material assets or infrastructure	None or Low	No demolitions would be required, but diversions of utilities or PROWs cannot be ruled out.
	Loss of best and most versatile (BMV) agricultural land	None	Site is not in agricultural use.
	Disturbance of existing contamination	Medium	Parts of the site are known to be contaminated, with the risk categorised as "moderate to high". Remedial design, monitoring and management (during construction) would be expected to control the level of risk.
	Introduction of new sources of contamination	Low	The proposed uses are not inherently contaminating. Contamination risk during construction would be controlled through routine procedures
	Sterilisation of mineral resources	None	Workable gravel deposits are assumed to have been extracted.
	Geological instability	Low	Although the made ground covering much of the site may pose geotechnical constraints that will require an appropriate engineering solution.
Air and Noise	Introduction of residents into area of poor air quality	Low	The site is not located within an Air Quality Management Area (AQMA) – there are none within the district.
	Introduction of residents into area with high ambient noise levels	Low	The main noise sources are currently traffic on Princes Parade and the A259. Assessment will be required to determine whether existing noise levels are sufficient to cause nuisance. Even if they are, mitigation by design is likely to be achievable.
	Introduction of new sources of airborne pollution, noise etc	Low to Medium	The main sources will be construction and traffic. Significance will depend on factors such as proximity to sensitive receptors and (for traffic) the predicted increase in flows.
	Potential to affect air quality within an AQMA	None	No AQMAs in the vicinity.
	Nuisance due to fugitive dust emissions	Low to Medium	The nearest sensitive receptors are habitats (the canal), users of PROWs/the playground etc and residential properties to the north.
	Introduction of radioactivity or	None	The only sources would be routine power supply equipment etc.

	EMR		
	Interference with electronic communications	None	No structures of sufficient height are proposed.
Water	Physical changes to/abstraction from surface or groundwater	Low	No work proposed to the canal (an 8m buffer would be maintained). Potential need for dewatering during construction (and this water could be contaminated).
	Pollution risk to waterbodies or aquifers	Medium	Reflects the potentially contaminated condition of the site. In practice, risk would be minimised by routine controls during construction and incorporated into the surfacewater drainage system.
	Level of flood risk affecting site	Medium	Depends on assumed risk of wave overtopping and failure of sea defences along Princes Parade; the EA places the site within Flood Zone 3 (high probability) and the SFRA within Flood Zone 1 (low probability).
	Increase in surfacewater runoff	Medium	The site is currently in a greenfield condition and assumed to be permeable. The development would increase runoff from the site, although this would be controlled by a SUDS strategy. Due to contamination, attenuation will need to be provided by storage rather than infiltration.
	Changes to off-site flood risk	Low	Assuming adoption of SUDS principles and no increase in ground levels within the site.
	Demand for foul drainage or water supply	Medium	Assumption until available capacity can be confirmed.
Natural Resources, Waste, Energy and Climate	Consumption of materials during construction	Low	Best practice would be adopted to ensure procurement from sustainable sources etc.
	Generation of solid waste	Low	Assuming that construction waste would be minimised through a SWMP etc, whilst operational waste would be managed in accordance with LPA requirements. No off-site disposal of contaminated material is proposed.
	GHG emissions	Low	Potential for substantial increase over current use, since the site is currently unused. However, such emissions would represent a negligible contribution overall (e.g. at a district-wide level) and would be minimised by sustainable design.
	Risk to climate change resilience and adaptation	Low	Appropriate safeguards would be built into the design, e.g. to resist increased likelihood of wave overtopping.
	Over-shadowing or increased ground-level wind speeds	None to Low	Buildings would be of insufficient height to make any meaningful difference (e.g. due to overshadowing of the canal).
Biodiversity	Habitat loss	Medium	Although the site is of limited habitat value, it would be largely disturbed and altered during construction.
	Opportunity for enhancement	Medium	In relation to residual green space and the canal edge.
	Risk of impacts on designated habitats	Low to Medium	The canal is a (non-statutory) Site of Nature Conservation Interest. The main risks are associated with construction (dust emissions, noise, uncontrolled discharges etc).
	Risk of impacts on protected species	Medium	The site has the potential to support species such as reptiles and breeding birds, although in practice this risk would be minimised by

			mitigation.
Cultural Heritage and Landscape	Risk to archaeology	None	Archaeology is likely to have been removed during the course of gravel extraction.
	Physical impact on designated assets	None	No such assets within the site and no encroachment into the canal is proposed.
	Impact on setting of designated assets	High	Due to proximity to, and visual relationship with, the canal, together with other coastal defence assets such as Shorncliffe Battery.
	Impact on landscape character	Medium	Development will represent a fundamental change in the character of the site.
	Impact on views and visual amenity	Medium to High	Development will be visible from the surrounding area, including both public and private views.
	Loss of significant vegetation	Low	The current vegetation cover on the site is not of particular amenity value.
Access and Movement	Need for new/altered infra-structure	Medium	The proposed treatment of Princes Parade [closure/diversion?] has yet to be agreed, but new junctions will be required to access the development in any event.
	Impact of construction traffic	Low	Traffic would be routed directly to/from the arterial road network, so as to minimise any impact on residential or congested areas.
	Impact of operational traffic	Medium	Assumption pending capacity testing of key junctions.
	Impact of non-car trips	Low	Rarely sufficient to cause capacity issues, but scheme will need to demonstrate commitment to sustainable travel choice.
Community and Economy	Displacement of existing uses	Low	Assuming that PROWs will be maintained and enhanced public realm/green space will be provided.
	Generation of employment	Low	The development is not assumed to be a major source of employment.
	Potential benefit to housing supply	Medium	Assumption until housing supply position is clarified.
	Impact on retail hierarchy	Low	Any on-site retailing would cater for the increased demand from new residents and visitors, and would not compete with existing outlets (e.g. in Hythe town centre).
	Demographic change	Low	The residential component is of insufficient scale to give rise to significant change at a district-wide level.
	Social infrastructure	Medium to High	The opportunity for the ARC to replace the Hythe swimming pool represents a major benefit. The additional residents will generate demand for healthcare and education, although the development has the potential to fund additional social infrastructure through the Community Infrastructure Levy (CIL).
	Economy and deprivation	Low to Medium	Direct/indirect/induced employment will benefit the local economy (e.g. through the supply chain + resident spend).

6. Proposed Scope

Topics to be Scoped Out

6.1 The bespoke checklist of topics has been refined so as to correspond more closely to the headings normally used in EIA. The topics have then been sifted to identify those proposed for inclusion in the EIA and those to be excluded (i.e. scoped out), taking account of the

likelihood of significant effects. A topic has been included where the likelihood of significant effects is medium or high, or if there is currently insufficient evidence on which to rule it out. A topic has been scoped out either where the likelihood of significant effects is low or where there is a high probability that such effects could be avoided through mitigation. The following topics are proposed to be scoped out:

Topic	Justification
Agricultural Land	The site is not, and never has been, in agricultural use.
Air Quality	The site is not located within an AQMA and the development would not affect any AQMAs. Dust emissions during construction would be controlled in accordance with best practice so as to minimise any risk of significant effects (e.g. in relation to the canal). Operational impacts (mainly traffic) would be insufficient to have a measurable impact on local air quality.
Archaeology (within the site)	The site is assumed to retain no original heritage potential, having been largely disturbed. However, a desk-based assessment and walkover will be carried out anyway as part of a wider cultural heritage study.
Climate Change /Sustainability/Energy	Effects relating to GHG emissions are highly unlikely to be significant. A separate energy strategy/sustainability appraisal will be submitted, which will demonstrate how the development would minimise its GHG emissions, provide for climate change adaptation and achieve relevant sustainability targets.
EMR, Electromagnetic Interference and Odour	The development would not introduce any relevant sources of impact.
Land Use	The site is largely inaccessible and in unproductive use, and the land-use impacts of the development would be mainly beneficial.
Lighting	Lighting impacts will be addressed under other topics (e.g. ecology and landscape).
Microclimate (sunlight/ daylight and wind)	No tall buildings are proposed. Any potential implications of over-shadowing of the canal would be considered under ecology.
Mineral Resources	Workable gravel deposits are assumed to have already been extracted.
Natural Resources	The development is not of a type that will require a high consumption of such resources. Best practice will be adopted to meet relevant targets (e.g. waste recycling, sustainable energy).
Noise and Vibration	The site is not subject to any existing sources of noise or vibration that could have amenity implications for the new residents or render it unsuitable for the proposed uses. Construction would not take place sufficiently close to residential properties, or for a sufficient length of time, to give rise to noise or vibration that could have amenity or structural implications. Construction noise and vibration would be managed on the basis of best practicable means to minimise any risk of nuisance. The operational development is unlikely to give rise to any measurable levels of vibration.
Utilities	Statutory undertakers would be responsible for any off-site upgrades and associated assessment. However, foul drainage would be addressed, since capacity constraints can give rise to impacts such as water pollution.
Waste	A Site Waste Management Plan (SWMP) would be adopted during construction. The quantity and nature of wastes arising are unlikely to give rise to any particular management or environmental concerns. Waste would be managed in accordance with LPA requirements.
Water Supply/Use	This will be addressed under sustainability outside the ES.

Proposed Assessment Topics

6.2 The topics proposed for inclusion in the EIA are set out below, together with the relevant references from Schedule 4 of the EIA Regulations and a summary of the proposed focus of the assessment.

Topic	Schedule 4 Ref
Cultural Heritage	Architectural and Archaeological heritage
Ecology	Fauna Flora
Flood Risk and Drainage	Water Population
Geo-Environment	Soils Water
Landscape and Views	Landscape
Socio-Economics	Population
Transport	Population

Other Aspects of Scope

6.3 The assessment will cover all the mandatory and other relevant matters set out in Schedule 4 of the Regulations, specifically:

- The main alternatives addressed during development of the proposals will be described, and the reasons for rejecting them will be given, including consideration of their environmental effects.
- Effects arising both from construction and from the permanent features and operation of the development will be identified. Effects relating to decommissioning are not considered to be relevant for a project of this type.
- Effects will be categorised, in accordance with standard EIA practice, on the basis of their value (positive, negative etc), sequence (direct, indirect etc), occurrence (short/long-term) and permanence. The significance of effects will be stated in each case and the basis for this conclusion explained.
- Measures proposed or required to mitigate (avoid, reduce or compensate for) significant adverse effects, together with the mechanism for delivering them, will be identified.
- Cumulative effects resulting from interaction between this development and any relevant committed or reasonably foreseeable developments will be identified.

7. Scope and Methodology for Assessment Topics

7.1 This section sets out the anticipated scope and methodology for each assessment topic. It is necessarily provisional; detailed scopes and methodologies will be developed for each topic as scoping and consultation proceed.

Cultural Heritage

7.2 The scope and methodology will be agreed with the Council's Planning Department and with Historic England, but are envisaged to comprise:

- A Desk-Based Assessment (DBA) in accordance with Institute for Archaeologists standards and the Management of Research Projects in the Historic Environment guidance (MoRPHE, English Heritage 2006).
- Identification of relevant assets and evaluation of their significance, with particular focus on the Royal Military Canal (RMC).
- Assessment of the setting of the RMC and its contribution to the significance of the asset on the basis of Historic Environment Good Practice Note 3: The Setting of heritage Assets (2015).
- Input to the masterplanning/design process to minimise potential harm to this significance and to maximise opportunities for enhancement (e.g. through improved access and interpretation).
- Assessment of changes to the visual relationship between the RMC and its setting (using the AVRs prepared as part of the LVIA).
- Assessment of residual effects on significance in terms of substantial/less than substantial harm.

Ecology

7.3 An ecological impact assessment (EcIA) would be carried out in accordance with current best practice, specifically CIEEM (2016): Guidelines for Ecological I. Potential impacts on habitats and species will be identified, their significance assessed and appropriate mitigation agreed, to be implemented by design or through a management plan.

7.4 The assessment will comprise a desktop review of biological data from sources such as the MAGIC, Kent and Medway Biological Records Centre and Kent Wildlife Trust databases, to obtain details of any protected species, habitats and species of principal importance and local wildlife sites in the vicinity.

7.5 A preliminary ecological appraisal of the site has already been completed, on the basis of which the following surveys will also be undertaken and will form the basis of the assessment:

- National Vegetation Classification (NVC, site only);
- Reptiles (site only);
- Mammal walkover (site only);
- Pond suitability assessment for great crested newt (within 250m radius);
- Preliminary invertebrate habitat assessment (site and canal);
- Breeding birds (site and canal);
- Bat activity (site and canal); and
- Water vole and common toad (canal).

Flood Risk and Drainage

7.6 A Flood Risk Assessment (FRA) compliant with the NPPF will be carried out. The scope of the assessment will be agreed with the Council, the Lead Local Flood Authority and the Environment Agency (EA), and is anticipated to include:

- Review of the Strategic Flood Risk Assessment and published EA flood data;
- Site walkover and confirmation of its flood risk zoning using flood maps and topographic data;
- Identification and characterisation of potential flooding sources and receptors (on- and off-site);
- Calculation of changes to runoff and assessment of potential flood risk on- and off-site, including allowance for climate change, for sea defence breach/wave overtopping and canal surcharging scenarios;
- Development of a sustainable drainage (SUDs) strategy to demonstrate nil impact on the canal;
- Qualitative assessment of pollution risk to the canal during construction and from operational development; and
- Confirmation of any constraints on foul drainage capacity.

Geo-Environment

7.7 The geo-environmental assessment will be based on updating of work undertaken in 2015, which included site investigations (SIs). It will include a Phase 1 desktop study based on published information sources (typically including BGS borehole logs, historic mapping, Envirocheck report etc, as appropriate).

7.8 The four monitoring wells installed in 2015 will be used to carry out ground gas and groundwater monitoring over a three week period (depending on environmental conditions). Groundwater samples will be submitted to a UKAS-accredited laboratory for analysis for a standard suite of contaminants.

7.9 The desktop, SIs and monitoring will be used to identify and characterise the level of any contamination risk and the vulnerability of groundwater, surfacewater and soils, on the basis of the source/pathway/receptor model. Potential effects on groundwater, site workers, future users and surrounding receptors (such as the canal) will be assessed, and the need for/scope of any remediation or mitigation will be established, to be implemented through design, monitoring and/or construction management.

Landscape and Views

7.10 The assessment will follow the Guidelines for Landscape and Visual Impact Assessment (LVIA) guidance produced by the Landscape Institute/IEMA (GLVIA, Third Edition, 2013) and will comprise the following tasks:

- Desktop review of published landscape character assessments and policy;
- Fieldwork to describe local landscape character, key views and receptors, and to identify representative viewpoints for the assessment;
- Definition of the development's zone of theoretical visibility (ZTV) and agreement of the location/number of assessment views with council officers;
- Photographing and preparation of viewpoint assessment sheets;

- Preparation of accurate visual representations (AVRs) from selected viewpoints in accordance with LI practice;
- Assessment of effects on landscape character and visual amenity, on the basis of accepted criteria; and
- Identification of mitigation measures as part of a landscape strategy for the site.

Socio-Economics

7.11 The assessment is anticipated to comprise:

- Baseline study of relevant socio-economic indicators at district and local ward levels, including housing demand, employment, deprivation and capacity of social infrastructure, with particular emphasis on the need to replace the Hythe swimming pool.
- Assessment of (beneficial) effects relating to housing provision, employment (temporary/permanent) and recreation/amenity (through ARC/replacement pool) and on-site green space/public realm.
- Assessment of (potentially adverse) effects on social infrastructure (healthcare, education etc), with proposed mitigation (through the CiL etc).

Transport

7.12 A Transport Assessment (TA) will be carried out and in accordance with the NPPF and current best practice, and will be the subject of a separate scoping exercise. Consultation with the council and Kent Highways will determine the number/extent of traffic surveys and junction modelling, any developments to be considered in relation to cumulative impact, and any need for the "growthing" of traffic data.

7.13 Trip generation will be derived from the TRICS database and actual operational data. Options for a revised alignment/treatment of Princes Parade are currently under consideration. Junction configurations for the development access, the layout of internal access roads (e.g. using swept path analysis), levels of parking provision and the incorporation/diversion of PROWs will be developed in accordance with relevant standards.

7.14 Development traffic impacts on relevant junctions will be assessed using the appropriate software; it is currently envisaged that these will comprise the Princes Parade/A259, Twiss Road/South Road, Twiss Road/A259 and A259/High Street/Station Road roundabout.

7.15 The TA will incorporate an assessment of accessibility by sustainable (non-car) modes. The proposals will provide convenient and safe cycle and pedestrian routes to link the site with the surrounding network. The assessment will take account of the criteria set out in the IEMA Guidelines for Environmental Impact Assessment, including severance, pedestrian delay and amenity, driver delay and safety.

8. Proposed ES Structure

8.1 There is no prescribed structure or format for an ES beyond the regulatory requirements set out in Schedule 4. However, taking account of the varied content and readership of an ES, the following structure is proposed:

- Volume 1: Non-Technical Summary (NTS)

- Volume 2: Main Report
- Volume 3: Technical Annexes

NTS

8.2 The NTS is a regulatory requirement and would comprise a document of @ 20 pages that summarises the main information and conclusions of the ES in an accessible style.

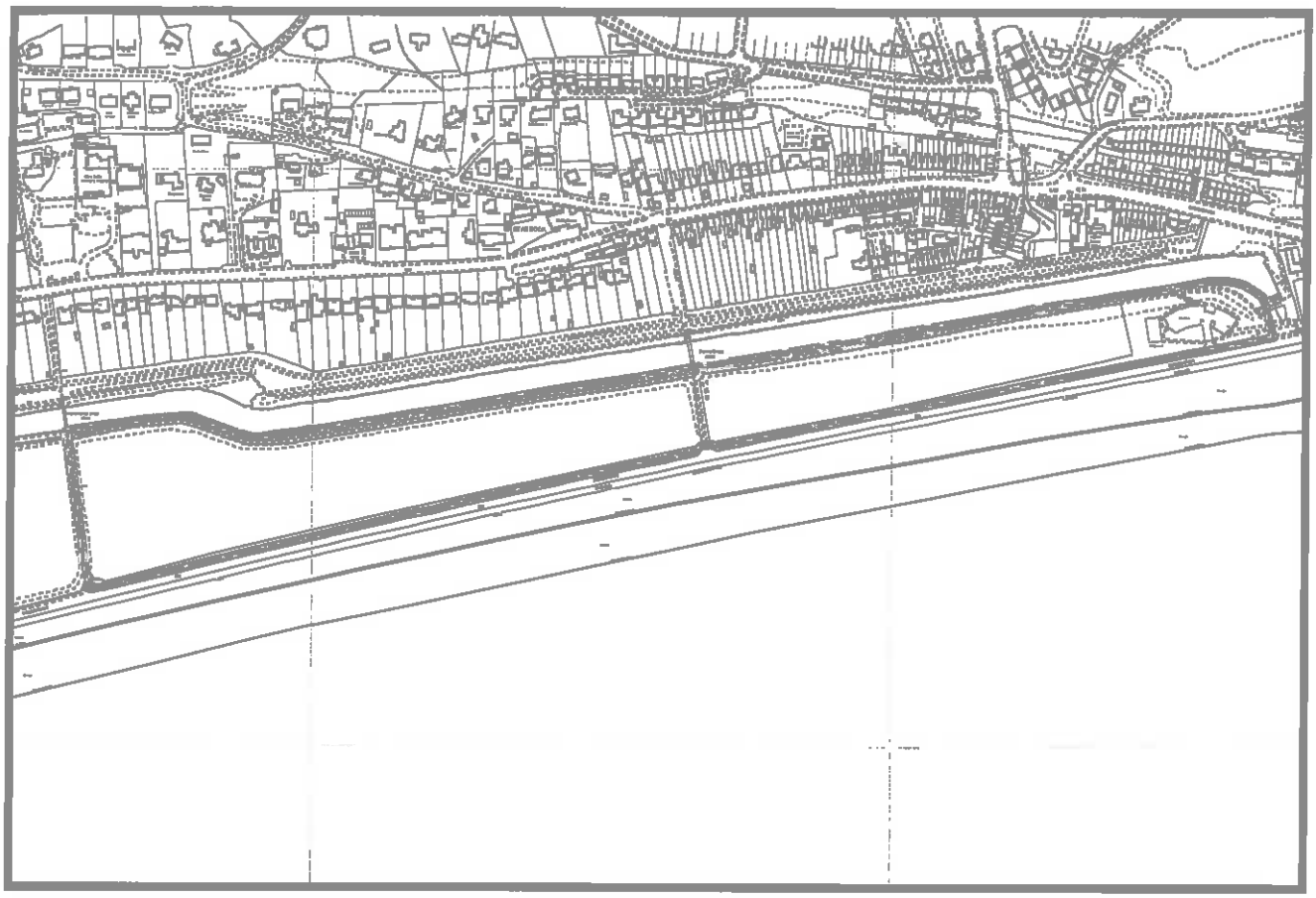
Main Report

8.3 The Main Report would be a document of @ 100-150 pages, divided into the following chapters:

1. Introduction
2. EIA Process
3. Environmental Policy Context
4. Baseline Conditions
5. Development Description (including sections on construction and alternatives)
6. Cultural Heritage
7. Ecology
8. Flood Risk and Drainage
9. Geo-Environment
10. Landscape and Views
11. Socio-Economics
12. Transport
13. Residual and Cumulative Effects

Technical Annexes

8.4 The Technical Annexes would comprise detailed supporting information and would be cross-referenced from the chapters. They would include specific surveys and technical data, together with standalone reports that are required in any event as part of the planning submission (e.g. the FRA and TA).



Application Site

0 50 100 200 300 400 500 Meters

FIGURE 1

Application Site

N

Peter Radmall Associates

Job No. 2470 - Not to scale - July 2016

Wignall, Peter

From: Peter Radmall [firbank@callnetuk.com]
Sent: 16 September 2016 09:39
To: Ian Segre
Cc: Dave.Shore@shepway.gov.uk; Andy.Jarrett@shepway.gov.uk; Samuel Durham; Julian Bore; Matt Shillito
Subject: Re: Prince's Parade - Lighting consultant
Attachments: PrincesParadeScopingReportForSubmission.pdf

Ian,

This looks to be pretty much what we need (but I have some comments below). The attached Scoping Report provides you with an overview of the site and the proposals. The latter are divided into two elements: an affordable recreation centre (ARC), which will be the subject of a full application; and the remainder of the scheme (mainly resi), which will be in outline. Whilst we should have detailed lighting info for the ARC, we will need to make sensible assumptions for the outline scheme.

The deliverable would be a technical report that will form an appendix to the ES (rather than an ES chapter); it can therefore be in your usual house style. I would make the following comments:

1. It will need to address light spill from internal sources as well as external (the swimming pool within the ARC, for example, is likely to be brightly lit);
2. Sensitive receptor locations will need to be agreed with Samuel Durham (re ecology) and Julian Bore (re residential properties etc);
3. It will need to briefly say something about the construction phase; and
4. The methodology section would benefit from an explanation as to how significance levels relate to predicted changes in illumination.

I suggest you send your fee proposal to Dave Shore in the first instance. Others, feel free to comment if necessary.

Regards,

Peter

---- Original Message ----
From: Ian Segre
To: Peter Radmall ; Samuel Durham
Cc: Dave.Shore@shepway.gov.uk ; Andy.Jarrett@shepway.gov.uk ; Julian Bore
Sent: Thursday, September 15, 2016 4:32 PM
Subject: RE: Prince's Parade - Lighting consultant

Good Afternoon Peter,

Apologies I was out of the office this morning and was just going to request some project scope information in order to prepare our fee proposal, when I saw your email.

I have attached a copy of a lighting report section that was compiled for a previous project planning submission, which was relevant Bat roosts.

Please do not hesitate to give me a call if you have any questions.

Kind regards,

Ian Segré | Associate Principal

Unit 1 Library Avenue, Harwell Oxford, Didcot, Oxfordshire, OX11 0SG
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www.elementaconsulting.com
Supporting Teenage Cancer Trust – Helping young people fight cancer

We operate flexible working hours for our staff. Please note the office will close early on Fridays. Click here for more information.

From: Peter Radmall [mailto:firbank@callnetuk.com]
Sent: 13 September 2016 21:28
To: Samuel Durham <samuel.durham@lloydbore.co.uk>
Cc: Ian Segre <ian.segre@elementaconsulting.com>; Dave.Shore@shepway.gov.uk; Andy.Jarrett@shepway.gov.uk; Julian Bore <julian.bore@lloydbore.co.uk>
Subject: Re: Prince's Parade - Lighting consultant

Thanks, Sam. Ian, by copy, could you provide an example of the sort of lighting impact report you normally prepare? I'll then be able to confirm whether that's what we need.

Regards,

Peter

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From: Samuel Durham
To: Ian Segre
Cc: Peter Radmall ; Dave.Shore@shepway.gov.uk ; Andy.Jarrett@shepway.gov.uk
Sent: Tuesday, September 13, 2016 11:43 AM
Subject: FW: Prince's Parade - Lighting consultant

REFERENCE EML-OUT/3609/Clt/20160913-114103-999

Ian,

See below from client for Prince's Parade (request for fee proposal from Elementa).

Peter Radmall (email address in below chain) may be the best person to contact to establish a scope for the fee proposal.

Kind regards,

--

Samuel Durham BSc (Hons) ACIEEM
Senior Ecologist

Lloyd Bore Ltd.
33 St. George's Place, Canterbury, Kent CT1 1UT | T: 01227 464 340
59 Lambeth Walk, London, SE11 6DX | T: 02075 822 363
www.lloydbore.co.uk | E: samuel.durham@lloydbore.co.uk | M: 07471 036 663

We are fully committed to improving the quality of the work and services we provide. We welcome your feedback, and would be grateful if you could complete our Customer Feedback Questionnaire.

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From: Dave.Shore@shepway.gov.uk [mailto:Dave.Shore@shepway.gov.uk]
Sent: 13 September 2016 09:22
To: Samuel Durham <samuel.durham@lloydbore.co.uk>
Cc: Andy.Jarrett@shepway.gov.uk; matt.shillito@tibbalds.co.uk; sue.rowlands@tibbalds.co.uk; claire.perrott@tibbalds.co.uk; Julian Bore <julian.bore@lloydbore.co.uk>; firbank@callnetuk.com
Subject: RE: Prince's Parade - Lighting consultant

Samuel

Grateful if you could request a proposal from Elementa.

Regards

Dave

David Shore

Strategic Development Projects Manager

t: 01303 853459

m: 07976 958486

f: 01303 853502

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Castle Hill Avenue, Folkestone, Kent, CT20 2QY.

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From: Samuel Durham [mailto:samuel.durham@lloydbore.co.uk]
Sent: 12 September 2016 16:37
To: Peter Radmall
Cc: Shore, Dave; Jarrett, Andy; Matt Shillito; Sue Rowlands; claire.perrott@tibbalds.co.uk; Julian Bore
Subject: RE: Prince's Parade - Lighting consultant

REFERENCE EML-OUT/3609/20160912-163443-192

Agreed. It is definitely an important part of my impact scoping exercise for bats.

I'm sure Ian would be able to assist / discuss to ensure that an appropriate fee proposal is provided by Elementa.

Kind regards,

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Sent: Monday, September 12, 2016 4:20 PM
Subject: Prince's Parade - Lighting consultant

REFERENCE EML-OUT/3609/20160912-154856-484

Good afternoon Peter.
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I have recently been working with Ian Segre of Elementa Consulting on light spill modelling in relation to a river corridor used by bats as a foraging / commuting resource.
Ian is well aware of bat / lighting conflicts and bat-sensitive design and I am putting his name forward as we have experience of working with him on this matter.
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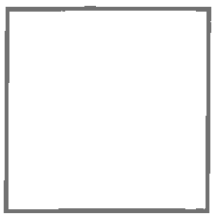

Wignall, Peter

From: Samuel Durham [samuel.durham@lloydbore.co.uk]
Sent: 16 September 2016 10:28
To: Peter Radmall; Ian Segre
Cc: Dave.Shore@shepway.gov.uk; Andy.Jarrett@shepway.gov.uk; Julian Bore; Matt Shillito
Subject: RE: Prince's Parade - Lighting consultant
Attachments: image003.jpg; image004.jpg

REFERENCE EML-OUT/3609/20160916-102438-266

Peter / Ian,

Once Elementa have been instructed, I will provide advice on locations of light-sensitive ecological receptors. Essentially this is the canal and associated vegetation on the tow path / embankment between canal and site (which is used by foraging / commuting bats), but I can provide a marked up plan in due course if that would be of assistance.

Peter / Matt,
I have assumed that there will be no need to provide additional lighting on the tow path / bridges over canal. Is this assumption correct?

Kind regards,

--

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From: Peter Radmall [mailto:firbank@callnetuk.com]
Sent: 16 September 2016 09:39
To: Ian Segre <ian.segre@elementaconsulting.com>
Cc: Dave.Shore@shepway.gov.uk; Andy.Jarrett@shepway.gov.uk; Samuel Durham <samuel.durham@lloydbore.co.uk>; Julian Bore <julian.bore@lloydbore.co.uk>; Matt Shillito <matt.shillito@tibbalds.co.uk>
Subject: Re: Prince's Parade - Lighting consultant

Ian,

This looks to be pretty much what we need (but I have some comments below). The attached Scoping Report provides you with an overview of the site and the proposals. The latter are divided into two elements: an affordable

recreation centre (ARC), which will be the subject of a full application; and the remainder of the scheme (mainly resi), which will be in outline. Whilst we should have detailed lighting info for the ARC, we will need to make sensible assumptions for the outline scheme.

The deliverable would be a technical report that will form an appendix to the ES (rather than an ES chapter); it can therefore be in your usual house style. I would make the following comments:

1. It will need to address light spill from internal sources as well as external (the swimming pool within the ARC, for example, is likely to be brightly lit);
2. Sensitive receptor locations will need to be agreed with Samuel Durham (re ecology) and Julian Bore (re residential properties etc);
3. It will need to briefly say something about the construction phase; and
4. The methodology section would benefit from an explanation as to how significance levels relate to predicted changes in illumination.

I suggest you send your fee proposal to Dave Shore in the first instance. Others, feel free to comment if necessary.

Regards,

Peter

----- Original Message -----
From: Ian Segre
To: Peter Radmall ; Samuel Durham
Cc: Dave.Shore@shepway.gov.uk ; Andy.Jarrett@shepway.gov.uk ; Julian Bore
Sent: Thursday, September 15, 2016 4:32 PM
Subject: RE: Prince's Parade - Lighting consultant

Good Afternoon Peter,

Apologies I was out of the office this morning and was just going to request some project scope information in order to prepare our fee proposal, when I saw your email.

I have attached a copy of a lighting report section that was compiled for a previous project planning submission, which was relevant Bat roosts.

Please do not hesitate to give me a call if you have any questions.

Kind regards,

Ian Segré | Associate Principal

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