

CUMULATIVE (TIER 1)

9.151 The cumulative tier 1 scenario would not change the effect of the Proposed Development. In the cumulative context the magnitude of effect would remain **Moderate Beneficial** effect. The effect is significant, permanent and long-term.



Gravesham Borough Council

VIEW 15: GROVE ROAD / STONEBRIDGE ROAD ROUNDABOUT**EXISTING**

- 9.152 View 15 is located on the eastern side of Stonebridge Road near the roundabout with Grove Road. It is oriented to the northeast. The site is immediately opposite.
- 9.153 The fore- and mid-ground of the view are occupied by Stonebridge Road and the sidewalks. Stonebridge Road is enclosed by large street trees and is a key arterial route into the area from the west, including Ebbsfleet International station. The route is heavily trafficked.
- 9.154 The area has a fragmented townscape, with large-scale commercial buildings prevalent. Beyond, the observer is aware of the existing Ebbsfleet Football Club stadium and further industrial uses to the north.
- 9.155 The value attached to the view is **Low**.
- 9.156 The view would primarily be experienced by motorists on Stonebridge Road.



PROPOSED

- 9.157 The Proposed Development would be visible in the immediate foreground of the view. The visual receptors would be road users, particularly motorists. These visual receptors have a **Low** susceptibility to change and **Low** sensitivity.
- 9.158 The Proposed Development would line Grove Road / Stonebridge Road, providing a marked change in scale along the pavement edge. The parameter plans state the route would become a new plaza, delivering people into the site. To the north (left), the massing of the proposed commercial development is split to create an entrance to the retail core of the Proposed Development. The Design Code states a screen of tree and shrub planting along the south eastern edge of the plaza are to be included to screen the rear of the properties on Railway Street (to the south-east).
- 9.159 The magnitude of impact would be **High** given the transformational nature of the change. The Proposed Development would give rise to a **Moderate Beneficial** effect. The effect is significant, permanent and long-term.



CUMULATIVE (TIER 1)

- 9.160 The cumulative tier 1 scenario would not change the effect of the Proposed Development. In the cumulative context the magnitude of effect would remain **Moderate Beneficial** effect. The effect is significant, permanent and long-term.



Gravesham Borough Council

VIEW 16: TILBURY FORT QUAY**EXISTING**

- 9.161 The view is located approximately 3.35 km to the east of the Site on the southern boundary of Tilbury Fort. It is located on the quay wall overlooking the Thames, oriented towards the Site.
- 9.162 The view primarily comprises the river Thames and the industrial infrastructure visible in the middle ground, including the Riverside Station building, wind turbines and sea containers at Tilbury Docks and industrial buildings on the Kent bank of the river. The buildings tend to span large areas and are low-rise. The Site is occluded by the industrial infrastructure in the mid-ground of the view.
- 9.163 Given the significance of the Fort and the role of its defence system with views up and down the River Thames, the value attached to the view is Medium.
- 9.164 The view would be primarily experienced by visitors of Tilbury Fort and pedestrians using the area for leisure walks.



PROPOSED

- 9.165 The Proposed Development is shown in the view as white chalk render, indicating the maximum parameter plans.
- 9.166 The Proposed Development will be barely visible in the background of the view, heavily obscured by interposing development, Riverside Station and the wind turbines. The visual receptors are judged to have a **Medium** susceptibility to change, resulting in a **Medium** sensitivity. The magnitude of impact would be **Low**.
- 9.167 The Proposed Development would give rise to a **Minor to Moderate** Likely effect. The effect is not significant.
- 9.168 The overall Scale of Effect would be **Minor to Moderate**. The effect would be **Neutral**.



CUMULATIVE (TIER 1)

- 9.169 The cumulative tier 1 scenario would not change the effect of the Proposed Development. In the cumulative context the magnitude of effect would remain **Minor to Moderate Neutral** effect. The effect is not significant. The effect is permanent and long-term.



VIEW	LOCATION	VISUAL AMENITY VALUE	VISUAL RECEPTORS	SUSCEPTIBILITY TO CHANGE	SENSITIVITY	MAGNITUDE OF IMPACT (DEMOLITION AND CONSTRUCTION)	LIKELY EFFECT (DEMOLITION AND CONSTRUCTION)	MAGNITUDE OF IMPACT (COMPLETED DEVELOPMENT)	LIKELY EFFECT (OPERATION)	LIKELY EFFECT (CUMULATIVE TIER 1)	LIKELY EFFECT (CUMULATIVE TIER 2)
1	Gray's Beach Riverside Park – Pier	Low	Users of amenity space	Low	Low	Low	Minor Adverse	Medium	Minor to Moderate Beneficial	Minor to Moderate Beneficial	Minor to Moderate Beneficial
2	Tilbury Fort	Medium	Visitors	Medium	Medium	Very Low	Negligible Neutral	Low	Minor to Moderate Neutral	Minor to Moderate Neutral	Minor to Moderate Neutral
			Pedestrians	Medium	Medium	Very Low	Negligible Neutral	Low	Minor to Moderate Neutral	Minor to Moderate Neutral	Minor to Moderate Neutral
3	Galley Hill Road / High Street junction	Low	Road users	Low	Low	Low	Minor Adverse	Medium	Minor to Moderate Beneficial	Minor to Moderate Beneficial	Minor to Moderate Beneficial
			Pedestrians	Low	Low	Low	Minor Adverse	Medium	Minor to Moderate Beneficial	Minor to Moderate Beneficial	Minor to Moderate Beneficial
4	Galley Hill Road rail intersection	Low	Road users	Low	Low	Low	Minor Adverse	Medium	Minor to Moderate Beneficial	Minor to Moderate Beneficial	Minor to Moderate Beneficial
			Pedestrians	Low	Low	Low	Minor Adverse	Medium	Minor to Moderate Beneficial	Minor to Moderate Beneficial	Minor to Moderate Beneficial
5	High Street / Lawn Road junction	Low	Road users	Low	Low	Nil	None	Nil	None	None	None
			Pedestrians	Low	Low	Nil	None	Nil	None	None	None
6	Walkway between Stanhope Road and train tracks (looking east)	Low	Pedestrians	Low	Low	Low	Minor Adverse	Medium	Minor to Moderate Beneficial	Minor to Moderate Beneficial	Moderate to Major Beneficial
7	Green Space to the west of Manor Way (looking south)	Low	Pedestrians	Low	Low	Very Low	Negligible Neutral	Low	Minor Beneficial	Minor Beneficial	Minor Beneficial
			Users of amenity space	Low	Low	Very Low	Negligible Neutral	Low	Minor Beneficial	Minor Beneficial	Minor Beneficial
8	Robinson Way / Black Eagle Drive junction	Low	Local residents	Medium	Medium	Medium	Minor to Moderate Adverse	Medium	Minor to Moderate Beneficial	Minor to Moderate Beneficial	Minor to Moderate Beneficial
9	Ebbsfleet International Car Park C (looking north)	Low	Road users	Low	Low	Nil	None	Nil	None	None	None
			Commuters	Low	Low	Nil	None	Nil	None	None	None
10	Thames Way roundabout	Low	Road users	Low	Low	Very Low	Negligible Neutral	Low	Minor Neutral	Minor Neutral	Minor Neutral

VIEW	LOCATION	VISUAL AMENITY VALUE	VISUAL RECEPTORS	SUSCEPTIBILITY TO CHANGE	SENSITIVITY	MAGNITUDE OF IMPACT (DEMOLITION AND CONSTRUCTION)	LIKELY EFFECT (DEMOLITION AND CONSTRUCTION)	MAGNITUDE OF IMPACT (COMPLETED DEVELOPMENT)	LIKELY EFFECT (OPERATION)	LIKELY EFFECT (CUMULATIVE TIER 1)	LIKELY EFFECT (CUMULATIVE TIER 2)
11	Station Road	Low	Local residents	Low	Low	Nil	Minor Adverse	None	None	None	None
			Commuters	Low	Low	Nil	Minor Adverse	None	None	None	None
12	Stonebridge Road (looking north)	Very Low	Local residents	Low	Low	Very Low	Minor Adverse	Low	Minor Neutral	Minor Neutral	Minor Neutral
			Road users	Low	Low	Very Low	Minor Adverse	Low	Minor Neutral	Minor Neutral	Minor Neutral
13	Railway Street / Hamerton Road junction	Low	Local residents	Medium	Medium	Low	Minor to Moderate Adverse	Medium	Minor to Moderate Beneficial	Minor to Moderate Beneficial	Minor to Moderate Beneficial
			Road users	Medium	Medium	Low	Minor to Moderate Adverse	Medium	Minor to Moderate Beneficial	Minor to Moderate Beneficial	Minor to Moderate Beneficial
			Pedestrians	Medium	Medium	Low	Minor to Moderate Adverse	Medium	Minor to Moderate Beneficial	Minor to Moderate Beneficial	Minor to Moderate Beneficial
14	The Creek / Grove Road	Very Low	Industrial workers	Very Low	Very Low	Low	Minor Neutral	High	Moderate Beneficial	Moderate Beneficial	Moderate Beneficial
15	Grove Road / Stonebridge Road roundabout	Low	Road users	Low	Low	Medium	Minor to Moderate Adverse	High	Moderate Beneficial	Moderate Beneficial	Moderate Beneficial
16	Tilbury Fort Quay	Medium	Visitors	Medium	Medium	Very Low	Negligible Neutral	Low	Minor to Moderate Neutral	Minor to Moderate Neutral	Minor to Moderate Neutral
			Pedestrians	Medium	Medium	Very Low	Negligible Neutral	Low	Minor to Moderate Neutral	Minor to Moderate Neutral	Minor to Moderate Neutral

Table 9.1 Summary of likely effects on visual receptors. Effects which are significant are highlighted in the blue boxes.

10.0 CONCLUSION

NORTHFLEET HARBOURSIDE

Gravesham Borough Council

CONCLUSION

SUMMARY OF BASELINE

TOWNSCAPE

- 10.1
- The assessment has identified 7 townscape character areas within a 1 km radius from the centre of the site. The townscape value of the receptors ranges from Low to Medium.
- 10.2
- The site is located in Townscape Character Area 1. The area includes the Ebbsfleet FC and a mixed commercial estate, including the main arterial route through the site, Stonebridge Road.

VISUAL

- 10.3
- The TVIA is supported by the 16 AVR_s of the Proposed Development prepared by Eb7. Each viewpoint is reproduced at **Section 9.0** in the following formats:
 - Existing – baseline photography;
 - Proposed – ‘existing’ plus wire line (AVRR₁) of the Proposed Development;
 - Cumulative Tier 1 – ‘proposed’ plus material consents and valid planning applications surrounding the site.
- 10.4
- A visual impact study are determined by the visual envelope of the site, up to approximately 3.35 km. The assessment considers long distance views where identified and relevant; the longer distance views assist in illustrating the visual extend of the Proposed Development.
- 10.5
- The baseline does not include any strategically important views.

SUMMARY OF THE METHODOLOGY AND CONSULTATION

- 10.6
- The Proposed Development has been through an iterative pre-application process, which has resulted in significant changes to the proposed massing.

LIKELY SIGNIFICANT EFFECTS

TOWNSCAPE

- 10.7
- There would be Moderate Beneficial effects on Townscape character areas 1 (Mixed-use/commercial estate) and 5 (Industrial) and Minor to Moderate Beneficial effects on Townscape character areas 2 (Traditional town centre) and 6 (River Thames).

VISUAL

- 10.8
- There would be Minor to Moderate Beneficial and Moderate Beneficial effects on the visual receptors experiencing the Proposed Development in views 1, 3, 4, 6, 8, 13 and 14 and 15. These effects would be significant, direct, permanent and long-term.

APPENDIX 1: HERITAGE STATEMENT PREPARED BY MONTAGU EVANS

NORTHFLEET HARBOURSIDE

Gravesham Borough Council

NORTHFLEET HARBOURSIDE

HERITAGE STATEMENT

SEPTEMBER 2022



CONTENTS

1.0 EXECUTIVE SUMMARY	3
2.0 LEGISLATION AND PLANNING POLICY	6
3.0 CONSULTATION	8
4.0 HISTORICAL DEVELOPMENT	10
5.0 ASSESSMENT OF SIGNIFICANCE.....	17
6.0 ASSESSMENT OF THE PROPOSALS.....	30
7.0 CONCLUSION AND POLICY COMPLIANCE.....	36

APPENDIX 1.0 HERITAGE RECEPTOR PLAN

1.0 EXECUTIVE SUMMARY

- 1.1
- This Heritage Statement has been prepared by Montagu Evans LLP, on behalf of Northfleet Central 1 Limited (hereafter referred to as ‘the Applicant’), in support of an outline planning application submitted to the Gravesham Borough Council (the ‘Council’) for the redevelopment of the Site at Northfleet Harbour (‘the Site’).
- 1.2
- The purpose of this Statement is to describe the significance of any heritage assets affected by the proposed outline planning application, including any contribution made by their setting. The level of detail is proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. Kent County Council have been consulted on 23rd September 2022 and provided the relevant historic environment record, allowing the heritage assets to be assessed using appropriate expertise.
- 1.3
- The Statement considers built heritage only, i.e. it excludes archaeology. An archaeological assessment has been undertaken by Wessex Archaeology, and forms Chapter 13 (the ‘Archaeology Chapter’) of the Environmental Statement (the ‘ES’) accompanying the planning submission. Considerations of the historic kiln (above ground) can also be found within the archaeology chapter. Where appropriate, findings from this Statement have been reviewed and incorporated into the Archaeology Chapter to ensure that the two inter-linked specialisms are considered holistically.
- 1.4
- The Statement should be read in conjunction with other supporting documents submitted with the planning application, including the Environmental Statement, Planning Statement prepared by Montagu Evans LLP and the Design and Access Statement and Design Code prepared by UNStudio, HLM Architects and C+W O’Brien Architects.

The Site

- 1.5
- The site comprises an area of c. 19 hectares on the bank of the River Thames at Northfleet between the high-speed train line to Ebbsfleet to the west and the Swanscombe Peninsula to the north (the ‘Site’). It is bounded to the south and north by Lower Road, Northfleet. The Site is surrounded by active industrial uses to the north and residential neighbourhoods to the west and south.
- 1.6
- The Site is currently occupied by Ebbsfleet Football Stadium, industrial land uses including an aggregates site, smaller industrial units as well as a (Shell) petrol station. The A226 (Stonebridge Road) runs through the Site. Open spaces on the Site are largely covered by concrete surfacing and areas of hardstanding.
- 1.7
- The Site sits in an area which has a long industrial history, linked to chalk extraction and cement making. As a result, much of the land at Northfleet has been shaped by industrial activities of the cement works.

Description of the Proposed Development

- 1.8
- The description of the proposals (the ‘Proposed Development’) for this outline planning application is set out below:

“Outline planning application with all matters reserved, except for the primary means of access, for a mixed-use redevelopment involving the demolition of existing buildings and structures including site preparation / remediation works, and the development of residential units (Use Class C3), Use Class E floorspace including floorspace for retail, food and beverage, office floorspace and flexible Class E floorspace, floorspace for a new multi-use stadium with associated business and leisure facilities, floorspace for a hotel (Use Class C1), floorspace for community uses (Use Class F2) and other sui generis uses, delivery of open space and the realignment of the A226 Galley Hill Road / Stonebridge Road with hard / soft landscaping, car and cycle parking, highways works, infrastructure works, ancillary and associated works.”
- 1.9
- The basis of the assessment is the submitted parameter plans and the Design Code. The principles determined by the parameter plans are underpinned by the illustrative material set out in the Design and Access Statement prepared by the architects; however, the illustrative masterplan is only illustrative and does not form the basis of assessment. The architectural quality and urban design benefits of the Proposed Development are to be secured through subsequent reserved matters applications. Those applications must accord to the Design Code submitted with this proposal, which is a control document and has informed the assessment.

Heritage Considerations

- 1.10
- The Site does not comprise any heritage assets. There are heritage assets located in the area surrounding the Site and this Statement considers the potential for the Proposed Development to impact their significance by virtue of a change to setting. The assessment includes all heritage receptors within a 1km radius of the Site boundary. In addition, and following a Scoping Opinion from Gravesham Borough Council dated 16th September 2022 for the ES, the Applicant team has considered the potential impact of the Proposed Development beyond the 1km study area.
- 1.11
- The assets considered beyond the 1km study area include:
 - Tilbury Fort and Officer’s Barracks Tilbury Fort;
 - Church of St George;
 - Riverside Terminal (aka Riverside Station, including floating landing stage);
 - Parish Church of St Botolph;
 - Church of Our Lady of the Assumption;
 - Gravesend Riverside Conservation Area; and
 - Windmill Hill Conservation Area.

Identification Of Study Area

- 1.12
- The assessment and design development has been informed by 16 accurate visual representations (aka verified views) prepared by visualisation consultants, Eb7. The location of the viewpoints has been agreed with officers at the Council during the pre-application process. Their selection was informed by architectural and historic accounts of the area, an appraisal of the existing site and surroundings, and planning policy.
- 1.13
- A list of potential verified view locations was issued to the Council on 14th July 2022. The Council confirmed the selected viewpoints were acceptable via email correspondence on 26th July, plus requested adding six more viewpoints. Those relating to heritage assets comprise:
 - From Tilbury Fort; and
 - From the River by Gravesend.
- 1.14
- Verified views from Tilbury Fort are provided as part of this Statement (view 2). The view from the river by Gravesend is provided as a non-verified massing study, discussed below.
- 1.15
- The wider study area beyond the 1km radius and assessment in general has been informed by the preparation of a zone of theoretical visibility (ZTV) extending c.3km east towards Gravesend town centre. The ZTV has been produced to outline the potential areas where the Proposed Development may be visible. It has been produced by visual consultants, Eb7, using topographically referenced three-dimensional models from LiDAR data. It is a tool for a high-level understanding of the extent of visibility, which was further interrogated through review of individual viewpoints using field surveys and digital software. The ZTV is provided below (**Figure 1.1**).

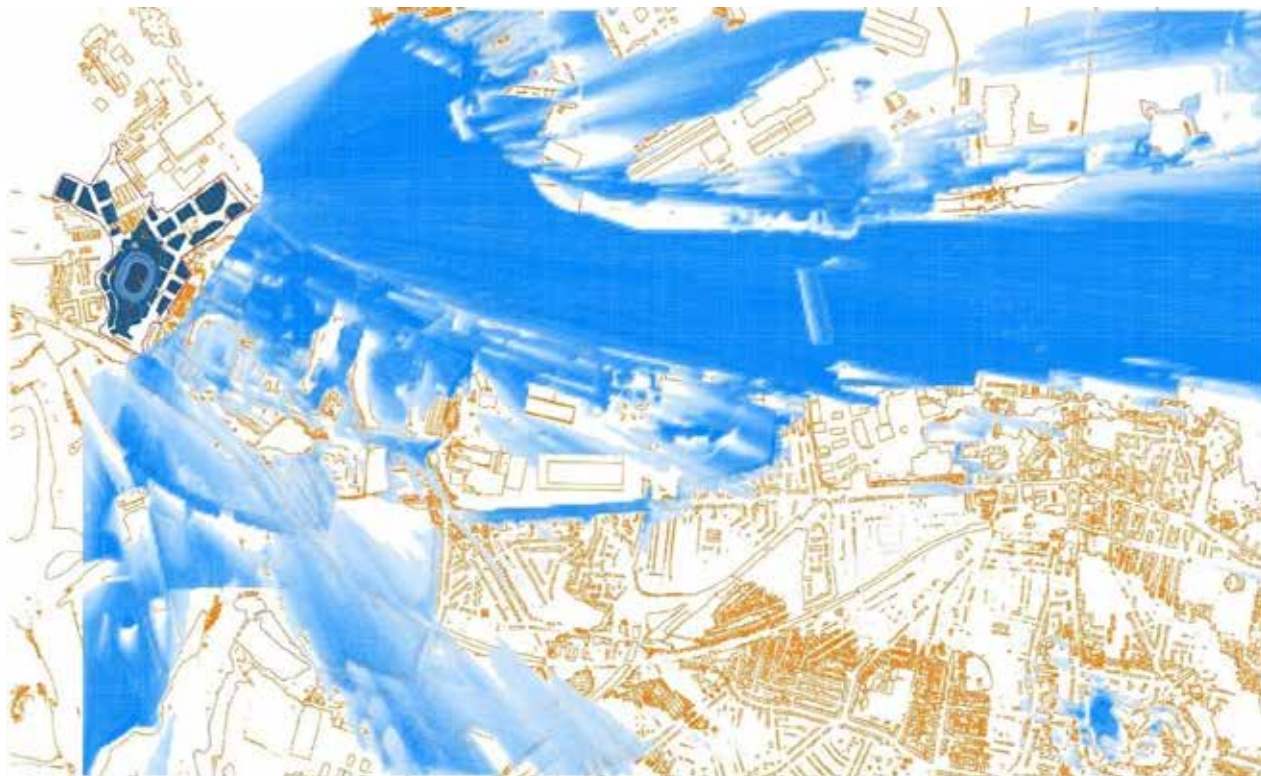


Figure 1.1 – Zone of theoretical visibility.

- 1.16 Following the EIA Scoping Opinion, a further nine non-verified views, prepared by Eb7, were prepared to contextualise the ZTV and further inform the assessment of the impact of the Proposed Development on heritage assets.

Summary and Policy Compliance

- 1.17 The Statement provides a full assessment of the heritage assets identified above, in accordance with paragraph 194 of the 2021 National Planning Policy Framework (the 'NPPF'). The assessment finds no harm to heritage assets arising from the impact of the Proposed Development. The findings equate to no 'likely significant effects' in EIA terms, as summarised in the TVIA for completeness.
- 1.18 It is our judgement that the Proposed Development satisfies chapter 16 of the NPPF, the relevant Policy CS20 of the Gravesham Local Plan Core Strategy (2014), and Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990.

2.0 LEGISLATION AND PLANNING POLICY

- 2.1 This Section sets out the legislation and planning policy which is relevant to the consideration of the proposals.

Legislation

- 2.2 The statutory duties of the decision-maker when considering applications which affect designated heritage receptors are set out in the Planning (Listed Buildings and Conservation Areas) Act 1990. Section 66(1) of the 1990 Act states:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural and historical interest which it possesses.

- 2.3 Section 72 of the 1990 PLBCA Act requires decision makers to give special attention to the desirability of preserving or enhancing the character or appearance of the conservation areas which may be affected by the proposed development. The Proposed Development does not comprise any buildings or other land in a conservation area and, therefore, section 72 of the 1990 PLBCA Act is not engaged. There is no statutory duty relating to the setting of conservation areas within the 1990 PLBCA Act.

Planning and Compulsory Purchase Act 2004

- 2.4 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the policies of the statutory development plan unless material considerations indicate otherwise. The current development plan for the Borough of Gravesham currently comprises:

- Gravesham Local Plan Core Strategy (2014).

- 2.5 The relevant policies in the Core Strategy pertaining to heritage comprise Policy CS20: Heritage and the Historic Environment.

- 2.6 Policy CS20 states that the "Council will accord a high priority towards the preservation, protection and enhancement of its heritage and historic environment". This is consistent with the NPPF and the great importance and weight attached to the significance of heritage assets by virtue of their statutory designation. Policy CS20 goes on to state that "when considering the impact of a proposed development on a designated heritage asset, the weight that will be given to the asset's conservation value will be commensurate with the importance and significance of the asset. For non-designated assets, decisions will have regard to the scale of any harm or loss and the significance of the heritage asset."

Material Considerations

National Planning Policy Framework (2021)

- 2.7 Chapter 16 considers the historic environment, and it will frame much of this report through its provisions for convenience and recognising that if a proposal meets the terms of the national policy then it is highly likely to comply with corresponding development plan policies.

- 2.8 The relevant paragraphs of the NPPF are:

- Paragraph 194 – Description of affected heritage assets, including contribution made by their setting – this report and other materials submitted as part of the applications provide sufficient information enabling the decision maker to ascertain the nature of significance of the assets and the impact on them;
- Paragraph 197 – Desirability of sustaining / enhancing significance of heritage assets, and appreciation thereof;
- Paragraph 203 - The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect

non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset; and

- Paragraph 206 – This paragraph states that local planning authorities should look for opportunities for new development within conservation areas and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that make a positive contribution to the assets (or which better reveal its significance) should be treated favourably.

Other Material Considerations

2.9 We have also had regard to the following guidance and other information as part of our assessment:

- National Planning Practice Guidance (online);
- Historic England, Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (2015);
- Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (2017);
- Tall Buildings: Historic England Advice Note 4 (2022);
- Principles of Cultural Heritage Impact Assessment (PCHIA) (2021) by IHBC, IEMA & ClfA launch joint; and
- Kent Design Guide (2005).

Approach To Assessment

2.10 Planning policy requires an applicant to describe the significance of any heritage receptors affected by a proposed development, including any contribution made by their setting. 'Significance' (for heritage policy) is defined in the NPPF Annex 2 as:

the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.

2.11 Paragraph 194 of the NPPF states that the "level of detail [to describe the significance of heritage assets] should be proportionate to the assets' importance". The significance of heritage assets may be expressed with reference to their historical or architectural value identified in the Planning (Listed Buildings and Conservation Areas) Act 1990 (the '1990 PLBCA Act'), or the other values set out in the NPPF: archaeological, architectural, artistic or historic. For World Heritage Sites, the cultural value described within each site's Statement of Outstanding Universal Value forms part of its value. Great weight has been given to the conservation of all designated heritage assets.

2.12 Where a proposal may affect the surroundings in which the heritage receptor is experienced, a qualitative assessment is made of whether, how and to what degree setting contributes to the value of heritage receptors. The assessment is informed by the check-list approach contained in Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (2017) (hereafter 'GPA3'). Setting is defined in the NPPF as:

The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.

2.13 The heritage assessment articulates the contribution made by relevant aspects of setting towards significance. Again, the level of detail is proportionate to the receptors' importance and no more than is sufficient to understand the potential impact of the proposal to their significance. The baseline assessment describes what is sensitive about each heritage asset and its setting.

3.0 CONSULTATION

3.1 **Table 3.1** summarises the consultation comments received from the Council through the Scoping Opinion process in respect of the built heritage assessment.

Table 3.1 Summary of Consultation		
Consultee and Form/Date of Consultation	Summary of Comments	Where in this Volume Comments are addressed
Scoping Opinion from Gravesham Borough Council dated 16th September 2022	The management and form of environmental impacts that might occur is likely to be affected by the phasing of the development and in particular how and when the site is cleared or remediated; what uses will remain on site at what stages; and what areas become occupied at what stage by potentially sensitive receptors. There is also potential for adjoining occupiers to be adversely affected during the construction and demolition stage and this will also need to be addressed. How such issues will need to be clearly addressed in the ES.	The impact of the proposed development upon heritage assets during the demolition and construction stage has been considered in this assessment.
	The applicant is therefore advised to engage with the LPA to agree the area to be covered by the visual impact assessment and a list of those heritage assets/townscape/river views that should be considered. In terms of river views, the applicant is also reminded in policy terms that both marine and terrestrial policies will apply when the application is assessed. The applicant is also advised to agree a list of designated/non-designated/archaeological assets with the LPA, HE and the KCC for inclusion in that chapter of the ES.	A list of viewpoints was issued to the Council on 14th July 2022. The Council confirmed the selected viewpoints were acceptable via email correspondence on 26th July, plus requested adding the following additional viewpoints: • From tilbury fort • From the River by Gravesend • From the River by Greenhithe/Swanscombe • Lower Road / Stonbridge Road junction by the cottages • Bottom of Stonebridge Road • Top floor of Wallis Park Of those views relating to heritage assets, verified views from Tilbury Fort are provided as part of this Statement (view 2). The view from the river by Gravesend is provided as a non-verified massing study prepared by Eb7 using LiDAR data. No other views listed are relevant to heritage setting. The Scoping Opinion was received 16th September 2022 and it was not possible to agree a list of heritage assets with the LPA. However, a zone of theoretical visibility has been prepared that goes beyond the 1km study area to ascertain likely assets that may be impacted. Discussed below.
	See comments under Historic England response.	N/A
Kent County Council Heritage Consultation Response letter dated 24 th August 2022	The ES should include consideration of potential positive benefits of the scheme to learn more about the heritage of the site and the opportunities to promote and communicate this heritage to residents and visitors	Opportunities to promote and communicate the heritage of the Site are outlined as part of the assessment, and in the submitted Design and Access Statement and Design Code. The application is submitted in outline only, but the Design Code seeks to incorporate heritage references within the public art in the Site. There is also an intention to provide a heritage trail which would be secured through condition.
	See comments under Historic England response.	N/A
Historic England Consultation Response letter dated 6 th September 2022	The Scoping Report separates archaeology (which is taken to be below-ground assets) and built heritage (which is taken to be above-ground assets). This separation of 'above' and 'below' ground heritage assets is inappropriate in this case. Despite this contradictory information, Historic England understand that it is not proposed to scope in built heritage to the ES and that a TVIA would be produced and appended to the ES. While we acknowledge that the effects in EIA terms on	Subsequent to the preparation of the Scoping Report, the Applicant and design team has prepared a detailed assessment of heritage (contained in this report). The assessment is informed by information not available at the time of preparing the EIA Scoping Report and which was commissioned specifically to understand potential heritage impacts, as well as inform the TVIA. This includes, but is not limited to, the preparation of accurate visual representations, non-verified massing studies and a zone of theoretical visibility. The assessment demonstrates the magnitude of impact of the Proposed Development upon the significance of above

	nearby designated built heritage could be low, we do not agree that this means it should be scoped out of the ES as the information available at this stage is not sufficient to make this assessment with any certainty.	ground heritage assets is nil. This standalone Heritage Statement has been prepared by Montagu Evans to assess the impact of the Proposed Development upon the significance of above ground built heritage receptors. The heritage findings are set out in detail within this report. A summary of the findings are provided in the TVIA. This outlines the assessment findings subsequent to the Scoping Report. The assessment finds there are no harmful impacts to above ground heritage asserts and, equally, no enhancements. The findings equate to no likely significant effects in EIA terms.
	The 1km study area has been used for both archaeological remains and built heritage. Historic England agree that the 1km study area is likely to be proportionate for the below-ground archaeology topic, however we also think that the 1km study area for built heritage is far too restrictive for a development of this scale. We suggest this must be significantly enlarged and should include, but not be limited to, the following: - Tilbury Fort, a scheduled monument and the grade II* listed Riverside Terminal - designated heritage within the town of Gravesend, including conservation areas like Windmill Hill and listed buildings like the grade II* listed Church of St George We would expect the assessment to clearly demonstrate that the extent of the proposed study area is of the appropriate size to ensure that all heritage assets likely to be affected by this development have been included and can be properly assessed.	The separate Heritage Statement considers a study area beyond 1km from the Site. This is informed by a Zone of Theoretical Visibility (ZTV) that has been produced to outline the potential areas where the Proposed Development may be visible. The ZTV extends to Gravesend town centre, as requested by the Scoping Opinion (Figure 2.1). The ZTV has been produced using topographically referenced 3D models from LIDAR software. It is a tool for a high-level understanding of the extent of visibility, which was further interrogated through review of individual viewpoints using field surveys and digital software. As a minimum, the wider study area considers the impact of the Proposed Development upon: Tilbury Fort, the Riverside Terminal, Gravesend Riverside Conservation Area, Windmill Hill Conservation Area, the Church of St George.

4.0 HISTORICAL DEVELOPMENT

4.1 In this section we describe the historical development of the Site and the surrounding area. This section is fully illustrated within Volume 2 of the ES: Townscape and Visual Impact Assessment, submitted as part of this application.

4.2 The section has been informed by secondary sources, including:

- Historic maps, including Ordnance Survey;
- Gravesham Borough Council, The Hill, Northfleet Conservation Area Character Appraisal (2007);
- Mills, A.D., A Dictionary of British Place Names (2011);
- Historic photographs, including Britain from Above. Available online at <https://www.britainfromabove.org.uk/>; and
- Design for Ebbsfleet: Learning From the River and Industry: Northfleet trade and industry (2022). Available online at <https://www.designforebbsfleet.org/learning-from-the-river-industry-northfleet-trade-industry>.

Early History

4.3 It is understood that the earliest long-term settlers in Northfleet arrived during the 5th century with the Saxons. This saw the construction of a church on the site of the existing St Botolph's Parish Church, located atop the hill looking north over the river Thames. The settlement evolved around the Manor of Norfluet which had formerly belonged to the Archbishop of Canterbury in 748. In the 19th century, a Saxon Cemetery was discovered in Northfleet.

4.4 In the Domesday Survey of 1086, it is recorded that Northfleet was home to 200 settlers and mainly comprised the Manor, a church, a mill, a market hall and a tithe barn set within open green space mainly comprising fields, farms and woodland.

4.5 The area began evolving from a rural farming settlement in by the 16th century following the establishment of the London to Dover road and due to the increase in industrial practices which required the river.

Eighteenth Century

4.6 During the 18th century a number of shipyards and waterside inns were established around Northfleet Hythe. Notably, Pitcher's Shipyard was located in Northfleet which saw the construction of many ships for the East India Company and the Royal Navy among others.

4.7 There was also significant and extensive excavation of the chalk cliffs which was used to construct many large houses for wealthy industrialists who were associated with the shipyards in the area. In lieu of the former chalk cliffs, more mills and factories were built along the foreshore. These factories were used for cement production which led to further development in the area including new roads connecting Northfleet and Gravesend by the Turnpike Commissioners. In the 18th century.

4.8 Aspdin's kiln is significant as one of the oldest Portland cement kilns in the world. It was constructed around 1846 and was in use until the early 20th century when the cement works closed and fell into ruin. The remains, i.e. Aspdin's kiln, was listed as a scheduled monument in 1965 and subsequently integrated into the industrial complex, composed of several large-scale sheds, clad in corrugated iron, that now occupy the site. The kiln is not visible from the road. The site has now been acquired by Ebbsfleet Garden City as part of the wider masterplan. The draft masterplan shows the kiln in a new townscape setting as a freestanding structure overlooking the main public space at Robins Creek. Bellway Homes is developing a piece of land to the east ("Harbour Village") which introduces further housing into the setting of the heritage receptor.

Nineteenth Century

4.9 The landscape of Northfleet changed dramatically during the 19th century as a result of extensive chalk excavation. Further excavation led to a flatter topography and further industrial development on the foreshore in Northfleet and towards Gravesend. The area surrounding the historic town centre and industrial developments was still largely comprised of fields and open green space.

- 4.10 In the 1830s the Rosherville Gardens were opened, which featured clifftop walks, a small theatre, a bear pit and a lake set within beautiful gardens. Following the opening of the gardens, there was a collective development effort to create housing in Northfleet with the intention of it being an 'exclusive suburb' of Gravesend. Rosherville Gardens were located to the southeast of the Site.
- 4.11 By the 1850s the Rosherville Gardens were attracting upwards of 20,000 visitors a week which was bringing more people to Northfleet and the surrounding area. The railway was improved in the mid-19th century which saw an increase in visitors and the construction of some large houses to the south of Overcliffe, located to the southeast of the Site, and road connections were further improved and trams were introduced as a result of increased development and popularity.
- 4.12 The prominent industrial development over the 18th and 19th centuries can be seen in the 1869 and 1898 OS Maps (Figures 4.1 and 4.2), set within large areas of open space. At this time, the Site was occupied largely by gas works and some industrial uses such as cement works as well as some commercial uses including a number of public houses.

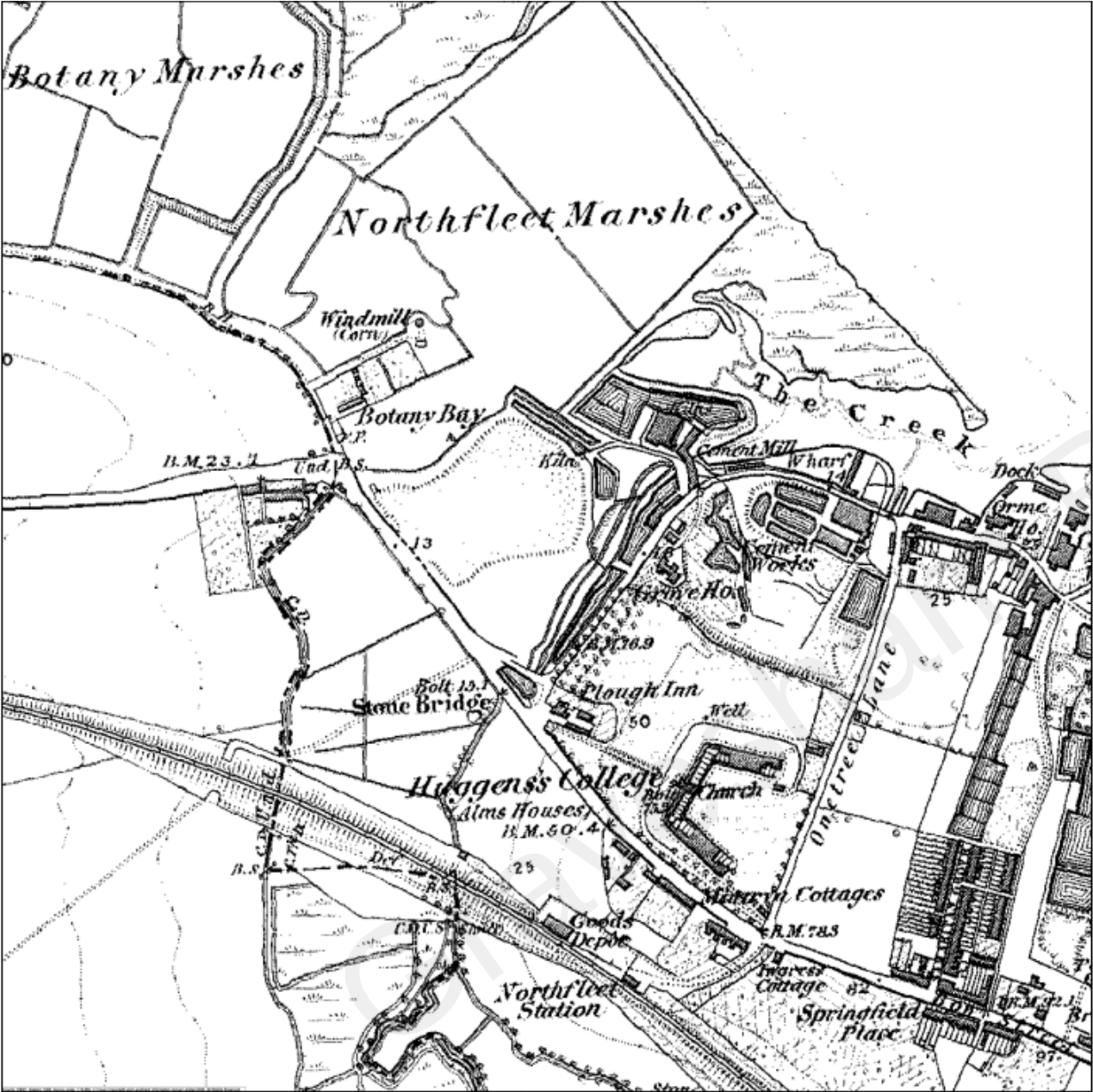


Figure 4.1 – 1869 OS Map.

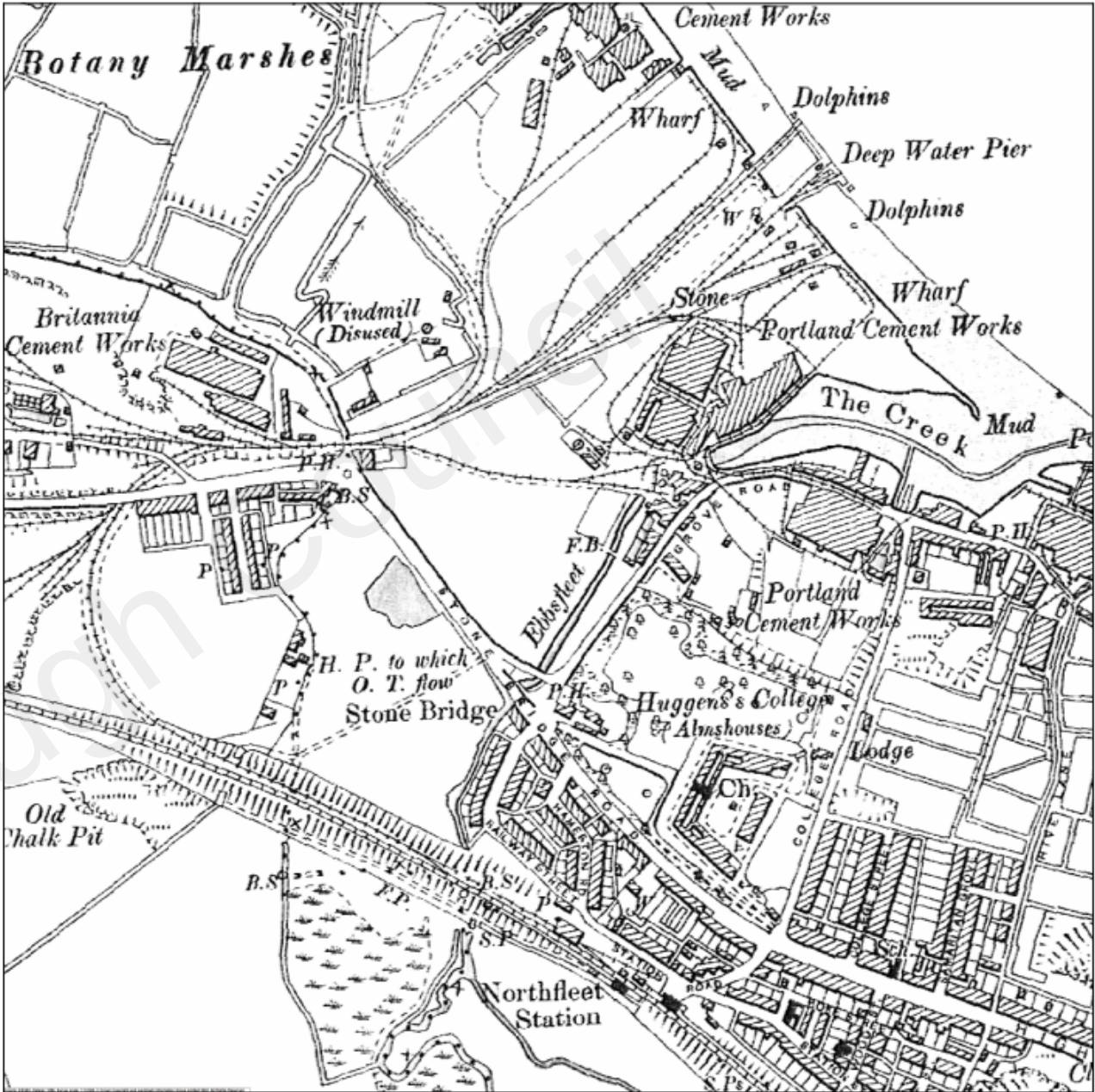


Figure 4.2 – 1898 OS Map.

20th Century

- 4.13 Throughout the 20th century, much of the land along the Ebbsfleet and Robins Creek had been covered by industrial facilities (Portland cement works, lead works and paper works). Over time, large-scale sheds replaced the earlier brick buildings, such as the cement works which incorporated Aspdin's kiln.
- 4.14 In 1905, the Northfleet United Football Club (established 1890) was opened on the Site along Stonebridge Road where it still exists today in the same location as on the 1910 and 1951 OS Maps (Figures 4.3 and 4.4). Northfleet Football Club has a prominent local following, and the grounds provide a community space due to their prolific local popularity.
- 4.15 The tourist trade diminished during the 20th century and the Rosherville Gardens closed as a result. Industrial development further expanded including the Henley Telegraph Works in Northfleet which produced trans-Atlantic submarine telegraph cables and was an invaluable organisation during the Second World War. Following World War Two, industrial development continued, and many infill residential developments were built in Northfleet and the surrounding area.

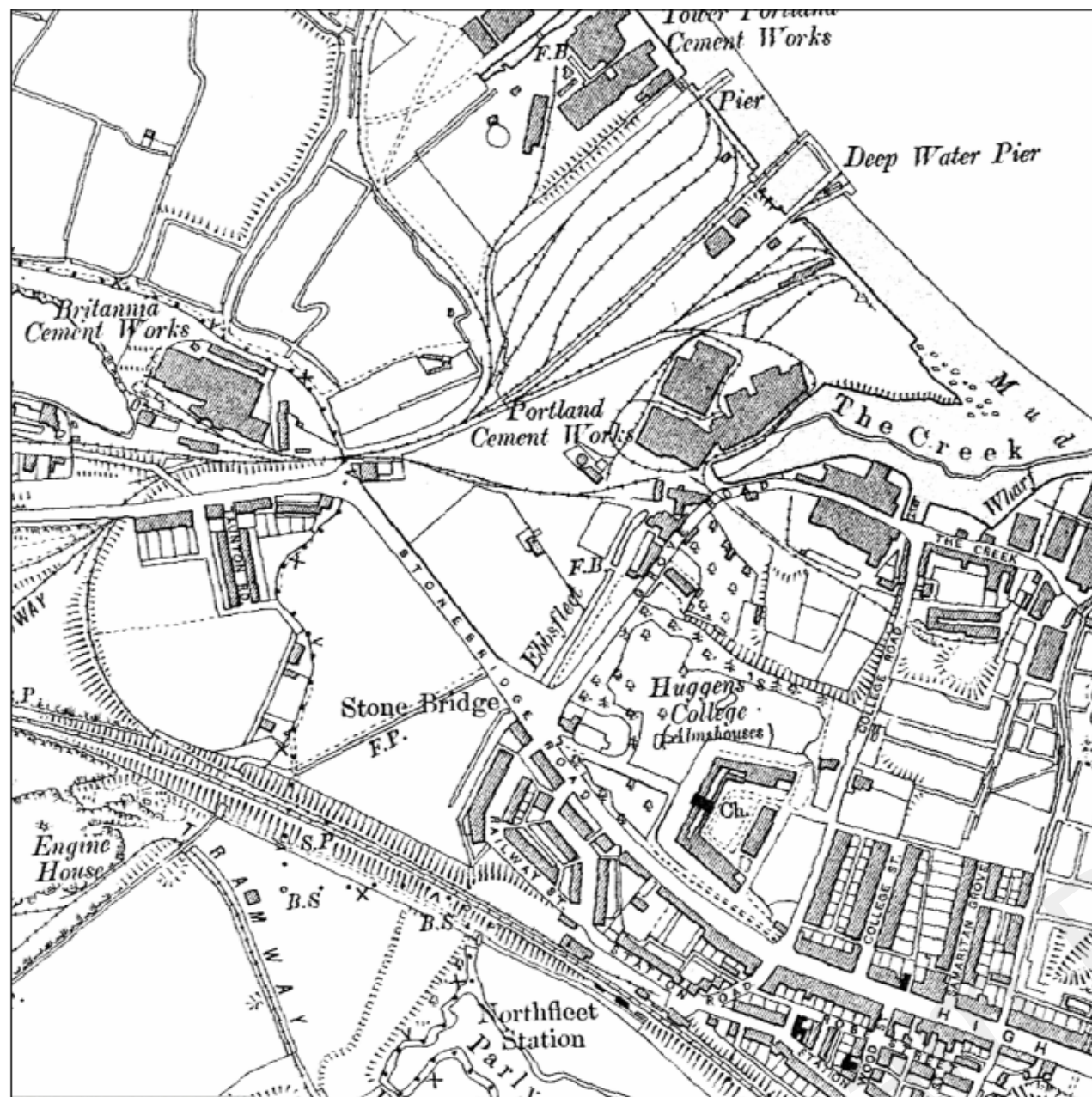


Figure 4.3 – 1910 OS Map.

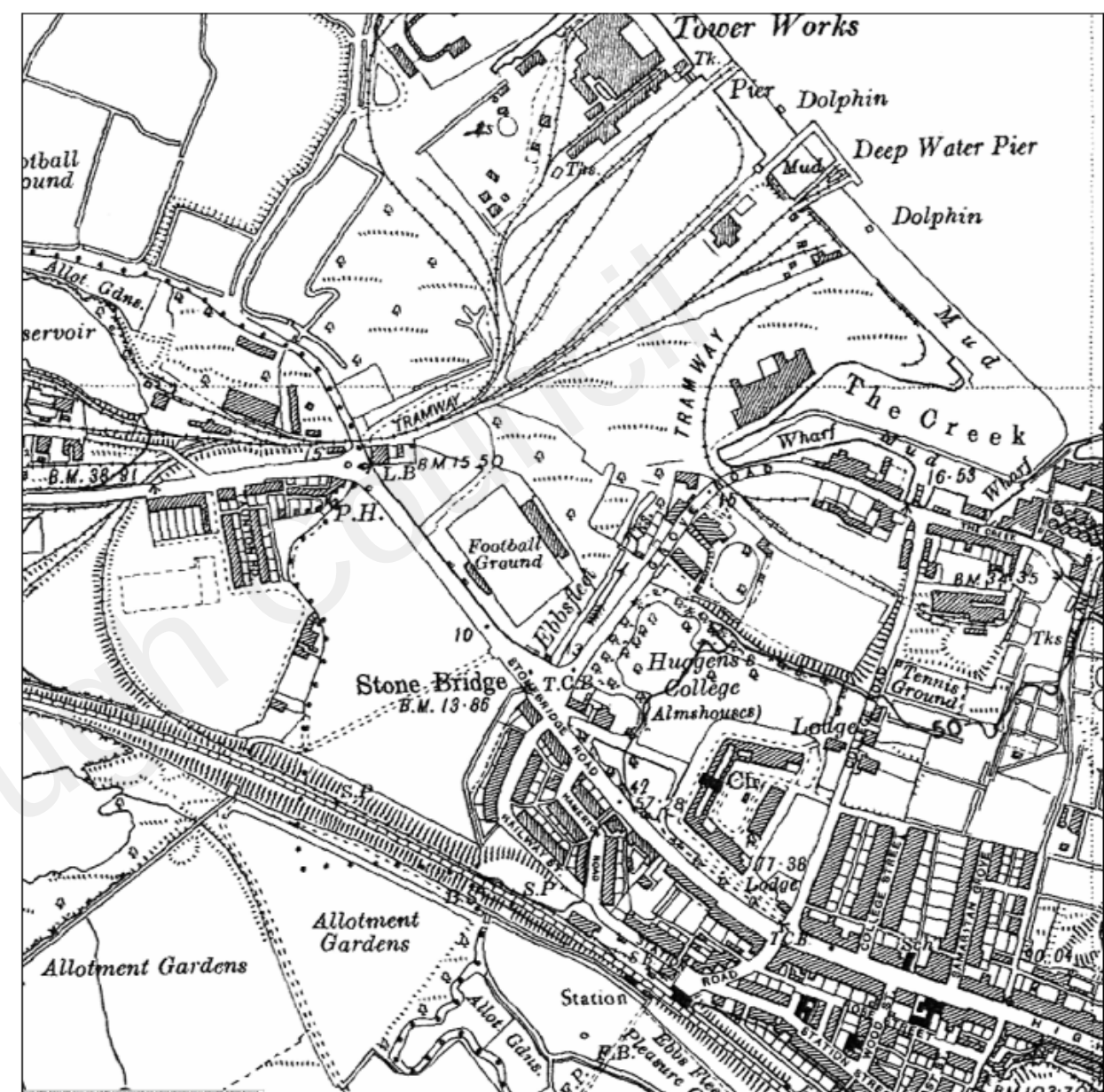


Figure 4.4 – 1951 OS Map.



Figure 4.5 – 1991-1993 OS Map.

Present Day

4.16 Eventually, by 21st century, many of the industrial sites were cleared and are now being prepared for residential developments. The regeneration of the area, including by the Ebbsfleet Garden City project, is underway and the character of the area is fundamentally changing. Ebbsfleet International Station, serving Eurostar and high-speed services, opened in 2007 and is located to the southwest of the Site. The Site is currently in use as the home of Ebbsfleet Football Club which occupies the land to the north of Stonebridge Road, the Site also comprises a mixed commercial estate to the immediate south of Stonebridge Road and the surrounding area comprises former and concurrent industrial and commercial uses.



Figure 4.6 – Present Day Aerial Photograph.

5.0 ASSESSMENT OF SIGNIFICANCE

- 5.1 Paragraph 194 of the NPPF requires applicants to describe the significance of any heritage assets likely to be affected by development proposals. The paragraph states that the level of detail should be proportionate to an asset's importance and no more than is sufficient to understand the potential impact of the proposal.
- 5.2 As set out above, the assessment includes all heritage receptors within a 1km radius of the Site boundary. In addition, and following a Scoping Opinion from the Council, the Applicant team has considered the potential impact of the Proposed Development beyond the 1km study area. The location of those assets is illustrated on the Heritage Receptor Plan at **Appendix 1.0** of this document.
- 5.3 Based on an understanding of the Site, the Proposed Development and review of the ZTV, the heritage assets set out below have been considered as part of the assessment.

Conservation Areas
The Hill, Northfleet Conservation Area (Map Ref A)

- 5.4 The borough has prepared an Area Character Appraisal of the Hill, Northfleet Conservation Area, dated 2009. The Hill Northfleet Conservation Area was originally designated by the Council in February 1990. It is located approximately 600m south-east of the Site and comprises the historic settlement of Northfleet and has a number of notable historic buildings.
- 5.5 Northfleet has a historical settlement which still comprises a number of historic buildings focused around a triangular former green. The site originates from, at least, the Saxon period and a Saxon church originally stood on the current site of St Botolph's Parish Church at the top of the hill overlooking the River Thames. The area was recognised in the Domesday Survey as having 200 villagers and grew to having weekly markets up until the 18th century, although never received a market charter and was overshadowed by the neighbouring Gravesend that benefited from its location adjacent to the Thames. A burgeoning river industry, chalk excavations and improvements to road infrastructure during the 18th century saw the area develop.
- 5.6 At the end of the 19th century industry was firmly established in Northfleet with the large scale production of cement and paper and the appearance of the landscape had been transformed by chalk excavation. This has led to much of the landscape being cut away during the past two centuries which has substantially altered its appearance and paved the way for the industrial and commercial use that has dominated the northern part of the parish ever since.
- 5.7 The remnants of the historic settlement are therefore fragmented and the original green – first paved in the late 19th century – long since lost; however, the observer is able to read the urban morphology of the area emanating from where Springhead Road and Dover Road meet London Road. riverside
- 5.8 Now, the parish church of St Botolph's, largely medieval in origin, is the oldest structure in the Conservation Area, with a mix of structures that have been developed piecemeal since; these include some surviving 19th century residential villas located near to the chalk cliff and, to the south, the Olde Leather Bottel public house. As a consequence of this piecemeal development, there is a great variety of building ages, styles, materials and uses.
- 5.9 Adding to the collection, there are a number of 20th century buildings which were constructed forming infill development through the conservation area. During the early part of this period, the Church of Our Lady of the Assumption was built (1913 and 1916) to the designs if Sir Giles Gilbert Scott. The grade II* listed Roman Catholic church was built on the site of a former tram depot, which had closed in 1901. Due to tis siting on the bend of London Road and its significant tower, it is a local landmark.

Significance

- 5.10 The significance of the Conservation Area derives from its interest as a historic settlement that has evolved piecemeal from, at least, the Saxon period. This has emanated around the former village green triangle and parish church. The Conservation Area now contains a rich variety of buildings that collectively add to the architectural interest of the area,

including a handful of landmarks such as St Botolph's Parish Church, the Church of Our Lady of the Assumption, and, due to its siting on a prominent corner, the Olde Leather Bottel public house.

- 5.11 The interest as a whole is intensified by the topography of the area which mainly comprises the chalk cliff, overlooking the Thames, which has historical interest as a chalk quarry (see **Figure 5.1**). The village character of the Conservation Area was largely lost as it was urbanised in the 19th century, including the cutting of the London Road.

Setting

- 5.12 Outside of the Conservation Area, there are mainly residential and industrial uses as well as large road infrastructure. As is typical of the area, these are interspersed around chalk pits that provide dramatic contrasts.
- 5.13 There are a number of local views overlooking the Thames and wider area. The Appraisal states the "key view is north-south along the curving length of The Hill with the former village green area as a focal point. This layout provides a traditional village arrangement which is reinforced by features such as the adjoining lych gate followed by the churchyard and medieval parish church beyond.
- 5.14 The Church of Our Lady of the Assumption forms an impressive landmark feature in views from London Road. The scale and architecture is demonstrably different to the prevailing area, and seen from within The Hill Conservation Area as well as in long-distance views from all directions.

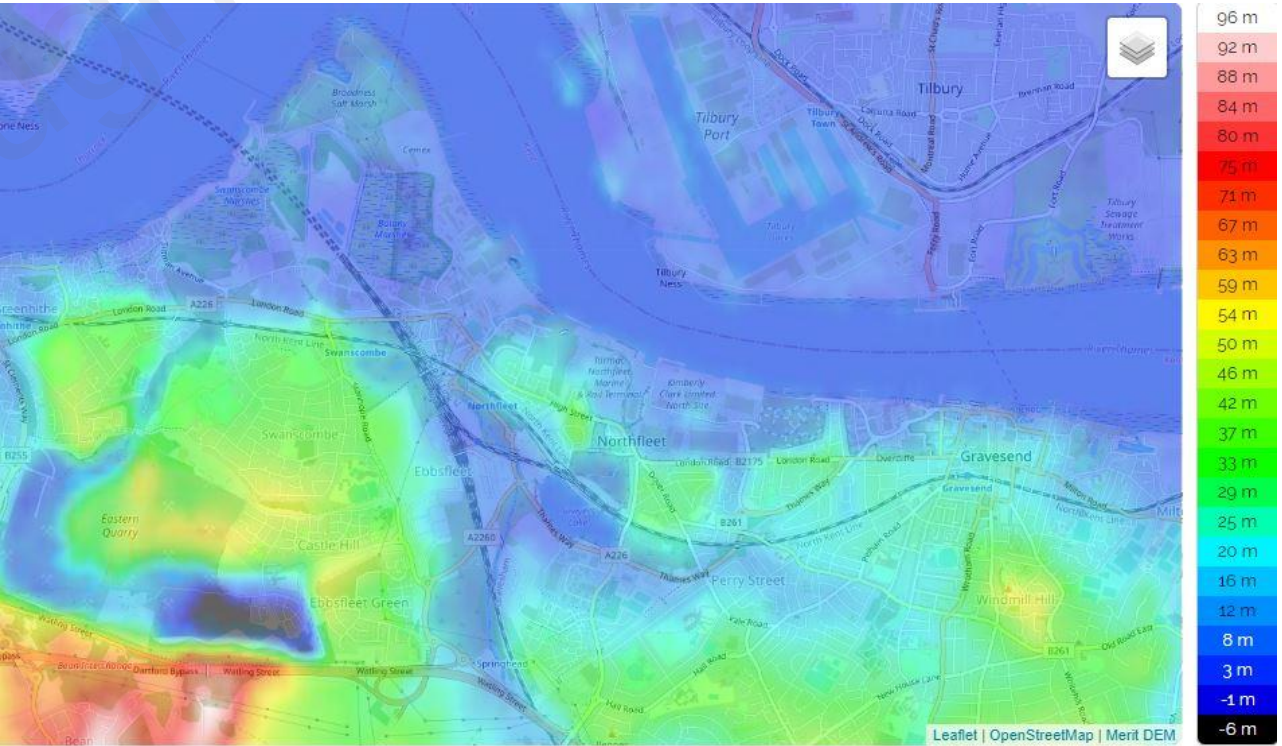


Figure 5.1 – Topography of Study Area. Source: <https://en-gb.topographic-map.com/>.

Gravesend Riverside Conservation Area (Map Ref B)

- 5.15 The Gravesend Riverside Conservation Area was designated by Gravesham Borough Council in 1980. It is subject to an adopted Character Appraisal from 2009.
- 5.16 The CA has a largely east-west emphasis, and is bounded by the River Thanes to the north. A small area of the north-eastern part of the CA falls within the Site boundary, although the majority is out with and lies to the west of the Site.
- 5.17 The Appraisal adequately sets out the character of the designated area and features of its special interest. We reproduce the pertinent parts below:

The Conservation Area celebrates the river and the relationship that the people of the town have had with it for many centuries. The historic buildings within the Conservation Area track the earliest settlement in the Parish of Milton to the beginnings of the New Town that was part of the early 19th century expansion of Gravesend. From the modest beginnings of a hospital and religious order at Milton Chantry, through a period of serving the commercial and official activities in the wharves and piers close by, to an established military and naval centre, the riverside has grown. To the east of this area another maritime hub also grew around the Canal Basin and this still provides an industrial focus to the Conservation Area, although it is in the process of transforming into a modern residential area...

The riverside location itself is instrumental in the development of the town of Gravesend and the views out to Gravesend Reach mark the important role the area has played in international travel, trade and expansion for many centuries. Gravesend, Milton and Tilbury were key strategic positions close to the Thames estuary and the New Tavern Fort is of great national historic importance.

5.18 In addition to the industrial and defensive character of the CA, the Appraisal draws on the recreational and leisure activities which contribute to and define the character of this area. Particular emphasis is placed on the two piers within the boundary, the open greensward around New Tavern Fort and its surrounding park and gardens, and the area of open space around the Canal Basin.

5.19 Views across the river and a sense of openness are a defining characteristic of the CA. The Appraisal identifies a number of important views within the CA, including views from New Tavern Fort across to Tilbury, along Gravesend Promenade and the riverfront in both directions, and views from the surrounding road network across the open green space and out from the landscaped grounds of the fort. The Appraisal also draws attention to the importance of views from the east of the Canal Basin across the marina and towards the river.

5.20 The Appraisal also provides detail on the character of the western part of the CA, which comprises traditional 19th century housing laid out in a formal urban arrangement.

5.21 At page 23, the Appraisal focuses on different character areas within the CA, and notes the following in relation to the Canal Basin:

The area has a rundown appearance to the north, by the swing bridge that connects the two parts of the promenade. Light industrial buildings and cranes stand just outside the Conservation Area but add to this neglected appearance. The large amounts of concrete and the plain appearance of the Sailing Club do not enhance the appearance of the area. The public open space with poorly maintained benches on the eastern side of the basin is also rather forlorn and the murky water that enters from the Thames is unattractive.

Significance

5.22 The special interest of the CA is derived in its historic interest as a strategic location both in a defensive and maritime sense and the connection with the River Thames. The inclusion of nationally significant listed buildings and scheduled sites, and a mixed and varied character comprising traditional residential and industrial reflects the historic development of this part of Gravesend and the architectural interest of the CA.

Setting

5.23 The river is located to the north of the CA boundary, and this setting relationship is where the special interest of the asset is principally derived, as set out in the CA Appraisal.

5.24 To the west and south of the CA is the historic town centre of Gravesend and areas which are predominately residential in character. The history and development of the town centre is intertwined with the features which make up the special interest of the CA, and so the preservation of the historic townscape contributes positively to an appreciation and understanding of its heritage value.

5.25 To the east is an area principally characterised by industry, within which the Site is located. Also defined in the CA Appraisal is the contribution made by the Site to the CA, which is described as adding to the 'neglected' and 'rundown'

appearance of the area surrounding the canal basin. Despite their historic relationship and the fact the Site provides some historic context for the CA, in its current condition it is identified as a detracting feature.

Windmill Hill Conservation Area (Map Ref C)

5.26 The Windmill Hill Conservation Area was designated in 1975. A Conservation Area Appraisal was adopted by the Council in 2007, based on a survey dated by The Conservation Studio, Gloucestershire. Page 1 of the Appraisal provides a statement of the special interest of the Conservation Area which states, inter alia, due to the topography of the land overlooking the Thames, that "from at least the 14th century, the summit of the hill has been used as the location for beacons to warn London of impending invasion." It was named "Windmill Hill in 1719 after the mills which stood on its summit, and two mills are known to have existed during the 18th century." The mills no longer exist; however, a large number of historic buildings do that serve as a reminder to the once rural landscape.

Significance

5.27 The Appraisal states in regard to the special interest of the Conservation Area:

The topography has shaped the street pattern, with narrow lanes meandering up the steep slopes of the hill, and buildings arranged to take full effect of attractive views, both of Windmill Hill, and across the countryside of Kent. The two typical forms of buildings are paired villas and terraces, many of which are set back from the pavement line behind front gardens. These front gardens, together with other large private gardens contribute to the spacious and green character of the streetscene. Windmill Hill Gardens and Windmill Hill itself are significant green spaces within the town, and cater to various leisure and recreational uses.

5.28 The Conservation Area is located to the south of the Gravesend town centre and the Hill itself rises about 51 metres above the tide level, affording panoramic views across the landscape. The Appraisal acknowledges long views are afforded to the north to the river and to Essex beyond, and across the wider Kent countryside. The Appraisal states:

Within the Conservation Area there are extensive views obtainable from the top of Windmill Hill. These are most far reaching to the north, where the view extends panoramically across the town, the River Thames and to the county of Essex on the far river bank. The factory chimneys at Tilbury are a particularly prominent eye-catcher. There are a large number of mature deciduous trees on Windmill Hill and in Windmill Hill Gardens; the views are more extensive during the winter months through the bare tree branches. Far reaching views are also obtained from Parrock Road, looking east across the playing fields.

Setting

5.29 The Site lies approximately 3.6km to the north-west of the Conservation Area. This Statement therefore focusses on the contribution made by setting, including the topography of the land (see **Figure 1.8**), towards the significance of the area. In particular, the summit of Windmill Hill is identified as a key view. Views from the top of Windmill Hill are principally directed due north and east towards the Thames and, historically, in the direction of vessels travelling upstream.

Scheduled Monuments

Aspdin's Kiln (Map Ref 10)

5.30 Aspdin's kiln was designated in 1965. The kiln was built by William Aspdin in 1846, to the patented design of his father, Joseph Aspdin of Leeds. During the 1850s the works had nine bottle kilns and produced a Portland cement called 'Nine Bottle Cement'. The works closed in the early 20th century. There are remains of a flare kiln and two buildings. Aspdin's Kiln is a circular bee-hive shaped structure on a base approximately 25ft. square.

5.31 The historic environment record provides a good overview from a 2017 unpublished Historic England assessment report of structures around Robins Creek:

The site around Robins Creek at Northfleet was a major centre for the production of cement in the C19. A manufactory was first established here by James Parker in the 1790s, making Roman cement, one of a number of proprietary types of cement, mainly used as stucco on buildings. In 1846 the works, from 1798 the company was known as

Parker & Wyatt, were taken over by William Aspdin. Aspdin had set up in business after working for his father, Joseph Aspdin of Wakefield, who had patented a 'Portland cement' (in fact similar in composition to Roman cement) in 1824. William Aspdin is generally credited with the invention of true Portland cement by heating the raw materials of limestone and clay in kilns at higher temperatures to produce 'clinker' with alite crystals, a key characteristic of modern Portland cement. The clinker was then ground and gypsum added. This new form of cement was substantially stronger than existing 'Roman' cement. William Aspdin's first works were at Rotherhithe from 1842 before moving to Northfleet, initially under the name Maude, Jones and Aspdin and later as Robins, Aspdin and Co. However, Aspdin, a somewhat shady businessman, fell out with his partners and left to set up works in Newcastle with a new partner around 1852. The Northfleet works continued under the name of Robins and Co, in partnership with John Henry Cox who had joined the firm in 1850. In this period the works are thought to have had a total of nine kilns, rising to twelve by 1876. In 1865, after Cox died, the company became Robins and Co Ltd until bought out by Associated Portland Cement Manufacturers Ltd (Blue Circle) in 1900, shortly after which the works were closed, in 1910. The 1865 Ordnance Survey Map shows the cement works on the south side of Grove Road with some buildings at the head of the creek on the west side of the road adjoining the mill pond at the end of the Ebbsfleet River, labelled as a cement mill. By the 1898 OS map the works on the west side of the road had greatly expanded and the area was amply supplied with tram tracks and gantries linking the two sites. The area opposite the main site, on the north side of the road, was also developed and later known as the Stave Yard. The 1909 OS map shows the western site still largely intact but no longer marked as a cement works. A much larger cement plant is now shown to the north-east. By the 1939 OS map most of the buildings on the site at the head of the creek have gone and those on the south side of Grove Road are much reduced in size. The buildings in the Stave Yard remained largely unchanged but by the 1953 OS map the remaining buildings are marked as ruins.

Significance

- 5.32 The kiln has historical value through its age, dating from the 1846 and through its use as downdraught kiln producing Portland cement. It is an important monument from the early phase of the cement production, and it is believed to be the oldest Portland cement kiln in the world. The kiln had formerly formed part of a collection of nine kilns of the same appearance during the 1850s.
- 5.33 It has evidential value as a well-preserved downdraught kiln and from its domed 'beehive' structure. It is constructed from brick and stands approximately 25 feet tall, tapering toward the top to form the notable structure.

Setting

- 5.34 The kiln is located within a former industrial site which is currently undergoing redevelopment. The streetscape is now nestled within a wider urbanised setting that has altered significantly since the 19th century and is continuing to be regenerated. The kiln provides a remnant of the industrial history of the area; however, there is minimal spatial or visual relationship with the wider area, and no significance is derived from it.

Palaeolithic Sites Near Baker's Hole (Map Ref 11)

- 5.35 The monument comprises two sites are located approximately 590 metres to the south-west of the Site. The sites were first recovered in 1910 and are believed to be the main Levalloisian site in Britain and date from circa 250,000 BP – the late Lower and early Middle Palaeolithic period.
- 5.36 The historic environment record states Site A comprises and abundance of mammalian fossils and other palaeo environmental remains indicative of interglacial conditions in the bottom part of the sequence. Mammalian fossils include woolly rhino, mammoth, lion, brown bear, spotted hyena, horse and red deer. Small vertebrate fossils include fish, amphibians, pigmy shrew, water-shrew, bank vole, mouse and northern vole. Other palaeo-environmental remains comprise molluscs and ostracods.
- 5.37 Site B consists of an area of ground measuring 30m x 35m c. 100m to the west of Ebbsfleet International Station. The area includes sediments dating to the Palaeolithic and previous archaeological investigations across the site have produced many finds including flint tools and tool working debris, with a Levallois flake present, as well as animal remains.

- 5.38 Many of the findings are now held in the British Museum and much of the Palaeolithic Site was quarried during the 1950s-1970s. There is however a small area which was preserved and re-investigated ahead of the HS1 development from 1997 – 2003. HS1 was partly developed through the site, now only a small remnant survives in situ.

Contribution of Setting to Heritage Value

- 5.39 The immediate setting comprises open space, some of which has been subject to development to accommodate HS1 over the course of the last 30 years. The area has accommodated numerous changes, with rail infrastructure in the immediate vicinity. Any significance derived from the setting is local; there is minimal spatial or visual relationship with the Site, and no significance is derived from it.

Neolithic Sites Near Ebbsfleet (Map Ref 12)

- 5.40 The first of the identified Neolithic sites are located approximately 1.3 km to the south of the Site. The sites were first recovered in 1938, where early Neolithic pottery was discovered.
- 5.41 The pottery discovered at the site was described as: 'remarkably good and uniform, hard and well baked, with abundant flint grit and the surfaces smoothed, but lumpy with marks of finger-moulding.' The majority of the pottery found indicated large vessels with thin walls, some had rounded bases, and none had flat bases. The wares are now housed in the British Museum and are believed to belong to Neolithic B Group.
- 5.42 In 1960, a further investigation was carried out into the Neolithic Sites at Ebbsfleet however drainage problems prevented a thorough identification process, there were intentions to return following the resolution of the drainage problems however this has not yet materialised.

Contribution of Setting to Heritage Value

- 5.43 The immediate setting comprises open which has been subject to a few layers of development over the course of the last century. The area has successfully accommodated numerous changes, with rail infrastructure and residential developments in the immediate vicinity. Any significance derived from the setting is local; there is minimal spatial or visual relationship with the Site, and no significance is derived from it.

Listed Buildings (Grade I And II*)

Parish Church Of St Botolph, Grade I (Map Ref 1)

- 5.44 St Botolph's Parish Church was grade I listed in 1952. The church is located in The Hill, Northfleet Conservation Area and its contribution to the character and appearance is set out above.
- 5.45 It is understood that the existing St Botolph's Parish Church stands on the site of a former Saxon church that would have occurred following the conversion of the pagans to Christianity. The settlement evolved around the Manor of Norfluet which had formerly belonged to the Archbishop of Canterbury in 748. In the 19th century, a Saxon Cemetery was discovered in Northfleet.
- 5.46 The existing church is largely medieval in origin and the oldest structure in the Conservation Area. The existing tower was rebuilt after the previous collapsed in 1717. The interior is understood to have had its window tracery renewed in its typical Kent patterns in 1852 by Brandon and Ritchie. There is said to be a good wall monument to Richard and Esther Crich of 1709.

Significance

- 5.47 The location of the church has high historical significance as the siting of a former Saxon church that was later utilised to construct the existing medieval church. The existing church has very high historical and architectural value as a fine example of a decorated gothic medieval church with reticulated tracery.

Setting

5.48 The church sits atop the hill looking north over the river Thames. To the immediate south and west is a chalk quarry that provides a dramatic contrast in the land form. The quarry affords long views west and south. Views towards the church from the Conservation Area are generally limited due to the existing development lining London Road. The best vantage point is the church footpath leading from the former triangle of open space. A car park to the south of the Church of Our Lady of the Assumption provides some views north across the chalk pit towards the parish church.

Church of Our Lady of the Assumption, Grade II* (Map Ref 3)

5.49 The Church of Our Lady of the Assumption was built to the designs if Sir Giles Gilbert Scott from 1913 to 1916. The Roman Catholic church was grade II* listed in 1983.

5.50 It was constructed on the site of a former tram depot, which had closed in 1901. The plans for the church would have been laid out prior to World War One, although the higher building costs were already rising up until this period. Scott used reinforced concrete construction clad in brick, akin to several of his works. It has a rectangular plan with tower and door. The tower is of monumental scale and forms a significant local landmark.

Significance

5.51 The church has significance as a monumental work by a highly notable architect, Scott. It is clearly a precursor to his Liverpool Cathedral, referencing the Gothic vertical emphasis. Due to tis siting on the bend of London Road and its significant tower, it is a local landmark.

5.52 The list description states:

Our Lady of the Assumption is significant in the work of this leading twentieth-century ecclesiastical architect in being the first of his brick churches to achieve a truly monumental, subliminal quality. Scott was later to further explore the medium in his secular work, notably at Bankside Power Station, now Tate Modern, whose qualities are anticipated here. The use of concrete was experimental, while the interior is imaginative and cohesive in its simplicity.

Setting

5.53 The Church of Our Lady of the Assumption forms an impressive landmark feature in views from London Road. The scale and architecture is demonstrably different to the prevailing area, and seen from within The Hill Conservation Area as well as in long-distance views from all directions.

5.54 On the east side of the London Road is a contemporary phone box, also by Scott.

5.55 The presbytery was the former tram manager's house. These are now visually linked following the removal of a small hall between them.

Church of All Saints, Grade II* (Map Ref 2)

5.56 The Church of All Saints is located approximately 750m to the west of the Site. The church was designated at grade II* in 1986. It was constructed 1869-70 to the designs of Richard Norman Shaw.

5.57 The church is formed of caen stone, alabaster and marble. It features a rectangular plan with central tower. There are three clerestory windows with double round-headed arches and smaller circular windows above. The chancel is separated from the nave by buttresses. The building features typical Gothic features such as the pointed arched doors and stiff-leaf capitals. It is understood the interior, comprising Arts and Crafts Perpendicular style woodwork, has some brass details such as the eagle lectern which dates from 1870-77 as well as some stained-glass displaying Christ in Majesty.

Significance

5.58 The Church of All Saints derives significance as a major work by a notable architect, Norman Shaw. It has historical and architectural value as an excellent example of the Gothic style.

Contribution of Setting to Heritage Value

5.59 The Church of All Saints forms a striking landmark feature in views east and west from London Road, despite the scale of the central tower. The scale and architecture is demonstrably different to the prevailing area, and its prominence is emphasised by the alignment of the road and duration of the axial views.

5.60 The immediate setting is of a mixed townscape quality with numerous layers of development over the course of the last century in particular, successfully accommodating numerous changes, with road infrastructure in the immediate vicinity. Any significance derived from the setting is local; there is minimal spatial or visual relationship with the Site, and no significance is derived from it.

Tilbury Fort, Scheduled Monument, Comprising the Officers Barracks, Seperately Listed at Grade II* (Map Ref 13)

5.61 Tilbury Fort, the wider defensive site which includes the listed barracks, is situated on low ground on the north of the Thames. The historic site was designated as a Scheduled Monument in 1973. The scheduled site is approximately 2.9km east of the Site.

5.62 The fort was established as a defensive site by Henry VIII in the 1530s when he built a blockhouse here as a defence against an expected French invasion. In the late 16th century a number of modifications occurred including the creation of a ditch encircling the building, a counterscarp bank, a drawbridge and the officer barracks were constructed. The fort was replaced in the 17th century by a pentagonal plan form and based on design principles established in the Low Countries (the Netherlands) by Charles II's civil engineer Sir Bernard de Gomme. the surviving structures today remain substantially unaltered from this period.

5.63 The internal area of the fort is referred to as 'The Parade'. The main entrance to The Parade was located in the middle of the south-western curtain wall, and is known as the 'Water Gate'; it is formed of a two-storey brick structure with elaborate outer façade decorated with a frieze dedicated to Charles II. Ancillary structures including artillery stores, a chapel and guard room also survive from this period.

5.64 There were further works across the 18th century, including the construction of powder magazines to the north which were enclosed by a brick blast wall. The magazines were altered in the 19th century albeit much of their original fabric and features survive. Further alterations occurred shortly before World War when the curtain wall was realigned to provide wider fields of fire and the addition of concrete emplacements to the bastion to accommodate heavier guns.

5.65 The scheduling for Tilbury Fort notes that the site remained '*at the forefront of the defence of the Thames and London through the 18th and 19th centuries, although it never saw the action for which it was designed*'. The fort was partially superseded by the forward batteries that were constructed at other forts in the surrounding areas, including Coalhouse Point, Hope Point and Shornmead at the end of the 18th century. The new defences never saw direct action during the war.

Significance

5.66 Under 'Reasons for Designation', the scheduling for Tilbury Fort states the following:

'Tilbury Fort is England's most spectacular surviving example of a late 17th century coastal fort, designed at a time when artillery had become the dominant feature of warfare and therefore built with massive low earthworks, resilient to the shock of bombardment, instead of stone fortifications. The layout and construction was geared to the optimum siting of cannon at the forward batteries which, in conjunction with batteries on the opposing bank of the Thames, could create a field of fire spanning the estuary providing defence for the river itself and the capital. The systems of bastions and complicated outworks defending the batteries from the rear is principally a Dutch design, extremely rare in England, and Tilbury is the best preserved and most complete example of the type.'

5.67 Much of the 18th century site survives, including the officers' barracks described below, in addition to other standing structures such as the magazines, curtain wall, earth works and The Parade. There are also buried remains of other structures related to the 17th century defences and the Tudor blockhouse, the latter is especially significant as they represent one of the earliest types of structure built solely for the use of artillery in warfare.

5.68 The site is of significant historic interest both for its strategic importance in the defence of Gravesend as a key approach route to London and as part of the wider network of associated forts in the Thames and Medway area.

5.69 Further interest is derived in the fort's role in the mid-19th century as part of the largest maritime defence programme since the time of Henry VIII, prompted through the threat of the naval expansion of France. Tilbury Fort, in conjunction with the new and upgraded coastal forts and batteries of the 19th century, was a central mechanism of Britain's coastal defence systems well into the 20th century.

Setting

5.70 The presence of modern infrastructure on the Essex shore, including Tilbury Docks, wind turbines, large industrial sheds and sewage plants reflects the extent of change within the setting of the fort. There is a sense of encroachment from this modern infrastructure to the north, east and west of the defensive site; the townscape quality of much of this area is poor, detracting from the fort's setting.

5.71 The relationship of the fort with the river and the shoreline is paramount to understanding the defensive purpose of the site and its interrelationship with other surrounding fortifications: New Tavern Fort, Shornemead and Cliffe on the Kent shore to the south and east and Coalhouse Fort to the north-east. Wide open views across the estuary reinforces an appreciation of the defensive network. While there is a spatial and visual relationship with the Site, there is no significance derived from it.

Officers Barracks (Map Ref 6)

5.72 The Officers' Barracks at Tilbury Fort were Grade II* listed in 1998. The listed building is located approximately 2.9km east of the Site.

5.73 The barracks comprises a terrace of approximately 22 houses arranged alongside the north-eastern side of the internal pentagon area of the fort complex, known as 'The Parade'. The barracks now comprise seven houses and a museum. The terrace was built in 1772 by the Board of Ordnance, altered in the early 19th century. The houses are constructed from yellow stock brick with brick ridge stacks and steep slate hipped valley roof in the mid-Georgian style. The houses have a double-depth plan, although they may have originally been back-to-back.

5.74 The principal face of the two storey building comprises a 23-window range which has a symmetrical arrangement with brick cornice and parapet. The central door in the middle of the principal elevation has a keyed round-arched doorway which sits beneath a wide pediment and first-floor oculus. Other doorways along this façade are arranged symmetrically and are flat-headed with bracketed canopies. The rear elevation is similar in its arrangement, and has many of its original windows. The central house of the terrace has been preserved as a museum; the flanking houses were knocked together in the 19th century when fewer officers occupied the site.

Significance

5.75 The 18th century barracks are supposed to have been rebuilt on the site of a late 17th century officer's range. The listed building is a high quality and rare example of Office Board housing from this period. Particular architectural interest is derived in the terraced plan and, according to the listing description the barracks form part of one of the 'finest and most complete late 17th century forts in England'.

Setting

5.76 The immediate setting of the Officers' Barracks is enclosed by the interior curtain wall and earth banks which define the central parade. The preserved historic character and survival of key parts of the fort's infrastructure, including the Water Gate, chapel, curtain wall and magazines, reflect the high quality nature of the Barracks' immediate setting. These

elements all contribute to an appreciation of the receptor's value, and also aid an interpretation and understanding of the strategic defensive nature of the fort as a whole.

5.77 Intervisibility with the wider setting of the fort is limited, albeit the river and wider network of defensive sites along the Thames' shore contributes to an understanding of the Barracks' heritage value, and its role within the wider site.

Riverside Station, Including Floating Landing Stage, Grade II* (Map Ref 4)

5.78 The Riverside Station and adjoining floating landing stage was Grade II* listed in 1989. It is located approximately 2.2km from the Site boundary at the closest point.

5.79 The listing comprises the railway station, baggage hall, ticket office and floating landing stage completed in 1924 to the designs of Sir Edwin Cooper for the Port of London Authority. The structures are designed in a neo-Georgian style. The complex was closed in 1990, and re-opened again in 1995 for leisure cruise use.

5.80 The station and adjoining buildings are constructed in red-brown brick, with rusticated quoining and dressings of Portland stone. The station and baggage hall are of tall single-storey form and open in planform, with their south elevations fronting the Thames estuary. Both buildings are raised on cylindrical concrete piers with span arches. There is a smaller two storey block attached to the west end of the station.

5.81 The baggage hall features a continuous veranda supported on wrought-iron framework panels with plain railings. There are two tall openings to the centre of this building, with rusticated semi-circular arched architraves with carved keystones. Features of this building also include semi-circular windows with decorative glazing bars and tower at roof level with Portland stone balustraded parapet and surmounted with copper-domed cupola.

5.82 The station building is similar in form and detailing to the baggage hall. The north elevation opens up onto the platforms. The east and west elevations are decorated with friezes of cast-iron bolection-moulded panels. The roof is supported by iron, segmental-arched roof trusses

5.83 The floating landing stage is accessed by four steel booms and two walkways with boarded walls and glazing-bar lights. The ground floor of the floating landing stage is weatherboarded, and the first floor clad in metal sheeting.

Significance

5.84 Architectural interest is derived in the complex's neo-Georgian style and its association with Sir Edwin Cooper who was a notable architect in his own right and in his capacity as architect to the Port of London Authority.

5.85 The complex is of historic interest for its association with the SS Empire Windrush, which docked at the station in 1948 and which is generally accepted as being the first ship to bring a large of migrants to the UK from the Caribbean. These migrants were invited to the UK in the post-war years in response to labour shortages.

Setting

5.86 The riverside setting of the station and its continued use, albeit altered to leisure use for the Gravesend-Tilbury ferry, reinforces an appreciation of the heritage value of the receptor and enables people to engage and interact with the structure.

5.87 The wider setting of the riverside station has undergone a significant amount of change, and is heavily industrialised, including the enormous Tilbury Docks complex. The areas immediately to the north and north-west of the station comprise vast areas of hardstanding. These elements of the townscape are of very low townscape quality, and are detracting features of the receptor's setting.

5.88 Tilbury Fort lies to the east of the Riverside Station, the presence of which draws tourists and visitors which in turn provides opportunity for public appreciation of the station infrastructure. The fort is a prominent and positive setting feature.

Church of St George, Grade II* (Map Ref 5)	
5.89	The Church of St George was Grade II* listed in 1952. It is located approximately 3km to the east of the Site at the closest point. The Church is located within the High Street and Queen Street Conservation Area.
5.90	The church was constructed between 1731 and 1732 to the designs of Charles Sloane. A church was first built at this site in the late 15th century and became the parish church of Gravesend in 1544. The Native American princess, Pocahontas, died in Gravesend in 1614 and was purportedly buried in the grounds of the old church. The 15th century building was destroyed by a great fire in Gravesend in 1727. The present church was funded from the dues on coal coming into London as part of the 1711 Fifty New Churches Act. The new church was completed by 1731. The 18th century chancel was rebuilt and extended eastwards in 1892 and the north aisle was added in 1895-6 to the designs of Willian and Charles Basset-Smith.
5.91	The church is constructed from yellow stock brick with Bath stone dressings, mended in some places with Portland stone. The church is of a Classical design and is simply detailed. The tall, four stage west towers projects slightly from the west end of the nave and features rusticated quoins and platbands; it is the most prominent feature of the listed building and visible in many localised views within the surrounding townscape. The tower has a mixture of tall, round-headed windows and oculi. The slender spire is surmounted with a ball finial and weathervane.
5.92	The 19th century apse at the east end of the church has a plain brick parapet with platband and cornice below and features a Venetian window reused from the original 18th century apse. The original north doorway has been relocated to the west end of the aisle with a rusticated surround, keyblock, cornice and two-leaf door with folded panels. The vestry in the north-west corner is part of the 19th century phase. The south-east and north-east windows date from 1914 and were given to the church by the Society of Colonial Dames of America in memory of Princess Pocahontas.
5.93	The interior of the church is attractively detailed with plasterwork, arches, platbands, cornices and a vaulted rib ceiling to the apse. There is upper gallery in the south-west corner of the church with a plain front recessed into the space next to the tower. A principal feature of the interior is the 18th century communion rails with chunky barley sugar balusters which feature panels with Italianate painting of 1893. A George England organ survives in the west gallery of the church, dating from 1764.
	<i>Significance</i>
5.94	The Grade II* listed church is at the heart of the town's historic identity and arguably the most important building in Gravesend. It has high architectural value, designed by local carpenter and builder Charles Sloane, taken cumulatively with its fittings. The catastrophic fire of 1727 resulted in the loss of all earlier fabric and the completed church, by a local architect, is of greater historic interest than architectural. It also suffered further from wartime damage in WW2.
	<i>Contribution of Setting to Heritage Value</i>
5.95	An important element of the immediate setting of the Church of St George is the surrounding churchyard, which lies principally to the south and west of the listed buildings. The attractive mature trees and landscaped areas contribute to the quality of the environment in which the church is experienced in, and provide respite from the surrounding urban townscape.
5.96	The Grade II listed State of Princess Pocahontas within the churchyard reinforces an appreciation of the church as a significant local building and aids an understanding of its historic interest.
5.97	Modern development in Gravesend's town centre has encroached to some extent upon the historic building, and the presence of St George's Shopping Centre to the south is particularly prominent. There are also large areas of hardstanding used for car parking in the setting of the church which detract from the character and quality of its setting.
5.98	The landmark quality of the church's spire means it has a wider setting relationship with much of the townscape. The ability to appreciate the spire over substantial distances, and the associated wayfinding and destination qualities of this feature of the church, enables an appreciation of the historic building from many locations.

5.99	Owing to a substantial separating distance and interposing buildings, the existing Site presently has no setting relationship with the church, and makes no contribution to an appreciation of its special architectural or historical interest.
Listed Buildings (Grade II) The Factory Club, Grade II (Map Ref 7)	
5.100	The Factory Club was constructed in 1878 to the designs of Parr and Strong. It originally constructed for Bevan's Cement and used as a recreational hall and comprised worker's rooms. It was designated at grade II in 1983 and is located approximately 500m to the east of the Site.
5.101	The building a double height ground floor and attic with added classical decoration and slate roofs. There is a brick-built basement beneath. The architecture has classical influences, including the recessed central section featuring round headed windows, Corinthian pilasters and elaborate parapet displaying the coat of arms. There is a distinct French Chateau influence highlighted in the steep pitched and slate roof and tower-like features framing the doors. The decorative elements are constructed from Portland cement.
	<i>Significance</i>
5.102	The building has both architectural and historical value as a highly decorative classical building of the late nineteenth century, with an early example of Portland cement decoration.
	<i>Contribution of Setting to Heritage Value</i>
5.103	The immediate setting is of a mixed townscape quality with numerous layers of development over the course of the last century in particular, successfully accommodating numerous changes, with road infrastructure and industrial development in the immediate vicinity. Any significance derived from the setting is local; there is minimal spatial or visual relationship with the Site, and no significance is derived from it.
BEVAN'S WAR MEMORIAL IN NORTHFLEET CEMENT WORKS, GRADE II (MAP REF 8)	
5.104	Bevan's War Memorial was designated in 2006. It is located approximately 760 metres to the north-east of the Site.
5.105	The memorial is purpose built as a dedication to the workers of the Bevan Cement works who lost their lives during World War I. It was designed by Doyle-Jones who is notable for his sculpture work such as Whiteinch War Memorial in Glasgow. The memorial statue is constructed from concrete in an Art Deco style featuring Britannia dressed in robes and armour seated on her throne.
	<i>Significance</i>
5.106	It has aesthetic and architectural value as a fine and unusual example of an Art Deco sculpture. The memorial also has some historical value for its association with the collective efforts in the local area wo World War One.
	<i>Contribution of Setting to Heritage Value</i>
5.107	The immediate setting is a cement works which forms part of the historic value of the asset. The area itself is of poor visual amenity, although it is the intrinsic link between the cement works and those that lost their lives during World Wat One that derives interest. The contrast between the decorative Art Deco sculpture and the works is quite striking.
Northfleet Lower Lighthouse, Grade II (Map Ref 9)	
5.108	Northfleet Lighthouse was constructed in 1883 by Trinity House to guide ships towards Northfleet Hope on the way to the Port of London as they travelled around the bend at Gravesend Reach. It was listed at grade II in 2006. The lighthouse is understood to be only one of five surviving wrought-iron framed lighthouses along the Thames dating from 1849 to 1926. It is located approximately 950 metres to the north-east of the Site.

5.109 Its slender and tapering tower form set over six distinctive stages. It is constructed with a riveted wrought-iron frame and has metal platforms separating the top four levels and horizontal bands separating the lower two stages. The roof is pitched and topped with a ball finial and arrow weathervane.

Significance

5.110 The list description states: “Northfleet Lower Lighthouse is early amongst comparable wrought-iron framed lighthouses, and is a fine example of this kind of innovative design and construction, few C19 examples of which survive. It is the most structurally complex and visually striking of the remaining River Thames lighthouses, and has an important place in the history of navigation of the river.”

Contribution of Setting to Heritage Value

5.111 The lighthouse has an intrinsic relationship with the Thames due to its function. It was used to guide people in along Gravesend Reach travelling towards central London. Views east and particularly important in this regard, although there remains importance looking across the waters to the west too.

6.0 ASSESSMENT OF THE PROPOSALS

6.1 This section of the report assesses the impact of the Proposed Development upon the significance of the heritage assets identified at **Section 5.0**. The assessment has been carried out in accordance with the method set out at **Section 2.0** which follows best practice guidance.

6.2 The basis of the assessment is the submitted Parameter Plans and the Design Code. The principles determined by the Parameter Plans are underpinned by the illustrative material set out in the Design and Access Statement prepared by the architects; however, the illustrative masterplan is only illustrative and does not form the basis of assessment. The architectural quality and urban design benefits of the Proposed Development are to be secured through subsequent reserved matters applications. Those applications must accord to the Design Code submitted with this proposal, which is a control document and has informed the assessment.

6.3 Throughout this section we reference the verified views to illustrate the Proposed Development, contained at **Section 9** of the TVIA. Reference is also provided to the ZTV which is a tool for a high-level understanding of the extent of visibility, which was further interrogated through review of individual viewpoints using field surveys and digital software (see **Figure 5.1** and **Appendix 3.0** of the TVIA). A further nine non-verified views, prepared by Eb7, were prepared to contextualise the ZTV and further inform the assessment of the impact of the Proposed Development on heritage assets (see **Appendix 4.0** of the TVIA).

6.4 Where relevant, assessments of cumulative impacts brought about by the Proposed Development in conjunction with other relevant schemes in the surrounding area are also provided. These consider both the Tier 1 and Tier 2 scenarios outlined in the ES.

Conservation Areas
The Hill, Northfleet Conservation Area (Map Ref A)

6.5 The Hill Conservation Area is located approximately 1km from the east boundary of the Site. The Conservation Area is relatively small in geographical area. The core of the area emanates around the former village green triangle and parish church, and follows the London Road around a sharp corner running east to west.

6.6 The ZTV indicates the curvature of the London Road largely obscures views of the Proposed Development where it runs north-south. At the north and southern ends of the Conservation Area, as you exit / approach, the ZTV indicates some visibility. As mentioned above, the ZTV is a tool for a high-level understanding of the extent of visibility, which should be further interrogated through review of individual viewpoints. Non-verified massing views 1, 2, 7, 8 and 9 are located within, and approaching, the Conservation Area.

6.7 Non-verified massing views 2, 7 and 9 demonstrate the approach route running east to west along London Road towards the Conservation Area. Along this route the Church of Our Lady of the Assumption forms an impressive landmark feature in views from London Road. The scale and architecture is demonstrably different to the prevailing area, and a readily perceptible feature on the skyline.

6.8 From non-verified massing view 7, the most easterly view along London Road, the view demonstrates that the topography of the land largely obscures views of the Proposed Development; however, it will be visible on the horizon. It will be seen over a distance of 1km and north of the Church of Our Lady of the Assumption. It would be subservient to the scale of the church and, due to the separating distance and relative scale, would not impact the ability of the observer to recognise and appreciate the skyline profile of the Scott’s Roman Catholic church.

6.9 As the observer then travels east along London Road, non-verified massing view 9 demonstrates that the Proposed Development starts to move towards the church tower. At the same time, the relative scale of the Proposed Development diminishes, as the church comes into the fore. As the observer then arrives at non-verified massing view 2, the optimum location to appreciate the architectural detail of the church, the Proposed Development is completely occluded. At no point does the Proposed Development backdrop the skyline silhouette of the church or undermine its sense of scale.

6.10 The ZTV indicates that there is no visibility of the Proposed Development around the medieval parish church nor the former green triangle. Views of the parish church are largely limited to due to the existing development lining London Road. The best vantage point is the church footpath leading from the former triangle of open space. A car park to the south of the Church of Our Lady of the Assumption provides some views north across the chalk pit towards the parish church; non-verified massing view 1 is located at this point and demonstrates the Proposed Development would be occluded from view.

6.11 At the northern end of the Conservation Area, the ZTV demonstrates a patch of visibility near the junction with Granby Road. Non-verified massing view 8 is located at the point where the ZTV starts to indicate some visibility, as the observer is leaving the Conservation Area near Granby Place (now surgery). The view demonstrates that the Proposed Development will be perceptible as the observer leaves the Conservation Area. The visibility will be glimpsed, over a distance of 1km, and filtered by the tree canopy (not shown within the non-verified LiDAR images). There will be no views across the Conservation Area, only looking out at its northern extremity and this would be incidental to the appreciation of the character and appearance of the area in the foreground.

6.12 Taken as a whole, the Proposed Development would have no impact upon the character and appearance of the Conservation Area. The change to the wider setting would have no impact upon its significance which will be preserved.

Gravesend Riverside Conservation Area (Map Ref B)

6.13 Gravesend Riverside Conservation Area is located approximately 3.4km from the Site. The Site has no intrinsic historic relationship with the Conservation Area or the attributes that contribute towards its significance. The ZTV demonstrates there will be extremely limited visibility of the Proposed Development from the Conservation Area. Non-verified massing view 3 is located at the Thames' frontage on the Gravesend Promenade. The view demonstrates the Proposed Development would be occluded from view at this location due to the curvature of the Thames along Gravesend Reach, and the existing development in the foreground, including several piers. Even if glimpsed over this distance the Proposed Development would have no impact upon the character and appearance of the Conservation Area. The change to the wider setting would have no impact upon its significance which will be preserved.

Windmill Hill Conservation Area (Map Ref C)

6.14 Windmill Hill Conservation Area is located approximately 3.6km east of the Site. The summit of Windmill Hill is identified as a key view, principally directed due north and east towards the Thames and, historically, in the direction of vessels travelling upstream. The Proposed Development is located to the far-west of the Conservation Area.

6.15 The ZTV indicates there would be visibility of the Proposed Development at the crest of the hill. Non-verified massing view 5 confirms that there would likely be visibility of the Proposed Development, albeit in filtered views through the tree canopy that encloses the hill. The Proposed Development would be a relatively small part of the panoramic view, sitting below the ridge line in the backdrop. Over this distance, and in this location, the Proposed Development would be incidental to the wider setting of the Conservation Area. The Proposed Development would have no impact upon the character and appearance of the Conservation Area. The change to the wider setting would have no impact upon its significance which will be preserved.

**Scheduled Monuments
Aspdin's Kiln (Map Ref 10)**

6.16 The monument is located approximately 100m to the east of the Site. It is likely that the Site may have historically formed part of the wider cement works, particularly following expansion at the turn of the twentieth century. Now, the Site and Aspdin's kiln have no functional or visual relationship.

6.17 The Proposed Development would obviously markedly change the land to the west of the monument. However, that change would not impact the significance of the kiln which derives from its architectural, evidential and historic value as the oldest Portland cement kiln in the world and from its domed 'beehive' structure.

6.18 The existing kiln is located within a former industrial site which is currently undergoing redevelopment. The Proposed Development will therefore have no visual relationship with the kiln. Whilst the Site may have historically formed part of

the wider cement works, the use is now separated and there is no functional relationship that would be adversely affected by the introduction of the residential-led mixed-use development.

6.19 The kiln falls outside of the boundaries for any sites identified in the cumulative tier 1 assessment. There will therefore be no change to the assessment of the Proposed Development arising from this scenario.

6.20 In the cumulative tier 2 scenario, the kiln falls within the boundary of the withdrawn application by Ebbsfleet Development Corporation for Ebbsfleet Garden City (EDC/21/0102). The report on The Council website prepared by Watermans states:

Further comments on the draft documents from KCC Heritage and Historic England were incorporated into the final documents. This included updating the Parameter Plans to indicate the 'Area of Potential High Archaeological Significance' associated with the buried kilns (as discussed in Table 1). It is proposed that a Written Scheme of Investigation will be submitted to set out the archaeological approach to evaluation and mitigation. It is also proposed to undertake a pole mounted camera survey of the Aspdin's Kiln to confirm whether the tunnel opening to the kiln is open or collapsed. Discussions with KCC Heritage and Historic England on these issues are ongoing. As well as the development, the EDC aims to protect and conserve Aspdins Beehive Kiln – a Scheduled Ancient Monument and thought to be the oldest Portland Cement Kiln in the world.

6.21 The Proposed Development would have no impact upon this process, should the EDC development come forward.

Palaeolithic Sites Near Baker's Hole (Map Ref 11)

6.22 The monument comprises two sites that are located approximately 590 metres to the south-west of the Site. The surrounding area has accommodated numerous changes, with rail infrastructure in the immediate vicinity. Any significance derived from the setting is local; there is minimal spatial or visual relationship with the Site, and no significance is derived from it.

6.23 The topography map at **Figure 5.1** demonstrates the archaeological sites are on relatively high ground and panoramic views would be afforded towards the Site. this is affirmed by the ZTV which highlights the potential for inter-visibility. Due to the nature of the heritage asset – below ground remains in a substantially altered landscape – the Proposed Development would have no impact upon the setting or significance of the monument which will be preserved.

6.24 The Archaeology Chapter of the ES prepared by Wessex Archaeology would provide details of any necessary requirements for a Written Scheme of investigation for undertaking the demolition and construction works on the Site that may uncover findings that would better reveal the significance of the Palaeolithic sites near Baker's Hole.

NEOLITHIC SITES NEAR EBBSFLEET (MAP REF 12)

6.25 The Neolithic sites are located approximately 1.3 km to the south of the Site. Again, the surrounding area has accommodated numerous changes, with rail infrastructure in the immediate vicinity. Any significance derived from the setting is local; there is minimal spatial or visual relationship with the Site, and no significance is derived from it.

6.26 The topography map at **Figure 5.1** demonstrates the archaeological sites are on relatively high ground and panoramic views would be afforded towards the Site. this is affirmed by the ZTV which highlights the potential for inter-visibility. Due to the nature of the heritage asset – below ground remains in a substantially altered landscape – the Proposed Development would have no impact upon the setting or significance of the monument which will be preserved.

6.27 The Archaeology Chapter of the ES prepared by Wessex Archaeology would provide details of any necessary requirements for a Written Scheme of investigation for undertaking the demolition and construction works on the Site that may uncover findings that would better reveal the significance of the Neolithic sites.

**Listed Buildings (Grade I And II*)
Parish Church of St Botolph, Grade I (Map Ref 1)**

6.28 The Parish Church of St Botolph is located approximately 1km to the east of the Site. The medieval parish church is located in The Hill, Northfleet Conservation Area, discussed above.

6.29 The ZTV indicates that there is no visibility of the Proposed Development in the grounds around the medieval parish church. Views of the parish church are largely limited to due to the existing development lining London Road. The best vantage point is the church footpath leading from the former triangle of open space. A car park to the south of the Church of Our Lady of the Assumption provides some views north across the chalk pit towards the parish church; non-verified massing view 1 is located at this point and demonstrates the Proposed Development would be occluded from view.

6.30 The Site has no historic relationship with the church. There would be no change to the setting of the Parish Church of St Botolph and its significance will be preserved.

Church of Our Lady of the Assumption, Grade II* (Map Ref 3)

6.31 The Church of Our Lady of the Assumption is located approximately 1km to the east of the Site. The Roman Catholic church is located in The Hill, Northfleet Conservation Area, discussed above.

6.32 Non-verified massing views 2, 7 and 9 demonstrate the approach route running east to west along London Road towards the Conservation Area. Along this route the Church of Our Lady of the Assumption forms an impressive landmark feature in views from London Road. The scale and architecture is demonstrably different to the prevailing area, and a readily perceptible feature on the skyline.

6.33 Non-verified massing view 7, the most easterly view along London Road, the view demonstrates that the topography of the land largely obscures views of the Proposed Development. The topography rises high along the London Road at the eastern boundary of the Conservation Area, but then rises again further west along High Street, between the Conservation Area and the Site. Notwithstanding, the Proposed Development will be visible on the horizon in view 7, seen over a distance of 1km and set well north of the Church of Our Lady of the Assumption. It would be subservient to the scale of the church and, due to the separating distance and relative scale, would not impact the ability of the observer to recognise and appreciate the skyline profile of the Scott's Roman Catholic church.

6.34 As the observer then travels east along London Road, view 9 demonstrates that the Proposed Development starts to move towards the church tower. At the same time, the relative scale of the Proposed Development diminishes, as the church comes into the fore. As the observer then arrives at view 2, the optimum location to appreciate the architectural detail of the church, the Proposed Development is completely occluded. At no point does the Proposed Development backdrop the skyline silhouette of the church or undermine its sense of scale.

6.35 The Site has no historic relationship with the church. The change to the wider setting of the Church of Our Lady of the Assumption would have no impact upon its significance which will be preserved.

Church of All Saints, Grade II* (Map Ref 2)

6.36 The Church of All Saints is approximately 730 m to the west of the Site. Currently, the church's setting is dominated by the A226, the main access road into Northfleet. The building sits on the ridge of a former chalk works, overlooking the industrial estate which spreads out below. The high-speed tracks to Ebbsfleet, located approximately 350 m to the east, separate the church from the Site which is currently occupied by the existing football stadium building and industrial sheds.

6.37 Built for the workers of the nearby cement works, the original setting of the church has changed fundamentally since the decline of the cement industry at Northfleet. The church's significance lies in its design as a fine Gothic revival church designed by Richard Norman Shaw with Arts and Crafts Perpendicular woodwork in the interior.

6.38 The Church of All Saints forms a striking landmark feature in views east and west from London Road, despite the scale of the central tower. The scale and architecture is demonstrably different to the prevailing area, and its prominence is emphasised by the alignment of the road and duration of the axial views. The topography map at Figure 1.8 outlines that the church sits at the crest of the hill, with land dropping away east and west along the London Road.

6.39 The view east of the Proposed Development from close proximity to the church is illustrated by verified view 3 within the ES Chapter which show the Site and Maximum Parameter. The Proposed Development would introduce a varied townscape, composed of various residential blocks in the distant setting of the church. There would be a marked change

in scale relative to the existing condition, although seen over distance and diminished further by the significant change in topography towards the waterfront.

6.40 In views further west along London Road the topography of the land falls away, ensuring that the Proposed Development falls out of view and the Church of All Saints remains prominent on the crest of the hill. The change to the wider setting of the church would have no impact upon its significance which will be preserved.

6.41 The Tier 2 cumulative scheme London Resort scheme has the potential to have a marked impact upon the setting of the church due to its relative proximity and the likely scale of development. Views towards the church from the east, including along London Road, are more susceptible to change by the London Resort scheme by virtue of its proximity that has the potential to backdrop the skyline silhouette of the church where it sits on the crest of the hill. Due to the unknown details of the London Resort scheme, it is not appropriate to determine whether this would be harmful or the likely degree of harm. The Proposed Development – located further east – is likely to be occluded from views by the London Resort scheme.

Tilbury Fort, Scheduled Monument, Comprising the Officers Barracks, Separately Listed at Grade II* (Map Refs 13 And 6)

6.42 Tilbury Fort and the Officers' Barracks within, are located approximately 2.9km to the north-east of the Site. The monument is considered as one of the most spectacular 17th century coastal forts in England. The setting of the fort has changed fundamentally over the last 100 years. Port infrastructure and industrial estates on both banks of the Thames characterise the wider setting.

6.43 The ZTV, as one would expect, demonstrates that the Proposed Development will be visible from the north bank of the Thames along Gravesend Reach. Verified view 2 is located immediately south of Tilbury Fort, looking south-west. It demonstrates that the tops of the Proposed Development would be visible, albeit a peripheral feature and not interrupting critical sight lines that contribute towards the fort's strategic importance. The Proposed Development does not impact on the ability to appreciate the considerable significance of Tilbury Fort, which is derived in the survival of Tudor and 18th century fabric, its association with the historic defence of the Thames and London, and its interconnection with the surrounding network of related defensive sites, including New Tavern Fort to the south. The ability to appreciate the fort's strategic defensive relationship with these sites and with the Thames is not impacted as a result of the Proposed Development. The change to the wider setting of Tilbury Fort would have no impact upon its significance which will be preserved.

6.44 Equally, the officer barracks inside the fort are entirely enclosed by the perimeter walls. The Proposed Development would be occluded from view from these locations, as demonstrated by the ZTV. The Proposed Development would have no impact upon the setting of the officer barracks and their significance will be preserved.

Riverside Station, Including Floating Landing Stage, Grade II* (Map Ref 4)

6.45 The Riverside Station, located approximately 2.2km to the north-east of the Site, is a well-preserved early 20th century passenger terminal, designed by a notable architect, Edwin Cooper. The building has significance as the place where the SS Empire Windrush docked in 1948 with 500 migrants from the Caribbean on board. The dock's setting has fundamentally changed, and modern infrastructure related to port and industrial activities are visible along the banks of the River Thames.

6.46 Again, the ZTV demonstrates that the Proposed Development will be visible from the north bank of the Thames along Gravesend Reach. Verified view 16 is located at Gravesend Reach, south of The Worlds End public house. The view looks across the Thames, including the Riverside Station in the foreground. The Proposed Development would be perceptible in the backdrop of the view, although seen over a considerable distance that will be reinforced by motion parallax as the observer walks along the riverfront. The proposed buildings, which represent an increase in intensity and scale on the Site, would be appreciable from the receptor's setting as a composition of high-quality buildings delivered through the Design Code with highly articulated elevations which provide texture and visual interest. The Proposed Development will not impact on the observer's ability to appreciate the significance of the listed building, derived in its neo-Georgian architecture and functional connection and relationship with the river. The Proposed Development would have no impact upon the setting of the officer barracks and their significance will be preserved.

Church of St George, Grade II* (Map Ref 5)

6.47 The Church of St George is located approximately 3.4km to the east of the Site. The Site has no intrinsic historic relationship with the church or the attributes that contribute towards its significance. The ZTV demonstrates there will be no visibility of the Proposed Development from land in close proximity or within key sight lines of the church. The church spire is a prominent feature in views along The Terrace and, due to the potential alignment towards the Site, non-verified massing view 6 has been prepared from this location. The view demonstrates the Proposed Development would be occluded from view at this location. The Proposed Development would have no impact upon the setting or significance of the church which would be preserved.

**Listed Buildings (Grade II)
The Factory Club, Grade II (Map Ref 7)**

6.48 The Factory Club, located approximately 500 m to the east of the Site is a fine late 19th century community hall, designed in a grand French château style. Verified view 5 is located on London Road, approximately 150m east of the Factory Club. It demonstrates the Proposed Development would be wholly occluded due to interposing development in the foreground and the topography of the land. The lack of visibility along this stretch of the London Road is affirmed by the ZTV. There would be no change to the setting of the Factory Club and its significance will be preserved.

Bevan's War Memorial In Northfleet Cement Works, Grade II (Map Ref 8)

6.49 The ZTV demonstrates there would be clear intervisibility between the war memorial and the Proposed Development. This would be seen over a distance of approximately 760m. The war memorial has an intrinsic relationship with the cement works in which it is located, which has a positive bearing upon significance. The Proposed Development would have no impact upon this relationship.

6.50 The contrast between the Art Deco sculpture and the utilitarian cement works is striking. The juxtaposition adds to the sense of intrigue and significance. In the wider area, the setting is mixed and the Proposed Development would form part of this very varied landscape. The change to the wider setting of the memorial brought about by the Proposed Development would have no impact upon its significance which will be preserved.

6.51 Under the Tier 1 cumulative assessment, the war memorial is likely to be relocated as part of the redevelopment of Land At Former Northfleet Cement Works The Shore Northfleet Gravesend Kent DA11 9AN (ref: EDC/16/0004). The proposal would markedly change the original setting of the sculpture and sever its relationship with the cement works. The Proposed Development would provide no materially different impact to this change in setting.

Northfleet Lower Lighthouse, Grade II (Map Ref 9)

6.52 The ZTV demonstrates there would be clear intervisibility between the lighthouse and the Proposed Development. This would be seen over a distance of approximately 950m.

6.53 The lighthouse has an intrinsic relationship with the Thames due to its function. It was used to guide people in along Gravesend Reach travelling towards central London. Views east and particularly important in this regard, although there remains importance looking across the waters to the west too. The Proposed Development would not occlude views between the lighthouse and the waterbody, and would have no impact upon this element of significance. Equally, the particular interest of the lighthouse, as a wrought-iron framed structure, would not be altered. The change to the wider setting of the lighthouse would have no impact upon its significance which will be preserved.

6.54 Under the Tier 1 cumulative assessment, the lighthouse is likely to be enclosed by higher density development in closer proximity, by virtue of the redevelopment of Land At Former Northfleet Cement Works The Shore Northfleet Gravesend Kent DA11 9AN (ref: EDC/16/0004). The proposal would change the setting of the lighthouse, potentially reducing its visual prominence relative to the Thames. The Proposed Development would provide no materially different impact to this change in setting.

7.0 CONCLUSION AND POLICY COMPLIANCE

7.1 This Heritage Statement has been prepared by Montagu Evans LLP, on behalf of the Applicant, in support of an outline planning application submitted to Gravesham Borough Council for the redevelopment of the Site.

7.2 The proposals seek the comprehensive redevelopment of the Site for a mixed-use development that has strong policy support. The aspirations to regenerate the wider area around the Site are set out in the development plan. It is a key strategic objective (SO1) of the Core Strategy to concentrate “development on underused, derelict and previously developed land in the urban area of Gravesend and Northfleet, in particular former industrial sites along the Thames Riverside and in Gravesend town centre”. The Core Strategy identifies a need for more housing, given the housing shortage and growing population. Significant change with the creation of new neighbourhoods along the riverfront is expected. This would entail the transition from predominantly heavy riverside industry to diverse range mix of uses and new, sustainable communities. The new communities will complement the existing residential areas, helping improve public transport and developing new job opportunities.

7.3 The Site itself falls within the Northfleet Embankment and Swanscombe Peninsula East Opportunity Area (SPEOA), identified in the Core Strategy as one of four opportunity areas in Gravesham. The SPEOA comprises several sub-areas. The Site covers the western part of sub-area 1.2 and contains sub-area 1.3 entirely. The Core Strategy states that “*it is anticipated that this area will remain in active employment uses over the plan period. The retention and expansion of industrial and port related employment in this area will be supported*”. Sub-area 1.3 is deemed to have regeneration potential, provided potential contamination issues are addressed and the industrial legacy protected. Existing uses, such as the football ground, need to be integrated into new use concepts.

7.4 The planning policy context for Northfleet is underpinned by its good public transport links, both to Gravesend town centre and London via the Southeastern railway network, including the high-speed connections to St Pancras and Ashford. This provision supports intensification of land uses, including high density residential development.

7.5 Consequently, there is an aspiration for high density development within the Site and which is supported by the development plan. On that basis, the character and appearance of the Site will change.

7.6 This Heritage Statement has considered the impact of the Proposed Development on all above ground built heritage assets within a 1km radius of the Site boundary, plus selected heritage assets at a greater distance that are highly sensitive due to their grading or location. The underlying characteristic of the setting for all heritage assets in the wider area is the topography of the land and, often, the relationship to the Thames.

7.7 The assessment finds that the Proposed Development preserves the significance of all heritage assets in the surrounding area. It would therefore satisfy chapter 16 of the NPPF, the relevant Policy CS20 of the Gravesham Local Plan Core Strategy (2014), and Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990.

7.8 The Statement forms a standalone document, appended to Volume 2 of the ES: Townscape and Visual Impact Assessment. Subsequent to the preparation of the Scoping Repot for the ES, the Applicant and design team prepared a detailed assessment of heritage (contained in this report). The assessment is informed by information not available at the time of preparing the Scoping Report and which was commissioned specifically to understand potential heritage impacts, as well as inform the TVIA. This includes, but is not limited to, the preparation of accurate visual representations, non-verified massing studies and a zone of theoretical visibility.

7.9 The findings equate to no ‘likely significant effects’ in EIA terms, as summarised in the TVIA for completeness.

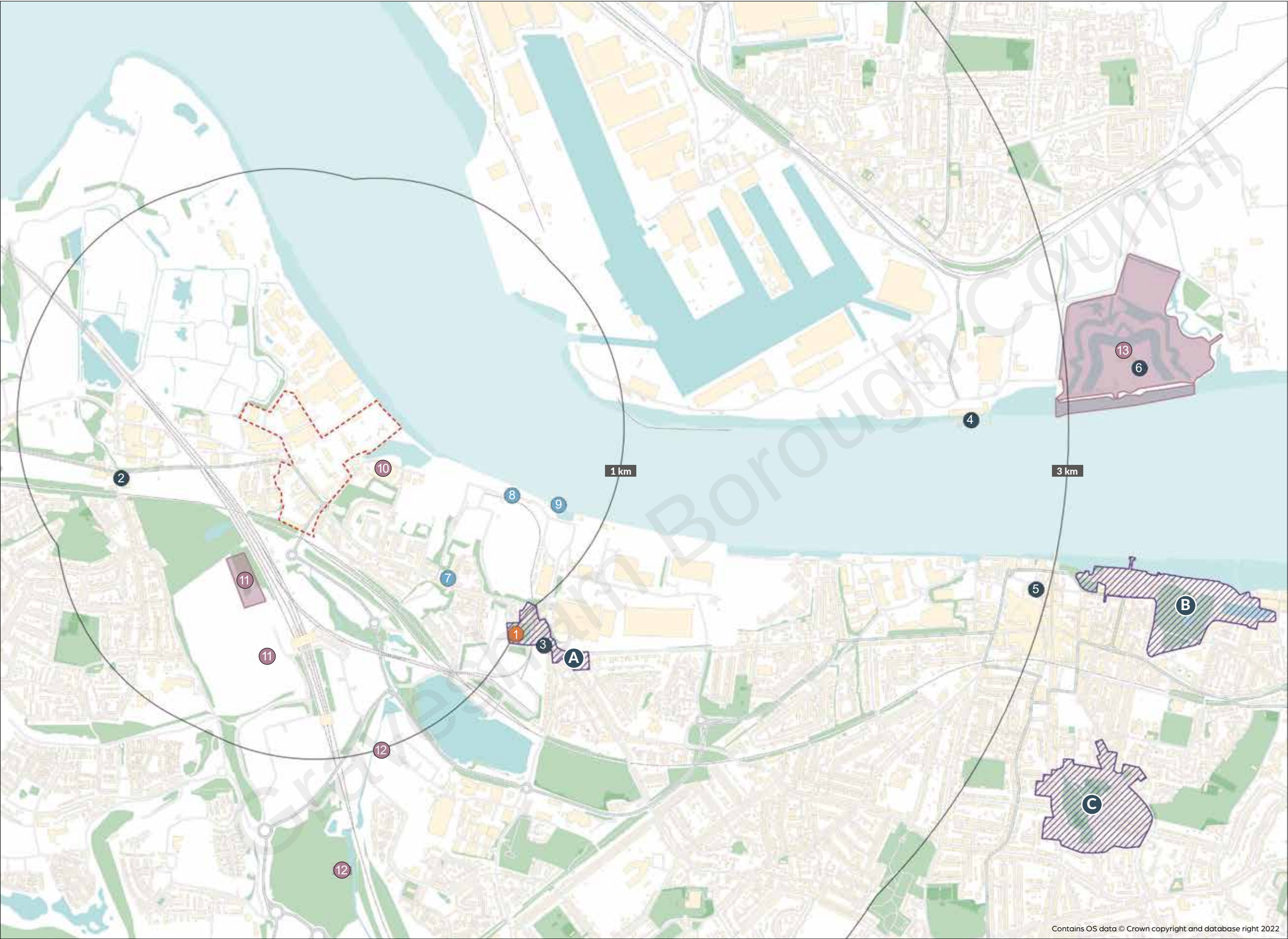
7.10 Paragraph 206 of the NPPF states that Local Authorities should look for opportunities for new development within the setting of heritage assets to enhance or better reveal their significance. Whilst the proximity of the Site from designated heritage assets and/or their nature (such as Aspdin’s kiln) offer limited opportunities to enhance the setting of heritage assets, opportunities to promote and communicate the heritage of the Site are outlined in the submitted Design and Access Statement. These include heritage references within the public art adjoining Northfleet Harbour and Robin’s Creek, and the provision of a heritage trail throughout Riverside Gardens. The application is submitted in outline only, but the Design

Code outlines the principle of these details which may be delivered through future reserved matters. The Design Code states they "must" be delivered, thus providing security of their delivery and allowing them to be considered by the decision maker as part of the Proposed Development. The delivery of these details may also be secured by the Council through a condition upon the application.

APPENDIX 1.0

HERITAGE RECEPTOR PLAN

Gravesham Borough Council



HERITAGE ASSET PLAN

Application Site (indicative)

Conservation Areas

J. The Hill Northfleet CA

Listed Buildings

Grade I

1. Parish Church of St Botolph

Grade II*

- 2. Church of All Saints
- 3. CHURCH OF OUR LADY OF THE ASSUMPTION
- 4. Riverside Station, including floating landing stage
- 5. Church of St George
- 6. Officers Barracks Tilbury Fort

Grade II

- 7. The Factory Club
- 8. Bevan's War Memorial in Northfleet Cement Works
- 9. Northfleet Lower Lighthouse

Scheduled Monuments

- 10. Aspdin's kiln
- 11. Palaeolithic sites near Baker's Hole
- 12. Neolithic sites near Ebbsfleet
- 13. Tilbury Fort

LOCATION:
Northfleet Central

DATE:
September 2022

SCALE:
1:17,500 @ A3

FIGURE:

▲ NORTH



MONTAGU EVANS
CHARTERED SURVEYORS
70 ST MARY AXE,
LONDON, EC3A 8BE
T: +44 (0)20 7493 4002
WWW.MONTAGU-EVANS.CO.UK

APPENDIX 2: VISUALISATION METHODOLOGY

NORTHFLEET HARBOURSIDE

Gravesham Borough Council

Appendix – xx

Accurate Visual Representations – eb7 ltd

method statement

Ax.1

All views in this study have been prepared as an Accurate Visual Representation (AVR), following the broad principles set out in the Guidelines for Landscape and Visual Impact Assessment 3rd edition (GLVIA3) and in particular following technical guidance outlined in Landscape Institute Technical Guidance Note 06/19.

Appendix C of the London View Management Framework: Supplementary Planning Guidance (March 2012) provides useful guidance for large-scale urban development’s outside of Greater London – identifying what it refers to as ‘AVR types’ (0-3).

Appendix C of the London View Management Framework: Supplementary Planning Guidance (March 2012) defines an AVR as

“An AVR is a static or moving image that shows the location of a proposed development as accurately as possible; it may also illustrate the degree to which the development will be visible, its detailed form or the proposed use of materials. An AVR must be prepared following a well-defined and verifiable procedure so that it can be relied upon by assessors to represent fairly the selected visual properties of a proposed development. AVRs are produced by accurately combining images of the proposed building (typically created from a three-dimensional computer model) with a representation of its context; this usually being a photograph, a video sequence, or an image created from a second computer model built from survey data. AVRs can be presented in a number of different ways, as either still or moving images, in a variety of digital or printed formats”.

Ax.2

The baseline condition will be defined by full frame digital photography and in this study will adhere to certain key principles including:

- be sufficiently up to date to reflect the current baseline situation;
- include the extent of the site and sufficient context – Field of view;
- be presented at a size and relative position, on a corresponding sheet, to allow like-for-like comparison with the visualisation;

- be based on good quality imagery, secured in good, clear weather conditions wherever reasonably possible
- avoid foreground clutter

The proposed condition is defined by accurate photomontage visualisations, these are a combination of computer-generated imagery and photographic context. Proposed visualisations should provide a fair representation of what would be likely to be seen if the proposed development is implemented.

Ax.3

Field of View (FoV)

Lens / camera combinations result in images which capture a Field of View (FoV). The Horizontal Field of View (HFoV) is the angle between the left and right edges of the image. The Vertical Field of View (VFoV) is the angle between the top and bottom of the image.

The proposal under consideration and its relevant landscape context will determine the FoV (horizontal and vertical) required for photography and photomontage from any given viewpoint. This will, in turn, determine whether a telephoto, standard, wide-angle lens is used.

Base photography is carried out with a Full Frame Sensor (FFS) camera and 50mm Focal Length prime lens, unless there are exceptional conditions where wider-angle lenses are required to fully capture the scene.

If a 50mm FL lens cannot capture the view in landscape or portrait orientation (for example, if the highest point of the development is approaching 18° above horizontal) the use of wider-angled prime lenses will be considered, working through the following sequence of fixed lenses in this order: 35mm FL > 28mm FL > 24mm FL > 24mm FL Tilt-Shift.

Lens	Angle
50mm	39.6° HFoV
35mm	54.4° HFoV
28mm	65.5° HFoV
24mm	73.7° HFoV

Ax.4

Visualisation Types

LI TGN 06/19 introduces visualisation types 1 – 4.

Type 1	Annotated Viewpoint Photograph
Type 2	3D Wireline / Model
Type 3	Photomontage / Photowire
Type 4	Photomontage /Photowire / Scale Verifiable

Ax.5

Classification of AVR’s

AVR’s are defined by four main classification types, this classification is a cumulative scale in which each level incorporates all the properties of the previous level.

AVR Level 0	Location and size of proposal
AVR Level 1	Location, size, and degree of visibility of proposal
AVR Level 2	As level 1 + description of Architectural form
AVR Level 3	As level 2 + use of materials

eb7 create Type 2, 3 and Type 4 visualisations for the majority of projects, these being 3D modelled context, photomontage and scale verifiable views. Each visualisation type is further specified to an appropriate AVR level.

e.g. Type 4 visualisation (scale verifiable) | AVR Level 3 (Photoreal)

Ax.6

Common requirements

Photomontage | AVR Level 3

A digital photomontage consists of a base photograph composited digitally with a computer-generated image of the proposal under consideration.

AVR level 3 is a fully rendered photomontage, usually photo-realistic with texture, shading and reflections that represent the proposed development under the lighting conditions found in the photograph.

The compositing process will typically include digitally blending the base photography with the computer-generated image, taking into account any masking by foreground features.

Photowire | AVR Level 1

A visual presentation which is an overlay of wireline upon the photograph is known as a photowire.

A photowire does not replace a photomontage where rendered texture and detail is required, but is sufficient to indicate the scale and placement of the proposed development. Where the site cannot be seen from a viewpoint, a photowire could indicate the site’s relative size and location within the view.

In AVR Level 1 the proposed development is represented by a single line profile, sometimes key edges are displayed to help understand the massing.

The thickness of the profile line is selected to ensure the diagram is clear, the stroke of the line will be drawn inside the building profile. An appropriate line colour is chosen to contrast the background.

In cumulative view images different line colours will be used to differentiate between schemes or proposed and consented developments.



Ax.7

Framing | Capturing the View

The general requirement is to capture enough of the scene to represent the landscape / townscape setting and the likely visibility of the proposal. Where a single image can capture an appropriate HFoV, the view should be aligned to the centre of the development.

Generally, AVR images are composed with the camera looking horizontally, giving the maximum horizontal field of view.

In some cases, a tilt shift lens will be used. The 24mm Tilt shift lens is increasingly being used for architectural photography in urban locations. The shift function allows for the lens to be offset vertically or horizontally so that the axis of the lens remains perpendicular to the plane of the sensor but no longer passes through its centre point. This allows the lens to capture the full extent of the proposed development, whilst avoiding converging verticals.

Horizontal shift and the tilt function will not be used.

Images that use the shift function will be stated as such and presented with clear markings on the image to identify the point of perspective.

Portrait photography may be used if the result is that the proposal is wholly visible in the AVR and will not exclude any relevant existing buildings.

In circumstances where the proposed development would extend off the top of the photograph, the image may be extended vertically to ensure that the whole height of the proposal is shown. Images will only be extended where the addition of sky is required and not any existing built structures.

Ax.8

AVR Annotation

Visualisation type 4 | Photomontage /Photowire / Scale Verifiable images will be annotated with border markings.

Red arrows indicate the vertical and horizontal points of perspective (optical axis) whilst ‘graticule’ markings will represent the horizontal and vertical fields of view.

Methodology for production

Ax.8

Overview

The methodology applied by eb7 limited to produce the verified views or images contained within this document is described below.

Our methodology for creating Verified views is compliant with the relevant sections of Guidelines for Landscape and Visual Impact Assessment 3rd edition (GLVIA3) and in particular following technical guidance outlined in Landscape Institute Technical Guidance Note 06/19 and The London View Management Framework SPG (March 2012): Appendix C.

The number of representative viewpoints and their locations are defined by the project team. Typically, a location plan is supplied and a brief outlining the visualisation type | AVR level required for each viewpoint.

At each location, a digital representation of the view is produced using an accurate base 3D context model. Preliminary views are produced by eb7 and distributed to the project team for approval. The digital representations mimic the real-world camera settings (Location, Focal Length, HFoV and Shift).

Ax.9

Photographic Context

The agreed viewpoint locations are visited by our photographer, they ensure that the camera is tripod mounted and levelled. Images are captured at an approximate height of 1.6m.

The camera specification, lens focal length and direction of view are recorded. The photographer will note the date, time, weather and lighting conditions. All efforts will be made to capture excellent quality imagery secured in good, clear weather conditions wherever possible.

A unique reference is assigned to each viewpoint location.

eb7 use an array of prime and tilt-shift lenses ensuring optimum image quality at capture.

The centre point of the tripod is located using a plumb line, the photographer marks this point on the ground. A supplementary reference photograph is taken showing the camera and tripod in situ, allowing for a surveyor to return to its location.

Digital Camera

Eb7 use a Sony a7Riii full frame high resolution digital camera for the digital photography.

Ax.10

Survey of viewpoint locations

For each visualisation type 4 viewpoint location an information pack is supplied to an appointed survey team. This includes a high-resolution copy of the chosen captured backplate photograph, viewpoint reference imagery and location map.

The survey team undertake the survey of each viewpoint and camera location. Surveys are co-ordinated onto the Ordnance Survey National Grid (OSGB36) by using Global positioning system (GPS) equipment and processing software.

The Ordnance Survey National Grid was chosen as it is the national co-ordinate system used within the United Kingdom and allows for the captured data to be incorporated into other digital products such as Ordnance Survey Master Map.

Between 10 and 20 clearly defined fixed control points are chosen that are visible within the reconnaissance photo. These are then surveyed and marked clearly and annotated with descriptions of their location on the reconnaissance photo. The chosen points must be fixed and permanent and should cover a wide and even spread of points within the photo.

Surveyed points are provided to eb7 in the form of a 3D AutoCAD file and excel spreadsheet outlining target positions and camera locations.



Ax.11

Image post processing and correction

Photographs are captured in a RAW format at the maximum resolution and quality that the camera allows. RAW formats store the contents of the sensor unaltered hence 'raw' together with a series of parameters recording the camera's current settings. Thus, post-processing stages, such as white balance and sharpening, are recorded as parameters but not actually applied to the image.

When capturing the images, a series of 3 bracketed images were taken. With 0EV as the middle exposure two images were taken at -1EV AND +1EV. Images were post processed using Adobe Lightroom where the 3 bracketed images were combined to create an HDR (High dynamic range) image which was output as a .TIFF image file.

Image Correction

The HDR images are then colour corrected and adjustments made to exposure levels ensuring optimum image clarity.

Despite advances in digital photography and the use of the most advanced photographic equipment circular lenses will always result in a degree of distortion on the perimeter of images. Therefore, the outer edges of an image are not taken into consideration, thus eliminating the risk of inaccuracy. The adjusted or corrected image, known as the backplate is now saved ready for use within the camera matching phase of our flowline.

Ax.12

3D modelling of proposed development

A CAD 3D model of the proposed development is modelled from drawings and plans supplied by the Architect. The level of detail in the model is determined by the visualisation type and AVR level required in the final images.

The 3D model of the proposed development is positioned to OSGB co-ordinates using reference information supplied by the architect. Renders of the model are supplied back to the Architect so that model accuracy and position, including plan and AOD height can be checked and confirmed.





Ax.13

Modelling of consented schemes

Consented schemes to be included in cumulative assessments are modelled from a variety of sources. The majority of information used is from pdf copies of submitted planning applications. Eb7 will endeavour to model these schemes as accurately as possible and ensure that they are positioned correctly in plan and AOD.

Ax.14

Camera matching

The camera matching process is designed to ensure that the 3D computer generated model sits accurately relative to the photograph. The virtual camera's position, bearing and focal length within the 3D computer space accurately matches the equivalent real-world parameters used on the day of the photographic shoot.

As all these positions are relative to the proposed 3D model of the scheme, a rendered image can be created and accurately superimposed over the digital photograph.

To accurately position the virtual camera in the scene, the following data is required:

- The 3D model of the proposed scheme
- 3D co-ordinates from the surveyor of the viewpoint marker point(s) relative to OSGB co-ordinate system and AOD (Above Ordnance Datum)
- 3D co-ordinates from the surveyor of several key fixed points of buildings visible within the photograph relative to OSGB co-ordinate system and AOD
- Photographic information of the camera's focal length and sensor size.
- The height of the camera AOD.
- The digitally corrected background photographic image.

Use of eb7's extensive 3D context model library can further ensure the accuracy of the camera match, by checking that existing buildings match the image backplate.

The following steps cover most of the processes involved in camera matching.

- The 3D model of the proposed development is opened within the 3D software.
- The digitally corrected photographic backplate image is opened within the 3D software and added as a background within the software's viewport.
- The dimensions of the backplate image are input into the software render settings.
- All 3D points captured by the surveyor are imported into the 3D software relative to the proposed 3D model or OSGB.
- A virtual camera is placed exactly at the recorded location of the real-world camera.
- The virtual camera is raised in the vertical axis to match the height from the backplate image was captured above ground (approx. 1.6m)
- The real-world camera information (focal length and sensor size) are inputted into the virtual camera's parameters
- Fine adjustments are made so that all the key fixed points align with their equivalent points on the background photographic image.

All viewpoint matches are quality checked by a senior member of the visualisation team.

Ax.15

Creating simple renderings AVR Level 1

For representative viewpoints where the proposed development is to be visualised at AVR level 1 simple renders of the proposed massing are produced. Using these render masks outlines of the proposal are created and overlaid onto the camera matched backplate photography.

The style and colour palette of these visualisations are agreed with the design team. This includes stroke colour and the addition of opaque fills to show visible and occluded areas.

Ax.16

Creating photoreal renderings AVR Level 3

For representative viewpoints where the proposed development is to be visualised at AVR level 3 a more complex rendering approach is required.

The first step is to apply material finishes and textures to the 3D model of the proposed development. Material specifications are taken from technical documents supplied by the architect. All due care and attention is applied to the texturing process, a single 3D model is used for all views – near and far ensuring material consistency throughout the study.

For each view lighting is set to replicate the daylight conditions of the backplate photograph. Render engines can create daylight systems where geographical location, time of day and weather conditions can be accurately set.

Once correctly lit the virtual camera settings can be matched to the real-world camera settings and the model can be rendered.

Ax.17

Post processing

The final rendered image of the proposed scheme is overlaid and positioned correctly against the captured image backplate. Eb7 use Adobe Photoshop to edit the final images, typically layers and masks are used to make sure the proposed scheme sits correctly within its context.

Ax.18

Presentation of the study

For each representative viewpoint a location plan is created from map data. Using coordinates supplied by the surveyor the camera location and bearing is plotted onto the map.

Existing and proposed images are presented side by side for comparison. Supplemental descriptive information and the location map is displayed along with the visualisation type, AVR level and any additional information.

The proposed view is presented at a size of 390 x 260mm on an A3 sheet. The image is annotated with border markings indicating the 'optical axis' and FoV graticules.

Information regarding image shift or cropping may be displayed.

Additional cumulative views may be presented showing the proposed development in the context of other proposed and consented schemes.

Process – LiDAR Images

Ax.19

The base LiDAR data

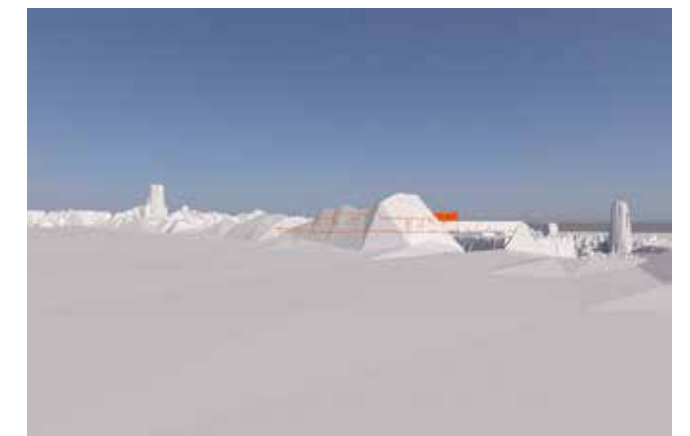
LiDAR data was purchased from Bluesky at 1m resolution covering an area of approximately 30sqkm. The xyz data is processed using Key terra firma software and output as a TIN mesh.

Ax.20

3D model of the proposed development

A CAD 3D model of the proposed development was supplied by the Architect.

The 3D model of the proposed development is positioned to OSGB co-ordinates. Renders of the model are supplied back to the Architect so that model accuracy and position, including plan and AOD height can be checked and confirmed.



Ax.21

Rendering

The TIN mesh is imported into our 3D rendering software georeferenced to OSGB co-ordinates. Camera's locations were supplied by Montague Evans.

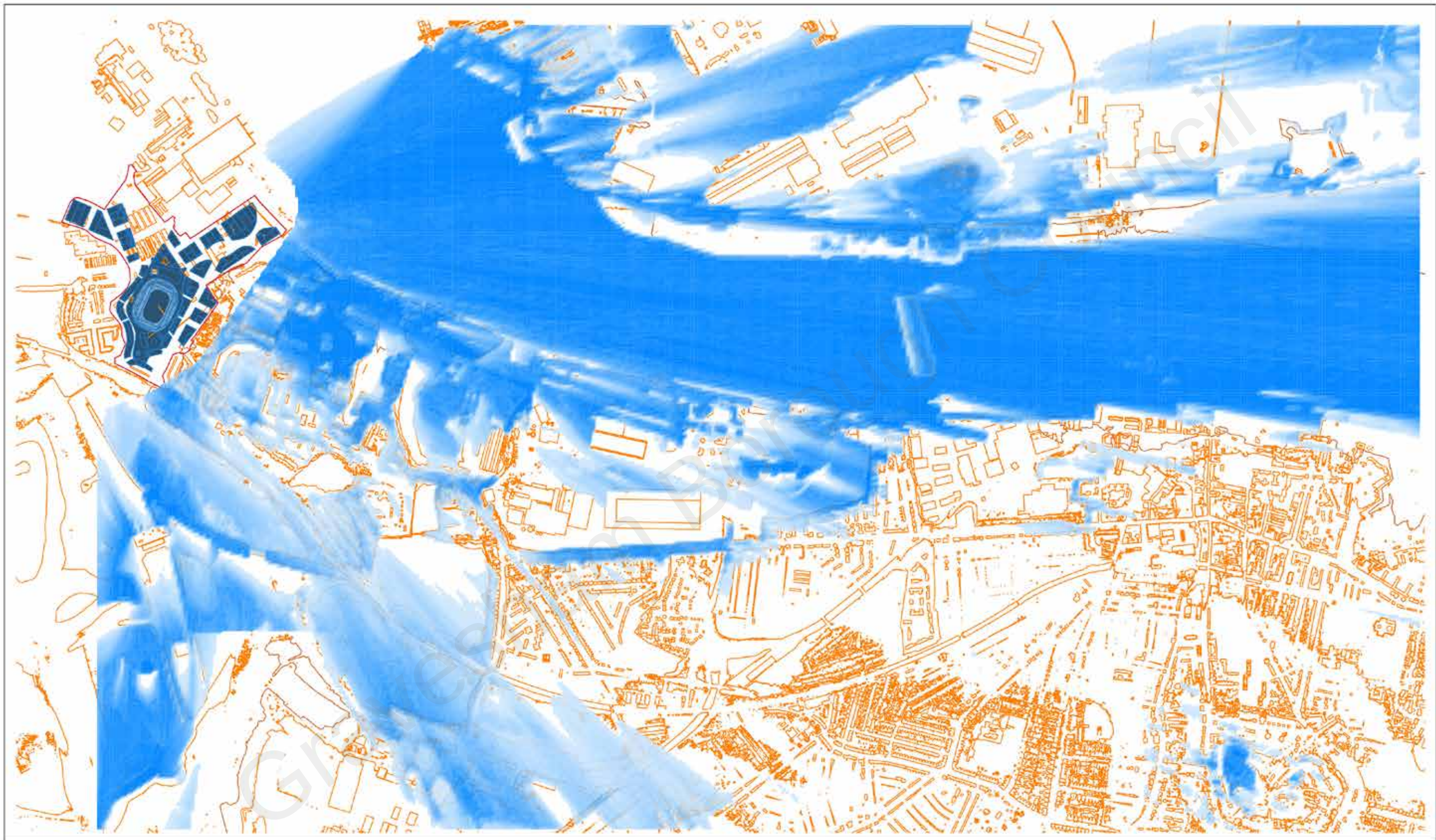
A daylight system is created. Virtual cameras are placed into the scene at a height of 1.6m.

A simple material palette is applied to the context model and proposed scheme.

APPENDIX 3: ZONE OF THEORETICAL VISIBILITY (ZTV) PREPARED BY EB7

NORTHFLEET HARBOURSIDE

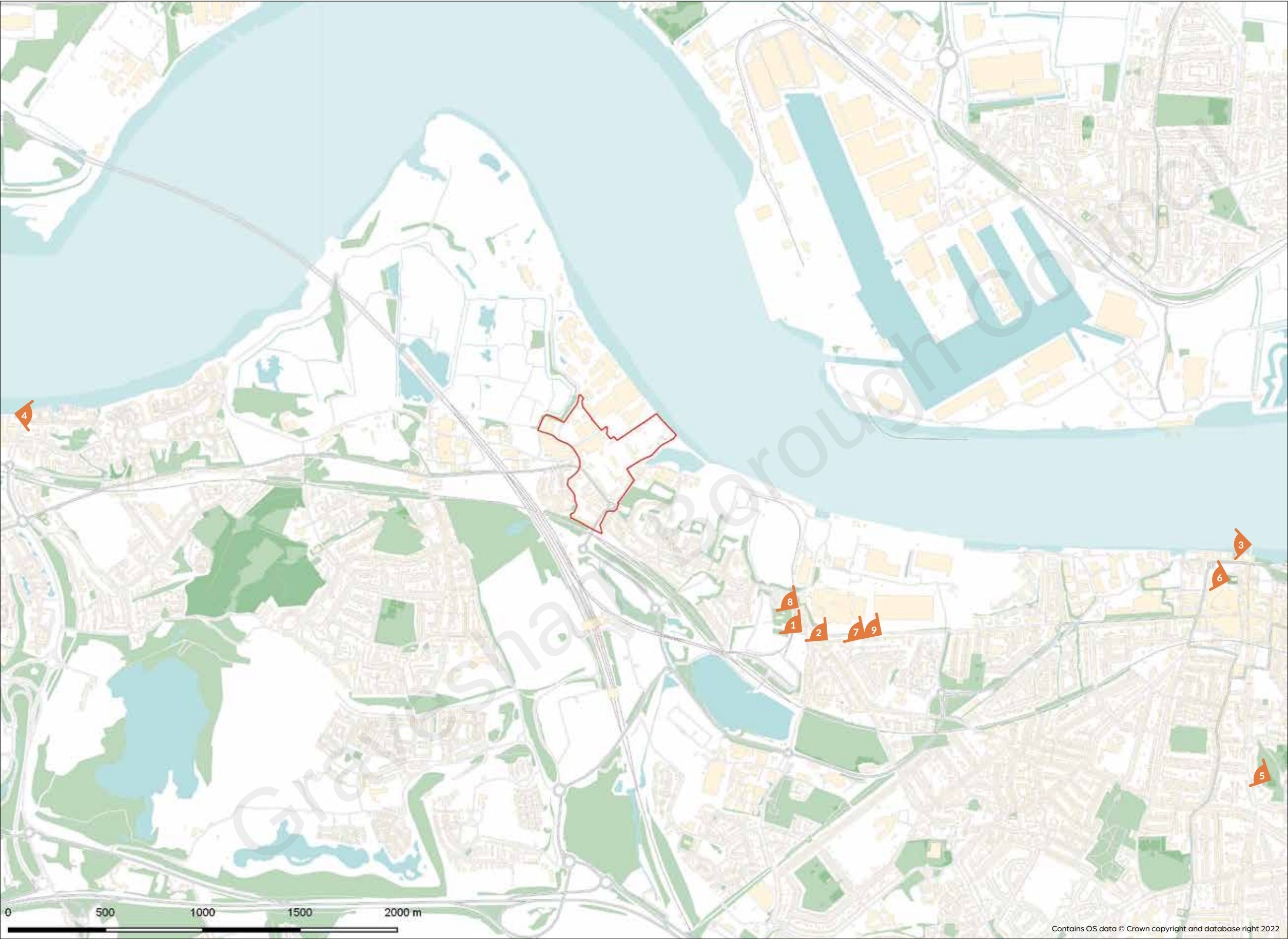
Gravesham Borough Council



APPENDIX 4: NON-VERIFIED MASSING STUDIES PREPARED BY EB7

NORTHFLEET HARBOURSIDE

Gravesham Borough Council



**NON-VERIFIED VIEW
LOCATION PLAN**

- Application Site
1. To confirm
 2. To confirm
 3. Gravesend Promenade
 4. River Frontage by Greenhithe
 5. Windmill Hill Gravesend
 6. The Terrace looking towards St George Church
 7. B2175 east of Dover Road
 8. High Street at Granby Road
 9. To confirm

LOCATION:
Northfleet Central

DATE:
September 2022

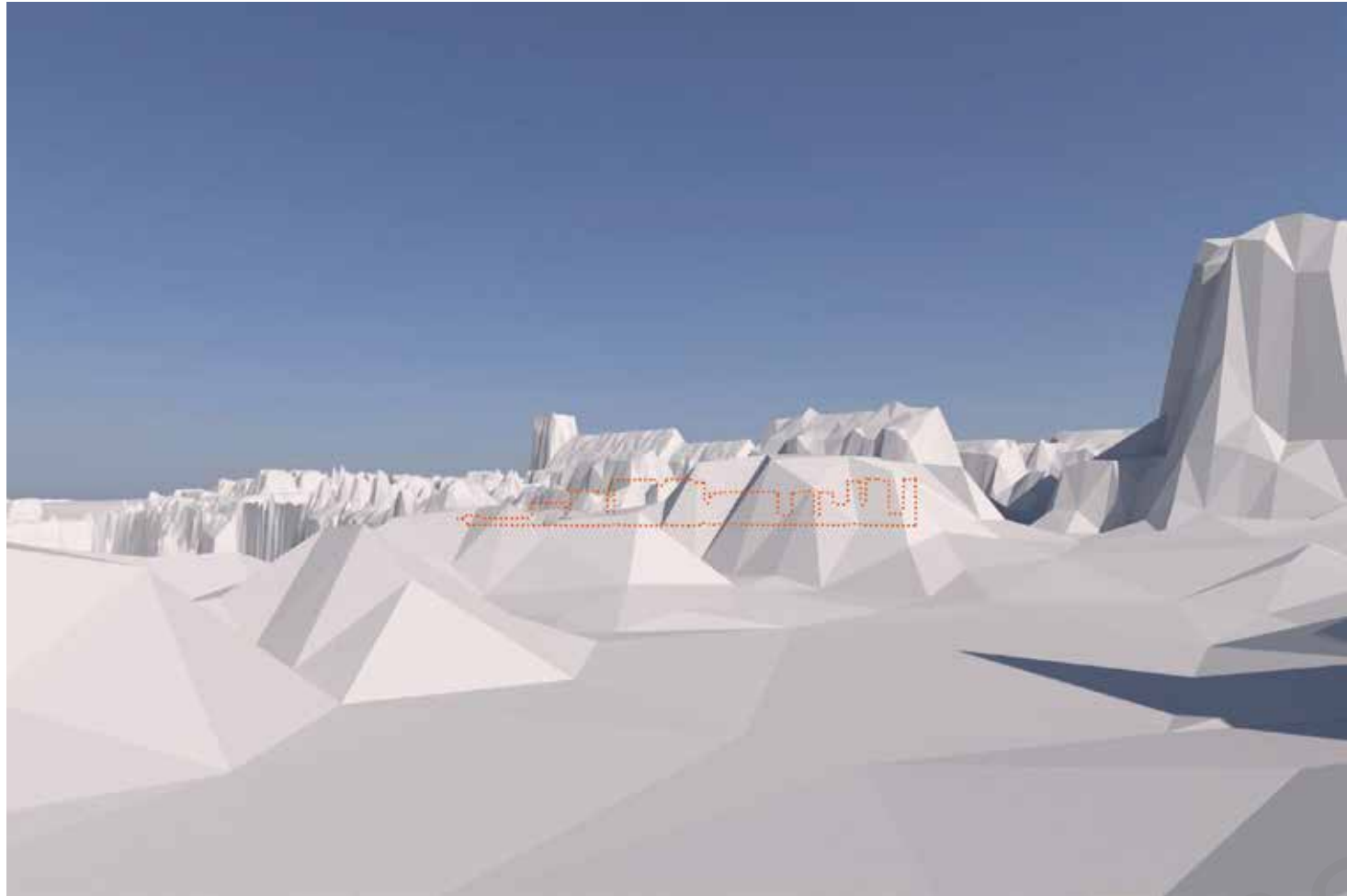
SCALE:
1:12,500 @ A3

FIGURE:

▲ NORTH



MONTAGU EVANS
CHARTERED SURVEYORS
70 ST MARY AXE,
LONDON, EC3A 8BE
T: +44 (0)20 7493 4002
WWW.MONTAGU-EVANS.CO.UK



Viewpoint 1 To confirm

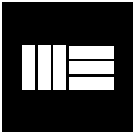


Viewpoint 2 To confirm

Northfleet Central

Lidar Images (cross-reference to Non-Verified View Location Plan)

September 2022



MONTAGU EVANS
CHARTERED SURVEYORS
70 ST MARY AXE,
LONDON, EC3A 8BE
T: +44 (0)20 7493 4002
WWW.MONTAGU-EVANS.CO.UK



Viewpoint 3 Gravesend Promenade

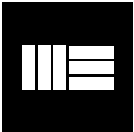


Viewpoint 4 River Frontage by Greenhithe

Northfleet Central

Lidar Images (cross-reference to Non-Verified View Location Plan)

September 2022



MONTAGU EVANS
CHARTERED SURVEYORS
70 ST MARY AXE,
LONDON, EC3A 8BE
T: +44 (0)20 7493 4002
WWW.MONTAGU-EVANS.CO.UK



Viewpoint 5 Windmill Hill Gravesend

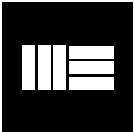


Viewpoint 6 The Terrace looking towards St George Church

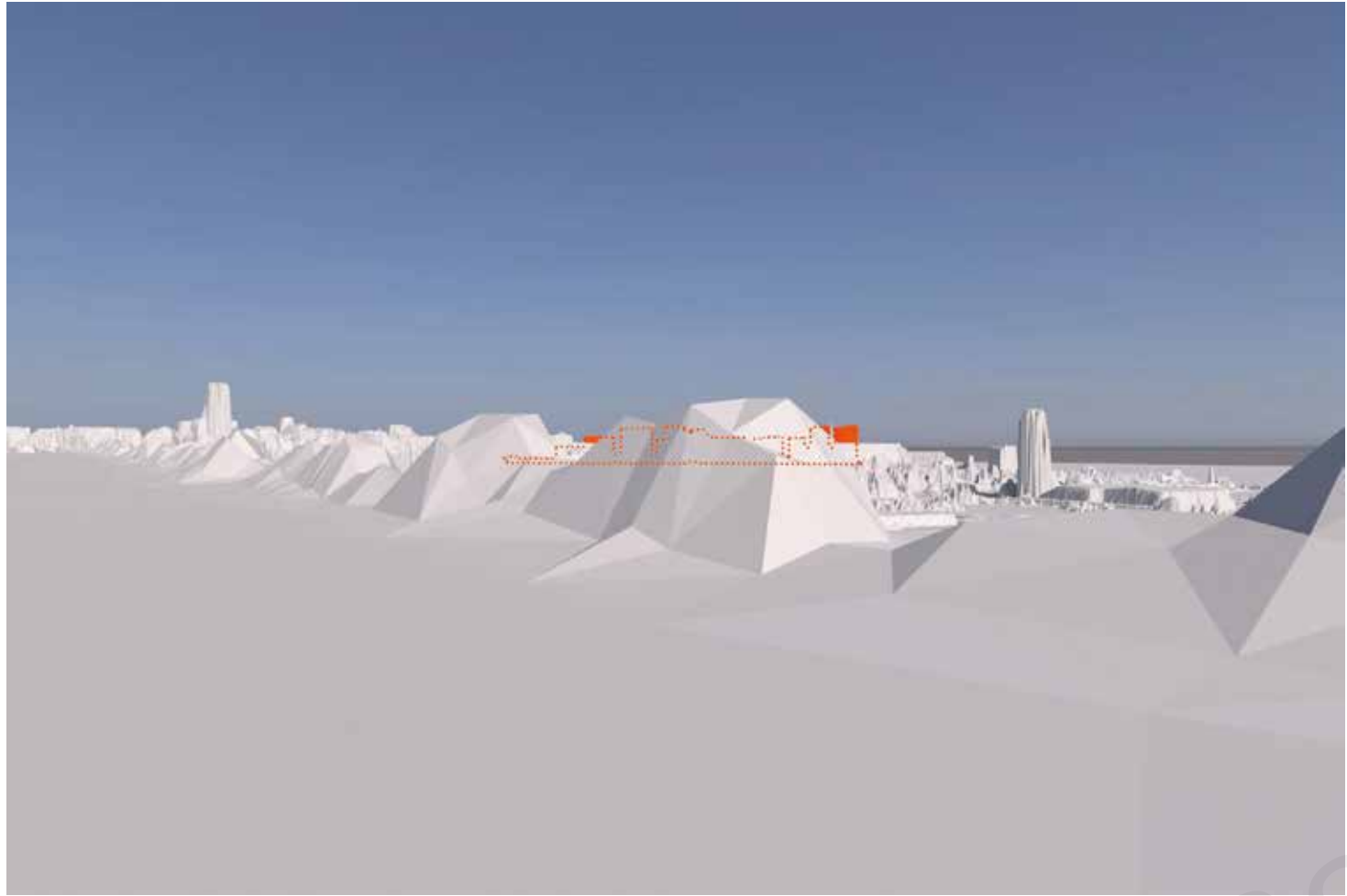
Northfleet Central

Lidar Images (cross-reference to Non-Verified View Location Plan)

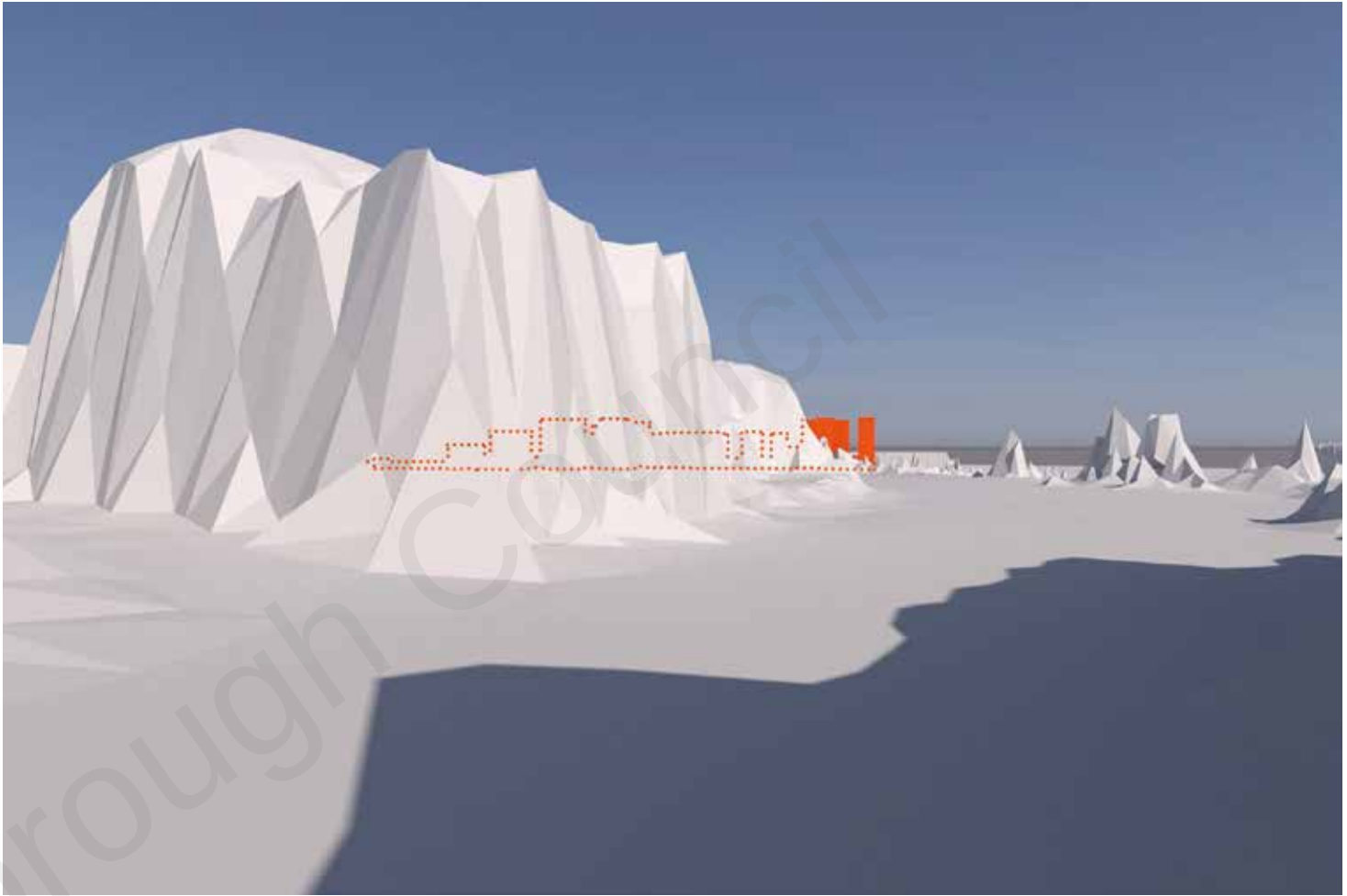
September 2022



MONTAGU EVANS
CHARTERED SURVEYORS
70 ST MARY AXE,
LONDON, EC3A 8BE
T: +44 (0)20 7493 4002
WWW.MONTAGU-EVANS.CO.UK



Viewpoint 7 B2175 east of Dover Road

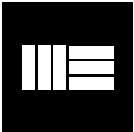


Viewpoint 8 High Street at Granby Road

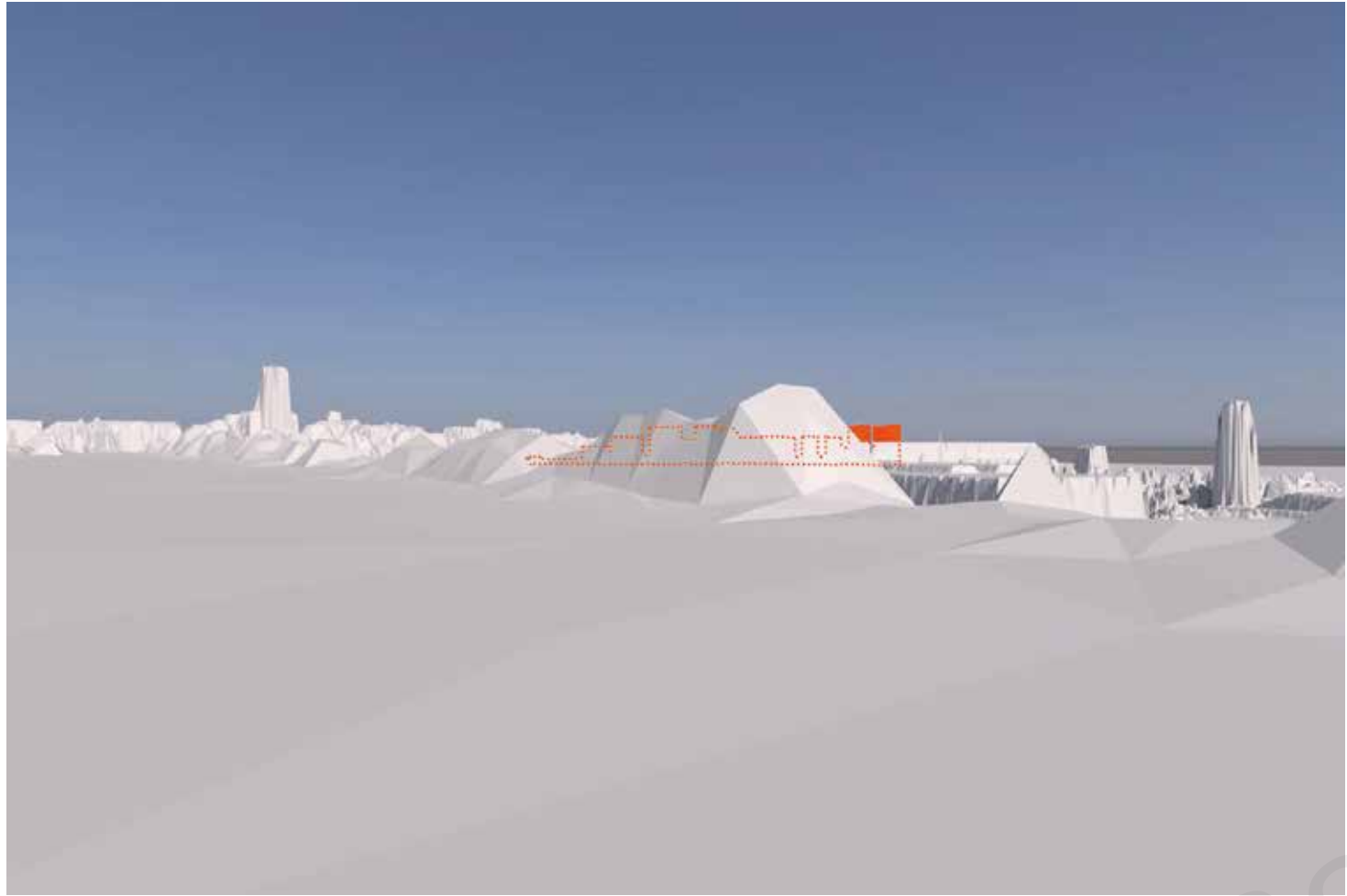
Northfleet Central

Lidar Images (cross-reference to Non-Verified View Location Plan)

September 2022



MONTAGU EVANS
CHARTERED SURVEYORS
70 ST MARY AXE,
LONDON, EC3A 8BE
T: +44 (0)20 7493 4002
WWW.MONTAGU-EVANS.CO.UK

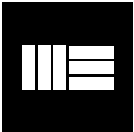


Viewpoint 9 To confirm

Northfleet Central

Lidar Images (cross-reference to Non-Verified View Location Plan)

September 2022

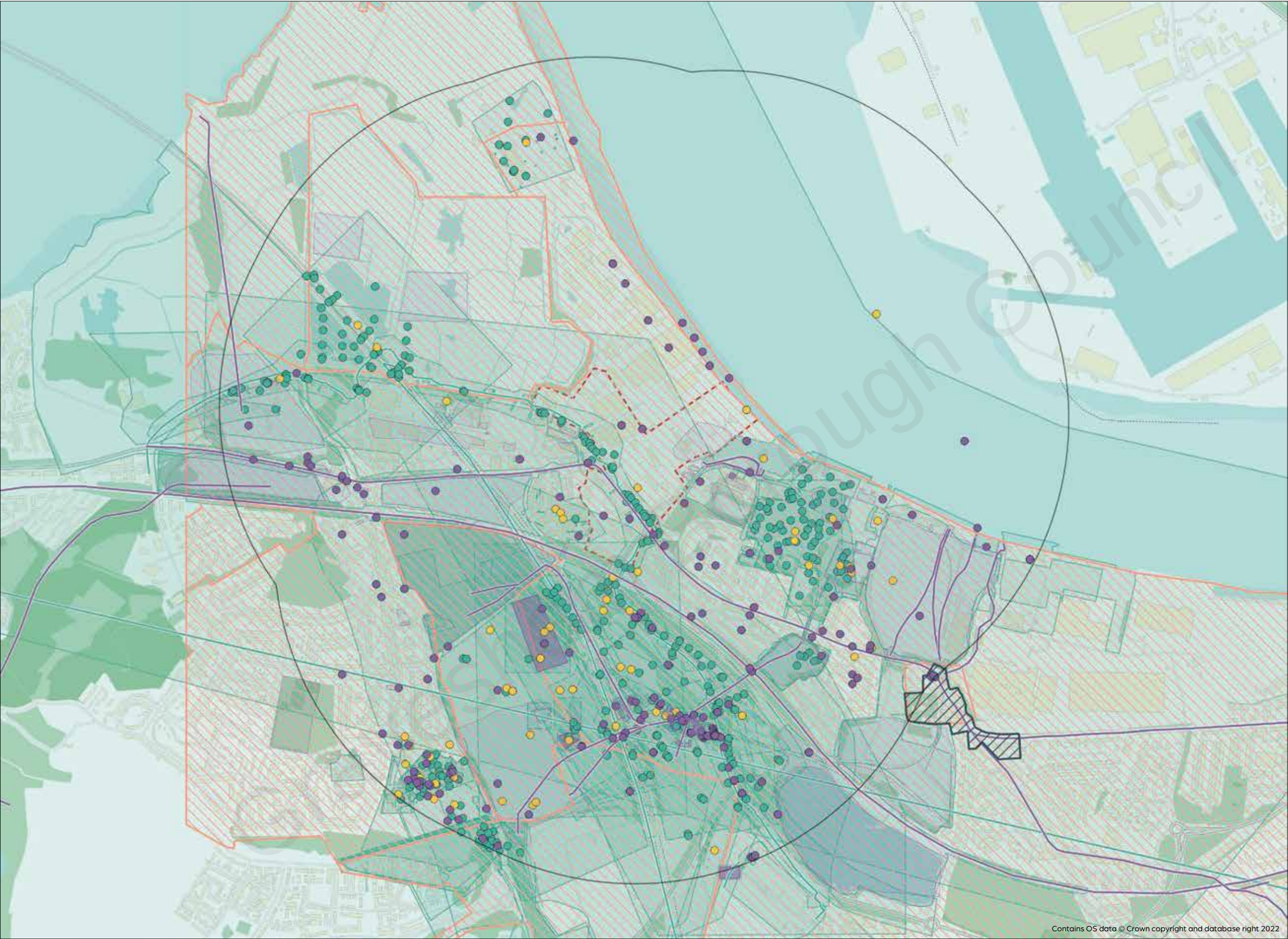


MONTAGU EVANS
CHARTERED SURVEYORS
70 ST MARY AXE,
LONDON, EC3A 8BE
T: +44 (0)20 7493 4002
WWW.MONTAGU-EVANS.CO.UK

APPENDIX 5: HISTORIC ENVIRONMENT RECORD

NORTHFLEET HARBOURSIDE

Gravesham Borough Council



HER SEARCH

Application Site (indicative)

CA 2020

Monuments

Polygon

Point

Line

HC Reports

Point

Event

Polygon

Point

Line

Design SAM

Polygon

HLTypes

Polygon

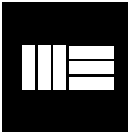
LOCATION:
Northfleet Central

DATE:
September 2022

SCALE:
1:12,500 @ A3

FIGURE:

▲ NORTH



MONTAGU EVANS
CHARTERED SURVEYORS
70 ST MARY AXE,
LONDON, EC3A 8BE
T: +44 (0)20 7493 4002
WWW.MONTAGU-EVANS.CO.UK

APPENDIX 6: CORRESPONDENCE WITH GRAVESHAM COUNCIL CONFIRMING ADDITIONAL VIEWS

NORTHFLEET HARBOURSIDE

Gravesham Borough Council

From: Ghani, Shazad <shazad.ghani@gravesham.gov.uk>

Sent: 26 July 2022 10:22

To: Polly Mason <polly.mason@montagu-evans.co.uk>; Lane, Wendy <wendy.lane@gravesham.gov.uk>

Cc: Jon Bradburn <jon.bradburn@montagu-evans.co.uk>

Subject: RE: Northfleet Harbourside - Catch Up 13 July 12pm

Morning Polly,

Please find attached, we would recommend adding the following additional viewpoints:

1. From tilbury fort
2. From the River by Gravesend
3. From the River by Greenhithe/Swanscombe
4. Lower Road / Stonbridge Road junction by the cottages
5. Bottom of Stonebridge Road
6. Top floor of Wallis Park

The number above should correlate to points on the map.

Kind regards,
Shazad

Shazad Ghani *MPhil, MA, BA (Hons)*
Service Manager (Planning)
Gravesham Borough Council
Tel: 01474 337483
E-mail: shazad.ghani@gravesham.gov.uk

Gravesham Borough Council - *Delivering a Gravesham to be proud of*

INVESTORS IN PEOPLE®
We invest in people Gold

MONTAGU EVANS

**70 ST MARY AXE,
LONDON, EC3A 8BE**

TEL: +44 (0)20 7493 4002



WWW.MONTAGU-EVANS.CO.UK

LONDON | EDINBURGH | GLASGOW | MANCHESTER