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**Greggs Bakery / Twickenham**  
Townscape & Visual Impact Appraisal



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Prepared by

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## 1. Introduction

### Introduction

1.1 This Townscape and Visual Impact Appraisal (TVIA) has been prepared to support the application for full planning permission for the proposed residential led mixed use development at the former Greggs Bakery, Twickenham (hereafter referred to as the 'Scheme Proposal') located in the London Borough Richmond upon Thames (LBRuT).

1.2 This TVIA has been prepared on behalf of London Square ('the Applicant') and assesses the effect of the Scheme Proposal (described below), on the townscape and visual receptors of the former Greggs Bakery site (hereafter referred to as the 'Site') and its surroundings; the location of which is shown in **Figure 1.1**.

*"Demolition of existing buildings (with the retention of a single dwelling) and redevelopment of the site to provide 116 residential units and 183 sqm commercial floorspace; landscaped areas; with associated parking and highways works and other works associated with the development."*

### Background

1.3 The TVIA is set out in five sections. Section two provides a summary of the approach and methodology used. This is followed by section three, which assesses the baseline situation of the Site and its surroundings (the baseline study) in respect of both townscape character and visual amenity. This established the sensitivity of the Site against which the Scheme Proposal is assessed. The fourth section provides an appraisal of effects of the Scheme Proposal on the previously identified baseline situation. A summary of the findings is set out at the end of the report. The TVIA is supported by a series of figures, photos and appendices, the latter includes an appraisal of effects on the identified representative views.

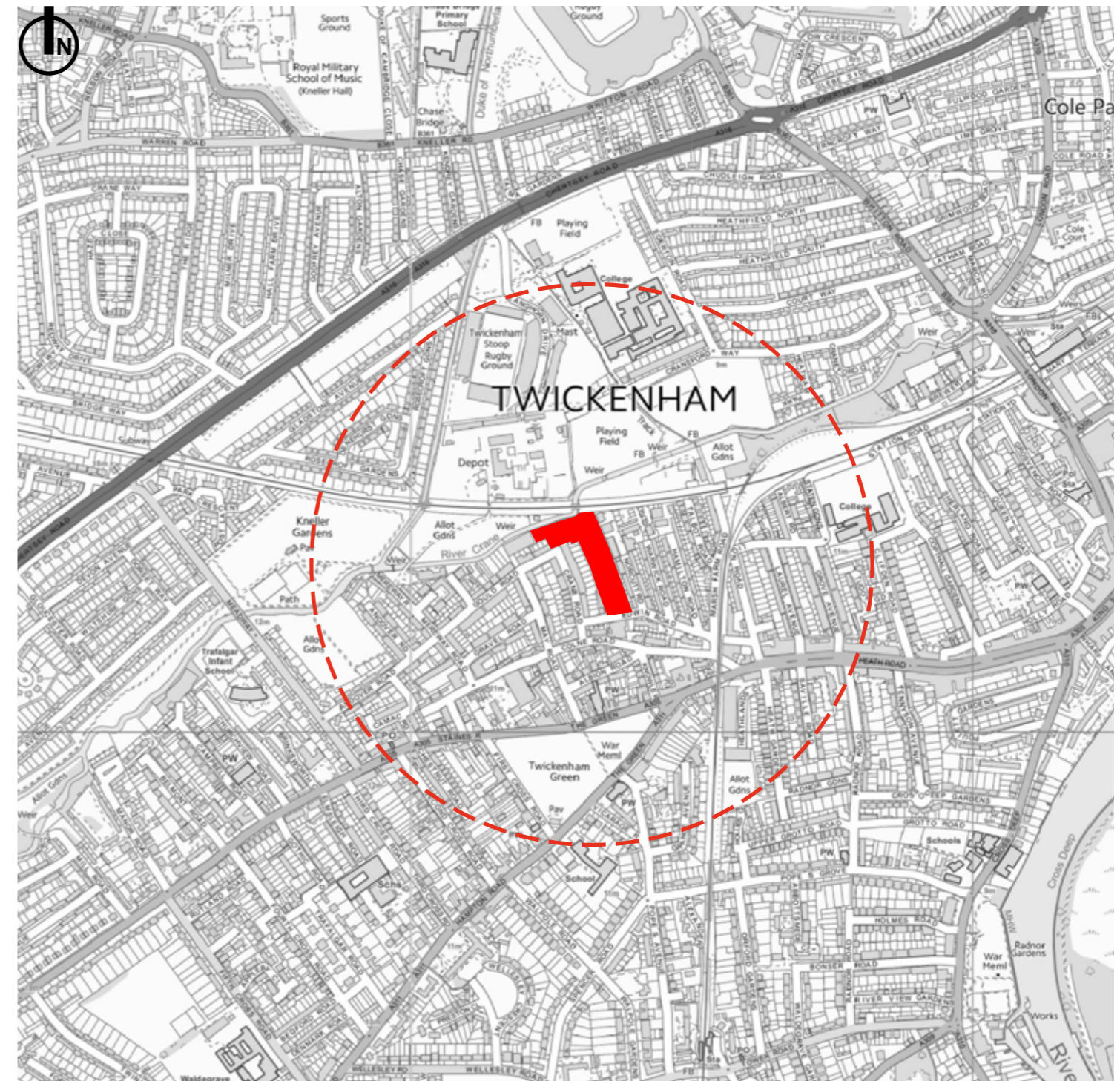
1.4 To support the TVIA a total of seven representative views have been used to inform the potential townscape and visual effects. The location of these have been agreed in consultation with LBRuT. For each view existing photography and proposed 'accurate visual representations' (AVR) have been provided. The AVRs have been prepared through overlaying photographs from the agreed viewpoints with a representative model of the Scheme Proposal. Additional non-verified CGIs, illustrations and elevations are included within the architect Assael's Design and Access Statement and should be read in conjunction with this appraisal.

### Planning Context

1.5 Relevant planning policy for the Site includes the further alterations to the Greater London Authority's (GLA) London Plan (2016), along with LBRuT's local planning policies. These documents provide local guidance with regard to development affecting townscape and visual matters. Consideration should also be given to the Draft London Plan (2018), which has been consulted on and is a material consideration in planning decisions.

1.6 The Site is not covered by any planning policy designations relating to townscape value. It falls within Twickenham Village and the Twickenham Village Planning Guidance Supplementary Planning Document (2018), which recognises it as falling within the 'North of the Green' character area No. 11.

1.7 The relevant planning policy context within which the Scheme Proposal is considered is set out in full at **Appendix A**.



**Figure 1.1 - Location Plan**

#### Key:

- Site
- Study Area



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## 2. Appraisal Methodology

### Introduction

2.1 The methodology and approach in undertaking this appraisal is based upon informed and reasoned professional judgement, taking into account a combination of quantitative and qualitative factors.

### Summary Methodology

2.2 This TVIA is undertaken with a prior understanding of the nature of the Scheme Proposal and its purpose is to assess how it may affect the townscape and visual amenity of identified receptors. In line with best practice, whilst interrelated, townscape and visual effects are considered separately. It is carried out in accordance with the Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013), An Approach to Landscape Character Assessment (2014) and GLA's Shaping Neighbourhoods: Character and Context SPG (2014). The following provides a summary of the approach taken in this appraisal, with the methodology set out in full in **Appendix B**.

2.3 Through a combination of desk based and field studies, receptors, which may be affected by the Scheme Proposal, are established. The term 'receptor' is used to mean an element or assemblage of elements (e.g. people using a public right of way or a townscape character area) that may be affected by the Scheme Proposal.

2.4 The first stage of the appraisal is to identify the baseline conditions of the Site and surrounding study area. The existing elements and characteristics that contribute to the townscape are considered to establish townscape character area receptors. This includes reference, where relevant, to published character assessments and conservation area appraisals. Visual receptors are recognised along with representative, specific or illustrative views to establish the visibility of the existing Site. Consideration will be given to local views that are identified in planning policy or guidance documents.

2.5 The next stage considers the value of a receptor and its susceptibility to the proposed change; this is used to establish the receptor's sensitivity. The Scheme Proposal is then considered and from this the potential degree of 'effect' is predicated and assessed on the previously identified receptors, at the first year of operation.

### Study Area

2.6 The Site occupies 1.1 hectares and the study area (as illustrated in **Figure 1.1**) for the townscape character area appraisal includes both the Site and its wider context at a 500 metre radius from its centre. The visual appraisal considers the zone of theoretical visibility (ZTV) within this study area, with further long distant views being considered where identified and relevant.

### Assumptions and Limitations

2.7 In considering the effects of the Scheme Proposal upon the townscape character areas and visual receptor's representative views the TVIA is based on the AVRs, set out in **Appendix C**, and material that accompanies the planning application, including the supporting Design and Access Statement, prepared by the architect Assael.

2.8 The TVIA has been undertaken based on access to publicly accessible areas; whilst the potential effects from residential properties have been considered, no access was gained and so the appraisal is based on professional judgement based on the nearest publicly accessible location.

### Emerging context

2.9 In terms of context it is notable that the employment site to the northeast of the Site, Lockcorp House, has recently been granted approval at appeal (application reference 17/1033/FUL and appeal reference APP/L5810/W/17/3187677) for a part four part five storey building. The cumulative effect of the Lockcorp House scheme has been considered as part of this appraisal.





### 3. Baseline Conditions

#### Introduction

3.1 This section considers the existing Site in terms of the physical townscape and its components along with the townscape character receptors and visual amenity from existing visual receptors. The 'value' of each townscape character and visual receptor has been considered as part of the baseline study through the desk-based review and site visits and this contributes to the resultant 'sensitivity' of each receptor established at the appraisal of effects stage.

#### The Site and its Surrounding Context

##### The Site

3.2 The Site is broadly upside down 'L' in shape and there is a limited change in ground level making it relatively flat. The majority of the Site consist of post war industrial buildings associated with the former bakery. This includes several, small to medium footprinted, warehouses that typically include brick facades and corrugated metal, shallow, pitched roofs. These structures are one to three storeys high and have areas of hard standing carparks and loading areas. The Site does not include or fall within a designated heritage asset.

3.3 The northern portion of the Site is accessed from the junction of Gould Road and Crane Road, whilst the southern is accessed from Edwin Road. At the Site's north western entrance is the former bakery's three storey office building, which has a white painted brick façade and slate pitched roof. Two tall storage silos are located close to the southern entrance and provide a local landmark within the immediate townscape.

3.4 The southern boundary of the Site is defined by Edwin Road and the northern boundary by the bank of the River Crane and the embankment of a railway line. The back garden fence line of the residential properties associated with Norcutt Road and Lockcorp House define the eastern boundary, whilst the back garden fence line of the Crane Road residential properties the western boundary. The north western boundary is defined by the back garden fence line of the Gould Road residential properties and the built form of Crane Mews.

#### The Surrounding Context

3.5 In order to establish the characteristics of the townscape, consideration has been given to the historical development of the study area and its surrounding context.

##### Historic Context

3.6 The history of the study area is discussed in detail within the Twickenham Village Planning Guidance SPD (2018) under "Character Area 11: North of the Green". In summary, the guidance recognises that development of this area did not occur before the late 19th century and mainly focused along Colne Road, Mereway Road, Albion Road and May Road, close to Twickenham Green (formerly named Twickenham Common), to the south of the study area.

3.7 The Site area, however, remained undeveloped up to the beginning of the 20th century; with the area located between the railway and the north of Edwin Road and Colne Road (including the Site) occupied by orchards and arable land.

3.8 At the start of the 20th century the area around the Site and to the east and west of the study area became developed with terraced housing. Small industrial areas appeared between this residential area and the river, including the northern western corner of the Site and the first electricity works of Twickenham.

3.9 At the same time with the expanding residential population, to the north of the River Crane, a sewage works and fever hospital was built. The former increases in size until it moves and the land becomes a depot in the mid 20th century and the latter remains until the 1930's. During this period the majority of the linear section of the Site remains empty, with historically mapping from the early to mid 20th century recognising it as being an "Allotment Garden". Although a laundry building appears at the south of the Site.

3.10 In the mid to late 20th century the northern section of the Site becomes developed with a large bakery in the 1960's, whilst the laundry building at the south remains along with a new works building. To the southeast of the study area an area of terraced housing is cleared for re-development between Edwin Road and Colne Road.

3.11 By the end of the 20th century the bakery has extended to cover the whole of the Site and the electricity works closed when a modern sub-station is built. In the early 21st century the latter was converted to residential apartments and established as a building of Townscape Merit.

##### Landform

3.12 The Site and study area's topography is located within the River Thames flood plain and relatively flat at around 9 to 13 metres above ordnance datum (AOD). Outside of the study area the landform remains broadly flat, with the land rising up to Richmond Park at around 60 metres AOD some 3.4 kilometres to the east.

##### Land use

3.13 The majority of the study area contains a residential land use (predominately early 20th century) to the south, east and west. Along with typical land uses associated with a residential area such as small local shops, which are concentrated along Twickenham Green, and education uses such as GEMS Twickenham Primary and Richmond upon Thames College. Small to medium sized light industry uses are spread amongst the residential area along Staines Road, Merway Road, Colne Road and Edwin Road.

3.14 A series of green spaces are located to the north of the Site, along the River Crane corridor. These include Kneller Gardens, Mereway Nature Park and Craneford Way Recreational Grounds as shown in **Figure 3.1**. To the far north, behind the railway line and River Crane, are the Central Depot and Twickenham Stoop rugby ground, along with further mid 20th century residential area.

##### Movement

3.15 The secondary routes of the A305 (Heath Road and Staines Road) and the A311 (Hampton Road) run to the south of the study area and provide access between Twickenham and Hanworth and Hampton. Outside of the study area, to the north, runs the dual carriageway of the A316.

3.16 The South Western railway line from London Waterloo splits in north east corner of the study area, with the southern arm traveling to Shepperton and looping back to London Waterloo on a railway embankment. The western branch, passing right to the north of the Site's boundary, travels on a slight embankment to Staines, Windsor and Reading.

3.17 This railway line also physically prevents pedestrian and vehicular movement within the study area, with the roads between the line and the A305 being typically tertiary roads that are mainly used by the residents and industrial uses. Only one footbridge and one tunnel provides pedestrian access over the western branch railway line and a series of tunnels and bridges that deliver both pedestrian and vehicular access under the southern arm of the railway line.

#### Built form and appearance

3.18 The movement network defines an irregular grid pattern around the Site, with buildings typically addressing the pavement. The majority of the built form within the study area date from the Victorian period with pockets of Edwardian terraces and few mid to late 20th century buildings.

3.19 The built form that immediate surrounds the Site, along the adjacent streets, are broadly consistent in architecture style. They are characterised by London stock brick facades with pitched slate roof and protruding chimneys. Some facades have been painted over or rendered but most keep their original brick façade with red brick detailing. Depending on the street, the built form fronts directly onto the pavement or steps slightly back with small front garden with low brick walls or fencing separating it from the pavement.

3.20 Diversity arises between each road with specific features distinguishing each street from the others such as round arched porched recesses, opening directly onto Warwick Road and Hamilton Road or the prominent red brick bow window and façade detail for those along May Road.

3.21 Some industrial pockets characterise by single storey warehouse units and parking spaces can be found randomly along Staines Road, Merway Road, Colne Road and Edwin Road, including the Site and a vehicle repair shop on the opposite side of the road.

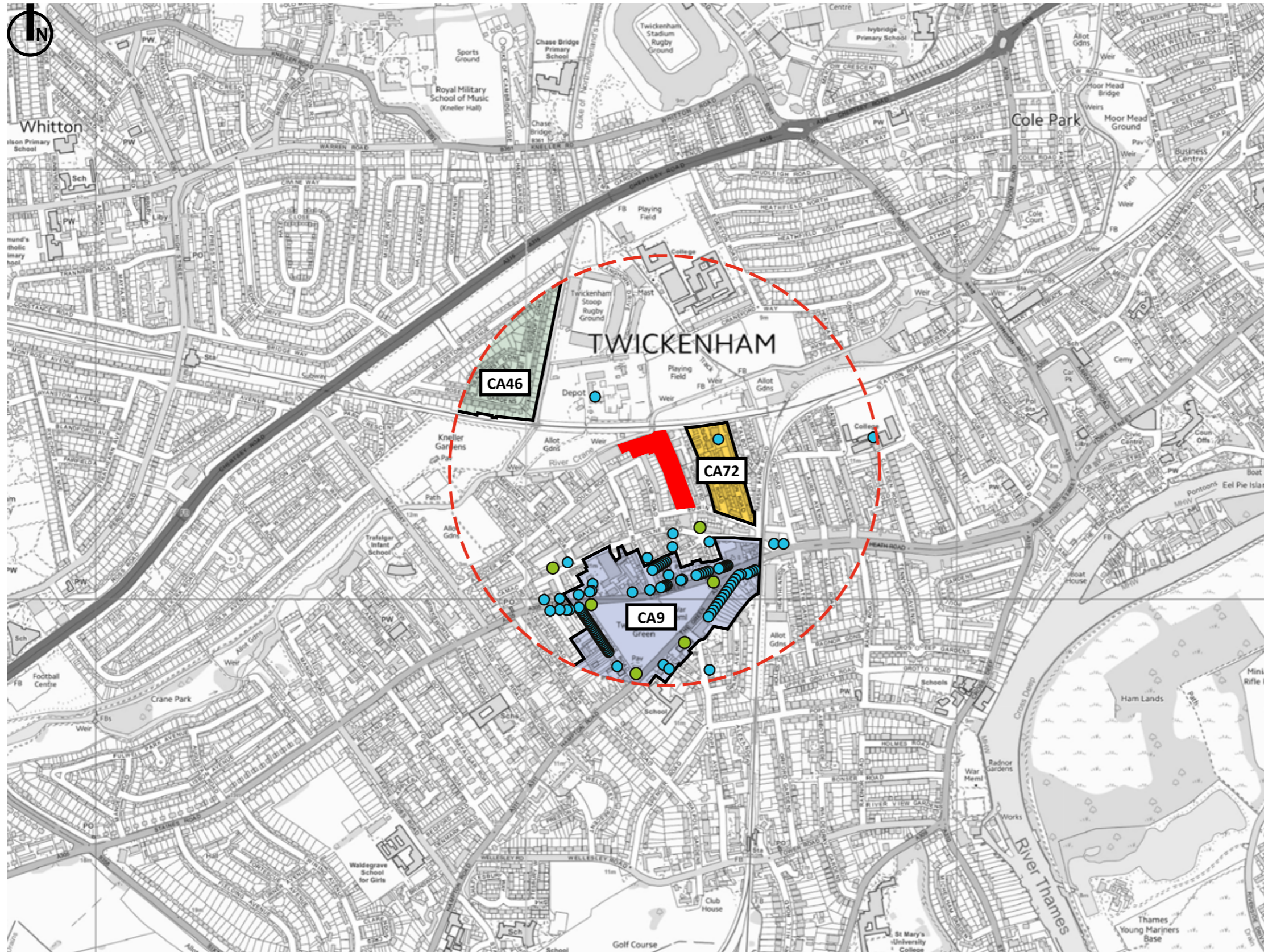


Figure 3.1 - Designated Heritage Assets Plan

- Key:**
- Site
  - Study Area
  - Grade II Listed Building
  - Building of Townscape Merit
  - CA9 - Twickenham Green
  - CA46- Rosecroft Garden
  - CA72- Hamilton Road

Vegetation

3.22 Due to the urban location of the Site and study area, vegetation within the immediate environs is generally limited to front gardens along Edwin Road and Crane Road. Also within the series of green spaces that are located along the River Crane corridor or associated with Twickenham Green.

Heritage Assets

3.23 The study area contains three conservation areas (CA9- Twickenham Green, CA46- Rosecroft Gardens and CA72- Hamilton Road), as shown in **Figure 3.1**, and the grade II listed buildings:

- Knowle house, 74, Colne road
- Briar house, 178, Colne road
- The Holy Trinity Church, Twickenham Green
- The three K6 Telephone kiosks at each corner of the Green

3.24 A number of Buildings of Townscape Merit are also located within the study area these include:

- The majority of the residential properties that surround Twickenham Green:
  - The Twickenham Congregational Church and all the numbers between 7 to 33 First Cross Road;
  - odd numbers between 1 to 29, 59 and 69;
  - even numbers between 6 to 30, 44, 46, 50 to 64, 80, 106 to 114 and 124
- 166, odd numbers between 191 to 197 Heath Road
- Odd number between 3 to 7, 15 and 16 Staines Road
- 21 Knowle Road
- 2 Briar Road
- 37 Popes Avenue
- 2 and 4 Vicarage Road
- 14, odd numbers between 29 to 43, and 40 Albion Road
- 2, 93 and the wall outside of 172 Colne Road
- Ex Depot Building, 37 Hamilton Road
- Council Depot Building, Craneford Way
- Richmond Adult & Community College, Clifden Road

3.25 Consideration within the TVIA has been given to these heritage assets in determining the value of the townscape character receptors and visual receptor representative views, although it does not assess their significance and setting.

Baseline Townscape Character

3.26 This section considers the townscape features that contribute to the existing character of the established study area. The GLA London Plan SPG Character and Context sets out how to assess character areas. It builds on the Policy 7.4 Local Character of the London Plan. It sets out four principles:

- Character is all around us and everywhere has a distinctive character.
- Character is about people and communities.
- Places are connected and overlap – boundaries and transitions are important.
- The character of a place is a dynamic concept.

3.27 The Site and the majority of the study area falls within Twickenham Village and the Twickenham Village Planning Guidance Supplementary Planning Document (2018), with the area to the northwest falling within the Conservation Area 46: Rosecroft Gardens and the area to the southeast within the Twickenham Action Area Plan Local Plan (2013) and the Strawberry Hill Village Planning Guidance Supplementary Planning Document (2018). These documents have established four character areas, which share similar characteristics, features and materials, and two conservation areas as shown in **Figure 3.2**:

- Character Area 2: Lincoln Avenue & Surrounds – Crane Park
- Conservation Area 9: Twickenham Green
- Character Area 11: North of the Green
- Conservation Area 12: Hamilton Road
- Character Area 13: Heath Road North
- Character Area 16: Heatham Estate

3.28 For the purpose of undertaking this appraisal these character areas and conservation areas have been reviewed and expanded with consideration of aesthetic and perceptual factors. From this review four townscape character areas (TCA) have been established and are listed below:

- TCA1- Crane Park
- TCA2 - Twickenham Green
- TCA3 - Twickenham West
- TCA4 - Heatham Estate

3.29 The TCAs are illustrated on **Figure 3.3** and summarised in **Table 3.1**.

Table 3.1: Townscape Character Areas (TCA)

TCA	Townscape elements	Value
TCA1 Crane Park	<ul style="list-style-type: none"> <li>• Changing character from large open green space to more natural habitat with woodland and scrub offering a wide diversity of experiences throughout the year.</li> <li>• The River Crane and associated reed bed, woodland and scrub running through the centre of the park.</li> <li>• Kneller Garden, laid out in the early 20th century, is a well-use recreation ground with ‘green flag status’.</li> <li>• Alley-ways providing connection between the park and the residential area.</li> </ul>	High to medium
TCA2 Twickenham Green	<ul style="list-style-type: none"> <li>• Important historic open space with most of the adjacent development from the 19th century with some 18th century elements.</li> <li>• Mixed land use with residential, commercial, community and industrial uses frame the park.</li> <li>• Various façade style, material and roofscape to the buildings provide visual interest.</li> <li>• The green provides a large triangular grassed public open space with mature trees and a cricket pitch.</li> <li>• The townscape character area follows the Twickenham Green Conservation Area and Holy Trinity Church is one of four Grade II listed buildings that are associated with the green. There are also a number of Buildings of Townscape Merit that frame the green</li> </ul>	High
TCA3 Twickenham West	<ul style="list-style-type: none"> <li>• Most of the buildings are from the late Victorian period with pockets of Edwardian terraces and 1960-1970s buildings.</li> <li>• General style similar with pitched slate roof, protruding chimney and London stock brick façade with some variation between the streets.</li> <li>• Mainly residential land use with some industrial pockets scattered across the area.</li> <li>• The vegetation is generally limited to front gardens with some street trees along Colne Road and Gould Road and associated with the railway embankment.</li> <li>• Knowle House and Briar House are two Grade II listed buildings located in Colne Road. A number of Buildings of Townscape Merit, including the former electricity works building within the Hamilton Road Conservation Area</li> </ul>	High to medium
TCA4 Heatham Estate	<ul style="list-style-type: none"> <li>• The area was developed in the 1930s with some buildings from this period still remaining especially in the depot and in Richmond upon Thames College.</li> <li>• The land use is mixed with few residential houses, the depot, the Richmond upon Thames College, the rugby ground and the recreational ground.</li> <li>• The recreation ground provides a large extent of grass with few trees while the edges of the River Crane offer a more spontaneous vegetation with scrub and trees.</li> <li>• The depot is a Building of Townscape Merit</li> </ul>	Medium to low



Figure 3.2 - Twickenham Village and the Twickenham Village Planning Guidance Areas

Key:

- Site
- Study Area
- SPD Boundary
- Twickenham Action Plan
- TCA2 - Character Area Lincoln Avenue & Surrounds
- CA9 - Conservation Area Twickenham Green
- TCA11 - Character Area North of the Green
- CA12 - Conservation Area Hamilton Road
- TCA13 - Character Area Heath Road North
- TCA16 - Character Area Heatham Estate

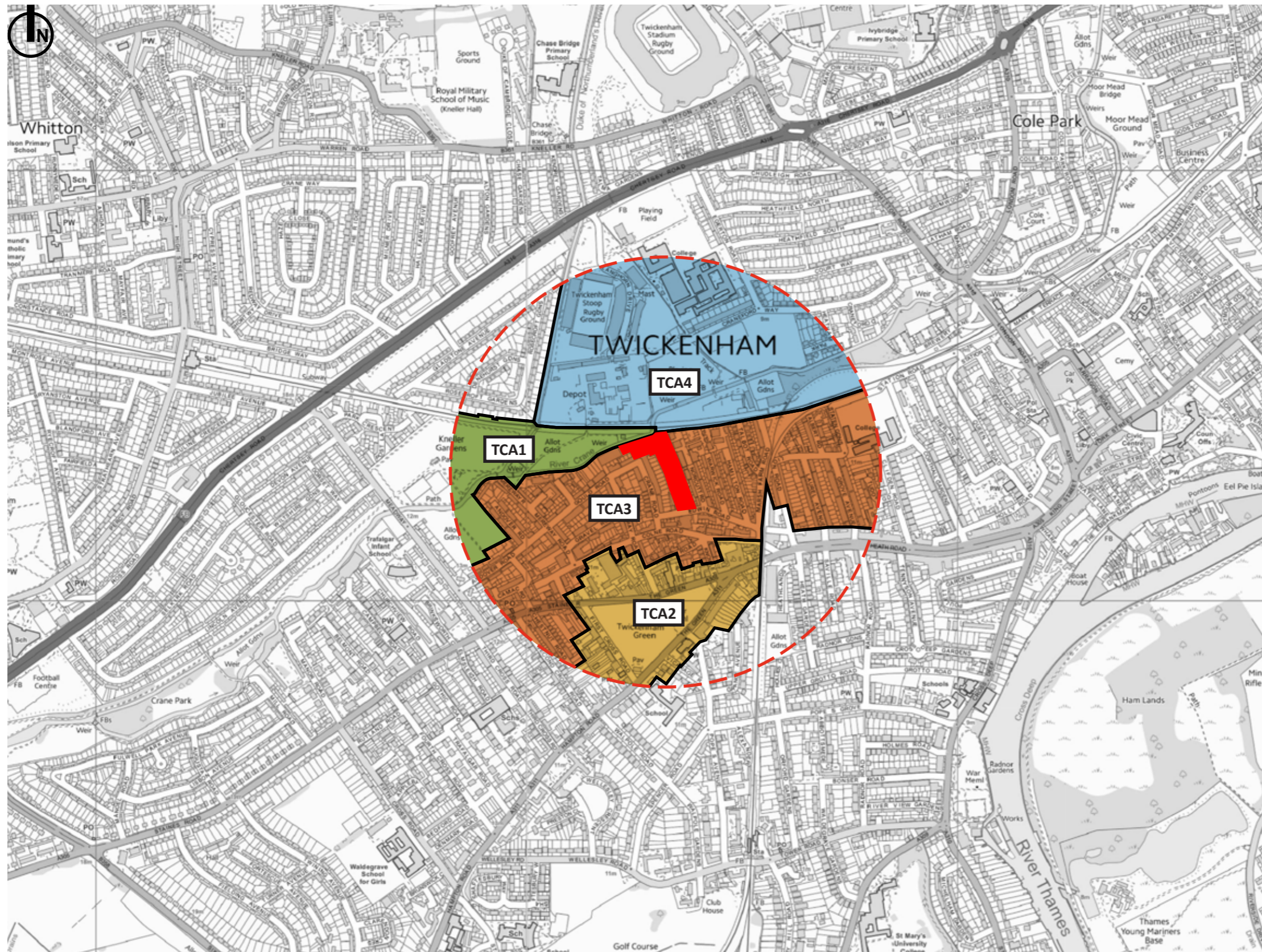


Figure 3.3 - Townscape Character Areas

- Key:**
- Site
  - Study Area
  - TCA1 - Crane Park
  - TCA2 - Twickenham Green
  - TCA3 - Twickenham West
  - TCA4 - Heatham Estate

**Baseline Visual Appraisal**

3.30 The first stage of the baseline visual appraisal is to establish the zone of theoretical visibility or visual envelope of the site, in other words, the extent of the area from which the Site is visible. This is done through a combination of desk-based work, assessing the surrounding topography from maps and surveys and site visits where the visual receptors are confirmed.

3.31 The second stage, considers the Site’s visibility from the surrounding visual receptors. It establishes the nature of the view and to what extent the site contributes to the view. This is demonstrated through a selection of representative views, which are set out and described in Appendix C.

**Stage 1 – Site visibility**

3.32 Following the desk based review of local OS mapping, a site visit was undertaken on 13th November 2018. This established the visibility of the Site and a number of visual receptors were identified (refer to stage 2).

3.33 Existing views to the Site are largely restricted due to the surrounding built form, with open to partial views gained from the immediate townscape of Edwin Road (View 2), Gould Road (View 3), Crane Road (View 4) and a limited section of Norcutt Road. It is considered that views onto the Site’s buildings can be gained from these roads associated properties that back onto the Site. Views become glimpsed along these roads when travelling away from the Site.

3.34 The Site can be gained from Craneford Way Recreational Ground (View 6) and the immediate sections of the footpaths associated with Crane Park, to the north of the study area. Vegetation and built form prevents further visibility to the north (View 5).

3.35 Due to the flat landform the footbridge above the western branch railway line and the elevated southern arm railway line provides a raised vantage point to glimpse the Site’s silos and roofscape (View 7).

**Stage 2 – Appraisal of views**

3.36 This visual appraisal is supported by representative views and, in order to identify them, consideration has been given to the London View Management Framework SPD (LVMF) and local planning policy documents and guidance.

3.37 The Site does not fall within or adjacent to a LVMF view. Local views are identified within LBRuT’s 2015 Local Plan: Proposals Map, those relevant to the Site include:

- Vale of the Thames Panoramic, from Richmond Hill. Whilst this view takes in the Site (some 3km away), the Site’s buildings are not discernible within the view due to intervening built form and vegetation.
- Vale of the Thames Panoramic, from Richmond Park (looking on the opposite direction to St Paul’s Cathedral which is identified as a protected linear view). Again, this view takes in the Site (some 3.4km away), but the Site’s buildings are not discernible within the view.

3.38 Whilst the Site does not fall with a conservation area, three such areas fall within the study area and have supporting statements or appraisal that identify and discuss views.

- Twickenham Green Conservation Area
- Hamilton Road Conservation Area
- Rosecroft Gardens Conservation Area
- Twickenham Green Conservation Area Statement establishes the following local views (summarised below).
- Westward view along Heath Road. This view is not directed toward the Site and therefore it will not be tested.
- View down May Road towards Holy Trinity Church across the green. This view is directed to the opposite direction of the Site and will not be tested.
- Views along First Cross Road. These views are not directed toward the Site and will not be tested.

3.39 The statement recognises the Twickenham Green is “enclosed by a diverse collection of fine buildings” and therefore representative view 1 tests how the Site currently interacts with this skyline.

3.40 Hamilton Road Conservation Area Appraisal identifies one local view:

- Northward view along Hamilton Road terminating by the works buildings (Athelsan Place), a key landmark and Building of Townscape Merit. This view is not directed toward the Site and will not be tested.

3.41 Rosecroft Gardens Conservation Area do not recognise any local views. It is considered that views will not be possible from this conservation area to the Site due to the intervening built form and will therefore not be tested.

3.42 This appraisal is supported by a representative view appraisal set out in **Appendix C**. Consideration of the selection of these representative views is discussed at the end of this section.

3.43 Based on these findings and the field survey undertaken, the following representative views are considered an appropriate selection to test the Site and Scheme Proposal in a series of Accurate Visual Representation (AVRs) summarised in **Table 3.2**. These locations are also illustrated on the attached **Figure 3.5** and described within **Appendix C**.

**Table 3.2 – Representative views**

No.	Location	Distance	Visibility	Value
1.	Twickenham Green’s southern corner	Medium (435m)	No view	High to medium
2.	Junction between Warwick Road and Edwin Road	Short (90m)	Partial view	Medium to low
3.	Junction between Crane Road and Edwin Road	Short (95m)	Glimpsed view	Medium to low
4.	Junction between Gould Road and May Road	Short (150m)	Glimpsed view	Medium to low
5.	Kneller Gardens western corner, looking east	Medium (705m)	No view	Medium
6.	Craneford Way Recreational Ground	Medium (270m)	Partial view	Medium to low
7.	Footbridge crossing the railway	Medium (260m)	Glimpsed view	Low

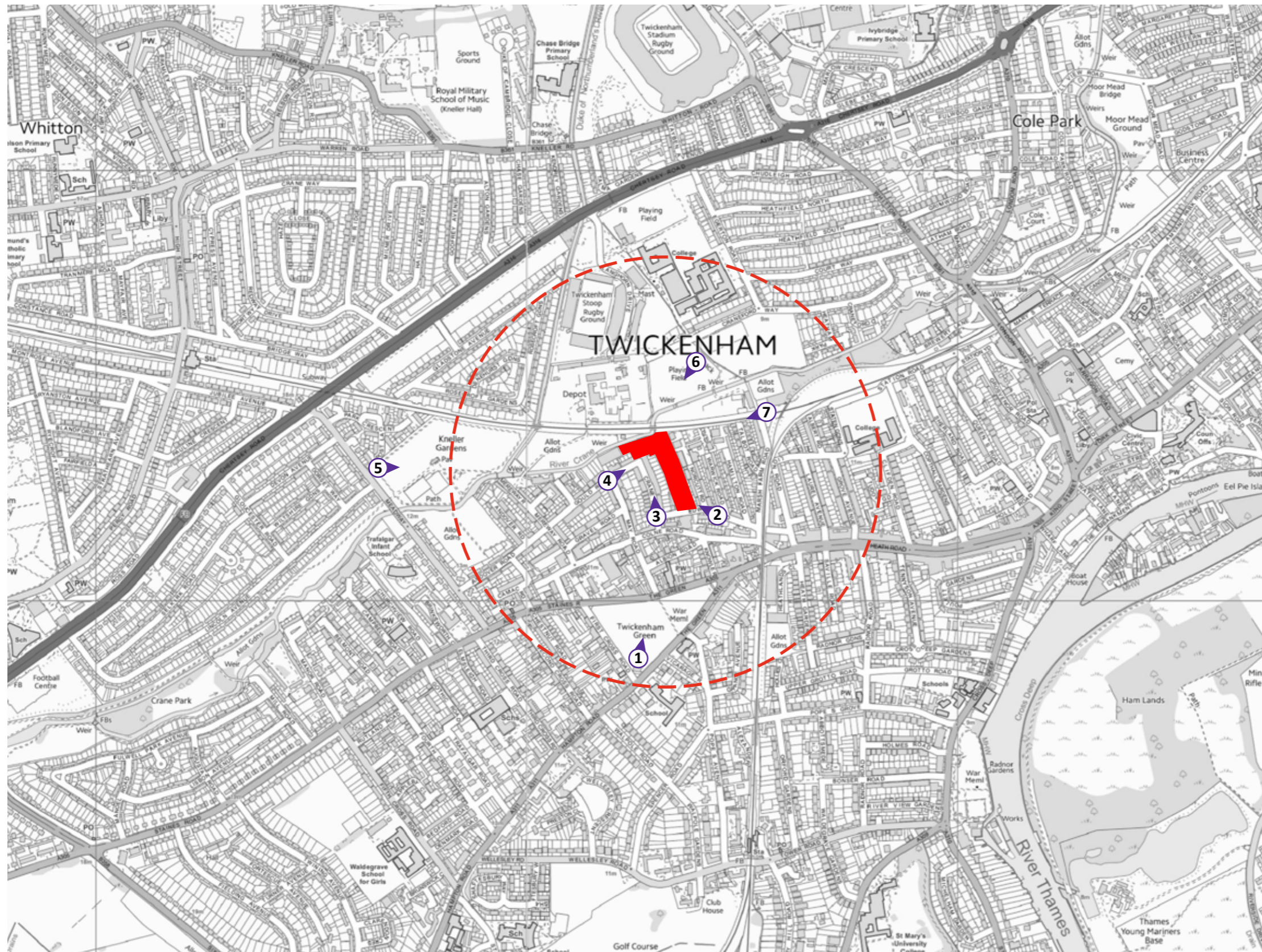


Figure 3.4 - Representative View Locations Plan

- Key:**
- ▭ Site
  - ⋯ Study Area
  - ① Representative view



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## 4. Appraisal of Effects of the Scheme Proposal

### Introduction

4.1 This section considers how the Scheme Proposal, described below and illustrated in the accompanying planning application documents, will affect the receptors identified in the baseline study. The second part of this section describes the anticipated effects relating to the Site and the townscape character. The third part describes the effects on the visual receptors and the supporting representative views.

4.2 To assist in defining the effects, the sensitivity of the townscape character and visual receptors representative views are considered. As outlined in the methodology, sensitivity is determined by combining assessments of value (set out in **Appendix B**), and an appraisal of the susceptibility of the receptors to the Scheme Proposal.

4.3 For each receptor, the magnitude of change resulting from the Scheme Proposal is then described. The magnitude of change, upon completion of the Scheme Proposal, considers the effects in terms of duration, reversibility, geographical extent and size or scale. The Scheme Proposal is considered to be long term and permanent and therefore to avoid unnecessary duplication, duration and reversibility are not discussed further.

### Description of Scheme Proposal

4.4 The Scheme Proposal seeks full planning permission for the demolition of the existing buildings and redevelopment of the Site for a residential led mixed use development. It is set within an area of new public realm that opens up access to the southside of the River Crane.

4.5 The supporting Design and Access Statement, prepared by Assael, illustrates how the Scheme Proposal has been carefully considered and designed in response to the Site's opportunities and constraints and its context. Throughout the process of developing the design, consultation has been undertaken with local stakeholders and LBRuT Officers.

4.6 The Scheme Proposal has been informed by the following design principles, which are set out in full within section 3.4 of the Design and Access Statement:

- Remove all existing buildings with exception of the end terrace house on Gould Road;
- Introduce new access route through the Site retaining the existing entrances;
- Respond to the context in regard to massing, placing taller buildings to the north of the Site;
- Refer to local architectural styles, roofs and character to respond to the local context; and
- Optimise landscaping to the riverside, garden and new street.

4.7 The Scheme Proposal comprises of 51 houses and three apartment blocks, which range in height. Office space is provided at the Edwin Road entrance, to the south. The Scheme proposal can be divided in three character areas (as shown in **Figure 4.1**):

- The Entrance;
- The Mews; and
- The Riverside.

4.8 The Entrance provides a gateway into the Scheme Proposal from Edwin Road to the south. It includes a standalone office building, which provides a front gable elevation onto the road, and the flank gable elevation of one of four residential houses that addresses the new mews street. All of the properties are two storey in height and follow the building line established along Edwin Road. The gable elevations and façade material match the surrounding context. Further information on the architectural approach and façade material can be found within section 4.10.2 and 4.10.2 of the Design and Access Statement.

4.9 Along the Mews, to respond to the existing situation along the adjacent Norcutt Road and Crane Road, the houses are two and a half stories in height. The houses present an architectural unity with similar geometry and mansard roofs. They are given individual character through a variety of proposed façade materials, window type and architectural detailing that has been derived from analysing the surrounding context.

4.10 On the east side of the Mews, the houses are bordered with a front garden, a driveway and an integrated bin and bike store. Whilst on the west side, the houses are provided with an integrated garage. Further information can be found within section 4.10.3 to 4.10.6 of the Design and Access Statement.

4.11 On the Riverside, the apartment blocks present an industrial aesthetic and comprise a range of building heights, ranging between three to five stories, roofs and geometries. This break up their massing and helps creates visual interest. The blocks are set back from the River Crane and railway line to provide room for a new landscaped courtyard and a natural play area. Further information can be found within section 4.11.1 and 4.11.2 of the Design and Access Statement. Four, two storey, terraces houses are also present within this area and described in section 4.11.3.

4.12 During the construction phase all contractors will be required to apply good practice measures site measures as part of a Construction Management Programme. It can be assumed that the programme will include standard construction methods and housekeeping will be maintained to keep a tidy site and reduce visual clutter during construction works.

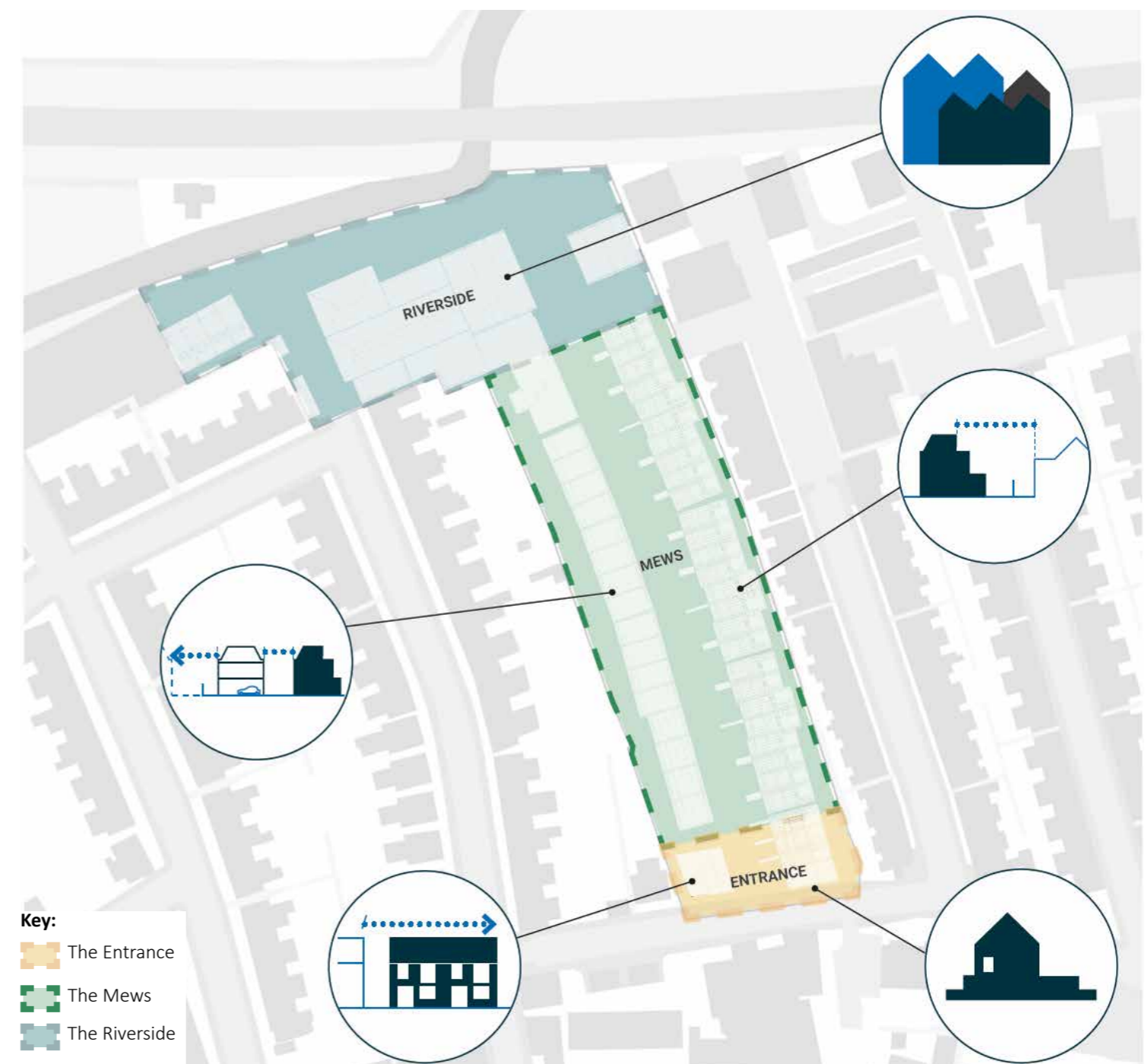


Figure 4.1 - Scheme Proposal Areas

**Effects on Townscape Character**

4.13 The following section considers the effects of the Scheme Proposal on townscape character at the local level. Definitions and criteria used are found in **Appendix B**.

4.14 There will be temporary, localised effects during the construction phase caused by additional larger vehicles, deliveries, cranes and plant etc. These effects are considered to be negative, however they will be short-lived and temporary in nature and are not considered further.

4.15 At a national level the townscape character has been considered in line with the NPPF and the Scheme Proposal is “*sympathetic to local character and history, including the surrounding built environment and landscape setting*”, as set out in paragraph 127. Whilst at a local level the Scheme Proposal has regard to the form, function, and structure of the townscape and will contribute to enhancing the character of the area in accordance with ‘Policy 7.6’ of the London Plan.

4.16 The Scheme Proposal also considers “*the relationship to existing townscape, development patterns, views, local grain and frontages as well as scale, height, massing, density, landscaping, proportions, form, materials and detailing*”, as discussed in LBRuT’s Local Plan Policy LP1-Local Character and Design Quality. It has also been designed to address LP2-Building Heights with the Scheme Proposal generally reflecting the existing and emerging prevailing building heights within the study area.

4.17 The Site falls within ‘TCA3 Twickenham West’. This has been recognised as having a high to medium value within the baseline section of this appraisal. The Scheme Proposal is of a scale and mass that will not detract from the surrounding context and will help to reactivate the street frontage to Edwin Road and provide a new area of public realm to the River Crane.

4.18 It is considered that ‘TCA3 Twickenham West’ can accommodate the Scheme Proposal and has a medium susceptibility to the change proposed, as defined in the methodology set out in **Appendix B**. Through assessing the ‘value’ and ‘susceptibility to change’ it is concluded that ‘TCA3 Twickenham West’ has a high to medium sensitivity to the Scheme Proposal.

4.19 Overall it is considered that the Scheme Proposal improves the townscape situation of ‘TCA3 Twickenham West’, as shown in representative views 2, 3, 4 and 7 of **Appendix C**. The Scheme Proposal has a direct, permanent, medium magnitude of change and overall **moderate** and **beneficial effect**.

4.20 The Scheme Proposal indirectly affects the areas of ‘TCA4 Heatham Estate’ which are close to the Site (representative view 6) and from which partial to no views are possible. Overall, the Scheme Proposal has an indirect, permanent, low magnitude of change and overall **minor** and **neutral effect** on TCA4.

4.21 The Scheme Proposal will also result in an indirect negligible to none magnitude of change and overall minor to **negligible** and **neutral effect** on ‘TCA1 Crane Park’ (representative view 2) and ‘TCA2 Twickenham Green’ (representative view 1) and their value, susceptibility to change and sensitivity are summarised in **Table 4.1**.

4.22 The Scheme Proposal enhances the townscape character and visual appearance of this area of Twickenham. The Scheme Proposal provides a well-designed development which relates positively to the existing building line of Edwin Road and respects the receiving context.

**Table 4.1 – Townscape Character Area Appraisal of Effects**

Townscape Character Area	Value	Susceptibility to change	Sensitivity	Magnitude of change	Effect
TCA1 Crane Park	High to medium	High to medium	High to medium	Negligible to none	Minor to negligible neutral
TCA2 Twickenham Green	High	High	High	Negligible to none	Minor to negligible neutral
TCA3 Twickenham West	High to medium	Medium	High to medium	Medium	Moderate beneficial
TCA4 Heatham Estate	Medium to low	Low	Low	Low	Minor neutral

## Effects on Visual Receptors

4.23 With the implementation of the Scheme Proposal, it is considered that the Site's ZTV will increase slightly, with the views from the visual receptors identified previously within the baseline section remaining broadly the same, but new views possible to the roof in the medium distance from the north of the study area.

4.24 There will be temporary, localised changes in the view from some visual receptors during the construction phase, typically associated with the temporary enclosure of the Site with hoarding and views of construction plant. These effects are considered to be negative, however they will be short-lived and temporary in nature and are not considered further.

4.25 In order to identify and assess the likely effects of the completed Scheme Proposal on the identified views and visual receptors, rendered Accurate Visual Representations (AVR) have been prepared. AVRs are defined as images that illustrate the location, scale, degree of visibility, visual description of architectural form and use of materials.

4.26 The AVRs and a description of the likely effects of the Scheme Proposal within all seven representative viewpoints are provided at **Appendix C** and in **Table 4.2** which provides a summary of the findings relating to the value of the views, the sensitivity of the receptors and the magnitude of change resulting from the Scheme Proposal.

4.27 The following provides a summary of the visibility of the completed Scheme Proposal for the key visual receptors / receptor groups:

- Overall it is considered that the Scheme Proposal will not be visible from the majority of publicly accessible areas within the conservation areas that surround the Site. The effect of built form and intervening vegetation typically prevent a view to the Scheme Proposal from Twickenham Green, as demonstrated in representative view 1.
- It is considered that the Scheme Proposal will have a negligible impact on the two local panoramic views of the Vale of Thames identified within the LBRuT's Local Plan Proposals Map in the winter, due to the intervening built form and vegetation.
- It is considered that the Scheme Proposal will be visible from the Footpath adjacent to the Depot's southern boundary and from Craneford Way recreation ground (representative view 6), but not from Kneller Garden due to intervening vegetation, as demonstrated in representative view 5.
- Where the windows are orientated towards the Site, it is considered that partial to glimpsed views will be possible to the Scheme Proposal from the upper stories of the low to mid rise residential properties and taller residential apartment block located within 500 metres of the Site. The view will be reduced the further positioned away from the Site.
- Representative views 2, 3 and 4 demonstrate that the Scheme Proposal will be visible from the public highway where roads are orientated towards the Site. Representative view 7 illustrates it will also be visible from elevated footpath within 300 metres of the Site and it is considered a similar view will be afforded by the raised southern arm railway line.

**Table 4.2 – Representative Views Appraisal of Effects**

No.	Representative View	Value	Susceptibility to change	Sensitivity	Magnitude of change	Effect
1	Twickenham Green	High to medium	High	High	None	None
2	Warwick Road (south)	Medium to low	Medium	Medium	Medium to low	Moderate to minor / Beneficial
3	Edwin Road (west)	Medium to low	Medium	Medium	Low	Minor / Beneficial
4	May Road (north)	Medium to low	Medium	Medium	Medium to low	Moderate to minor / Beneficial
5	Kneller Gardens	Medium	High	High	Negligible to no	Negligible / Neutral
6	Craneford Way Recreational Ground	Medium to low	Low	Medium to low	Medium to low	Moderate to minor / Beneficial
7	Footbridge crossing the railway	Low	Medium	Medium to low	Low	Minor / Beneficial



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## 5 Summary and Conclusions

### Introduction

5.1 The TVIA has been founded on a thorough study of the Site and its townscape setting, and through understanding these features and resources, a robust impact appraisal of the Scheme Proposal has been undertaken.

5.2 The Site consists of a broadly upside down 'L' shape block that is bounded by two residential street, railway and Edwin Road. It contains several one to three storeys warehouses associated areas of hard standing carparks and loading areas.

5.3 The Scheme Proposal seeks full planning permission for fifty one houses and three apartment blocks which range in height from two to five stories. It references local architectural detailing, styles and character along with providing a contextual façade material palette and detailing. The heights of the Scheme Proposal responds to the existing and emerging prevailing building heights within the study area. Access is provided to the southern side of the River Crane.

### Townscape Character Areas Appraisal

5.4 The townscape character appraisal considers the townscape elements that contribute to the study area, such as landform, land use, movement, built form and appearance, along with designated heritage assets. The Site itself sits within 'TCA3 Twickenham West'; due to its appearance it does little to contribute to the townscape of this area.

5.5 The Scheme Proposal enhances the townscape character and visual appearance of the local area. It also positively responds to the streets perpendicular to Edwin Road. Overall it is considered that the Scheme Proposal will have a **moderate beneficial effect** on 'TCA3 Twickenham West', as set out in **Table 4.1**. This is due to it improving the townscape situation.

5.6 Partial to no views are possible to the Scheme Proposal from 'TCA4 Heatham Estate'. The Scheme Proposal has an indirect **minor and neutral effect** on this area. The Scheme Proposal will also have an indirect **minor to negligible and neutral effect** on 'TCA1 Crane Park' and 'TCA2 Twickenham Green'.

5.7 The appraisal establishes that the Scheme Proposal will replicate the local context and historic character in terms of continuing to reflect the urban grain and building line present within the area. As a reminder of the Site's history, it also provides industrial and contemporary features, especially in term of geometry and roofs for the apartment blocks. It is considered that this is in accordance with the NPPF, PPG and local policies.

### Visual Appraisal

5.8 Existing views to the Site are largely restricted to local views from the immediate townscape of Edwin Road, Crane Road and Gould Road and the surrounding residential and light industrial properties. These views become glimpsed when travelling away from the Site along Edwin Road and Gould Road. The footbridge above the railway line to the north east of the study area provides a fleeting view and a limited glimpsed view can be gained to the Site's silos and northern warehouses.

5.9 With the implementation of the Scheme Proposal it is considered that views from visual receptors will increase in the medium distance to the roofs of the apartment blocks. Importantly these features will not interact or compete with local landmarks, such as Athelsan Place.

5.10 Overall, it is considered that the Scheme Proposal will lead to the following residual, direct, permanent, magnitude of effects on the representative views:

- **Moderate to minor and beneficial effect - representative views 2, 4 and 6**
- **Minor and beneficial effect - representative views 3 and 7**
- **Negligible and neutral - representative view 5**
- **No effect - representative view 1**

5.11 The Scheme Proposal will make a positive contribution to the townscape and enhance the visual appearance of the local area in accordance with the NPPF, NPPG and local policies.

# APPENDIX A

## Planning Policy Review

## Planning Policy

### National Policy and Guidance

A.1 At a national level the National Planning Policy Framework (NPPF), published on February 2019, sets out the Government's planning policies for England. Of the core objectives set out in the NPPF, the environmental objective is of relevance to this appraisal. This is:

*“to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.”*

A.2 Chapter 12 of the NPPF in paragraph 124 states that “the creation of high quality buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities.”

A.3 Paragraph 127 requires planning policies to ensure quality developments, which:

*“function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;*

*“are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;*

*“are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);*

*“establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit; and*

*“optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks.”*

A.4 The NPPF promotes early discussions between applicants, the local planning authority and local community in Paragraph 128. Whilst Paragraph 130 states that “Permission should be refused for development of poor design that fails to take the opportunities available for improving the character and quality of an area” Equally it states that “where the design of a development accords with clear expectations in plan policies, design should not be used by the decision-maker as a valid reason to object to development.”

A.5 Chapter 16 of the NPPF promotes the recognition and conservation of the historic environment. Paragraph 189 states that when “determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the Scheme Proposal on their significance.” Paragraph 193 goes on to state “When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be)”.

A.6 The NPPF is supported by the National Planning Practice Guidance (2014). This is intended to provide more detailed guidance regarding the implementation of national policy set out in the NPPF and includes guidance on character and visual matters within its design category section. Paragraph 003 of the Design Guidance category supports the need to evaluate and understand the defining characteristics of an area in order to identify appropriate design opportunities and policies. Paragraph 007 goes on to state that views into and out of larger sites should be carefully considered from the start of the design process.

### Local Policy, Guidance and Appraisals

#### Current Planning Policy

A.7 The development plan for the London Borough of Richmond upon Thames (LBRuT) comprises the London Plan: Spatial Development Strategy for London (2016) and LBRuT Local Plan (2018). The latter provides a concise, all-in-one plan setting out the vision, strategic objectives and policies for development in the borough over 15 years.

A.8 The London Plan was adopted in July 2011 and there have been alterations culminating in the 2016 consolidated Plan; it is the ‘overall strategic plan for London’.

A.9 Chapter seven of the London Plan, ‘London's Living Places and Spaces’ is most relevant to townscape and visual impact. Within policy 7.1(D) – ‘Building London's Neighbourhoods and Communities’, establishing the Mayor's strategic objective for new development within London, it states that the design of all new buildings and the spaces they create should help reinforce or enhance the character, legibility, permeability and accessibility of the neighbourhood. This is reinforced with Policy 7.4 – ‘Local Character’, which provides that:

*“development should have regard to the context of the area and scale, mass and orientation of surrounding buildings... development should build on the positive aspects of an area where character is ill-defined in order to contribute to establishing an enhanced character for the future function of the area.”*

A.10 London Plan Policy 7.5 – ‘Public Realm’, states that development should aim to make the public realm *“comprehensible at a human scale, using gateways, focal points and landmarks as appropriate to help people find their way”*.

A.11 London Plan Policy 7.6 – ‘Architecture’ provides that:

*“buildings ... should be of the highest architectural quality; be of a proportion, composition, scale and orientation that enhances, activates and appropriately defines the public realm; comprise details and materials that complement, not necessarily replicate, the local character; not cause unacceptable harm to the amenity of surrounding land and buildings, particularly residential buildings, in relation to privacy, overshadowing, wind and microclimate. This is particularly important for tall buildings.”*

A.12 London Plan Policies 7.11 and 7.12 concern the London View Management Framework and state that:

*“The Mayor has designated a list of strategic views ... These views are seen from places that are publicly accessible and well used. They include significant buildings or urban landscapes that help to define London at a strategic level ... Development will be assessed for its impact on the designated view if it falls within the foreground, middle ground or background of that view.*

*“New development should not harm, and where possible should make a positive contribution to, the characteristics and composition of the strategic views and their landmark elements. It should also preserve or enhance viewers' ability to recognise and to appreciate strategically important landmarks in these views.”*

A.13 Adopted in July 2018, LBRuT's Local Plan sets out planning policies for the borough to guide growth in housing and jobs, infrastructure delivery, place-shaping and the quality of the built environment up to 2033. It replaces the LBRuT's Core Strategy (2009) and remaining saved policies in the Development Management Plan (2011).

A.14 One of the 6 strategic objectives for LBRuT's Local Plan regarding the protection of the local character is *“Protect and, where possible, enhance the environment including the heritage assets, retain and improve the character and appearance of established residential areas, and ensure new development and public spaces are of high quality design”*.

A.15 LBRuT’s Local Plan Policy LP1-Local Character and Design Quality establishes criteria that development should address:

*“1. Compatibility with local character including the relationship to existing townscape, development patterns, views, local grain and frontages as well as scale, height, massing, density, landscaping, proportions, form, materials and detailing;*

*2. Sustainable design and construction, including adaptability, subject to aesthetic considerations;*

*3. Layout, siting and access, including making best use of land;*

*4. Space between buildings, relationship of heights to widths and relationship to the public realm, heritage assets and natural features;*

*5. Inclusive design, connectivity, permeability (as such gated developments will not be permitted), natural surveillance and orientation; and*

*6. Suitability and compatibility of uses, taking account of any potential adverse impacts of the colocation of uses through the layout, design and management of the site.”*

A.16 The policy’s supporting text states that “This policy requires developers and applicants to take a sensitive approach to the architectural design of new buildings, [...], as well as landscape proposals. The Council does not wish to encourage a particular architectural style or approach but expects each scheme to be to a high quality [...]. Schemes should be based on a sound understanding of the site and its context, following the locally specific guidance set out in the Village Planning Guidance SPDs.”

A.17 LBRuT’s Local Plan Policy LP2-Building Heights establishes criteria that development should address, this includes:

*“1. Require buildings to make a positive contribution towards the local character, townscape and skyline, generally reflecting the prevailing building heights within the vicinity; proposals that are taller than the surrounding townscape have to be of high architectural design quality and standards, deliver public realm benefits and have a wholly positive impact on the character and quality of the area;*

*2. Preserve and enhance the borough’s heritage assets, their significance and their setting;*

*3. Respect the local context, and where possible enhance the character of an area, through appropriate:*

- a. Scale*
- b. Height*
- c. Mass*
- d. Urban pattern*
- e. Development grain*
- f. Materials*
- g. Streetscape*
- h. Roofscape and*
- i. Wider townscape and landscape”*

A.18 LBRuT’s Local Plan Policy LP3-Designated Heritage Assets states that:

*“The Council will require development to conserve and, where possible, take opportunities to make a positive contribution to, the historic environment of the borough. Development proposals likely to adversely affect the significance of heritage assets will be assessed against the requirement to seek to avoid harm and the justification for the proposal.”*

A.19 LBRuT’s Local Plan Policy LP4-Non-Designated Heritage Assets states that:

*“The Council will seek to preserve, and where possible enhance, the significance, character and setting of non-designated heritage assets, including Buildings of Townscape Merit, memorials, particularly war memorials, and other local historic features.”*

A.20 LBRuT’s Local Plan Policy LP5-Views and Vistas states that:

*“The Council will protect the quality of the views, vistas, gaps and the skyline, all of which contribute significantly to the character, distinctiveness and quality of the local and wider area, by the following means:*

*1. Protect the quality of the views and vistas as identified on the Policies Map, and demonstrate such through computer-generated imagery (CGI) and visual impact assessments;*

*2. Resist development which interrupts, disrupts or detracts from strategic and local vistas, views, gaps and the skyline;*

*3. Require developments whose visual impacts extend beyond that of the immediate street to demonstrate how views are protected or enhanced;*

*4. Require development to respect the setting of a landmark, taking care not to create intrusive elements in its foreground, middle ground or background;*

*5. Seek improvements to views, vistas, gaps and the skyline, particularly where views or vistas have been obscured;*

*6. Seek improvements to views within Conservation Areas, which:*

- a. Are identified in Conservation Area Statements and Studies and Village Plans;*
- b. Are within, into, and out of Conservation Areas;*
- c. Are affected by development on sites within the setting of, or adjacent to, Conservation Areas and listed buildings*

A.21 A.21. LBRuT’s Local Plan – Proposals Map (2015) provides useful context on the location, direction, type and content of the local views.

## Emerging Planning Policy

A.22 The draft London Plan (2018), which will be reviewed as part of an Examination in Public in Spring 2019, is a material consideration in planning decisions. It provides a strategic plan which will shape how London evolves and develops over the next 20-25 years. Chapter three, ‘Design’, provides policies relevant to townscape and visual matters. Policy D1 – ‘London’s form and characteristics’, recognises that development design should (in summary):

*“respond to the existing character of a place by identifying the special and valued features that are unique to the locality and respect, enhance and utilise the heritage assets and architectural features that make up contribute to the local character; and*

*“be of high quality, with architecture that pays attention to detail, and gives thorough consideration to the practicality of use, flexibility, safety and building lifespan through appropriate construction methods and the use of attractive, robust materials which weather and mature well.*

A.23 The supporting text for this policy in paragraph 3.1.2A recognises that:

*“As change is a fundamental characteristic of London, respecting character and accommodating change should not be seen as mutually exclusive. Understanding of the character of a place should not seek to preserve things in a static way but should ensure an appropriate balance is struck between existing fabric and any proposed change. Opportunities for change and transformation, through new building forms and typologies, should be informed by an understanding of a place’s distinctive character, recognising that not all elements of a place are special and valued.”*

A.24 Further relevant policies within the draft London Plan include Policy D2 – ‘Delivering good design’ and Policy D7 – ‘Public realm’.

A.25 In chapter seven of the draft London Plan, Policy HC3 – ‘Strategic and Local Views’ and Policy HC4 – ‘London View Management Framework’, consider development proposals within both strategic and borough views. In regard to the latter it states that Boroughs should clearly identify important local views in their Local Plans and strategies.



## Other Guidance and Townscape Initiatives

A.26 The LBRuT has been divided into village areas. Village Planning Guidance SPDs have been prepared for the village areas to provide supplementary guidance and identify key feature and characteristics valued by local communities. The Site falls within the LBRuT Twickenham Village Planning Guidance SPD (2018), which establishes the character of the various components of this area of the borough and is located within 'Character Area 11: North of the Green', described as:

*“Properties in the character area tend to front directly onto the pavement or step slightly back from the street with small front gardens behind low brick walls or fencing. Roads are narrow and intimate, and cars are parked on the street.”*

A.27 It goes onto to state that

*“The area is also distinctive for its light industry, which is tucked amongst the predominantly residential area between Twickenham Green and the River Crane. These industrial pockets can be found along Mereway Road, Colne Road and to the north of Edwin Road and are characterised by single storey warehouse units and outdoor space for parking.”*

A.28 The overall dominant features and materials described within the Twickenham Village Planning Guidance SPD are terraced residential buildings with red brick surrounds, small front gardens, prominent chimneys, sash windows, slate roofs and render.

A.29 The Site is also mentioned in the part 8 of the SPD as an identified site for development. It states that the development proposal will have to consider:

- The residential scale and character of the surrounding area to inform the siting / scale / massing of new development.
- Opportunities to provide high quality landscaping and, where appropriate, open space.
- Establishing a positive relationship with the River Crane along the northern edge of the site, enabling new linkages to and along the river route.
- Impact on views across the Crane Valley.
- Appropriate levels of parking to avoid placing pressure on the surrounding streets.
- Relationship with the Edwin Road frontage to secure improvements to the street scene.

A.30 LBRuT prepared Conservation Area Statements for all the three Conservation area that fall within the study area: Twickenham Green Conservation Area, Hamilton Road Conservation Area, Rosecroft Gardens Conservation Area. They provide details for local views.

## APPENDIX B

# FULL TOWNSCAPE AND VISUAL IMPACT METHODOLOGY

**Introduction**

B.1 This TVIA has been undertaken in accordance the methodology set out below which draws on best practice guidance as published in the following documents:

- Guidelines for Landscape and Visual Impact Assessment (3rd edition)- Landscape Institute/ Institute of Environmental Management and Assessment (2013)
- ‘An Approach to Landscape Character Assessment’- Natural England (2014)
- Photography and photomontage in landscape and visual impact assessment Landscape Institute Advice Note 01/11
- Visual Representation of Development Proposals – Landscape Institute Technical Guidance Note 02/17 – March 2017

B.2 The TVIA is undertaken with a prior understanding of the nature of the development being proposed and the purpose is to assess how the particular proposals may affect the townscape and visual amenity of identified receptors or in other words the townscape as a resource and those who experience it. In line with best practice, whilst interrelated, townscape and visual effects are considered separately.

B.3 The first stage of the assessment is to gain a detailed understanding of the existing conditions and a baseline study is undertaken which reviews the existing townscape elements and features, characteristics, including reference to published character assessments. Visual receptors are identified along with specific viewpoints to establish the visibility of the existing site. The next stage considers the value of a particular townscape or view. This information is then used along with an assessment of the susceptibility to the proposed change to form a judgement about the townscape or visual sensitivity.

B.4 The development proposals are considered and the effects are described in relation to the townscape character, feature, or view etc. The magnitude of change is established on each townscape or visual receptor and combining an assessment of this with the established sensitivity, a conclusion is reached about any likely effects. This appraisal considers the proposals at different stages, from construction through to establishment of any mitigation. The effects can be either positive or negative or at times neutral.

**Methodology for Appraisal of Townscape Effects**

**ESTABLISHING TOWNSCAPE SENSITIVITY**

B.5 To assess the likely effects on the townscape the Townscape Sensitivity is established through a consideration of the Townscape Value and the Susceptibility to Change.

The Townscape Value

B.6 Townscape Value is determined through an assessment of the character of the townscape, its scenic qualities and condition, the elements and features that it contains, and any specific value attached to the townscape whether formally eg through a designation; or informally eg local connections historic or artistic connections or a local landmark. Townscape Value is categorised in Table B.1.

Townscape Susceptibility to Change

B.7 The susceptibility of the townscape is concerned with establishing whether or not the townscape, be it a particular character area, townscape type or element can accommodate the proposed development without unacceptable negative consequences. The levels of susceptibility are assessed using the criteria used in Table B.2.

Townscape Sensitivity

B.8 The sensitivity of the townscape is derived by combining the judgements on Townscape Value and Susceptibility to Change described in Table B3.

**Table B.1 – Townscape Value**

Value	Typical criteria	Typical scale of importance/rarity	Typical examples
Exceptional	A townscape in excellent condition; of high importance, rarity and high scenic quality. No potential for substitution	International	World Heritage Site
High	A townscape in very good condition; of high importance with good scenic quality and rarity. Limited potential for substitution	National, Regional, Local	National Park, AONB, SLA Conservation Area
Medium	A townscape in generally good condition; with moderate importance and scenic quality. Limited potential for substitution.	Regional, Local	Undesignated but valued perhaps expressed through non-official publications or demonstrable use
Low	A townscape in poor condition or with low scenic quality and importance. Considerable potential for substitution.	Local	Areas identified as having some redeeming feature or features and possibly identified for improvement
Poor	A degraded townscape in poor condition and no scenic quality and low importance	Local	Areas identified for improvement / recovery.

**Table B.2 – Townscape Susceptibility to Change**

Susceptibility to change	Criteria
High	An area possessing particularly distinctive townscape elements, characteristics or sense of place, and few townscape detractors. A townscape with limited tolerance to change of the type proposed. Or where the proposed development would be in direct conflict with specific townscape management or planning policies.
Medium	An area with some distinctive townscape elements, characteristics, or clearly defined sense of place, but with some townscape detractors. A townscape which is partially tolerant to change of the type proposed.
Low	An area with recognisable townscape character, but few distinctive townscape elements, characteristics, and some, or a number of townscape detractors. The townscape is tolerant of some change of the type proposed. Or Where the character area is separated by distance or features so as to have little or no direct relationship with the site/and or proposed development.
Very Low	An area with limited or no distinctive townscape elements, characteristics, or weak sense of place, and many townscape detractors. An area that is tolerant of substantial change of the type proposed. OR Where the character area is separated by distance or features so as to have no direct relationship with the site/and or proposed development.

**Table B.3 – Townscape Sensitivity**

Value	Townscape Sensitivity		
High	High	High	Medium
Medium	High	Medium	Low
Low	Medium	Low	Low
	<i>High</i>	<i>Medium</i>	<i>Low/Very Low</i>
	<b>Susceptibility to Change</b>		

**ESTABLISHING MAGNITUDE OF CHANGE**

B.9 In order to establish the magnitude of change of the proposed development, including both the loss of existing features and replacement with new elements, an assessment is made which considers the size, scale, duration and reversibility of the effect on the townscape.

B.10 Magnitude of Change of the Townscape Effect is assessed following the criteria set out in Table B.4.

**Table B.4 – Townscape Magnitude of Change**

Magnitude of Change	Criteria
High	Where the proposals (or works to facilitate them) would result in the total loss or major alteration of the elements that make up the character of the baseline townscape. Where the introduction of elements are considered to be wholly uncharacteristic in the particular setting. Where the effects of the proposals would be experienced over a large scale and/or influence more than one townscape type/character area.
Medium	Where the proposals (or works to facilitate them) would result in the partial loss or alteration of one or more of the key elements that make up the character of the baseline townscape. Where the introduction of new features may be prominent but not necessarily wholly uncharacteristic in the particular setting. Where the effects of the proposals would be largely experienced within the townscape type/character area within which they will sit.
Low	Where the proposals (or works to facilitate them) would result in minor loss or alteration of one or more of the key elements that make up the character of the baseline townscape.
Negligible/None	Where the proposed scheme (or works to facilitate it) would result in very minor loss or alteration of one or more of the key elements that make up the character of the baseline and / or the introduction of elements that may not be uncharacteristic in the particular setting and/or Where the proposal occur within other character areas or types and their introduction by virtue of distance will have limited or no effect on the baseline character area.

**ESTABLISHING THE OVERALL APPRAISAL OF TOWNSCAPE EFFECTS**

B.11 To establish the overall townscape effects, the assessments of ‘sensitivity’ and ‘the magnitude of change’ are combined as shown in Table B.5. At times, it may be judged that the effects are negligible or neutral or, as a result of professional judgement, may be varied from a strict application of the matrix below, where this is the case, justification is provided within the main text of the TVIA. The effects can be positive/beneficial, negative/adverse or neutral. The criteria applied is set out in Table B.6.

**Table B.5 – Townscape Effects**

Sensitivity	Overall Assessment of Townscape Effects			
High	Major	Major /to moderate	Moderate	Minor to/ Negligible
Medium	Major /to moderate	Moderate	Moderate to / minor	None
Low	Moderate	Moderate to / minor	Minor	None
	High	Medium	Low/Very Low	Negligible/None
	<b>Magnitude to Change</b>			

**Table B.6 – Townscape Effects Criteria**

Beneficial Criteria – Where the proposals
Fits well with scale / landform and/or pattern of townscape
Increases characteristic features or enhances the contribution to the wider setting
Enhances balance of townscape elements
Improves the sense of tranquillity
Provides ability to include adequate or appropriate mitigation
Complements local/national planning policies or guidance to protect townscape character
Adverse Criteria – Where the proposals
Is out of scale with surrounding townscape / landform and/or pattern of townscape
Results in a loss of key townscape features or characteristics or a deterioration in contribution to setting
Disrupts the balance of townscape elements
Reduces the sense of tranquillity
Lacks ability to include adequate or appropriate mitigation
Conflicts with local/national planning policies or guidance to protect /manage townscape character
Neutral Criteria
Where the change (whatever the scale) resulting from the proposals will have an indiscernible effect on the character or characteristics of an area
Where any change will see one or more elements replaced with another of similar form/extent so as to result in an effect that on balance is neither positive or negative

**Methodology for Appraisal of Visual Effects**

**ESTABLISHING VISUAL SENSITIVITY**

B.1 To assess the likely effects on views / visual amenity the sensitivity of the receptors (ie those looking at the view) is established through a consideration of the Value and the Susceptibility to Change of a particular viewer or viewpoint.

Value

B.2 Value of a particular view is determined through an assessment of the location, the nature of the view, its scenic qualities and condition, the elements and features that it contains and is categorised in Table B.7

**Table B.1 – Representative View Value**

Value	Typical Criteria
High	Where the view is are of a highly exceptional nature, of high scenic value, often within, towards or across a townscape with a national designation or heritage assets, or a planning policy designation; and/or mentioned in a number of guidebooks or on tourist maps; and/or referenced in art and literature.
Medium	Where At a national level the National Planning Policy Framework (NPPF), published on February 2019, have a generally high scenic value. The view may be within, from or towards a designated heritage asset, or a planning policy designation; and/or mentioned in a number of guidebooks or on tourist maps; and/or referenced in art and literature but there may be some incongruous features or elements within in the view.
Low	The view from the representative viewpoint is not related to designated, or non-designated, heritage asset, or a planning designation; and/or mentioned in a guidebooks or on tourist maps; and/or referenced in art and literature; and/or of little visual amenity importance. Considerable potential for substitution of some elements in the view.
Poor	The view from the representative viewpoint is unsightly and of low importance. Considerable potential for substitution of some or all elements in the view.

Visual Susceptibility to Change

B.3 The assessment of susceptibility is concerned with establishing to what extent the visual receptor can accommodate the change in the nature of the view or the visual amenity of the view resulting from proposed development. In establishing susceptibility the circumstances in which the view is experienced eg does the view form part of the reason for being in a particular location (visiting a local landmark), or is it secondary to the reason for the person being in a particular location (eg a daily commute to work by car). Each visual receptor is described within the assessment and typical viewpoints are selected and photographed to provide a representation of the views.

B.4 The levels of susceptibility are assessed using the criteria set out in Table B.8. It should be noted that the susceptibility of the receptors may be reduced if the quality nature of the view is lower.

**Table B.8 – Representative View Susceptibility to Change**

Susceptibility to change	Criteria
High	Where the receptor is engaged in outdoor recreation including public rights of way and their attention is likely to be focused on the townscape or particular views. Visitors to heritage assets or visitor attractions where the views to the townscape or surroundings are an important part of the experience. Residents at home where views contribute to the setting of a residential area.
Medium	People walking around a residential area or visiting retail outlets or other destinations as a leisure activity, or at a place of work, where the views to the townscape or surroundings are make a positive contribution to the experience OR where the receptor, normally categorised as High, is located in an area of poor scenic value where the views to the surrounding area are unlikely to be the main focus of attention (eg walking routes to work).
Low	People engaged in outdoor sport or recreation that does not depend on an appreciation of the view. People travelling by road or rail (unless the route is specifically identified for its views). People at work or in a workplace or a place of education where the views to the townscape or surroundings are not important

Visual Sensitivity

B.5 The sensitive of the receptor is derived by combining the judgements on Value and Susceptibility to Change as set out in Table B.9.

**Table B.9 – Representative View Sensitivity**

Value	Townscape Sensitivity		
High	High	High	Medium
Medium	High	Medium	Low
Low	Medium	Low	Low
	<i>High</i>	<i>Medium</i>	<i>Low/Very Low</i>
	Susceptibility to Change		

VISUAL EFFECTS

B.6 The proposals are described within the report and their effects on the receptor and their visual amenity are assessed.

ESTABLISHING MAGNITUDE OF CHANGE

B.7 In order to establish the magnitude of change of the proposed development an assessment is made on the size and scale of the effect, the geographical extent of the effect and its reversibility or otherwise. The proposed scheme is considered based on the nature of the proposals, and a professional interpretation is made in respect of each receptor.

B.8 Magnitude of Change of the Effect on the Visual Receptor is assessed using the criteria set out in Table B.10.

**Table B.10 – Representative View Magnitude of Change**

Magnitude of Change	Criteria
High	Where the proposals (or works to facilitate them) would result in the total loss or major alteration of the elements that make up the view from a particular location. Where the introduction of elements are considered to be totally uncharacteristic in the particular setting. Where the effects of the proposals would be visible over a large scale and / or at close range
Medium	Where the proposals (or works to facilitate them) would result in the partial loss or alteration of one or more of the key elements that make up the view from a particular location. Where the introduction of new features may be prominent but not necessarily wholly uncharacteristic in the particular setting. Where the effects of the proposals would be largely seen from further afield or as only part of a view.
Low	Where the proposals (or works to facilitate them) would result in minor loss or alteration of one or more of the key elements that make up the view from a particular location. Where the introduction of elements would not generally be considered uncharacteristic in the particular setting.
Negligible / None	Where the proposed scheme (or works to facilitate it) would result in a very minor loss or alteration to the view and / or the introduction of elements would not be uncharacteristic in the particular setting. Where the effects of the proposals would only be seen from a distance and be imperceptible within the context of the wider view.

ESTABLISHING THE OVERALL ASSESSMENT OF VISUAL EFFECTS

B.9 To establish the overall assessment or otherwise of the visual effects, the sensitivity of the visual receptor and the magnitude of change are combined. The results can either be positive/beneficial or negative/adverse. It may also be the case that there are no effects or that effects are judged to be neutral in such instances this will be explained within the text.

**Table B.11 – Representative View Effects**

Sensitivity	Overall Assessment of Visual Effects			
High	Major	Major /to moderate	Moderate	Minor to/ Negligible
Medium	Major /to moderate	Moderate	Moderate to / minor	None
Low	Moderate	Moderate to / minor	Minor	None
	<i>High</i>	<i>Medium</i>	<i>Low/Very Low</i>	<i>Negligible/ None</i>
	Magnitude to Change			

B.10 The effects can be positive/beneficial, negative/adverse or neutral. The criteria applied is set out in Table B.12.

**Table B.12 – Representative View Effects Criteria**

Beneficial Criteria – Where the proposals
Fit comfortably within the view
Improves the view or an element within the view
Do not result in an incongruous feature within the prevailing pattern of townscape
Do not obstruct views towards a high quality or scenic townscape
Do not obstruct views or detracts from the visual amenity of a view towards a heritage asset.
Offers the ability to provide mitigation that will enhance the view or visual amenity.
Complements local/national planning policies or guidance on visual amenity or specific views.
Adverse Criteria – Where the proposals
Result in a change to the view or visual amenity that out of scale with surrounding townscape / landform and/or pattern of townscape
Results in a loss of positive townscape feature or characteristics within a particular view
Results in incongruous features within the prevailing pattern of townscape
Obstructs a view towards a high quality or scenic townscape.
Obstructs views or detracts from the visual amenity of a view towards a heritage asset.
Lacks ability to include adequate or appropriate mitigation
Conflicts with local/national planning policies or guidance to protect /manage visual amenity or specific views.
Neutral Criteria
Where the change (whatever the scale) in the view resulting from the proposals neither improves or damages the view or existing visual amenity of a view

# APPENDIX C

## REPRESENTATIVE VIEW APPRAISAL

## C

# Appendix C

## Representative View Appraisal

### Introduction

- C.1 A selection of representative views has been identified to recognise and assess the likely effects of the Scheme Proposal on the identified visual receptors, as shown in **Figure 3.4**. AVRs have been prepared for each of these representative views. Table 4.2 summarise the findings of this visual impact assessment.
- C.2 The AVRs provide two-dimensional representations of a complex scenic experience and as such are indicative. They have, however, been chosen to give an impression of the maximum effect of the Scheme Proposal in the viewing experience. These views are kinetic and variable in nature when experienced within the townscape.
- C.3 The imagery is no substitute for the actual visual experience from a representative view. It is essential when considering these views that the individual is aware of the viewing experience at each location and to be aware of traffic noise, weather, the surrounding buildings and any other similar matters. It is therefore recommended that this document is taken on site to fully appreciate the nature of the viewing experience in each representative view location.
- C.4 The selection of representative views considers the location of both conservation areas and surrounding townscape. In determining the effects of the Scheme Proposal, a judgement is made regarding the design quality of the completed scheme. This is informed by the AVR's and the supporting planning application information.
- C.5 The rationale behind why some AVRs are fully rendered and some are wireline is based on the distance from the Site; the identified sensitivity of the view; and, whether the inter-visibility between the Site and the viewpoint is prevented by built form or vegetation.
- C.6 **Appendix D** contains the methodology used for the AVRs produced by Cityscape. Within the blue wireline AVRs, where the buildings fall behind built form, or significant vegetation, the Scheme Proposal's mass has been shown with a dash demonstrating that they are unlikely to be seen within the view. The cumulative scheme of Lockcorp House is shown as a red wireline.



**01**  
page 10

*Twickenham Green*



**02**  
page 12

*Warwick Road (South)*



**03**  
page 14

*Edwin Road (West)*



**04**  
page 16

*May Road (North)*



**05**  
page 18

*Kneller Gardens*



**06**  
page 20

*Craneford Way Recreational Ground*





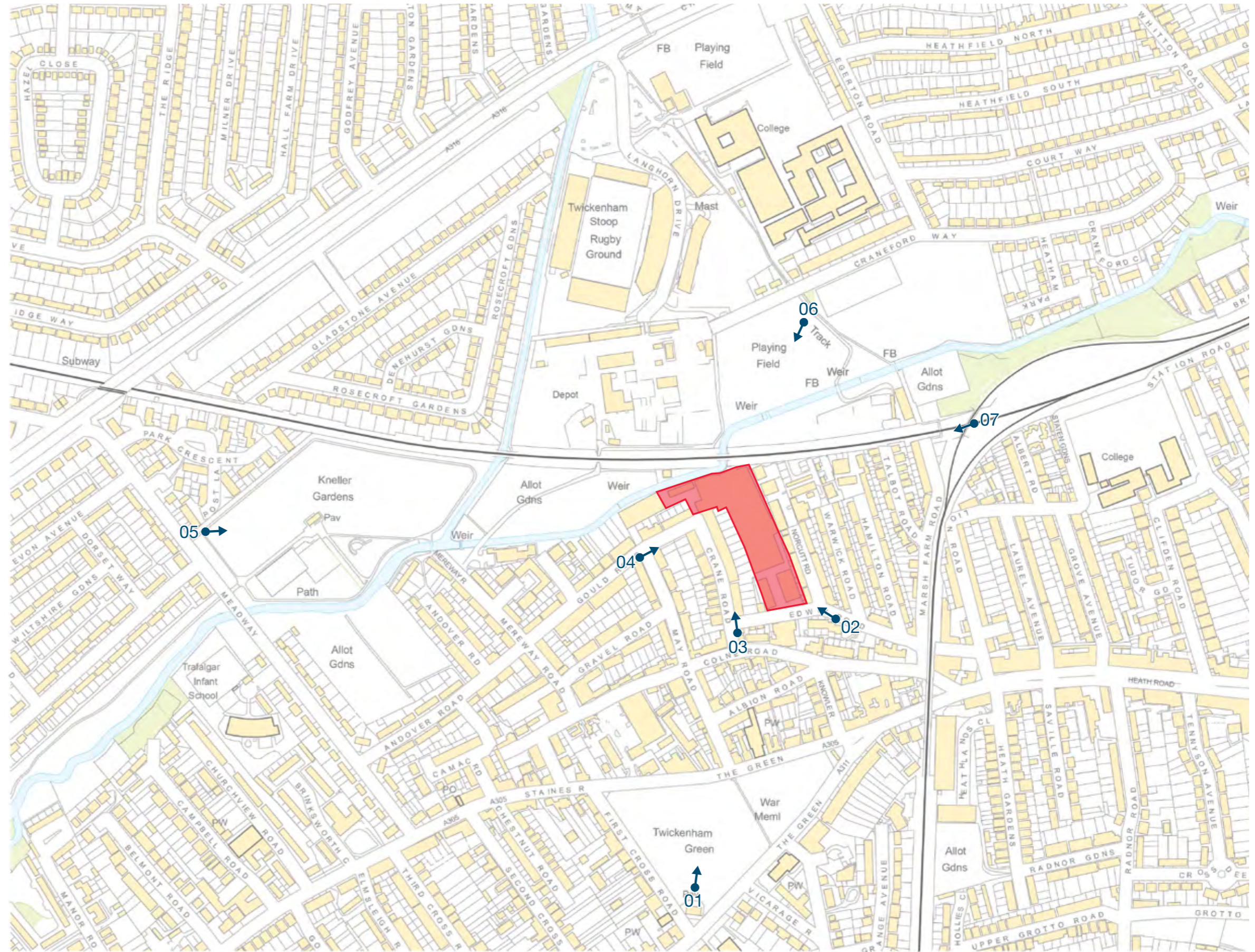
**07**  
page 22

*Footbridge crossing the railway*



Table of Views

View	Location	Page	Style	Render/ Wireline	Ref	OS-E	OS-N	Height (AOD)	Heading	Lens	Field of View	Film	Date	Time
1	Twickenham Green	10	AVR-1	Wirelines	D17843	515257.65	172852.33	11.81	6.86°	24mm	74°	Digital	22/12/18	09:13
2	Warwick Road (South)	12	AVR-3	Render	D17844	515411.52	173208.79	12.51	286.73°	24mm	74°	Digital	22/12/18	09:52
3	Edwin Road (West)	14	AVR-3	Render	D17845	515306.00	173191.59	12.14	355.90°	24mm	74°	Digital	22/12/18	09:47
4	May Road (North)	16	AVR-3	Render	D17836	515189.62	173281.60	11.70	64.11°	24mm	74°	Digital	18/12/18	13:13
5	Kneller Gardens	18	AVR-1	Wirelines	D17846	514647.08	173306.27	16.41	75.95°	24mm	74°	Digital	22/12/18	08:50
6	Craneford Way Recreational Ground	20	AVR-3	Render	D17847	515402.75	173565.00	10.27	193.38°	24mm	74°	Digital	22/12/18	08:20
7	Footbridge crossing the railway	22	AVR-3	Render	D17848	515561.83	173428.18	16.84	254.35°	24mm	74°	Digital	22/12/18	08:30





# 01

## Twickenham Green



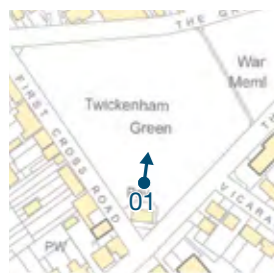
Existing View



Proposed View



Camera Location



View Location

### Baseline condition

- C.7 This representative view illustrates the open nature of Twickenham Green and is positioned 435m to the south of the Site, within Twickenham Green Conservation Area. It is located in front of the sports pavilion that situated at the southern corner of the green, close to the junction of First Cross Road and Hampton Road (A311).
- C.8 The view is relatively open with the green present in the fore and middle ground. Mature trees frame the green and filter views to the buildings that line it during the summer when in leaf.
- C.9 In the far middle ground are the varied built form of residential, commercial and industrial properties that face the green and Staines Road (A305). These differ in age, height, architectural design and façade treatment, creating a varied skyline to Twickenham Green. A number of older buildings are Buildings of Townscape Merit. The built form prevents a view to the Site and its associated buildings.
- C.10 The representative view has a high to medium value as it is taken within Twickenham Green Conservation Area and the majority of the buildings in the far middle ground are Buildings of Townscape Merit.

### Appraisal of the Effects

- C.11 The representative view will have a high susceptibility to change and a high sensitivity to the Scheme Proposal. The former is based on the occupation or activity of people and the presence of heritage assets and the latter is based on the baseline appraisal's identified value and the susceptibility to change. The approach to determining the view's 'susceptibility to change' and 'sensitivity' is set out in the supporting methodology within **Appendix B**.
- Effects of the Scheme Proposal
- C.12 The Scheme Proposal will not be visible from this view due to intervening visual barriers such as the existing buildings that frame Twickenham Green and resulting in no magnitude of change and **no** effect to this representative view.
- Cumulative Effects
- C.13 The cumulative scheme of Lockcorp House will not be visible within this view and, combined with the Scheme Proposal, will lead to **no** cumulative effect.

24mm - 37°

35mm - 31.5°

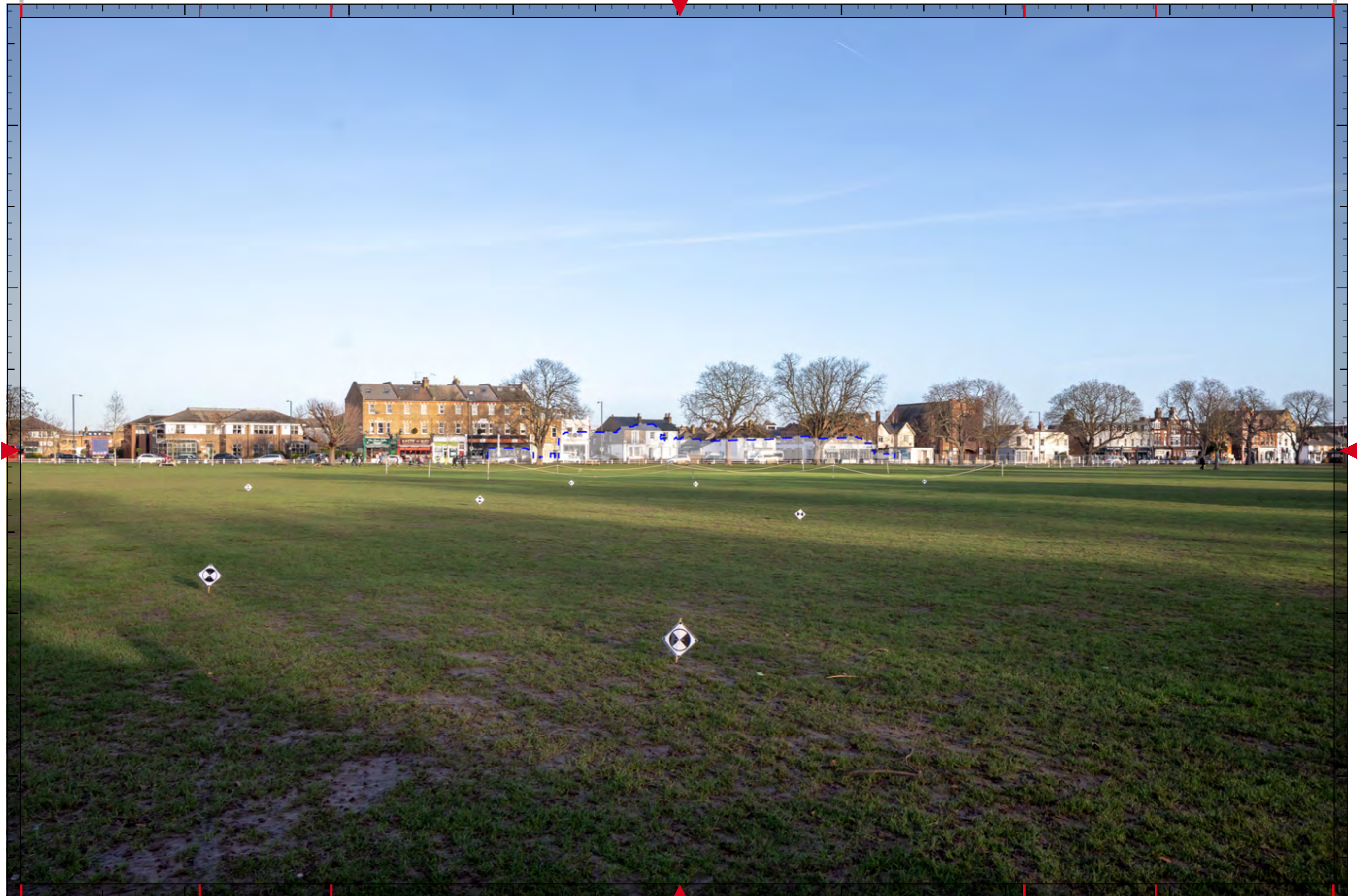
50mm - 20°

0°

50mm - 20°

35mm - 31.5°

24mm - 37°



Cumulative view



# 02

## Warwick Road (South)



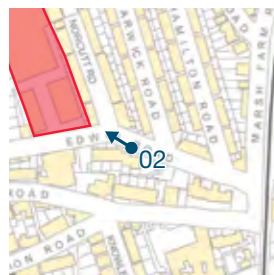
Existing View



Proposed View



Camera Location



View Location

### Baseline condition

- C.14 Situated close to the Site's southern entrance, this representative view is positioned approximately 90m away to the southeast. It is taken from the southern side of the pavement opposite to the junction of Norcutt Road and Edwin Road. The flat landform and two storey built form provides a broadly linear view that takes in a large amount of sky.
- C.15 The foreground of the view is occupied by the residential properties of Edwin Road, a portion of the front gardens to the south (left) of the view and a rendered blank façade of the house positioned at the junction between it and Norcutt Road to the north (right).
- C.16 The Site's southern boundary wall and entrance are visible in the middle ground in to the west (centre) of the view. The Site's buildings are partially visible and set back from the Edwin Road residential properties building line. Opposite to the Site entrance, to the southwest (left), are further industrial buildings.
- C.17 In the far middle ground are further residential properties associated with Edwin Road and the residential properties along Crane Road are visible to the west in the background.
- C.18 The representative view has a medium to low value, due to the townscape of generally good to poor condition and with a moderate to low scenic quality. It is considered that there is potential for substitution of some elements in the view.

### Appraisal of the Effects

- C.19 The representative view will have a medium susceptibility to change and a medium sensitivity to the Scheme Proposal.

#### Effects of the Scheme Proposal

- C.20 With the implementation of the Scheme Proposal a partial view will be gained to the Entrance area of the Scheme Proposal. The representative view illustrates how the office and residential properties address Edwin Road. It demonstrates how the Scheme Proposal responds to the existing residential properties height, building line and rooves to create a continuous frontage Edwin Road.
- C.21 The Scheme Proposal provides activity and visual interest to this section of Edwin Road. Its façade materials reflect the white render and brick already present within the view. It will have a local, direct, permanent, medium to low magnitude of change and a **moderate to minor** and **beneficial** effect.

#### Cumulative Effects

- C.22 The cumulative scheme of Lockcorp House will not be visible within this representative view.

24mm – 37°

35mm – 31.5°

50mm – 20°

0°

50mm – 20°

35mm – 31.5°

24mm – 37°



Cumulative view



# 03

## Edwin Rd (West)



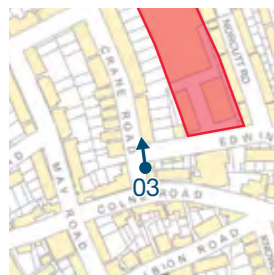
Existing View



Proposed View



Camera Location



View Location

### Baseline condition

- C.23 This representative view has been taken from the western end of Edwin Road, at its junction with Crane Road, approximately 95m away from the Site's south western boundary. It is situated on the southern pavement of the junction and illustrates the narrow, linear view afforded by Crane Road that provides an intimate townscape.
- C.24 The foreground is occupied by the junction of the two roads. In the middle ground, on both sides of Crane Road, are two storey houses set back from the pavement with narrow front gardens. This route has a gentle bend and in the background of the view, to the north (centre), the Site's three storey office building and northwest entrance can be glimpsed.
- C.25 The view is across a townscape of generally good condition with moderate scenic quality. There is limited potential for substitution of some elements in the view. Therefore, it is considered that this representative view has a medium to low value.

### Appraisal of the Effects

- C.26 The representative view will have a medium susceptibility to change and a medium sensitivity to the Scheme Proposal.

#### Effects of the Scheme Proposal

- C.27 The part three and four storey element of the Scheme Proposal's apartment block, adjacent to the Site's northwest entrance, will be glimpsed in the background of the view. The step in building height helps to integrate the Scheme Proposal into the existing terrace of houses along Crane Road.
- C.28 With the clearance of the Site's existing buildings and development of the Scheme Proposal a new view will be opened up to the River Crane through the northwest entrance. This will aid with legibility and orientation around the townscape.
- C.29 The proposed palette of façade materials, which would include the use of brick and charred black timber, would help to break up the overall mass and integrate the Scheme Proposal into the surrounding townscape. Overall the Scheme Proposal will have a local, direct, permanent, low magnitude of change and a **minor** and **beneficial** effect.

#### Cumulative Effects

- C.30 The cumulative scheme of Lockcorp House will not be visible within this representative view.



24mm – 37°

35mm – 31.5°

50mm – 20°

0°

50mm – 20°

35mm – 31.5°

24mm – 37°



Cumulative view



# 04

## May Rd (North)



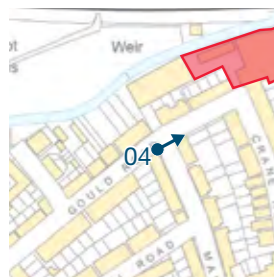
Existing View



Proposed View



Camera Location



View Location

### Baseline condition

- C.31 Positioned approximately 150m away to the west of the Site this representative view illustrates the residential nature of the surrounding streets. It is taken from the south-western pavement of the junction of Gould Road and May Road.
- C.32 The view is fairly open in the foreground with the road junction but the built form of Gould Road provides a linear view and intimate townscape. In the middle ground, to the northeast (left) of the view are two storey residential properties set back from the pavement with narrow front gardens.
- C.33 To the southeast (right) are the flank wall of the residential properties facing May Road and, in the far middle ground, Crane Road. Wooden fencing hides the view toward their associated back gardens. In the far middle ground, to the east (centre) are the two storey houses along Crane Road which abut the Site's boundary. A glimpsed view can be gained to the three storey office building associated with the Site.
- C.34 It is considered that this representative view has a medium to low value. The view is across a townscape of generally good condition with moderate to poor scenic quality.

### Appraisal of the Effects

- C.35 The representative view will have a medium susceptibility to change and a medium sensitivity to the Scheme Proposal.

#### Effects of the Scheme Proposal

- C.36 The Scheme Proposal's apartment block associated with the Riverside area will be partially visible in the far middle ground of the view. This block varies in height between three and five storeys and has a varying façade material and roof treatment that helps to break up its mass within the view.
- C.37 The Scheme Proposal will have a local, direct, permanent, medium to low magnitude of change and a **moderate to minor** and **beneficial** effect.

#### Cumulative Effects

- C.38 The cumulative scheme of Lockcorp House will not be visible within this representative view.

24mm – 37°

35mm – 31.5°

50mm – 20°

0°

50mm – 20°

35mm – 31.5°

24mm – 37°



Cumulative view



# 05

## Kneller Gardens



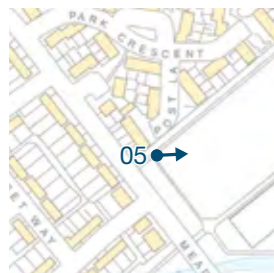
Existing View



Proposed View



Camera Location



View Location

### Baseline condition

- C.39 This representative view illustrates the public open space of Kneller Gardens. It is taken from the western corner of the park, some 705m to the north west of the Site. The park was originally laid out in the early 20th century.
- C.40 The fore and middle ground of the view are mostly occupied by a large extent of amenity lawn, framed by two asphalt footpaths going northeast (left) of the view and south (right). The north eastern footpath (left) is bordered by a line of trees. In the middle ground, a pavilion is visible to the east (centre) and a fenced off playground can be glimpsed to the south east (right) partially hidden behind a group of trees and ornamental planting.
- C.41 The view is framed in the background by a dense line of trees and scrubs that follows the River Crane and the Duke of Northumberland's River. This vegetation prevents a view to the Site and its associated buildings.
- C.42 The view is across a park of good condition with high scenic quality. There is no potential for substitution of some elements in the view. Therefore, it is considered that this representative view has a medium value.

### Appraisal of the Effects

- C.43 The representative view will have a high susceptibility to change and a high sensitivity to the Scheme Proposal.

#### Effects of the Scheme Proposal

- C.44 A limited glimpsed view will be possible to the Scheme Proposal's Riverside apartment building in the winter, with the remaining buildings screened by intervening vegetation. These buildings will be read in conjunction with the existing built form present in the background of the view. It is therefore considered that the Scheme Proposal will have a negligible to no magnitude of change is therefore assessed as resulting in a **negligible** and **neutral** effect.

#### Cumulative Effects

- C.45 The cumulative scheme of Lockcorp House will not be visible within this representative view.

24mm - 37°

35mm - 31.5°

50mm - 20°

0°

50mm - 20°

35mm - 31.5°

24mm - 37°



Cumulative view



# 06

## Craneford Way Recreational Ground



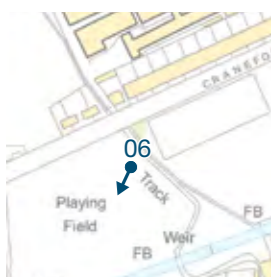
Existing View



Proposed View



Camera Location



View Location

### Baseline condition

- C.46 This public area of open space provides an area for formal and informal play and is located some 270 metres away from the Site.
- C.47 The simple layout of the recreational ground provides an open view with the amenity grass visible in the fore and middle ground. In the background of the view a line of vegetation and scrub denotes the route of the western branch of the railway line and the route of the River Crane. Beyond this the built form associated with the Site, the former electric building (Athelsan Place) and residential properties can be glimpsed. The Site's silos can be glimpsed in the far background of the view above the existing roofline.
- C.48 It is considered that this representative view has a medium to low value. The view is across a park of generally good condition with moderate scenic quality and there is limited potential for substitution of some elements in the view.

### Appraisal of the Effects

- C.49 The representative view will have a low susceptibility to change and a medium to low sensitivity to the Scheme Proposal.

#### Effects of the Scheme Proposal

- C.50 The Scheme Proposal's apartment blocks associated with the Riverside area will be partially visible in the background of the view to the south-west (right), behind the line of trees associated with the River Crane.
- C.51 These blocks vary in height between three and five storeys and have varying façade material and roof treatment, which helps break up the overall mass of the Scheme Proposal in the view. The treatment of the Scheme Proposal reflects the recently constructed developments along the River Crane and railway line corridor.
- C.52 The Scheme Proposal will have local, direct, permanent, medium to low magnitude of change and a **moderate to minor** and **beneficial** effect.

#### Cumulative Effects

- C.53 The cumulative scheme of Lockcorp, House, shown in the red outline, will be visible within this view and screens a proportion of the Scheme Proposal reducing its visibility. Overall the cumulative effect of the Scheme Proposal with the consented scheme of Lockcorp House will have a medium to low magnitude of change and a **moderate to minor** and **beneficial** effect.



Cumulative view



# 07

Footbridge crossing the railway,



Existing View



Proposed View



Camera Location



View Location

## Baseline condition

- C.54 This pedestrian footbridge provides a raised vantage point to appreciate views over the study areas townscape and skyline. It is situated to the east of the Site, some 260 metres away.
- C.55 The foreground includes the southern staircase of the bridge and the western branch railway line, to the west (centre) of the view. To the southwest (left) is an area of car parking associated with Marsh Farm Road and, to the northwest vegetation screens the view to the River Crane and Craneford Way Recreational Ground.
- C.56 In the middle ground the view is dominated by the Marsh Farm Road residential properties. Rising above this is the roof of the former electric building (Athelsan Place) and, to the southwest and west, a limited glimpsed view can be gained to the Site's silos and northern warehouses.
- C.57 The representative view has a medium to low value.

## Appraisal of the Effects

- C.58 The representative view will have a medium susceptibility to change and a medium to low sensitivity to the Scheme Proposal.

### Effects of the Scheme Proposal

- C.59 The top floor of the Scheme Proposal's Riverside apartment block will be glimpsed in the background of the view, rising above the existing built form. It provides a varied skyline and helps with orientation around the townscape.
- C.60 The Scheme Proposal will have local, direct, permanent, low magnitude of change and a **minor** and **beneficial** effect.

### Cumulative Effects

- C.61 The cumulative scheme of Lockcorp House, shown in the red outline, will be visible and screens a proportion of the Scheme Proposal reducing its visibility in the view. Overall the cumulative effect of the Scheme Proposal with the consented scheme of Lockcorp House will have a low magnitude of change and a **minor** and **beneficial** effect.



24mm – 37°

35mm – 31.5°

50mm – 20°

0°

50mm – 20°

35mm – 31.5°

24mm – 37°



Cumulative view

# APPENDIX D

## AVR METHODOLOGY

# D

## Appendix D

### Cityscape Verified Views Methodology

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## 0.0 INTRODUCTION

### 0.1 Methodology overview

The methodology applied by Cityscape Digital Limited to produce the verified images or views contained in this document is described below. In the drafting of this methodology and the production and presentation of the images, guidance has been taken from the London View Management Framework SPG March 2012. The disciplines employed are of the highest possible levels of accuracy and photo-realism which are achievable with today's standards of architectural photography and computer-generated models.

### 0.2 View selection

The viewpoints have been selected through a process of consultation with relevant statutory consultees and having regard to relevant planning policy and guidance.

## 1.0 PHOTOGRAPHY

### 1.1 Digital photography

With the latest advances in Digital Photography it is now possible to match the quality of plate photography.

### 1.2 Lenses

For local views a wide angle lens of 24mm or 35mm is generally used in order to capture as much of the proposal and its surroundings as possible. Intermediate distance views were photographed with a lens between 35mm to 70mm and occasionally long range views may be required with lens options ranging from 70mm to 600mm. As a guide, the following combinations were used:

Distance to subject	View	Lens Options
0 – 800 metres	Local	24mm to 35mm
800 to 5000 metres	Intermediate	35mm to 70mm
5000+ metres	Long	70mm to 600mm

Examples of these views are shown in Figures 4 and 5.

### 1.3 Digital camera

Cityscape uses a Canon 5D MK IV (shown in figure 1) and a Canon 1DS MK III (all full frame digital SLRs) high resolution digital camera for the digital photography. Also used were Canon's 'L' series professional tilt and shift lenses which produce high quality images that are suitable for the camera-matching process without the need for processing and scanning.

### 1.4 Position, time and date recording

The photographer was provided with (i) an Ordnance Survey map or equivalent indicating the position of each viewpoint from which the required photographs were to be taken, and (ii) a digital photograph taken by Cityscape of the desired view. For each shot the camera was positioned at a height of 1.60/1.65 metres (depending on whether image is SPG or RPG3A view) above the ground level which closely approximates the human eye altitude. A point vertically beneath the centre of the lens was marked on the ground as a survey reference point and two digital reference photographs were taken of (i) the camera/tripod location and (ii) the survey reference point (as shown in Figures 2 and 3). The date and time of the photograph were recorded by the camera.





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1 Canon 1DS Digital Camera

2 Camera Location

3 Survey reference point

4 Local view

5 Intermediate view

## 2.0 DIGITAL IMAGE CORRECTION

### 2.1 Raw file conversion

Canon cameras produce a raw file format, which is then processed digitally for both high detail and colour accuracy. The final image is outputted as a tiff<sup>1</sup> file.

### 2.2 Digital image correction

The digital images were then loaded into Cityscape's computers to prepare the digital image for the next stage of camera matching (see section 5). The image is also 'bank'<sup>2</sup> corrected which means ensuring that the horizon in each digital image is precisely horizontal.

In spite of the selection of the most advanced photographic equipment, lenses are circular which results in a degree of distortion on the perimeter of images. The outer edges of an image are therefore not taken into consideration; this eliminates the risk of inaccuracy. Figure 17 in section 5 illustrates the 'safe' or non-distortive area of an image which is marked by the red circle.

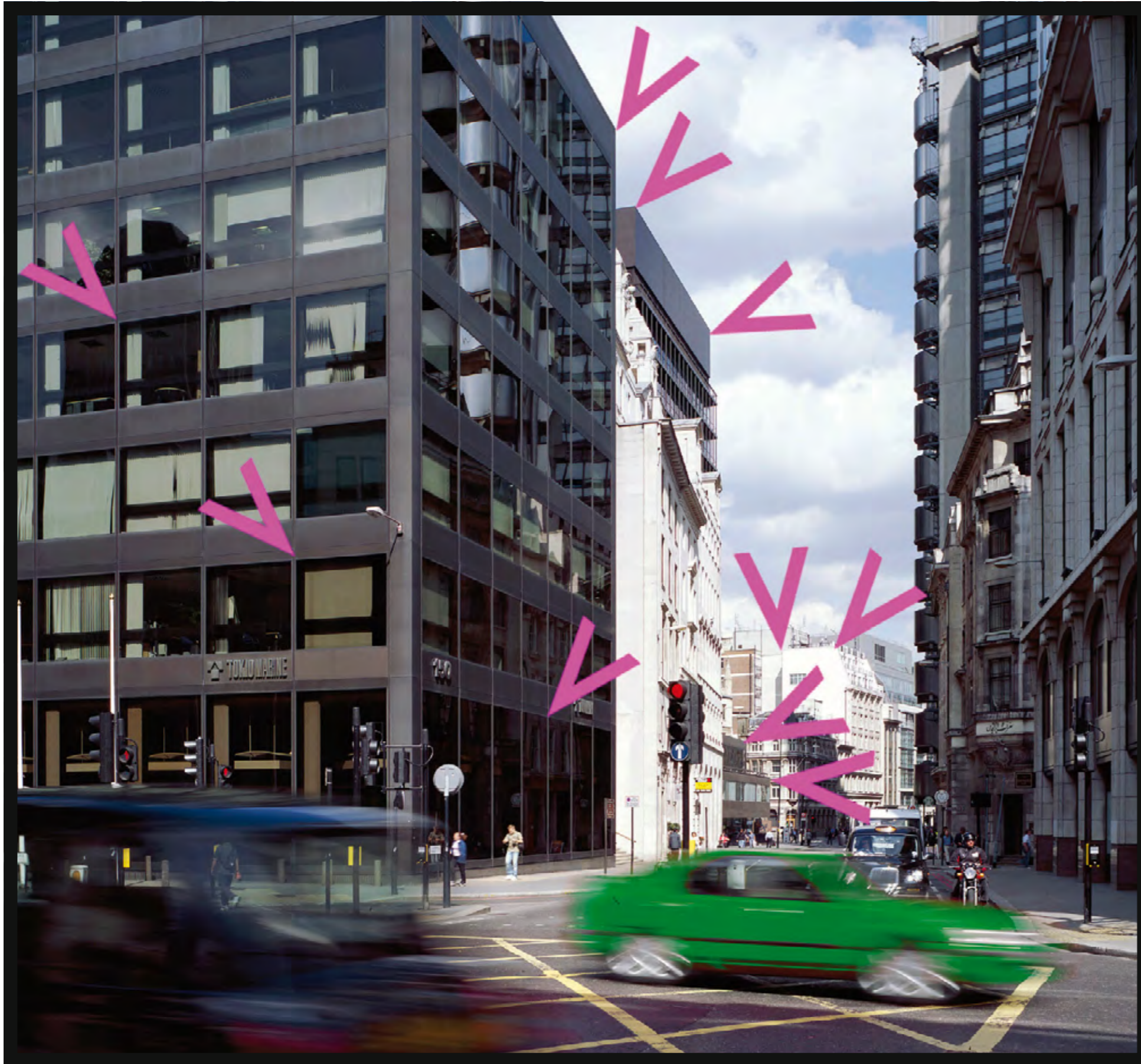
The adjusted or corrected digital image, known as the 'background plate', is then saved to the Cityscape computer system ready for the camera matching process (see section 5). In preparation for the survey (see section 4) Cityscape indicates on each background plate the safe area and priority survey points, such as corners of buildings, for survey (see Figures 6 and 7)

<sup>1</sup> TIFF is the name given to a specific format of image file stored digitally on a computer.

<sup>2</sup> By aligning the vanishing points.

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6 Background plate highlighting critical survey points in purple and secondary survey strings in red

7 Area of interest to be surveyed as shown in Figure 7

## 3.0 GPS SURVEY

### 3.1 Survey

An independent surveyor was contracted to undertake the survey of (i) each viewpoint as marked on the ground beneath the camera at the time the photograph was taken (and recorded by way of digital photograph (see section 1 above) and (ii) all the required points on the relevant buildings within the safe zone.

The survey was co-ordinated onto the Ordnance Survey National Grid (OSGB36) by using Global Positioning System (GPS) equipment (see, for example, Figure 9) and processing software. The Ordnance Survey National Grid (OSGB36) was chosen as it is the most widely used and because it also allows the captured data to be incorporated into other available digital products (such as Ordnance Survey maps). The height datum used was Ordnance Survey Newlyn Datum and was also derived using the GPS.

The surveyor uses a baseline consisting of two semi-permanent GPS base stations (see Figure 8). These stations are located approximately 5730 metres apart and positioned so as to optimise the results for the area of operation (see location map, Figure 13). The base stations are tied into the National GPS Network and are constantly receiving and storing data which allows their position to be monitored and evaluated over long periods of operation. By using the same base stations throughout the survey the surveyor ensure the consistency of the results obtained.

Using the Real Time Kinematic method a real time correction is supplied by each base station to the rover (shown in Figure 10) (over the GSM<sup>3</sup> network) physically undertaking the field survey. This enables the rover to determine the co-ordinates of its location instantaneously (i.e. in 'real time'). The rover receives a 'corrected' fix (co-ordinates) from each base station. If the two independent fixes are each within a certain preset tolerance, the rover then averages the two fixes received. The viewpoints are, with a few exceptions, surveyed using this technique. This method of GPS survey (Real Time Kinematic) produces results to an accuracy in plan and height of between 15mm – 50mm as outlined in the "Guidelines for the use of GPS in Land Surveying" produced by the Royal Institute of Chartered Surveyors.

The required points on each building are surveyed using conventional survey techniques utilising an electronic theodolite and reflectorless laser technology (shown in Figures 11 and 12). There are two methods used to fix the building details, namely polar observations<sup>4</sup> and intersection observations<sup>5</sup>. The position of the theodolite is fixed by the rover as described above. In certain circumstances, a viewpoint may need to be surveyed using conventional survey techniques as opposed to Real Time Kinematic, if, for example, the viewpoint is in a position where GPS information cannot be received.

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<sup>3</sup> GSM network: the mobile phone network.

<sup>4</sup> Polar observation is the measurement of a distance and direction to a point from a known baseline in order to obtain co-ordinates for the point. The baseline is a line between two known stations.

<sup>5</sup> Intersection observation is the co-ordination of a point using directions only from two ends of a baseline.





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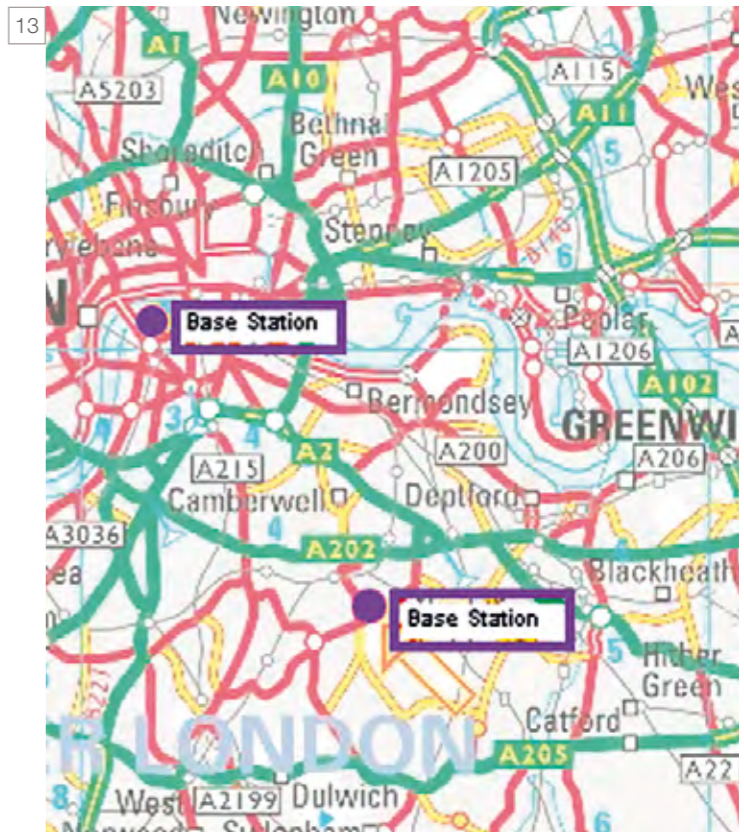
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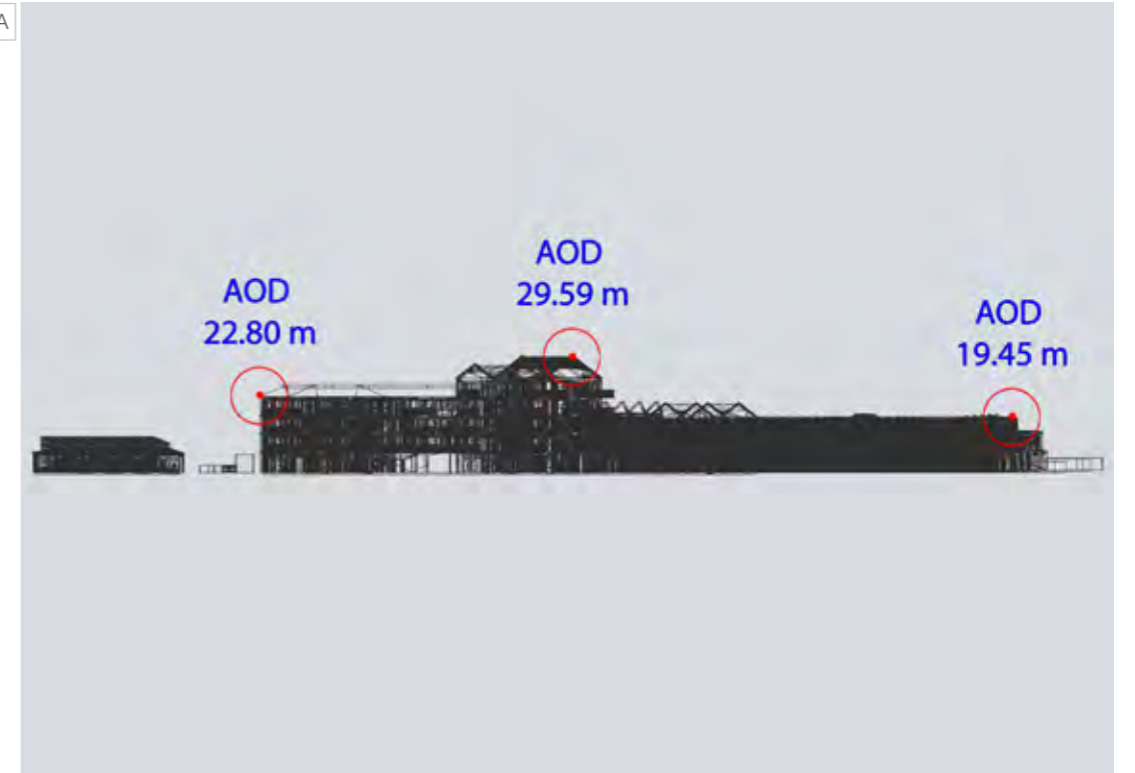
- 8 Marshall Survey semi-permanent GPS base station
- 9 GPS System
- 10 Field survey being carried out using a GPS rover
- 11 Electronic Theodolite
- 12 Field survey being carried out by St. Paul's Cathedral
- 13 Location of Marshall Survey's GPS base stations

## 4.0 MODEL POSITIONING

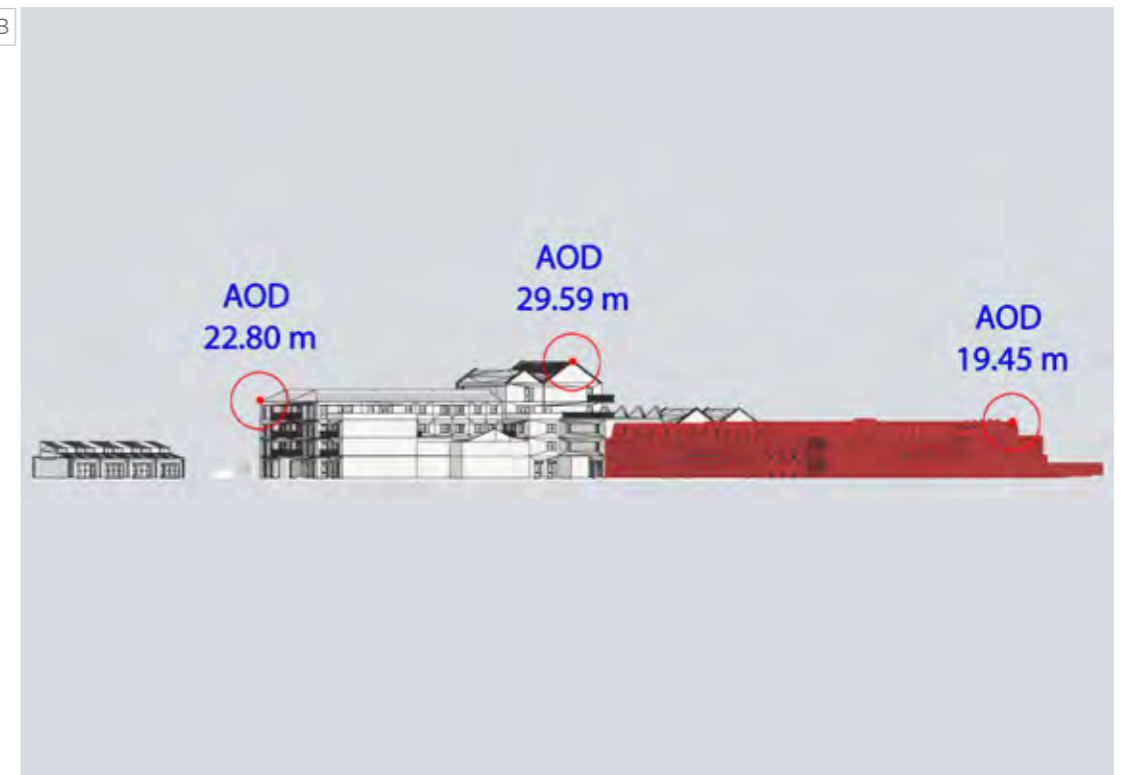
### 4.1 Height and position check

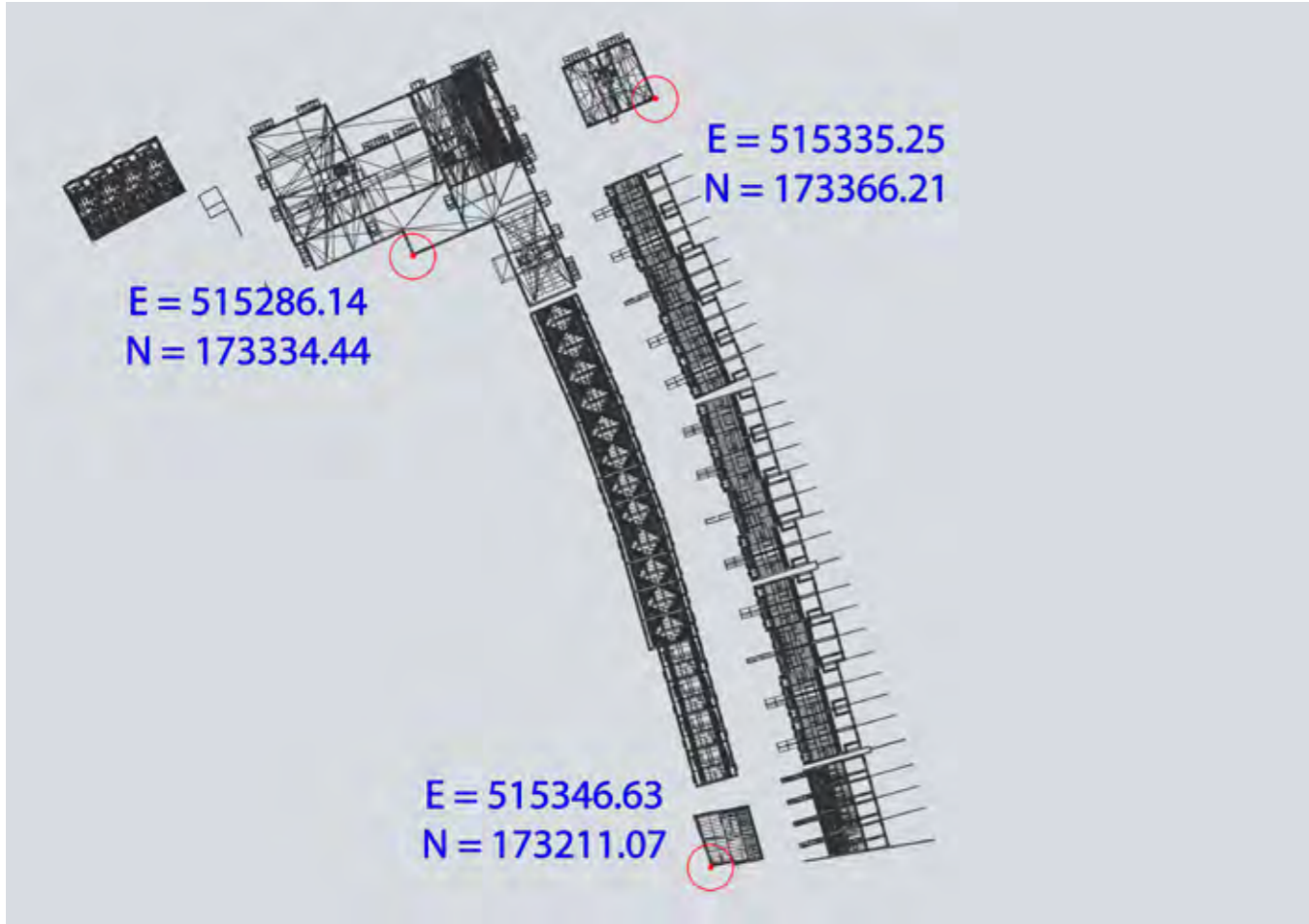
The model is positioned using a site plan provided by the architect. This is then overlaid onto OS positioned survey from a CAD provider. Once the building has been positioned, confirmation of height and position is requested from the architect. At least two clear reference points are agreed and used to confirm the site plan and Ordnance Survey. The height is cross checked against the architect's section and given in metres Above Ordnance Survey Datum (AOD).

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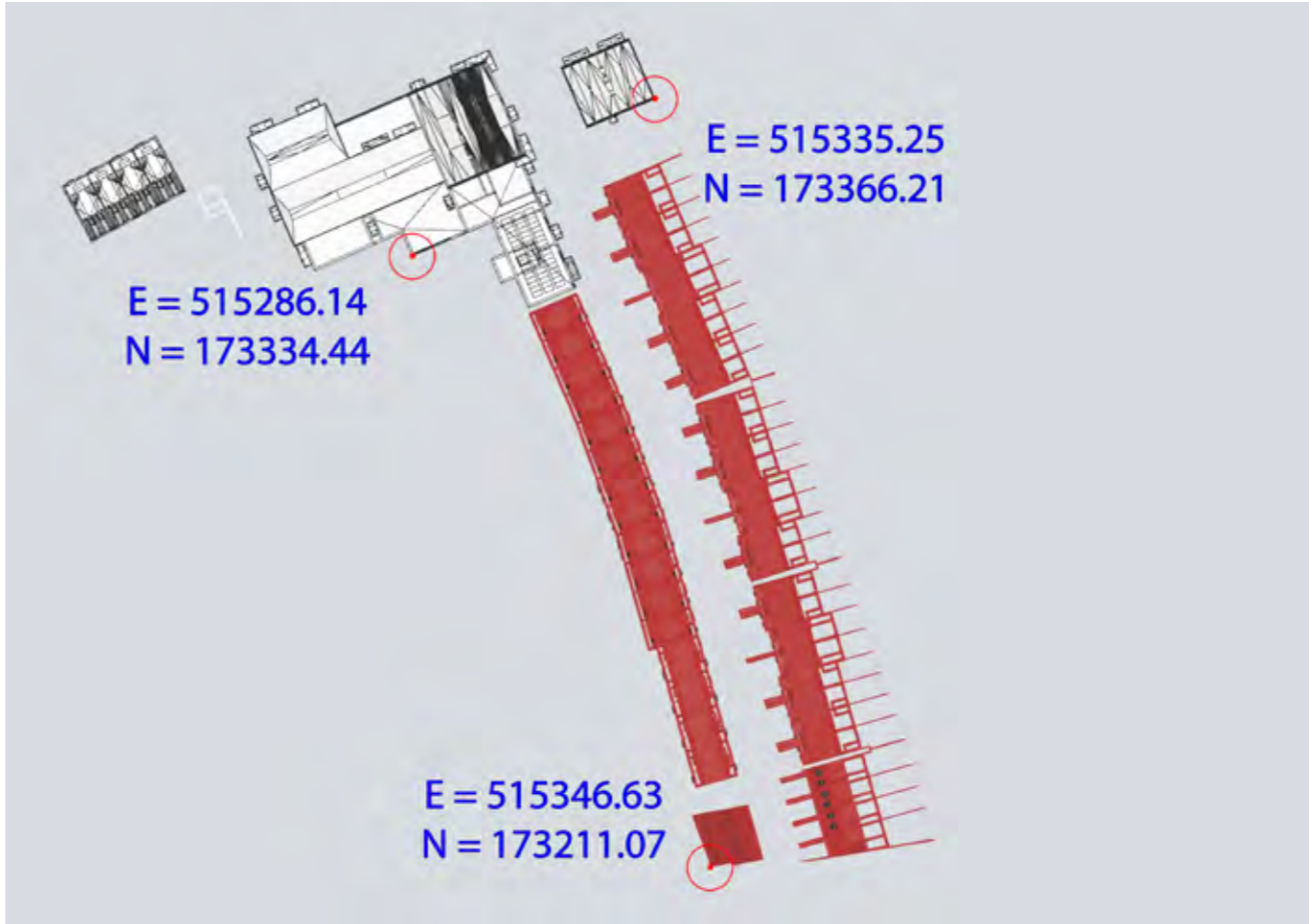


14B





15A



15B

14A Architect's Elevation Drawing

14B Cityscape's Elevation Model

15A Architect's Plan Drawing

15B Cityscape's Plan Model

## 5.0 CAMERA MATCHING

### 5.1 Cityscape's Database

Cityscape has built up a comprehensive database of survey information on buildings and locations in central London; the database contains both GPS survey information and information regarding the dimensions and elevations of buildings gathered from architects and other sources. Figure 16 shows a selection of GPS located models (yellow) within Cityscape's database which effectively represents a 3D verified computer 'model' of some prominent buildings in central London. The term '3D model' has been adopted with caution in this methodology as it is thought to be slightly misleading because not every building in central London is included in the database although the majority of those buildings which form part of the 'skyline' are included.

The outlines of buildings are created by connecting the surveyed points or from the information obtained from architects' drawings of particular buildings. By way of example of the high level of detail and accuracy, approximately 300 points have been GPS surveyed on the dome of St. Paul's. The database 'view' (as shown in Figure 16) is 'verified' as each building is positioned using coordinates acquired from GPS surveys.

In many instances, the various co-ordinates of a particular building featured

in one of the background plates are already held by Cityscape as part of their database of London. In such cases the survey information of buildings and locations provided by the surveyor (see section 3 above) is used to cross-check and confirm the accuracy of these buildings. Where such information is not held by Cityscape, it is, where appropriate, used to add detail to Cityscape's database. The survey information provided by the surveyor is in all cases used in the verification process of camera matching.

### 5.2 Cityscape's Database

A wireframe<sup>6</sup> 3D model of the proposed scheme if not provided is created by Cityscape from plans and elevations provided by the architects and from survey information of the ground levels on site and various other points on and around the site, such as the edge of adjacent roads and bollards etc. provided by the surveyor.

### 5.3 Camera Matching Process

The following information is required for the camera matching process:

- Specific details of the camera and lens used to take the photograph and therefore the field of view (see section 1);
- The adjusted or corrected digital image i.e. the 'background plate' (see section 2);

- The GPS surveyed viewpoint co-ordinates (see section 3);
- The GPS surveyed co-ordinates of particular points on the buildings within the photograph (the background plate) (see section 3);
- Selected models from Cityscape's database (see section 3);
- The GPS surveyed co-ordinates of the site of the proposed scheme (see section 3);
- A 3D model of the proposed scheme (see section 4).

A background plate (the corrected digital image) is opened on computer screen (for example, Figure 17), the information listed above is then used to situate Cityscape's virtual camera such that the 3D model aligns exactly over the background plate (as shown in Figures 18 and 21) (i.e. a 'virtual viewer' within the 3D model would therefore be standing exactly on the same viewpoint from which the original photograph was taken (Figure 20). This is the camera matching process.

### 5.4 Wireline Image

Cityscape is then able to insert the wireframe 3D model of the proposed scheme into the view in the correct location and scale producing a verified wireline image of the proposal (shown in Figures 19 & 22).

The camera matching process is repeated for each view and a wireline image of the proposal from each viewpoint is then produced. The wireline image enables a quantitative analysis of the impact of the proposed scheme on views.



<sup>6</sup> A wireframe is a 3D model, a wireline is a single line representing the outline of the building.

- 16 Selected GPS located models (yellow) from Cityscape's database, situated on Cityscape's London digital terrain model
- 17 Background plate & selected 3D models as seen by the computer camera. Red circle highlights the safe or non-distortive area of the image
- 18 Background plate matched to the 3D GPS located models
- 19 The camera matched background plate with an example of a proposed scheme included in red
- 20 Background plate: digital photograph, size and bank corrected as described in section 3
- 21 Camera matching: the background plate matched in the 3D GPS located models
- 22 The camera matched background plate with the proposed scheme included



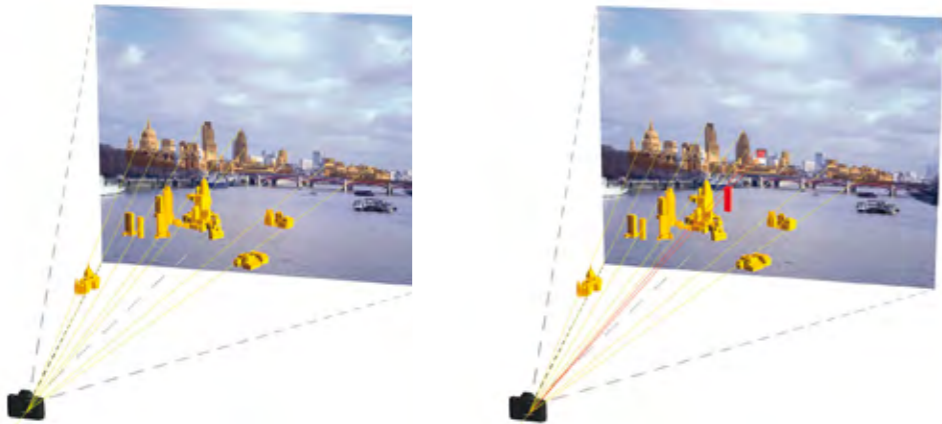
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## 6.0 RENDERING

### 6.1 Rendering

Rendering is a technical term referring to the process of creating a two-dimensional output image from the 3D model.

### 6.2 Texturing

In order to assist a more qualitative assessment of the proposals, the output image needs to be a photo-realistic reflection of what the proposed scheme would look like once constructed. The process of transforming the wireframe 3D scheme model (see Section 7) into one that can be used to create a photo-realistic image is called texturing<sup>7</sup>

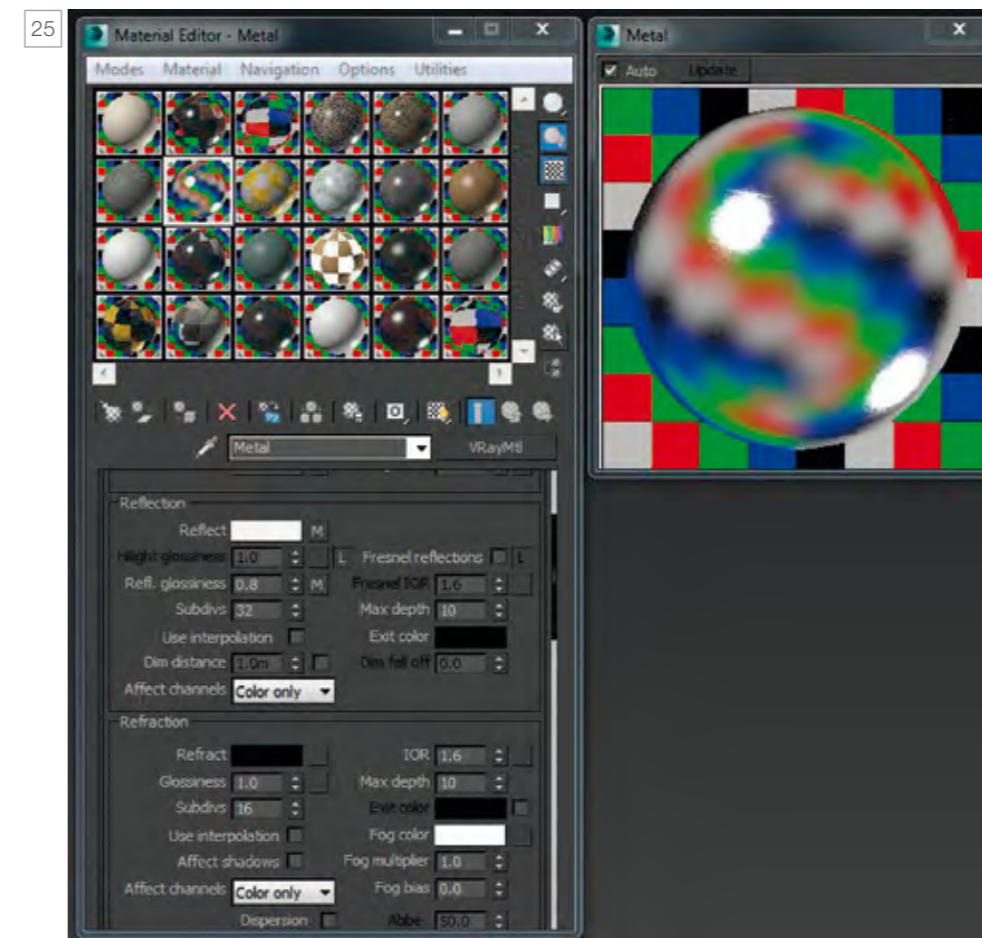
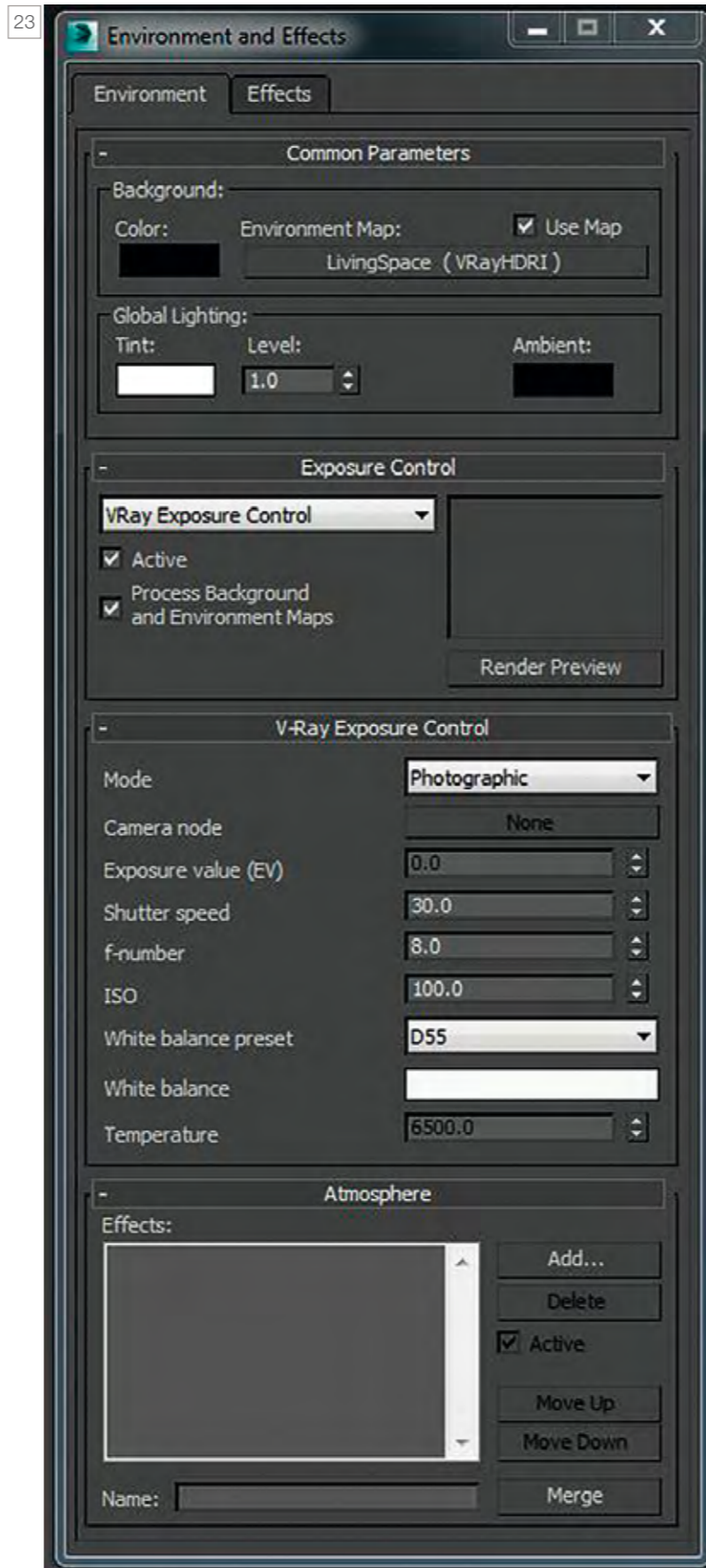
Prior to rendering, Cityscape requires details from the architect regarding the proposed materials (e.g. type of glass, steel, aluminium etc.) to be utilised. Cityscape also use high resolution photographic imagery of real world material samples, supplied by the client or the manufacturer, to create accurate photorealistic textures for use in all our images. This information is used to produce the appearance and qualities in the image that most closely relates to the real materials to be used (as shown in Figures 24 and 25).

### 6.3 Lighting and sun direction

The next stage is to light the 3D model to match the photographic environment. The date (including the year) and time of the photograph and the latitude and longitude of the city are input (see Figure 23) into the unbiased physically accurate render engine. Cityscape selects a 'sky' (e.g. clear blue, grey, overcast, varying cloud density, varying weather conditions) from the hundreds of 'skies' held within the database to resemble as closely as possible the sky in the background plate. The 3D model of the proposed scheme is placed within the selected sky (see Figure 27) and using the material properties also entered, the computer calculates the effects of the sky conditions (including the sun) on the appearance of the proposed scheme.

An image of the proposed scheme is produced showing the effect of light and sun (as shown in Figure 26). The selection of the matching sky is the only subjective input at this stage.

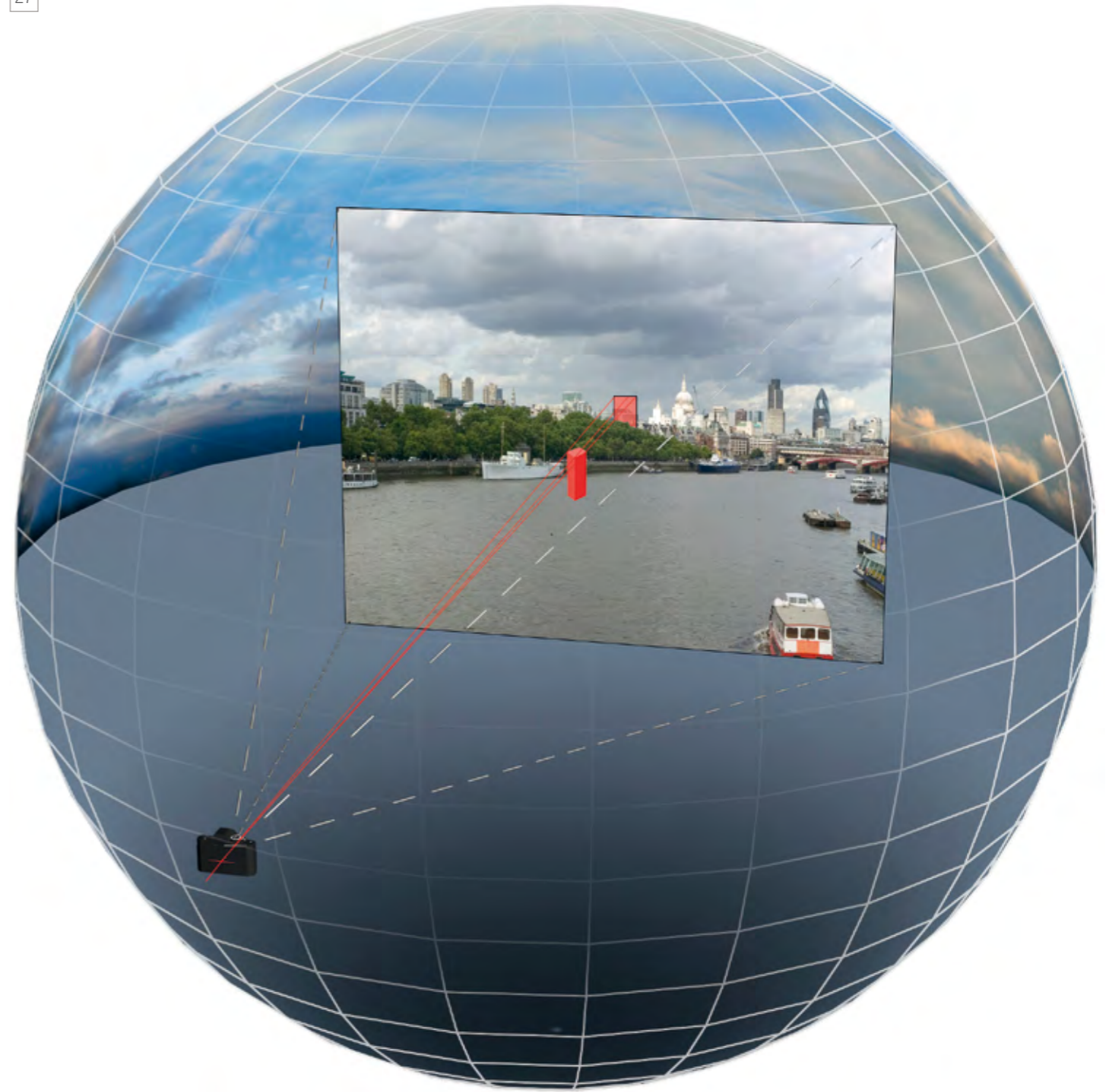
<sup>7</sup> Texturing is often referred to as part of the rendering process, however, in the industry, it is a process that occurs prior to the rendering process.





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23 Screenshot of environment information (time, date and year) entered to locate the sun correctly (see section 7.3)

24 Screenshot of some materials in the 3D rendering package

25 Screenshot of material and surface properties

26 Example of rendered scheme using High Dynamic Range Imaging

27 Example of a proposed scheme highlighted in red within the selected sky and rendered onto the background plate



## 7.0 POST PRODUCTION

### 7.1 Post production

Finally the rendered image of the scheme model is inserted and positioned against the camera matched background plate. Once in position the rendered images are edited using Adobe Photoshop<sup>®8</sup>. Masks are created in Photoshop where the line of sight to the rendered image of the proposed scheme is interrupted by foreground buildings (as shown in Figure 29).

The result is a verified image or view of the proposed scheme (as shown in Figure 30).

<sup>8</sup> Adobe Photoshop<sup>®</sup> is the industry standard image editing software.







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28 Background plate

29 Process Red area highlights the Photoshop mask that hides the unseen portion of the render

30 Shows a photo-realistic verified image

The logo for ARC, consisting of the lowercase letters 'arc' in a bold, blue, sans-serif font. The background features abstract, curved lines in light blue and green that sweep across the page from the left side.

arc

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