APPENDIX 8.4 VISUAL IMPACT ASSESSMENT



Syon Lane, Brentford, Isleworth TW7 5QE SCOPING RESPONSE ADDITIONAL VIEW NOTE

Prepared by Katy Neaves	Client: St Edward
File Ref: A247-NT08.0	Date: September 2019

1. This note has been prepared to address LB Hounslow's requirement to consider an additional view between representative view 17 (Thames Path) and representative view 18 (northern footpath of the A316), from the "Deer Park close the Kew Observatory" to determine if further assessment is needed.

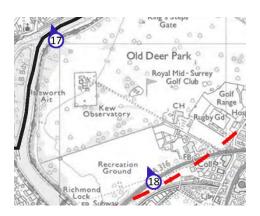


Figure 1 – Insert from the representative views location plan

- 2. The Kew Observatory sits within the Royal Mid-Surrey Golf Club grounds of the Old Deer Park, which is not publicly accessible. Aerial mapping, however, illustrates that the Royal Mid-Surrey Golf Club grounds contains mature and semi-mature trees within its layout, which it is considered will reduce views from within it.
- 3. Representative view 18 overlooks the public accessible area of open space associated with the Old Deer Park, which open nature provides an open view across it.
- 4. The verified views tested for representative views 17 and 18, set out on the following pages, illustrate that the proposal, based on the current massing, is not visible due to the flat nature of the landform and intervening vegetation. The proposal is illustrated with a green wireline on the images.
- 5. It is considered that, if permission was granted to access and capture a verified view from the Royal Mid-Surrey Golf Club grounds, the proposal will not be visible from the Old Deer Park close the Kew Observatory due to intervening vegetation. It is also considered that, in accordance with best practice, representative view 18 provides the "worst-case scenario" across the Old Deer Park.



<image>

Representative viewpoint 17: View from a seating area along the River Thames Path

Representative viewpoint 18: View taken from the northern footpath of the A316



RE: Homebase, Syon Lane, Brentford TW8 - Approach to the TVIA views

Shane Baker < Shane.Baker@hounslow.gov.uk>

Tue 13/08/2019 09:49

To: Katy Neaves <k.neaves@arcldp.co.uk>

Dear Katy,

That looks fine. I have received one comment requesting we consider an additional viewpoint from near the Kew Observatory (probably midway between viewpoints 17 and 18. Perhaps an initial assessment can made along the lines that you did in Gunnerbsury Park.

Regards,

Shane Baker Deputy Head of Growth and Opportunity Areas Housing, Planning and Communities London Borough of Hounslow Hounslow House, 7 Bath Road, Hounslow, Middlesex TW3 3EB

Office: 020 8583 4899



From: Katy Neaves [mailto:k.neaves@arcldp.co.uk] Sent: 12 August 2019 10:41

To: Shane Baker < Shane.Baker@hounslow.gov.uk>

Cc: Joost Sandstra Bennett <joost.s-bennett@berkeleygroup.co.uk>; Tom Fox <Tom.Fox@berkeleygroup.co.uk>; Sam Pullar <sam.pullar@indigoplanning.com>; Mathew Mainwaring <mathew.mainwaring@indigoplanning.com> **Subject:** RE: Homebase, Syon Lane, Brentford TW8 - Approach to the TVIA views

Hi Shane,

Can you confirm whether you have any comments on the attached note; the approach to preparing the verified views, set out below and within the attached note; and, what views should be prioritised to inform the next preapplication meeting for the site.

Many thanks in advance Katy Neaves AoU CMLI Director – Townscape and Urban Design

arc Landscape Design and Planning Ltd. Engravers House, 35 Wick Road, Teddington, Middx TW11 9DN From: Katy Neaves Sent: 18 July 2019 15:21 To: <u>shane.baker@hounslow.gov.uk</u> Cc: Joost Sandstra Bennett <<u>joost.s-bennett@berkeleygroup.co.uk</u>>; Tom Fox <<u>Tom.Fox@berkeleygroup.co.uk</u>>; Sam Pullar <<u>sam.pullar@indigoplanning.com</u>>; Mathew Mainwaring <<u>mathew.mainwaring@indigoplanning.com</u>> Subject: Homebase, Syon Lane, Brentford TW8 - Approach to the TVIA views

Dear Shane,

Further to our conversation yesterday please find attached the updated Townscape and Visual Impact Assessment (TVIA) Visual Representation Note (see attached – A247-NT02.5).

This note has been updated to include the additional view requested in the letter referenced 00505/H/PRE1 from the Great West Road and Jersey Road junction. As discussed we have removed the Gunnersbury Cemetery view and considered the view from the north-east of the Bowling Club pavilion. This view, however, is not currently possible due to the construction plant associated with the new sports pavilion screening views from this area. The central sports field area of the park is also not currently accessible so we have reviewed views from its north-east corner. Overall it was considered that the development's buildings, if visible, are likely to be read behind Great West House, 1000 Great West Road and GSK building and are unlikely to show any impact. A view is therefore not proposed to be tested as part of the TVIA from this area.

As confirmed on the phone the longer distance landscape/townscape representations are taken on a 24mm prime lens not utilising tilt-shift. I've included AVR methodology for undertaking the accurate visual representations and would welcome feedback and confirmation that this approach is acceptable. I note that the letter referenced 00505/H/PRE1 identifies the latest guidance from The Landscape Institute (Photography and Photomontage in Landscape and Visual Impact Assessment – TGN Draft 2018-06-01). We have been advised by the Landscape Institute that this guidance is changing following the consultation they have undertaken and should not be taken as de facto guidance until the final TGN is issued. As and when this is released AVR will review their methodology accordingly.

Going forwards we would welcome guidance from you, and your design and conservation officers, on what views identified within Figure 2 of the attached note we should prioritise to inform the next preapplication meeting for the site. We have assumed that the three views from Syon Park should be included. As discussed on the phone, for the purposes of the next pre-application meeting, we don't plan to test the views from Osterley, Kew and Boston Manor based on the previously shown limited or no visibility afforded by the scheme. As well as any TVIA views I understand that you would like some architectural visuals from the east of Great West Road for the next pre-application meeting to understand what the scheme's frontage will look like from this area.

Should you have any queries on the attached note please do not hesitate to contact me.

Kind regards

Katy Neaves AoU CMLI

Director - Townscape and Urban Design

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Syon Lane, Brentford, Isleworth TW7 5QE REPRESENTATIVE VIEW SELECTION NOTE

Prepared by Katy Neaves	Client: St Edward
File Ref: A247-NT02.5	Date: July 2019

Introduction

- This advice note has been prepared to provide an agreed understanding of the representative views for the Environmental Statement's Townscape Visual Impact Assessment (TVIA), which will be undertaken to support the design development and planning applications at the Homebase, Syon Lane (hereafter referred to as the 'Site'). The Site is located in the London Borough of Hounslow (LBH). LBH boundary with the London Borough of Richmond upon Thames (LBRuT) is positioned to the southeast of the Site and boundary with the London Borough of Ealing (LBE) is located to the northeast.
- 2. The note is based on our preliminary field study and desktop review of view-associated planning policy of the London Plan, along with local planning policies. Consideration has then been given to the likely visibility, which has been established by Ordnance Survey (OS) maps and aerial photography.
- 3. Field studies have been undertaken by a townscape specialist from Arc on 15th and 18th March 2019 and 15th July 2019. The weather was clear and the visibility was good on these dates. The field study recorded the Site and surrounding context's townscape features. It also considered the likely visual receptors identified in the desktop review and their supporting representative views.
- 4. As part of the pre-application consultation process we have sought comments on the location of the representative views from LBH. This has led to the request to not test the view from Gunnersbury Cemetery, as LBH consider that this view is not necessary and is unlikely to show any impact, and review potential view from:
 - Gunnersbury Park, to the north east of the Bowling Club Pavilion; and,
 - Junction of Great West Road and Jersey Road
- 5. At the time of undertaking the July 2019 field study it was not possible to capture a view from the Bowling Club Pavilion at Gunnersbury Park. This is due to the plant associated with the new Sports Facility currently under construction preventing views towards the Site. The main sports field in the centre of the park was also not publicly accessible, so views were reviewed from the parks northeast corner. Overall it was considered that the development's buildings, if visible, are likely to be read behind Great West House, 1000 Great West Road and GSK building and will have a limited effect. A view is therefore not proposed to be tested as part of the TVIA from the north east corner of Gunnersbury Park.
- 6. A view from the junction of the Great West Road and Jersey Road has been included from the central pedestrian crossing island as this will illustrate a long distance view to the Site from the west. The supporting Figure 2 has been updated accordingly. We consider this an appropriate mix of views to demonstrate the visibility of the Site and the scheme proposal from the surrounding visual receptors.





7. The draft methodology for producing the accurate visual representations (AVR) is set out in **Appendix A** of this note for LBH comment. It should be noted that long distance townscape and landscape views that are over 1km from the site (representative views 6 to 24) are taken using 24mm prime lens not utilising shift lens, as requested by LBH Officers as part of the pre-application discussions.

Study area

8. The initial study area for the TVIA includes both Site and its wider context at a 2.5 kilometre radius, as illustrated in **Figure 1**, with further long distant representative views being considered where established and relevant.

Receptors

9. The TVIA will describe and assess the effect of the scheme proposal on identified townscape character area receptors and visual receptor's representative views in accordance with the Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013); and, An Approach to Landscape Character Assessment (2014). The former states that townscape and visual are two interlinked elements and that the effects of the development on both types of receptors will be addressed in the TVIA.

Townscape character area receptors

10.LBH's Urban Context and Character Study splits the borough into ten districts. The Site falls within the Brentford district, the study area also includes the districts of Isleworth and Osterley & Spring Grove. The study establishes urban typology and character areas for each of these districts. Consideration will be given to this urban typology and character areas, along with any conservation areas present within the study area, when establishing the townscape character areas (TCA) for the TVIA.

Visual Receptors

- 11.Visual receptors are defined as 'people who have the potential to be affected by the proposed development'. The proposed visual receptors have been established through both a desk top analysis of the surrounding area and a field study. The likely visual receptors include:
 - Residents in properties located adjacent to the Site and within 500 metre of its boundary, where associated windows are orientated towards the Site;
 - Users of public open space areas located within 2.5 kilometre of the Site; and
 - Users of public highways and rights of way located within 2.5 kilometres of the Site.

Representative view selection

Relevant planning policy

12. Along with the locations of the visual receptors, consideration has been given to relevant planning policy within the London Plan, along with LBH's, LBRuT's and LBE's local planning policies. In summary:

- The Site does not fall within a 'protected view', as set out in the London View Management Framework (LVMF).
- LBH's Local Plan 2015-2030 recognises 'local views' within the spatial strategy diagrams for the ten districts within the borough. No local views are identified within Brentford. Two local views are





established within Osterley Park and four local views are located alongside the historic riverside of Isleworth. Only one of these six local views are orientated towards the Site, a view from the River Thames to the south of the Isleworth Eyot. This view is located 2 kilometres from the Site and it is considered that the emerging development will not be visible due to the intervening built form and vegetation.

- LBH's Urban Context and Character Study recognises further views associated within the ten districts within the borough. Those orientated towards the Site include:
 - Brentford district from Kew Bridge this view is located 2.5 kilometres from the Site and it is considered that the emerging development will not be visible due to the intervening built form and vegetation.
 - Isleworth district views identified to Kew and Syon Park will be tested accordingly (representative views 14, 17 and 20)
 - Osterley & Spring Grove none of the four views are orientated towards the Site.
- LBH's Urban Context and Character Study establishes that the grade II listed Gillette Building clock tower is a major landmark at the eastern gateway into the Great Western Corridor. Consideration of the Site and emerging development interaction with this landmark will be considered in representative view 3. Further listed buildings include the NatWest bank and former Coty Factory and the view selection will also consider potential interaction as part of the field study.
- LBH also establish local views within conservation area appraisals and the following conservation areas are positioned within 2 kilometres of the Site (as referenced on **Figure 1**):
 - A. Grand Union Canal & Boston Manor (LBH no.22) establishes that "The character and quality of the conservation area is greatly enhanced by its rich variety and extent of waterways and green open spaces, which create dynamic views in many places" which will be tested accordingly (representative view 11)
 - B. Isleworth Riverside (LBH no.11) identifies the "The most picturesque view of this part of the village [Isleworth Riverside] is from the river and from Kew Gardens, with the trees, Syon House, the rebuilt church and churchyard, ribbon of houses, and public house, and buildings around the curve until hidden by the tree-covered island of Isleworth Ait. The curve provides a similar view, particularly of the church tower, from the Isleworth river edge further (south) west.", which will be tested accordingly (representative views 16 and 17)
 - C. Spring Grove (LBH no.24) no specific views are established within the supporting appraisal.
 - D. The Butts (LBH no.3) no specific views are established within the supporting appraisal.
 - E. St. Pauls Brentford (LBH no.14) no specific views are established within the supporting appraisal and <u>representative view 12</u> has been taken from the conservation areas.
 - F. Osterley Park (LBH no.13) the appraisal establishes the *"potential erosion of long-distance views from as well as of the Park"* which will be tested accordingly (<u>representative views 7, 8, 9 and 10</u>)
 - G. Woodlands Grove (LBH no.20) no specific views are established within the supporting appraisal. The conservation area is located 1.5 kilometres from the Site and it is considered that the emerging development will not be visible due to the intervening built form and vegetation.
- LBH's Great West Corridor: Appendix View Assessment (March 2019) Figure 4.1 and the supporting View Testing document and View Code locations spreadsheet establishes a number of 'sensitive views'. The following views will be tested accordingly:
 - o BM2 Boston Manor: Front of Boston Manor (representative view 11)





- o BG4 Botanical Gardens: Queen Elizabeth Gates (representative view 23)
- BG7 Botanical Gardens: Rear of the Palm House (<u>representative view 21</u>)
- o BG9 Botanical Gardens : Opposite the Palm House (representative view 22)
- o BG10 Botanical Gardens: Cedar Vista (representative view 20)
- o BG11 Botanical Gardens: Pagoda Syon Vista (representative view 19)
- OP1 Osterley Park: Osterley House (<u>representative view 9</u>)
- SP1 Syon Park: Park Road 1 (<u>representative view 15</u>)
- o SP2 Syon Park: Park Road 2 (representative view 14)
- o SP3 Syon Park: Syon House (representative view 13)
- o SS1 Syon Lane Station: Gillette Factory Tower (representative view 1)
- LBRuT establish local views and landmarks within their Proposal Maps. Those views relevant to the Site include:
 - View from The River Thames Path (representative view 17)
 - o Vista from Syon Vista/ Cedar Vista west (representative view 20)
 - Vista from the A316 (representative view 18)
- LBRuT also discuss views within their conservation area statements and the following conservation areas are located within 2 kilometres of the Site (as referenced on **Figure 1**):
 - H. Royal Botanic Gardens, Kew (LBRuT no.63) identifies the *"finely framed view towards Syon House"*, which will be tested accordingly (<u>representative views 19</u>)
 - I. Old Deer Park (LBRuT no.57) no specific views are established but the statement recognises development pressure which may *"harm the balance of the river and landscape dominated setting, and the obstruction or spoiling of views, skylines and landmarks"*
- Under the Development Management Plan LBE establishes a series of landmarks, none of which fall within the study area. Views to these landmarks have not been considered further within this note.
- Thames Landscape Strategy 1994 and its 2012 review consider the stretch of the River Thames between Weybridge and Kew and identify vistas between the river's landmarks. Those relevant to the Site include:
 - Vista from the A316 (representative view 18)
 - Vista from the King's Observatory to Syon House (Access to be reviewed)
- Map 4.1 of the Royal Botanic Gardens World Heritage Site Management Plan establishes significant views and vistas out of and into the World Heritage Site. Those relevant to the Site include:
 - o Syon Vista/ Cedar Vista west (representative view 20)
 - o Cedar Vista east (representative view 19)
 - View from the Pagoda (Access to be reviewed)
- 13. The representative view section has also considered the views tested as part of the Former Syon Gate Service Station (P/2017/0053) HTVIA and supplementary Heritage Statement, which includes the following that are relevant to the Site (some of which are proposed to be slightly moved or re-orientated towards the Site):
 - o Great West Road (north), outside no.772 (representative view 5)
 - o Grant Way Roundabout (representative view 3)
 - Former Firestone entrance gates (<u>representative view 4</u>)
 - Syon Park (three views) (representative views 13, 14 and 15)
 - Northumberland Avenue (<u>representative view 2</u>)





• Osterley Park (two views) (representative views 7 and 10)

Representative views

- 14. The TVIA will be supported by a series of photographs from representative views. These are listed within **Table 1** and set out in **Figure 2**. This also includes reflection of the type of view and a summary of the reasons for selection. Two different types of AVR are proposed:
 - Wireline AVRs (AVR1¹) defined as images that illustrate the location, scale and degree of visibility; or
 - Rendered AVRs (AVR3) defined as images that illustrate the location, scale, degree of visibility, visual description of architectural form and use of materials.

RV	Location	Туре	Comment
1.	Close to the entrance of Syon Lane Station	AVR3	Identified within LBH's Great West Corridor: Appendix
	– western footpath, Spur Road, Isleworth		View Assessment
2.	Taken from the northwest corner of the	AVR3	Typical townscape view overlooking an Area of Special
	junction of Northumberland Avenue and		Character
	Redesdale Gardens		
3.	Taken from the western pavement of the	AVR3	Typical townscape view overlooking the listed former
	Syon Lane / Grant Way roundabout		Gillette Factory
4.	Taken from the northern pavement of the	AVR3	Typical townscape view from the east
	Great West Road, adjacent to the former		
	Firestone factory entrance gates		
5.	Taken from the northern pavement of the	AVR3	Typical townscape view from the west
	Great West Road, outside no.772		
6.	Taken from the central reservation of the	AVR1	Typical townscape view from the west
	Great West Road		
7.	Taken from Osterley Park, at the junction	AVR1	Osterley Park is a Registered Park and Garden and a
	of the entrance road and a public right of		conservation area
	way		
8.	Taken from the centre of Osterley Park	AVR1	Osterley Park is a Registered Park and Garden and a
			conservation area
9.	Taken from the top of the steps of Osterley	AVR1	Identified within the Great West Corridor: Appendix
	Park House		View Assessment
			Osterley Park House is a grade I listed building and falls
			with a Registered Park and Garden and a conservation
			area
10.	Taken from a bridleway within Osterley	AVR1	Osterley Park is a Registered Park and Garden and a
	Park		conservation area
11.	Taken from Boston Manor Park	AVR1	Identified within the Great West Corridor: Appendix
			View Assessment
			Boston Manor Park falls within a conservation area
12.	Taken from St Paul's Recreation Ground	AVR1	St Paul's Recreation Ground falls within St. Pauls
			Brentford Conservation Area
13.	Taken from Syon Park in between the Gate	AVR1	Identified within the Great West Corridor: Appendix
	Lodges		View Assessment
			Syon Park is a Registered Park and Garden and a
			conservation area

Table 1: Representative views

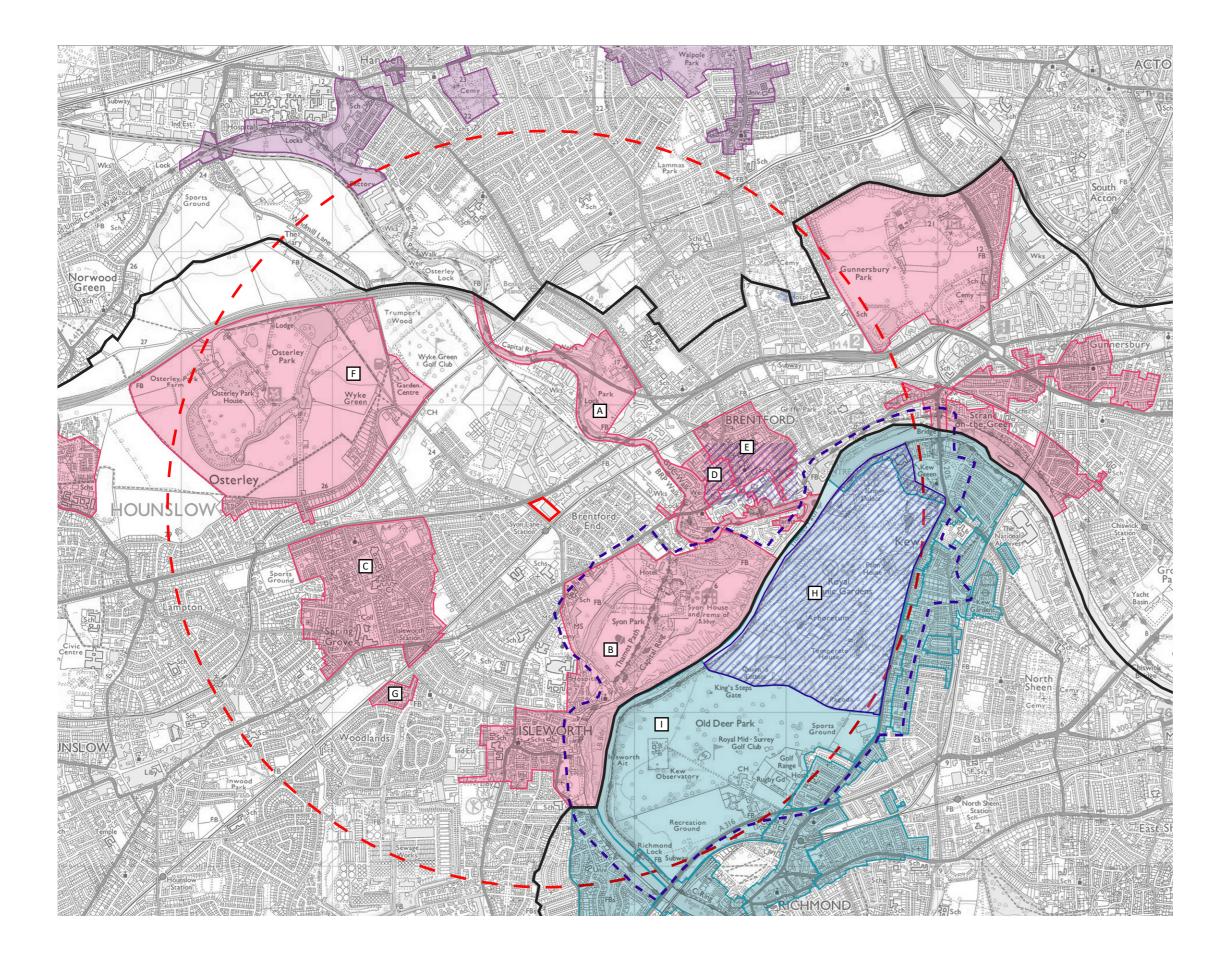


¹ As defined within the 2012 London View Management Framework SPG's Appendix C ARC LANDSCAPE DESIGN AND PLANNING LTD Engravers House, 35 Wick Road, Teddington, Middx TW11 9DN T - 020 3538 8980 E - admin@arcldp.co.uk www.arcldp.co.uk Registered Address: Ferrari House, 258 Field End Road, Ruislip, Middlesex HA4 9UU Registered in England. Company Number 8995863. VAT Registration Number 185037893



RV	Location	Туре	Comment
14.	Taken from Syon Park southern entrance footpath (north)	AVR3	Identified within the Great West Corridor: Appendix View Assessment Syon Park is a Registered Park and Garden and a conservation area
15.	Taken from Syon Park southern entrance footpath (south)	AVR1	Identified within the Great West Corridor: Appendix View Assessment Syon Park is a Registered Park and Garden and a conservation area
16.	Taken from the riverside walk close to Nazareth House, Isleworth	AVR1	Falls within Isleworth Riverside Conservation Area
17.	Taken from a seating area along the River Thames Path	AVR1	Falls within Old Deer Park Conservation Area and identified within LBRuT Proposal Map
18.	Taken from the northern footpath of the A316	AVR1	Falls within Old Deer Park Conservation Area and identified within LBRuT Proposal Map and the Thames Landscape Strategy as a vista
19.	Botanical Gardens Kew, Cedar Vista east	AVR1	Identified within the Great West Corridor: Appendix View Assessment Botanical Gardens Kew is a World Heritage Site, Registered Park and Garden and a conservation area
20.	Botanical Gardens Kew, Syon Vista/ Cedar Vista west	AVR1	Identified within the Great West Corridor: Appendix View Assessment Botanical Gardens Kew is a World Heritage Site, Registered Park and Garden and a conservation area
21.	Botanical Gardens Kew, to the west of the Palm house	AVR1	Identified within the Great West Corridor: Appendix View Assessment Botanical Gardens Kew is a World Heritage Site, Registered Park and Garden and a conservation area
22.	Botanical Gardens Kew, close to 'the Botanical' building	AVR1	Identified within the Great West Corridor: Appendix View Assessment Botanical Gardens Kew is a World Heritage Site, Registered Park and Garden and a conservation area
23.	Botanical Gardens Kew, to the west of Elizabeth Gates	AVR1	Identified within the Great West Corridor: Appendix View Assessment Botanical Gardens Kew is a World Heritage Site, Registered Park and Garden and a conservation area
24.	Junction of Great West Corridor and Jersey Road	AVR1	Typical, long distance, townscape view from the west





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LEGEND



Site Boundary (refer to architects plan for definitve boundary)



2km Study Area



Borough boundaries



LB Hounslow Conservation Areas

- A- Grand Union Canal & Boston Manor
- B- Isleworth Riverside
- C- Spring Grove
- D- The Butts
- E- St Paul Brentford
- F- Osterley Park
- G- Woodlands Grove

LB Richmond upon Thames **Conservation Areas**

H- Royal Botanic Gardens, Kew I- Old Deer Park



LB Ealing Conservation Areas

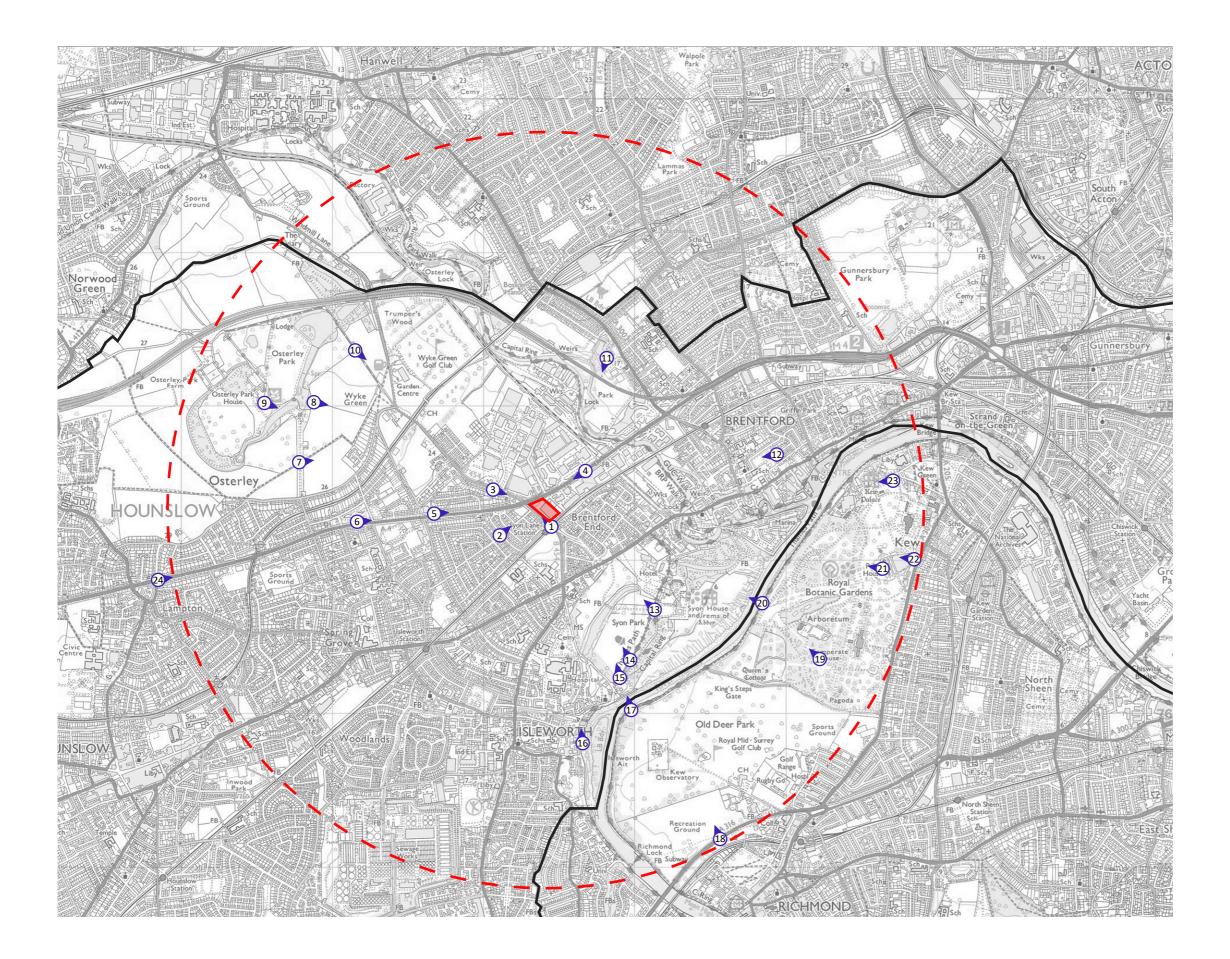


Royal Botanic Gardens World Heritage Site

Royal Botanic Gardens World Heritage Site buffer



A247-Syon Lane, Brentford FIG 1 - CONSERVATION AREA & WORLD HERITAGE SITE **CLIENT - ST EDWARD** Dwg No. - A247-NT02.5-FIG 1 Scale - NTS @ A3 Date - 17-07-19



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LEGEND



Site Boundary (refer to architects plan for definitve boundary)

2km Study Area

Borough boundaries

Representative view location



A247-Syon Lane, Brentford **FIG 2 - REPRESENTATIVE VIEWS CLIENT - ST EDWARD** Dwg No. - A247-NT02.5-FIG 2 Scale - NTS @ A3 Date - 17-07-19



Appendix A – AVR methodology



Project Methodology - Syon Lane

AVR London were commissioned by Berkeley Homes to produce a number of verified views of the proposals off Syon Lane in West London. The positions were identified by the townscape consultants and existing documentation.

2D plans, Ordnance Survey Mapping, local survey data, and a 3D model were provided by Grid Architects, and these were used by AVR London to verify the proposal for the selected viewing positions.

Surveying

Control stations were established at each camera position and easily and clearly identifiable static points within the view were identified by the chartered land surveyor on site and marked as an overlay on the photograph from that position.

The survey control stations are resected from the OS base mapping and wherever possible, linked together to form a survey network. This means that survey information is accurate to tolerances quoted by GPS survey methods in plan and commensurate with this in level.

Horizontal and vertical angle observations from the control stations allow the previously identified points within the view to be surveyed using line of sight surveying and the accurate coordination of these points determined using an intersection program, these points are then related back to the Ordnance Survey grid and provided in a spreadsheet format.

The required horizon line within the image is established using the horizontal collimation of the theodolite (set to 1.60m above the ground) to identify 3 or 4 features that fall along the horizon line.

Surveying equipment used:

Wild/Leica TC1000 electronic theodolite which has 3" angle measuring accuracy and 3mm + 2ppm distance accuracy. Wild/Leica NAK2 automatic level which a standard deviation of +/- 0.7mm/km

Photography

Each scene was photographed using a plumb line over a survey pin to accurately position the view location. The centre of the camera lens was positioned at a height of 1.60 metres above the ground to simulate average viewing height. Each view was taken with a lens that gave approximately a 70 degree field of view, either in landscape or portrait format, a standard which has emerged for verified architectural photography. The nature of digital photography means that a record of the time and date of each photograph is embedded within the file; this metadata allows accurate lighting timings to be recreated within the computer model. For more distant views a more zoomd 50mm lens was used, and in some cases where it was important to capture the wider context a series of additional views were captured to form diptychs or triptychs.

In professional architectural photography, having the camera horizontal is desirable in order to prevent any 3 point perspective being introduced to the image and ensure the verticals within the photographed scene remain parallel. Within architectural photography this is standard practice and more realistically reflects the viewing experience. The camera used by the photographer has the ability to shift the digital capture chip with respect to the centre of the camera lens, allowing for the horizon in the image to be above, below or centrally within the image whilst maintaining the parallel nature of verticals previously mentioned.

Using the surveyed horizon points as a guide, each photograph is checked and rotated, if necessary, in proprietary digital image manipulation software to ensure that the horizon

Sample Data

Camera	Easting	Northing	Ground Level	Horizon Leve
1	516432.67	177219.63	17.38	18.98
Point	Easting	Northing	Level	
101	516428.90	177220.73	21.64	
102	516427.24	177221.46	18.65	
103	516426.63	177223.63	17.37	
104	516426.22	177226.41	23.23	
105	516421.92	177226.04	18.45	
106	516333.54	177295.90	21.96	
107	516408.99	177239.77	17.45	
108	516409.30	177239.67	21.58	
109	516284.98	177352.20	27.29	
110	516218.76	177435.32	68.97	
111	516218.57	177434.07	38.89	
112	516429.79	177222.72	18.47	
113	516277.29	177414.11	38.78	
114	516420.99	177236.14	17.33	
115	516294.27	177452.20	37.69	
116	516416.17	177248.35	17.48	
117	516420.48	177248.78	22.62	
118	516419.05	177255.71	27.83	
119	516421.04	177253.81	18.85	
120	516394.18	177356.07	55.85	
121	516429.27	177232.97	17.24	





line on the photograph is level and coincident with the information received from the surveyor.

Accurate Visual Representation Production Process

The 3D computer model was precisely aligned to a site plan on the OS coordinate grid system.

Within the 3D software a virtual camera was set up using the coordinates provided by the surveyor along with the previously identified points within the scene. The virtual camera was verified by matching the contextual surveyed points with matching points within the overlaid photograph. As all the surveyed points, virtual camera and 3D model all relate to the same 3-dimensional coordinate system then there is only one position, viewing direction and field of view where all these points coincide with the actual photograph from site. The virtual camera is now verified against the site photograph.

For the fully rendered views a lighting simulation (using accurate latitude, longitude and time) was established within the proprietary 3D modeling software matching that of the actual site photograph. Along with the virtual sunlight, virtual materials were applied to the 3D model to match those advised by the architects. The proprietary 3D modeling software then uses the verified virtual camera, 3D digital model, lighting and material setup to produce a computer generated render of the proposed building.

The proposal was masked where it was obscured behind built form or street furniture.

Using the surveyed information and verification process described above, the scale and position of a proposal with a scene can be objectively calculated. The final computer generated image of the proposed building is achieved by combining the computer generated render and the site photography within proprietary digital compositing software.

Cumulative Developments

Massing models for the cumulative developments or proposed masterplan were supplied by the architects.