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#### **Waterman Infrastructure & Environment Limited**

Pickfords Wharf, Clink Street, London, SE1 9DG www.watermangroup.com

## Former Stag Brewery, Mortlake

## **Environmental Statement - Statement of Conformity**

**Date:** 28<sup>th</sup> April 2023

Client Name: Reselton Properties Limited

**Document Reference:** WIE18671-114-TN-1-1-3-SoC

This document has been prepared and checked in accordance with

Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Issue Prepared by Checked & Approved by

Ellen Smith Ros Boalch
Principal Consultant Associate Director

**Non-technical Summary** 

In March 2022, the Applicant submitted a hybrid planning application (planning ref: 22/0900/OUT) and detailed planning application school (planning ref: 22/0902/FUL) for redevelopment of the former Stag Brewery, Mortlake, in the London Borough of Richmond upon Thames (LBRuT). These two linked planning applications were accompanied by an Environmental Impact Assessment (EIA), with the findings presented in an Environmental Statement (ES), prepared by Waterman IE, dated March 2022 (hereafter referred to as the 'March 2022 ES' in this Non-technical Summary).

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The Development would provide residential, flexible use, office, cinema, hotel / pub, and community uses, and a new secondary school.

Following the submission of the two planning applications in March 2022, the Applicant received statutory consultee comments. The Applicant sought to respond to statutory consultee comments which necessitated some minor scheme changes to the hybrid planning application in August 2022. The proposed amendments included a reduction in 14 residential units (to up to 1,071) and minor reduction in office (79 sqm GIA) and flexible use (55 sqm GIA) at the ground floor. Two buildings (B01- the cinema and B10) were reduced by one storey each, and another building (B02) facing the riverside underwent further development of the proposed architectural treatment. Some minor changes were also made to the drainage, landscape, fire, waste, energy and lighting strategies. Accordingly, an ES Statement of Conformity (ES SoC) was prepared (document ref: WIE18671-114-R.220804.ES SoC) to demonstrate the findings that no significant environmental effects would arise from the proposed amendments made in August 2022.

In September 2022, a further ES Soc was prepared (document ref: WIE18671-114-R.220916.ES SoC) with the results of the additional bat, peregrine falcon, and breeding bird surveys undertaken in the period of June to August 2022. To reflect the new information, a replacement ES Chapter 13:



Ecology and ES Appendix 13.3: Supplementary Protected Species Survey was prepared to report the findings of the supplementary protected species surveys undertaken in June to August 2022. Following further assessment, it was concluded that the findings of the March 2022 ES (as amended by the August 2022 ES SoC) remained unchanged as a result of the further protected species surveys (other than the change in geographical value for foraging and commuting bats).

Since submission of the August 2022 and September 2022 ES SoCs, further amendments are proposed in light of comments received from the LBRuT on the revised Design Code and from further discussions with LBRuT's Housing Department. The revisions to the Design Code have led to the adjacent ends of the two terrace buildings (Blocks 20 and 21) stepping down from three storeys to two storeys, resulting in a minor reduction by one habitable room in two units within these blocks and reduction in residential floorspace by -111 sqm Gross Internal Area (GIA) compared to the August 2022 Amendments. Following further discussions with LBRuT's Housing Department, changes are also proposed to the affordable housing unit mix provision by using an 80:20 split between social rent and intermediate units in Blocks 18 and 19, resulting in an overall increase in the provision of family-sized dwellings (3 to 4-bed units) and an overall reduction in 3 residential units and provision of affordable housing compared to the August 2022 amendments.

The March 2022 ES (as amended) has been reviewed in light of the latest proposed amendments to the Development. On the basis of the review and following further assessment, it has been concluded that the findings of the EIA presented in the March 2022 ES (as amended) in support of both the hybrid planning application (22/0900/OUT) and detailed application school (22/0902/FUL) are unchanged when the proposed modifications to the Development are considered. As such, this ES SoC has been prepared to demonstrate the findings that no significant environmental effects arise from the proposed amendments to the two planning applications.

This ES SoC also summarises clarifications and updates that have been made to the following assessments of the March 2022 ES:

- Transport Assessment Addendum (document ref: 38262/5504 TN053, April 2023);
- Noise Impact Assessment on Play spaces (document ref: WIE18671-114-TN-230420\_PlaySpaceNoise, April 2023);
- ES Appendix 10.4: Air Quality Positive Assessment (AQPS) (document ref: WIE18671-R-15-4-2-AQPS, March 2023);
- Flood Risk Assessment Addendum for the Exception Test (document ref: 512/SP02/ADDENDUM, April 2023);
- ES Appendix 12.2: Drainage Strategy (document ref: WIE18671-104-R-11-7-1-DS, April 2023);
   and
- ES Appendix 13.5: Biodiversity Net Gain (BNG) Assessment (document refs: WIE18671-114-TN-20-4-1-BNG App A, March 2023 & WIE18671-114-TN-21-4-1-BNG App B, March 2023).

Updated supplementary environmental information outside of the EIA have also been prepared following consultee comments from LBRuT, including the Arboricultural Impact Assessment, Basement Impact Assessment and daylight and sunlight assessment clarifications. This information is also summarised in the ES SoC and it is confirmed that these updated documents and clarifications within and outside of the EIA do not alter the conclusions of the March 2022 ES (as amended).



#### 1. Introduction

- 1.1. This Environmental Statement (ES) Statement of Conformity (SoC) has been prepared to support the Applicant's amendment to the affordable housing unit mix provision and proposed minor amendments to the design of the Hybrid Planning Application (22/0900/OUT) at the Former Stag Brewery in Mortlake. These amendments are proposed in light of comments received from the London Borough of Richmond upon Thames (LBRuT) on the revised Design Code and from further discussions with LBRuT's Housing Department. Other than the addition of photovoltaics (PVs) on the school roof, no amendments are proposed to the school application (22/0902/FUL).
- 1.2. On account of the proposed amendments, Waterman Infrastructure & Environment Limited (hereafter Waterman) has reviewed the March 2022 Environmental Statement (ES), as amended by the August 2022 and September 2022 ES Statement of Conformities (ES SoC), hereafter referred to the 'March 2022 ES (as amended)'. The March 2022 ES (as amended) should be read in conjunction with this ES SoC. The EIA considers the likely significant environmental effects of the Development comprising the two applications as a whole.
- 1.3. This ES SoC also summarises clarifications and updates that have been made to the appendices of the March 2022 ES (refer to **Table 1**) as well as standalone environmental planning documents that informed the March 2022 ES (refer to **Table 2**) since submission of the August 2022 ES SoC (document ref: WIE18671-114-R.220804.ES SoC) and the September 2022 ES SoC (document ref: WIE18671-114-R.220916.ES SoC). The purpose of this is to confirm that these updated documents and clarifications do not alter the conclusions of the March 2022 ES (as amended).

Table 1: Summary of Updated or Supplementary Technical EIA Documents within the March 2022 ES

Updated or Supplementary Document Title, Appendix Reference and Date	Summary of Update				
	Supplements the March 2022 ES Appendix 8.1: Transport Assessment.				
Transport Assessment Addendum 38262/5504 TN053, April 2023	Identifies changes to trip generation, cycle parking requirements and delivery and servicing trips with the revised accommodation schedule producing (compared to that submitted in August 2022): 49 fewer person trips in the AM peak and 37 fewer person trips in the PM peak; a cycle parking requirement of 4 less spaces; and 1 Light Goods Vehicle delivery / servicing trip per day.				
	The extent of the reduction in trips is mainly due to the change to residential tenures with trips rates for affordable flats being greater than those that are private.				
	The findings of the March 2022 TA (and therefore the March 2022 ES) in relation to transport remain unchanged and therefore valid. Refer to Section 3 below for a further summary.				



Updated or Supplementary Document Title, Appendix Reference and Date	Summary of Update				
	Supplements the assessment within March 2022 E Chapter 9: Noise and Vibration, which remains valid.				
Noise Impact Assessment on Play spaces WIE18671-114-TN- 230420_PlaySpaceNoise, April 2023	Clarification has been made on the noise impact assessment, with a separate technical note on the impact from the school roof play space and other play spaces throughout the Development to demonstrate likely effects are insignificant as implied within the March 2022 ES. Refer to Section 3 below for a further summary.				
	Supersedes March 2022 ES Appendix 10.4: AQPS.				
ES Appendix 10.4: Air Quality Positive	Further detail on the proposed air quality positive measures so that they can be specific and explicit is provided in the AQPS, although it does not change the conclusions of the March 2022 ES assessment. Refer to Section 3 below for a further summary.				
Assessment (AQPS) WIE18671-R-15-4-2-AQPS, March 2023	Note, following discussions with LBRuT on the Air Quality Neutral Assessment (AQNA) (refer to Section 2 for further details), as LBRuT have undertaken their own air quality neutral calculations, the March 2022 ES Appendix 10.2: AQNA is now superseded by LBRuT's air quality neutral calculations undertaken in February 2023.				
Flood Risk Assessment Addendum for the Exception Test	Supplements March 2022 ES Appendix 12.1: FRA. This FRA Addendum re-states key aspects of the original FRA to re-affirm that the Development satisfies the requirements of the Exception Test in relation to flood risk. Refer to Section 3 below for a further summary.				
512/SP02/ADDENDUM, April 2023	Given no new flood risk information is provided within the FRA Addendum, the findings of the March 2022 FRA (and therefore the March 2022 ES) in relation to flood risk remain unchanged and therefore valid.				
	Supersedes March 2022 ES & February 2023 version of Appendix 12.2: Drainage Strategy.				
ES Appendix 12.2: Drainage Strategy WIE18671-104-R-11-7-1-DS, April 2023	Further detail on exceedance routes and review of the proposed attenuation storage volumes is provided in the drainage strategy, although it does not change the conclusions of the March 2022 ES assessment. A pre-planning enquiry was submitted in February 2023 and Thames Water have confirmed that there is sufficient capacity for the proposed surface water and foul flows and the				



Updated or Supplementary Document Title, Appendix Reference and Date	Summary of Update				
	response has been appended to the report. Refer to Section 3 below for a further summary.				
	Supersedes March 2022 ES Appendix 13.5: BNG (provided in September 2022 ES SoC).				
ES Appendix 13.5: Biodiversity Net Gain (BNG) Assessment Application A: WIE18671-114-TN-20-4-1-BNG App A, March 2023 Application B: WIE18671-114-TN-21-4-1-	The BNG Assessment has been separated for Applications A and B, which has found Application A would achieve the minimum 10% BNG target, whilst Application B would have a shortfall that could be fully met by the exceedance of habitat units from Application A. Refer to Section 3 below for a further summary.				
BNG App B, March 2023	Whilst included as an appendix to the March 2022 ES, the BNG assessment is separate to the ecology assessment reported in ES Chapter 13: Ecology (updated as part of the September 2022 ES SoC) which remains unchanged and valid.				

Table 2: Summary of Updated or Supplementary Technical Environmental Planning Documents Sitting Outside the March 2022 ES

Updated or Supplementary Document Title, Appendix Reference and Date	Summary of Update
Basement Impact Assessment (BIA) WIE18671-100.R.24.2.2.BIA, April 2023 Basement Screening Assessment Clarifications Technical Note WIE18671-100.TN.24.3.1.BSA_Clar, April 2023	Standalone planning application report following the Basement Screening Assessment (BSA) submitted in August 2022 (document ref: WIE18671-100-BSA-16.1.4-RJM). The BIA report and BSA clarifications technical note, whilst written with reference to the FRA and drainage strategy, do not form part of the EIA, nor do they affect the findings of the EIA.  The BSA clarifications are addressed in the BIA report, however are also prepared as a separate technical note for ease of reference.  The BIA concludes that the Development's substructure will not lead to significant impacts or an increase in flood risk to the Site or surrounding area. Appropriate mitigation measures will be incorporated to manage surface water run-off from the Development, prevent water ingress into the new basements, and protect off-site assets.  Detailed ground investigation will be undertaken post determination to inform detailed design of the substructures.
Arboricultural Impact Assessment WIE18671-102-R-6-4-2-AIA, March 2023	Standalone planning application report. This report does not form part of the EIA.



Updated or Supplementary Document Title, Appendix Reference and Date	Summary of Update				
	Updated with proposed tree numbers increased from 404 to 428 trees. This does not affect the findings of the EIA.				
Daylight and Sunlight letter from eB7 dated 27.02.2023.	Clarification letter to confirm the EIA has considered the Development as a whole and whilst it has not looked at the isolated impacts of the school massing, it is likely that the school would not have a significant effect upon daylight and sunlight. Given this is a clarification letter only, it is not considered to form part of the March 2022 ES.				
	Clarifications are also made within the eB7 letter on the internal daylight and sunlight report, which is a standalone planning application report that does not form part of the EIA.				

1.4. It should be noted that the above updated or supplementary information that has been provided is in response to feedback from LBRuT to provide clarification, however this information is not essential to the assessment of likely significant effects (and does not provide additional information to rectify an inadequate ES). In their requests LBRuT have not made a request for further information under the Regulation 25 of the 2017 EIA Regulations.

## 2. Review of Proposed Amendments

- 2.1. The amendments to Application A comprise changes to the outline element only (Development Area 2). In response to LBRuT comments on the revised Design Code, the adjacent ends of the two terrace buildings (Blocks 20 and 21) have stepped down from three storeys to two storeys, resulting in a change in the maximum height parameter plans (refer to **Annex 1** drawing ref: C645\_Z2\_P\_PR\_006-F) and a revised floor area schedule (document ref: 80/20 Split Affordable Offer Area Schedule, dated 21.04.2023) and accommodation schedule (document ref: 18125-0102-190704, dated 29.03.2023). This has led to a minor reduction by one habitable room in two units within these blocks and reduction in residential floorspace by -111 sqm Gross Internal Area (GIA) compared to the August 2022 Amendments.
- 2.2. Following further discussions with LBRuT's Housing Department, changes are also proposed to the affordable housing unit mix provision by using an 80:20 split between social rent and intermediate units in Blocks 18 and 19, resulting in an overall increase in the provision of family-sized dwellings (3 to 4-bed units) and an overall reduction in 3 residential units and provision of affordable housing compared to the August 2022 amendments. These proposed amendments concern the outline elements of the Development only (Development Area 2), whereby only an indicative unit mix and maximum height parameters were assessed for the outline elements in the March 2022 ES, as such the design amendments to Blocks 18-21 fall within the assessment parameters of the EIA. For completeness and to demonstrate the March 2022 ES (as amended) remains valid, the EIA has been reviewed against the updated indicative unit mix and maximum parameters plans. The revised full accommodation schedules are provided in Annex 2.



- 2.3. Further amendments have also been made in response to comments from LBRuT on the Air Quality Neutral Assessment (AQNA). As part of the March 2022 ES, Waterman undertook an AQNA (ES Appendix 10.2) which concluded the Development would be air quality neutral in accordance with the Mayor of London's Air Quality Neutral Guidance (formally published on 8<sup>th</sup> February 2023). However, LBRuT have undertaken their own air quality neutral calculations of Applications A and B separately. Assessed in isolation, LBRuT calculated that Application A would not meet the transport emission benchmark and mitigation measures would be required to meet London Plan policy. Consultation was undertaken with LBRuT in February 2023 and agreement that the inclusion of the following measures to Application A of the Development would make it air quality neutral:
  - Provision of 40% (200 car parking spaces) active electric charging infrastructure for Application A;
    - Including the provision of fast charging points for 5% (10 car parking spaces);
  - Provision of 20 car club spaces within the Development and for use by residents of the Development (Application A). Financial contributions would be provided to car clubs to provide free membership for the users of the Development for two years;
  - Provision of a cycle club scheme (Application A):
    - To include cycle training; and
    - To include equipment and training for cycle maintenance.
- 2.4. The proposed amendments described above do not change the construction programme or activities. The effect of the proposed amendments on the EIA (as set out in this ES SoC) therefore focuses on operational effects only.
- 2.5. A summary of the amended land use and accommodation schedule of the Development is provided in **Table 3** with changes since the August 2022 amendments highlighted in **bold**.

Table 3: Proposed Land Use and Accommodation Schedule of the Development

Land use					
	Up to <del>1,071</del> <b>1,068 (-3)</b> units				
Residential	Up to <del>111,370</del> <b>111,259 (-111)</b> sqm Gross Internal Area (GIA)				
Office	4,468 sqm GIA				
Cinema	1,606 sqm GIA				
Hotel	1,765 sqm GIA (15 bedrooms)				
Flexible uses – café / restaurant / bar / public house/ shops / financial and professional services / office / community / boathouse	4,784 sqm GIA				
School	9,319 sqm GIA (approx. 1,200 pupils)				
	Up to 516 spaces (plus 48 motorbike spaces)				
Car parking spaces	40% commitment to electric vehicle charging fo Application A (including fast charging points for				



	<b>5% of the spaces)</b> , 20% commitment to electric vehicle charging <b>for Application B</b> . To become 100% in the future.
Cycle parking spaces	Up to 2,697 spaces

# 3. Effect of the Proposed Amendments upon the Findings of the Environmental Impact Assessment

3.1. Each of the technical chapters of the March 2022 ES (as amended) has been reviewed to determine if the changes described above are likely to affect the likely significant effects previously identified. The review is presented within the following paragraphs.

#### Socio-economics

3.2. The proposed amendments include a small decrease in the overall number of residential units proposed; and a change to the overall tenure mix. Overall, these result in a reduction in the number of social rented units and an increase in the overall number of family-sized dwellings (3 and 4 bedrooms), as set out in **Table 4** below:

Table 4: Indicative Dwelling Mix for the Development

	Studio/1-bed	2-bed	3-bed	4-bed	Total					
March 2022 E	March 2022 ES									
Market & Intermediate	318	417	165	20	920					
Social Rented	12	63	84	6	165					
Total	330	480	249	26	1,085					
August 2022	Amendments									
Market & Intermediate	286	396	165	20	867					
Social Rented	34	80	84	6	204					
Total	320	476	249	26	1,071					
April 2023 An	nendments									
Market & Intermediate	316	465	211	24	1016					
Social Rented	0	3	44	5	52					
Total	316	468	255	29	1,068					

3.3. As a result of these changes, there would be a decrease in the overall population yield from 2,472 to 2,280 (-191 persons) compared to the March 2022 ES (and from 2,448 to 2,280 (-168 persons) when compared to the August 2022 Amendments)) and subsequently a reduction in demand on early years, primary and secondary education, GP services, community facilities, children's play



- space and open space. Therefore, the impact assessment presented in the March 2022 ES (as amended) is robust and a reasonable worst-case for the Development and there would be no change in the reported likely significant effects.
- 3.4. In terms of housing, the socio-economics assessment considers an indicative dwelling mix for the Development. The assessment is necessarily qualitative as it is subject to viability discussions. Although the change in the habitable room provision and tenure mix would result in a reduction in the provision of affordable housing but an increase in the provision of family housing, on balance, this would not materially change the conclusions of the assessment in this respect, nor would it materially alter the housing supply assessment and the conclusions of the March 2022 ES (as amended).

#### **Transport and Access**

- 3.5. The proposed amendments would not result in any change to the car or cycle parking spaces provided for the Development.
- 3.6. A Transport Assessment Addendum (document ref: 38262/5504 TN053, April 2023) has been prepared which describes the changes to the Transport Assessment (TA) (ES Appendix 8.1, March 2022 (as amended)) owing to the proposed amendments to the Development.
- 3.7. The impacts of the proposed amendments of the Development on the TA are limited to the trip generation assessment, cycle parking provision and the number of delivery and servicing trips, as described below:
  - Trip Generation: The proposed amendments to the Development results in 49 fewer person trips in the AM peak and 37 fewer person trips in the PM peak. This will reduce the Development's impact on the performance of the highway. The March 2022 TA therefore remains a robust worst-case assessment of the highway impacts.
  - Cycle Parking: Required cycle parking provision based on London Plan standards reduces by 4
    long stay spaces but it is proposed to retain the proposed cycle parking provision to provide
    additional spare capacity for residents.
  - Delivery & Servicing: Daily light and heavy goods vehicle trips are forecast to reduce by one LGV trip.
- 3.8. Overall, the revisions to the Development will generate fewer person trips, provide slightly more spare cycle parking capacity and have a negligible impact on daily delivery and serving trips. The forecast vehicle trips are lower than those used to develop the traffic models to support the Planning Applications, so this modelling assessment as a worst-case remains valid.
- 3.9. The revised accommodation schedule therefore has no change on the findings of the March 2022 ES and TA. The likely effects, mitigation measures and likely residual effects presented in Chapter 8 of the March 2022 ES therefore remain valid in the light of the proposed amendments.

#### **Noise and Vibration**

3.10. Since the proposed amendments would result in a minor reduction in the trip generation rates as a result of the Development, the traffic data used for the previous noise modelling and assessment in Chapter 9: Noise and Vibration of the March 2022 ES remains valid. Given that no new or more



- sensitive land uses are introduced into the Development, the amendments would not materially alter the assessment of noise generated from traffic.
- 3.11. At the request of LBRuT, noise from all play spaces of the proposed Development, has been assessed, which is appended to this ES SoC as Annex 3 (document ref: WIE18671-114-TN-230420\_PlaySpaceNoise). Annex 3 concludes that the assessment undertaken regarding noise generated by use of the School Rooftop Play Area would have insignificant effects to existing and future residential receptors. The other play spaces within the proposed Development have also been assessed, and whilst when in use they may give rise to a localised increase in ambient noise levels at the future receptors which form part of the Development, on balance this is regarded as insignificant.
- 3.12. The purpose of this exercise was to confirm the statement within paragraph 9.88 of Chapter 9 (Noise and Vibration) of the March 2022 ES:
  - "Although there would be the potential for local play facilities to generate a degree of noise, the levels generated would be relatively low and would in general not be of concern to local residents. Of primary concern would be noise effects associated with larger more formalised play space and sports pitches such as those associated with the proposed school."
- 3.13. Given the results of the noise impact assessment on the other play spaces demonstrates that the likely effects would be insignificant, the above statement reported in Chapter 9 of the March 2022 ES is supported and Chapter 9 of the March 2022 ES therefore remains valid.
- 3.14. On the basis of the above, the overall findings of the likely effects, mitigation measures and likely residual effects associated with noise from the Development, as reported assessment in Chapter 9: Noise and Vibration of the March 2022 ES remains robust and valid.

#### **Air Quality**

- 3.15. As set out above, the proposed amendments would result in a minor reduction in the trip generation rates forecasted to and from the Development. Consequently, the traffic data used for the previous air quality modelling and assessment of traffic emissions in the March 2022 ES remains valid.
- 3.16. The amendments do not result in any new or more sensitive land uses proposed, consequently, the most sensitive land uses within the Development have already been assessed.
- 3.17. Following discussions with LBRuT between December 2022 and February 2023 on the Air Quality Neutral Assessment (AQNA) (refer to **Section 2** for further details), as LBRuT have undertaken their own air quality neutral calculations, the March 2022 ES Appendix 10.2: AQNA is now superseded by LBRuT's air quality neutral calculations undertaken in February 2023.
- 3.18. An updated Air Quality Positive Statement (AQPS) was submitted to LBRuT in March 2023 (doc ref: WIE18671-R-15-4-2-AQPS), which replaces the March 2022 ES Appendix 10.4. LBRuT also requested further detail of the proposed measures so that they can be specific and explicit and include as a bare minimum an indication of how much emission reductions are expected to be achieved and the expected benefits to air quality to be backed up by reasonable evidence.
- 3.19. The additional detail and measures provided in the updated AQPS (or Air Quality Neutral Assessment) as described above do not change the findings of the air quality assessment



- presented in the March 2022 ES (as amended). The AQPS details measures proposed by the Development that are likely to have a positive impact on local air quality. Chapter 10: Air Quality of the March 2022 ES therefore remains valid.
- 3.20. In light of the above, the likely effects, mitigation measures and likely residual effects associated with air quality at and surrounding the Development, as reported in Chapter 10: Air Quality of the March 2022 ES, remain unaltered and valid.

#### **Ground Conditions and Contamination**

3.21. The proposed amendments do not result in any new or more sensitive land uses than previously assessed, there would be no material change to the contamination risks identified in the March 2022 ES. Consequently, the likely effects, mitigation measures and likely residual effects of the Development as reported in Chapter 11: Ground Conditions and Contamination of the March 2022 ES would not be materially altered and would remain robust and valid.

#### **Surface Water Drainage and Flood Risk**

- 3.22. The proposed amendments do not introduce any new land uses to the Development, nor are there any fundamental proposed changes to the strategy for managing storm water and foul water flows. The amendments do not materially affect vulnerability or flood risk previously assessed, and thus the conclusions and recommendations described in the Flood Risk Assessment (Appendix 12.1 of the March 2022 ES) remain robust and valid.
- 3.23. To address Lead Local Flood Authority comments, the proposed attenuation storage volumes have been re-calculated and a section on exceedance routes provided in a revised drainage strategy submitted in April 2023 (doc ref: WIE18671-104-R-11-7-1-DS). The surface water and foul water rates remain unchanged since submission of the revised drainage strategy submitted in August 2022 (doc ref: WIE18671-104-R-11-4-1-DS), however a comparison between the documents is provided in **Table 5** below for clarity.

Table 5: Comparison of surface water and foul water discharge rates

	March 2022 Drainage Strategy	August 2022 Drainage Strategy	April 2023 Drainage Strategy
Existing surface water rate	841 l/s	812.3 l/s	812.3 l/s
Proposed surface water rate	249 l/s	37.4 l/s	37.4 l/s
% reduction to existing rate	70%	95%	95%
Existing foul discharge rate	14.1 l/s	14.4 l/s	14.4 l/s
Proposed foul discharge rate	25.1 l/s	24.1 l/s	24.1 l/s
Attenuation Volume	2,669 m <sup>3</sup>	3,686 m <sup>3</sup>	3,876 m <sup>3</sup>



- 3.24. In the August 2022 drainage strategy (and April 2023 drainage strategy), runoff that discharges from the Site to the Thames Water sewer network has been reduced to 95% to achieve the greenfield runoff rate. This has been achieved by upsizing the proposed surface water attenuation features.
- 3.25. An updated pre-planning enquiry was submitted in February 2023 and Thames Water have reconfirmed that there is sufficient capacity for the proposed surface water and foul flows (refer to Thames Water letter dated 22.03.2023 within Appendix B of the April 2023 Drainage Strategy).
- 3.26. The overall drainage strategy remains as set out in the March 2022 ES (as amended) and therefore the findings reported in the March 2022 ES (as amended) remain valid.
- 3.27. An FRA Addendum on the Exception Test (doc ref: 512/SP02/ADDENDUM) has been prepared by Corylus and submitted in April 2023 in response to comments from LBRuT that an Exception Test is required to demonstrate how the Development meets paragraph 164 of the NPPF¹ and advice contain in the NPPG² on flood risk and coastal change. This report summarises the key sustainability benefits that form part of the Development; how the Development can be developed safely over its lifetime and not increase flood risk elsewhere whilst offering some overall reduction in flood risk; and the requirements for flood resilient and resistant construction. The report concluded that the requirements of the Exception Test are passed.
- 3.28. The FRA Addendum for the Exception Test supplements the March 2022 ES Appendix 12.1: FRA. The FRA Addendum re-states key aspects of the FRA to re-affirm that the Development satisfies the requirements of the Exception Test in relation to flood risk. Given no new flood risk information is provided within the FRA Addendum, the findings of the March 2022 FRA (and therefore the March 2022 ES) in relation to flood risk remain unchanged and therefore valid.
- 3.29. The proposed amendments and updates to the technical appendices do not result in any material changes to the assessment of the likely effects, mitigation measures and subsequent nature and significance of likely residual effects of the Development identified in Chapter 12: Surface Water Drainage and Flood Risk of the March 2022 ES which therefore remain robust and valid.

#### **Ecology**

- 3.30. No significant changes are proposed to the ecological enhancements proposed as part of the landscaping strategy. The proposed amendments do not result in any material changes to the assessment of the likely effects, mitigation measures and subsequent nature and significance of likely residual effects of the Development identified in Chapter 13: Ecology of the March 2022 ES which therefore remains valid.
- 3.31. The BNG assessment contained within the March 2022 ES provided a combined BNG assessment covering Application A, Application B and the Section 278 works. LBRuT requested individual Biodiversity Net Gain (BNG) calculations for Applications A and B. In response, Waterman prepared two BNG Assessment Technical Notes in March 2023 for Application A (doc ref: WIE18671-114-TN-20-4-1-BNG App A) and Application B (doc ref: WIE18671-114-TN-21-4-1-BNG App B) which supersede the combined BNG Assessment provided in the March 2022 ES Appendix 13.5. The results of the individual BNG calculations for Applications A and B reported below in Table 6.

<sup>&</sup>lt;sup>1</sup> Ministry of Housing, Communities and Local Government, July 2021. National Planning Policy Framework.

<sup>&</sup>lt;sup>2</sup> Ministry of Housing, Communities and Local Government, June 2021. Planning Practice Guidance.



Table 6: Summary of BNG Scores

Application A BNG Score with 50% S278 works*	NG Score with BNG Score with		Application B BNG Score without S278 works*	Previously assessed combined BNG Score (now superseded)	
Net gain of 9.39	Net loss of 2.01	Net gain of 9.14	Net loss of 2.00	Net gain of 2.7 habitat units (+29.55%)	
habitat units	habitat units (-	habitat units	habitat units (-		
(+201.73%)	55.55%)	(+221.54%)	59.56%)		
Net gain of 3.03 Net gain of 0.15 hedgerow units (+58.53%) (+35.82%)		Net gain of 2.94	Net gain of 0.15	Net gain of 0.63	
		hedgerow units	hedgerows units	hedgerow units	
		(+61.55%)	(+46.21%)	(+21.04%)	

<sup>\*</sup>As the Section 278 works boundary is required for the delivery of both Application A and B, 50% of the S278 baseline has been applied to each of the Applications.

- 3.32. As detailed above in **Table 6**, Application B would result in an overall loss of -2.01 habitat units (-55.55%) and is therefore under the minimum 10% BNG targeted by the Environment Act 2021 (mandatory requirements are expected to come into force in the autumn of 2023). Application A however would result in a net gain of 9.39 habitat units (201.73%) representing a significant exceedance of the minimum 10% target. Both Applications exceed the minimum 10% BNG targeted for hedgerow units.
- 3.33. Application A has a baseline of 3.11 habitat units and therefore 3.421 units are required to achieve the minimum targeted 10% BNG. This would result in an exceedance of 5.969 units. Application B has a baseline of 3.61 habitat units and therefore 3.971 units are required to achieve the minimum 10% BNG targeted. This demonstrates that the shortfall at Application B could be fully met by the exceedance of habitat units from Application A.
- 3.34. Whilst included as an appendix to the March 2022 ES, the BNG assessment is a separate assessment to the ecology assessment reported in ES Chapter 13: Ecology (updated in September 2022) which remains unchanged and valid.

#### **Archaeology**

3.35. No changes to below ground works are proposed and as such, there would be no material change to the archaeological impacts identified in the March 2022 ES. Consequently, the likely effects, mitigation measures and likely residual effects of the Development as reported in Chapter 14: Archaeology of the March 2022 ES would not be materially altered and would remain robust and valid.

#### **Built Heritage**

3.36. No changes are proposed to the Buildings of Townscape Merit (BTMs) within the Site. The proposed amendments, including reducing the height of the adjacent ends of Blocks 20 and 21 would improve the setting of the adjacent heritage assets, however, the overall effect would remain beneficial compared to the existing situation as reported in Chapter 15: Built Heritage of the March 2022 ES.



3.37. Consequently, the likely effects, mitigation measures and likely residual effects of the Development as reported in Chapter 15: Built Heritage of the March 2022 ES are not materially altered and remain robust and valid.

#### **Townscape and Visual Assessment**

- 3.38. The minor decrease in height of the adjacent ends of Blocks 20 and 21, as a result of the proposed amendments, is not considered likely to materially alter the nature or significance of the townscape and visual effects, as reported in Chapter 16: Townscape and Visual of the March 2022 ES. Whilst there would be some minor differences in the outline massing shown in the rendered visualisations (in particular Viewpoint 4, and the wireline shown in Viewpoint 5), owing to the overall massing height not changing with parts reducing in height, the overall assessment outcome would remain as reported in the March 2022 ES (as amended).
- 3.39. As such, the proposed amendments do not result in any material changes to the assessment of the likely effects, mitigation measures and subsequent nature and significance of likely residual effects of the Development identified in Chapter 16: Townscape and Visual of the March 2022 ES, which therefore remain robust and valid.

#### **Wind Microclimate**

- 3.40. The minor decrease to massing to the adjacent ends of Blocks 20 and 21 is not expected to result in a significant change to the predicted wind conditions across the Development as previously reported in Chapter 17: Wind Microclimate of the March 2022 ES (as amended).
- 3.41. During the windiest season sitting conditions were previously reported in the March 2022 ES next to the corners of Blocks 20 and 21, therefore stepping down this area from three to two storeys would not be expected to change the results reported in the March 2022 ES (as amended). Sitting conditions were also reported on the roof space on both of these buildings during the summer season, therefore it is expected there would be similar conditions if the steps were to be used as lower terraces.
- 3.42. As a result, the predicted levels of pedestrian comfort at the locations previously assessed are likely to remain unchanged. On this basis, the likely effects, mitigation measures and likely residual effects of the Development presented in Chapter 17: Wind Microclimate of the March 2022 ES (as amended) are considered to remain robust and valid and applicable in relation to the proposed amendments.

#### Daylight, Sunlight, Overshadowing and Light Pollution

- 3.43. The minor reduction in building height to the adjacent ends of Blocks 20 and 21 would result in either the same or marginal improvements to daylight, sunlight, overshadowing and light pollution. The changes are however unlikely to materially alter the nature or significance of the effects, as reported in Chapter 18: Daylight, Sunlight, Overshadowing and Light Pollution of the March 2022 ES (as amended).
- 3.44. In light of the above, it is considered that there would be no material change to the nature or significance of the daylight, sunlight, overshadowing, and light pollution assessment, as presented in Chapter 18: Daylight, Sunlight, Overshadowing and Light Pollution of the March 2022 ES (as



amended). This assessment is therefore considered to remain valid and applicable in relation to the proposed amendments.

#### **Greenhouse Gases and Climate Change**

- 3.45. The proposed amendments result in an overall decrease of 3 residential units. This would result in a very minor decrease to the calculated GHG emissions, which would be immaterial to the Development's lifetime GHG emissions presented in Chapter 19: Greenhouse Gases of the March 2022 ES (as amended). The IEMA guidance<sup>3</sup> makes it clear that any increase in GHG emissions should be considered to be significant.
- 3.46. Whilst the PVs on the school roof would result in carbon dioxide savings, the overall assessment of effects would not change as residual GHG emissions from the Development would remain.
- 3.47. As such whilst there will be a very minor change to the calculated GHG, the conclusion of the GHG assessment reported in Chapter 19: Greenhouse Gases of the March 2022 ES remains robust, applicable and valid.

#### **Cumulative Effects**

- 3.48. Given the scale, nature and location of the proposed amendments, the likely in-combination effects are not considered to be materially altered, and the likely effects reported in the March 2022 ES (as amended) remain valid.
- 3.49. Furthermore, no new other schemes that meet the cumulative criteria thresholds previously agreed with LBRuT have been identified to warrant an assessment of intra-cumulative effects with the Development owing to their small scale and location within established residential areas.
- 3.50. On the basis of the above review, it has been concluded that the findings of the Environmental Impact Assessment (EIA) presented in the March 2022 ES (as amended) in support of the Hybrid Planning Application (22/0900/OUT) & Detailed Application School (22/0902/FUL) remain unchanged as a result of the proposed modifications to the Development, as no material changes are proposed.
- 4. Review of Updated and Supplementary Technical Environmental Planning Documents that Informed the March 2022 ES (as amended)
- 4.1. As noted within **Table 2**, updated environmental information outside of the EIA has been prepared following consultee comments from LBRuT. This information is summarised in the sections below.

## **Basement Impact Assessment and Basement Screening Assessment Clarifications Technical Note**

- 4.2. The Basement Impact Assessment (BIA) (document ref: WIE18671-100.R.24.2.2.BIA, dated April 2023) is a standalone planning application report following on from the Basement Screening Assessment (BSA) submitted in August 2022 (document ref: WIE18671-100-BSA-16.1.4-RJM).
- 4.3. In their review of the BSA, LBRuT requested several clarifications be made. The BSA clarifications are addressed in the BIA report, however are also prepared as a separate technical note for ease of reference (document ref: WIE18671-100.TN.24.3.1.BSA\_Clar, April 2023). Clarifications



- concerned the impermeable area coverage across the Site, the layout plans used, and the groundwater levels. These clarifications do not affect the conclusions of the BSA.
- 4.4. The BIA concludes that the Development's substructure will not lead to significant impacts or an increase in flood risk to the Site or surrounding area. Appropriate mitigation measures will be incorporated to manage surface water run-off from the Development, prevent water ingress into the new basements, and protect off-site assets. Detailed ground investigation will be undertaken post determination to inform detailed design of the substructures.
- 4.5. The BIA report and BSA clarifications technical note, whilst written with reference to the FRA and drainage strategy, do not form part of the EIA, nor do they affect the findings of the EIA.

#### **Arboricultural Impact Assessment**

- 4.6. The Arboricultural Impact Assessment (AIA) is a standalone planning application report that was updated in March 2023 (WIE18671-102-R-6-4-2-AIA) in response to a clarification by LBRuT on proposed tree numbers.
- 4.7. To ensure consistency between the planning documents, the proposed tree numbers reported in the AIA has increased from 404 to 428 trees compared to the March 2022 AIA to take account of an additional 24 trees to be planted within the S278 works area.
- 4.8. Whilst this report informs the March 2022 ES (as amended) in terms of trees numbers proposed, to be retained and to be removed, it does not form part of the EIA and does not affect the findings of the EIA.

#### **Daylight and Sunlight Clarifications**

- 4.9. A clarification letter dated 27.02.2023 has been prepared by the Applicant's daylight and sunlight specialist (eB7) to confirm the EIA has considered the Development as a whole (Applications A and B combined) and whilst it has not looked at the isolated impacts of the school massing (Application B), it is likely that the school would not have a significant effect upon daylight and sunlight. Given this is a clarification letter only, it is not considered to form part of the March 2022 ES (as amended).
- 4.10. Clarifications are also made within the eB7 letter on the internal daylight and sunlight report, which is a standalone planning application report that does not form part of the EIA.

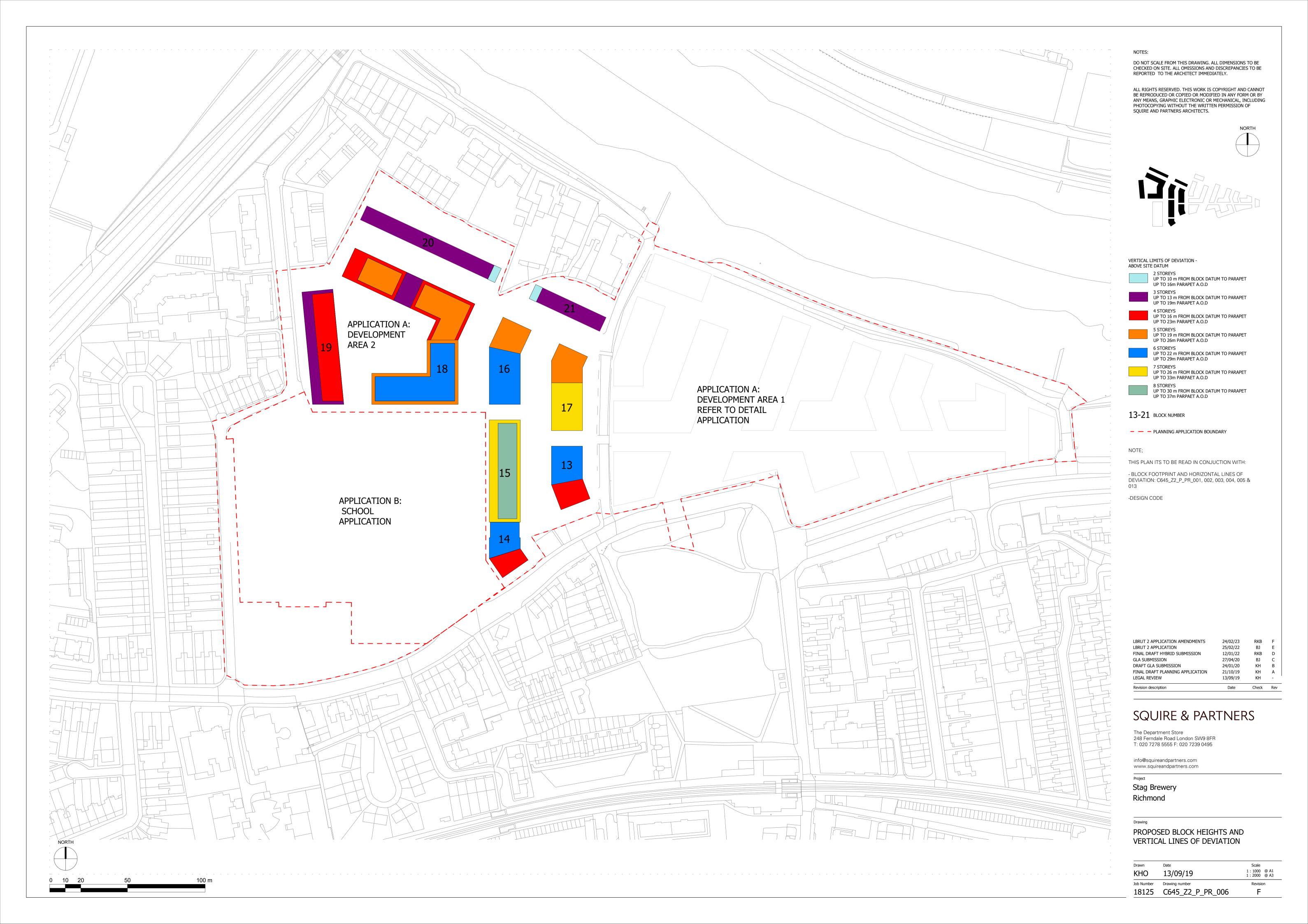
## 5. Summary

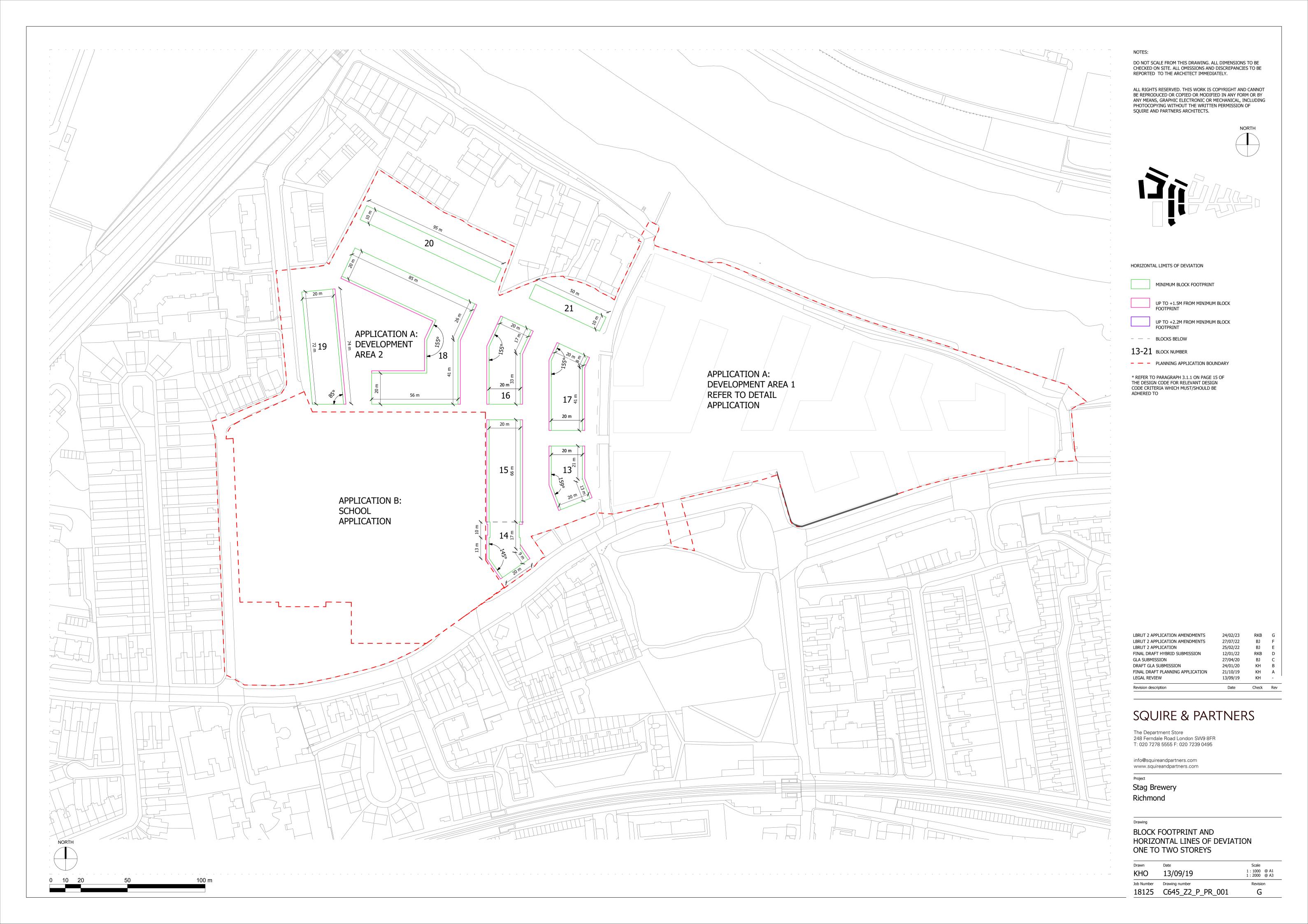
- 5.1. Minor amendments are proposed to Blocks 20 and 21 resulting in a change in the maximum height parameter plans and a revised floor area and accommodation schedules. A revised unit schedule based on an 80:20 split in affordable housing offer (social rent: intermediate housing) is also proposed. Review of the assessments within the March 2022 ES (as amended) indicates these changes are immaterial and the conclusions of the March 2022 ES (as amended) remain valid.
- 5.2. Furthermore, the updates made to the ES technical documents in relation to air quality, noise, drainage and flood risk, and ecology, do not affect the findings reported in the March 2022 ES (as amended), which remains valid.

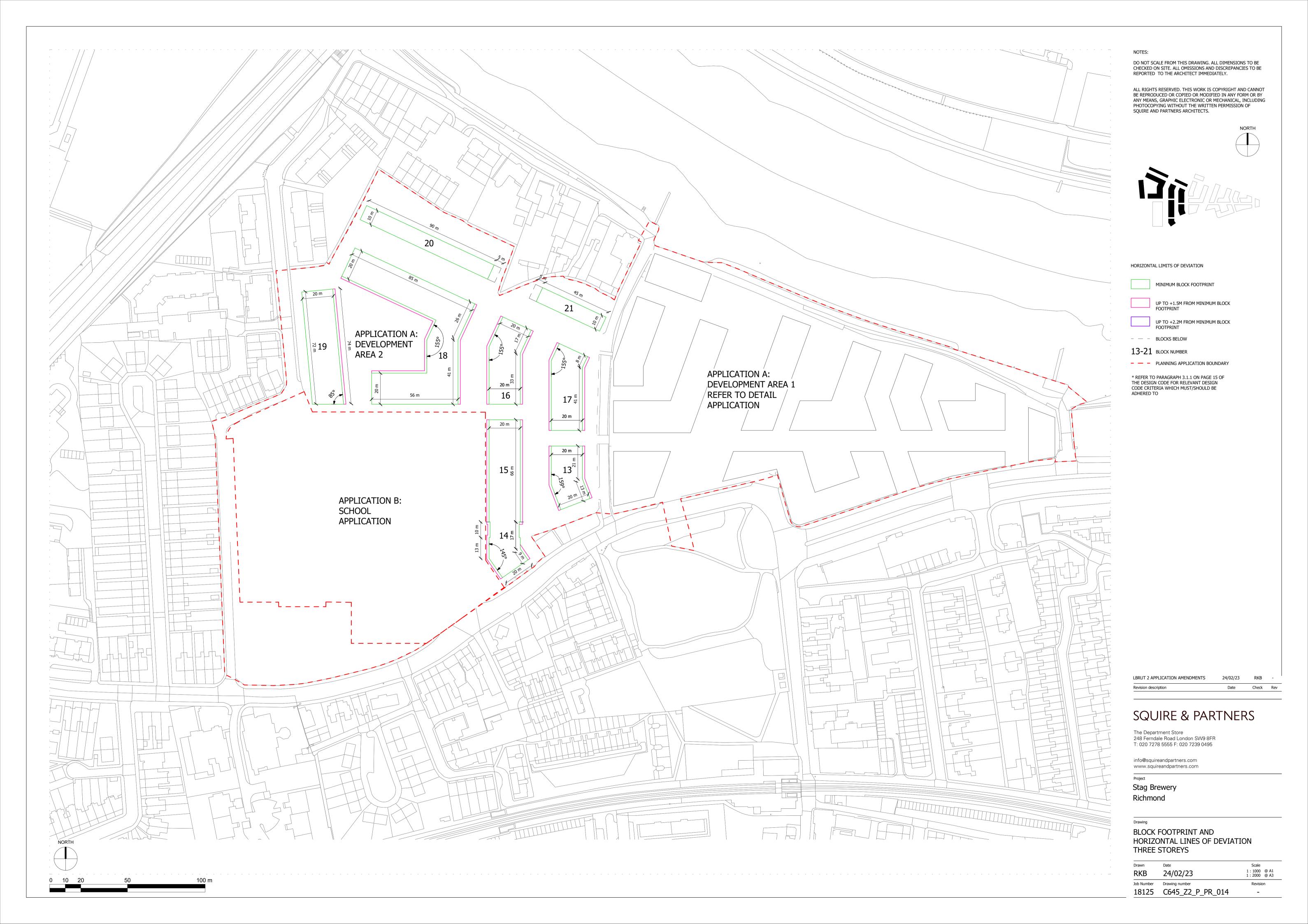


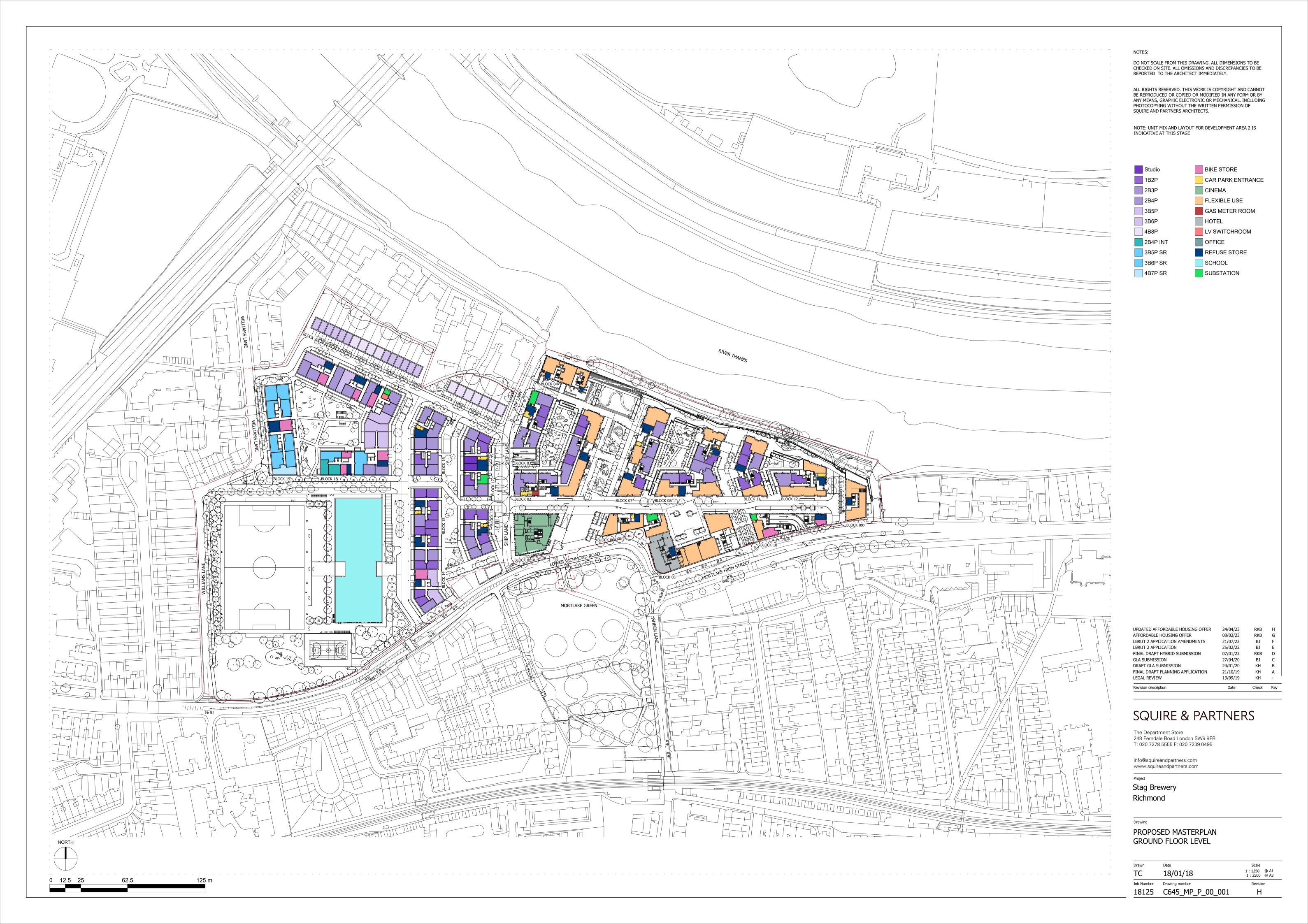
#### Annex 1: Revised Parameter Plans and Masterplan Drawings

- Proposed Block Heights and Vertical Lines of Deviation (Drawing ref: C645\_Z2\_P\_PR\_006-F)
- Block Footprint and Horizontal Lines of Deviation One to Two Storeys (Drawing ref: C645\_Z2\_P\_PR\_001-G)
- Block Footprint and Horizontal Lines of Deviation Three Storeys (Drawing ref: C645\_Z2\_P\_PR\_014)
- Proposed Masterplan Ground Floor Level (Drawing ref: C645\_MP\_P\_00\_001-H)
- Proposed Masterplan Typical Floor Level (Drawing ref: C645\_MP\_P\_TY\_001-H)













Annex 2: Indicative Unit Mix Summary (80/20 Split Affordable Housing Offer, dated 29.03.2023)

#### Combined Development Areas 1 & 2

Studio	1 bed	2 bed	3 bed	4 bed	Total Units	Habitable rooms	NSA (m2)
45	263	460	211	24	1,003	2,938	80,813
4%	26%	46%	21%	2%			
0	8	5	0	0	13	31	788
0%	62%	38%	0%	0%			
0	0	3	44	5	52	210	5,462
0%	0%	6%	85%	10%			
	45 4% 0 0%	45 263 4% 26% 0 8 0% 62%	45 263 460 4% 26% 46% 0 8 5 0% 62% 38%	45 263 460 211 4% 26% 46% 21% 0 8 5 0 0% 62% 38% 0% 0 0 3 44	45     263     460     211     24       4%     26%     46%     21%     2%       0     8     5     0     0       0%     62%     38%     0%     0%       0     0     3     44     5	Studio         1 bed         2 bed         3 bed         4 bed         Units           45         263         460         211         24         1,003           4%         26%         46%         21%         2%           0         8         5         0         0         13           0%         62%         38%         0%         0%           0         0         3         44         5         52	Studio         1 bed         2 bed         3 bed         4 bed         Units         rooms           45         263         460         211         24         1,003         2,938           4%         26%         46%         21%         2%           0         8         5         0         0         13         31           0%         62%         38%         0%         0%         52         210

	Studio	1 bed	2 bed	3 bed	4 bed	Total Units	Percentage	Habitable rooms	Percentage	NSA (m2)	Percentage
Private	45	263	460	211	24	1,003	94%	2,938	92%	80,813	93%
Affordable	0	8	8	44	5	65	6.1%	241	7.6%	6,250	7.2%
Total	45	271	468	255	29	1,068		3,179		87,063	

#### **Habitable Rooms**

Social Rent Intermediate 87% 13%

#### Units

Social Rent Intermediate 80% 20%

#### NSA

Social Rent Intermediate 87% 13%

Development Area 2 is applied for in outline and therefore the unit NSA areas are subject to change through detailed design and the submission of subsequent reserved matters applications



**Annex 3:** Noise Impact Assessment on Play spaces (doc ref: WIE18671-114-TN-230420\_PlaySpaceNoise)



## **Stag Brewery**

## Technical Note - Play Space Noise

**Date:** 20 April 2023

Client Name: Reselton Properties Limited

**Document Reference:** WIE18671-114-TN-230420\_PlaySpaceNoise

This document has been prepared and checked in accordance with

Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Issue Prepared by Checked & Approved by

Innes Urbanski Mark Maclagan Associate Director Technical Director

MES WARINE

#### 1. Introduction

- 1.1. Chapter 9 (Noise and Vibration) of the March 2022 Environmental Statement (ES) presents an assessment of the likely significant noise and vibration effects. With regard to noise from play space Chapter 9 of the March 2022 ES stated at paragraph 9.88:
- 1.2. "Although there would be the potential for local play facilities to generate a degree of noise, the levels generated would be relatively low and would in general not be of concern to local residents. Of primary concern would be noise effects associated with larger more formalised play space and sports pitches such as those associated with the proposed school."
- 1.3. Chapter 9 of the March 2022 ES presents an assessment of the potential noise effects from the proposed full sized artificial all weather 3G artificial grass sport pitch and external Multi Use Games Area (MUGA) associated with the proposed school. In Table 9.27 of the March 2022 ES, the residual effects were reported as "Negligible to permanent, local, intermittent adverse effects up to minor level during usage of sports pitch and MUGA". This is insignificant.
- 1.4. London Borough Richmond-upon-Thames (LBRuT) has subsequently raised a query regarding the potential noise effects from all play areas associated with the proposed Development. As inferred in paragraph 9.88 of the March 2022 ES, the other play space (i.e. those proposed within the Development that are not the sports pitch or the MUGA) would not typically be assessed and presented in support of a planning application as a statutory or policy led requirement, and are termed 'informal play spaces'. Informal play space is considered equivalent to residential gardens to the proposed residential Blocks. At the request of LBRuT noise from play space, as illustrated in page 16 Figure 'Play Strategy' of the Landscape Design Planning Addendum Rev 00 July 2022 document, has been assessed and is the subject of this Technical Note.



1.5. Further to the above, assessment of noise from the proposed school rooftop play space as illustrated in drawing C645\_23\_P\_RF\_001 Rev B Proposed Roof Plan has also been assessed. This was not assessed in the ES as this play space was considered equivalent to a school playground with intermittent use at breaks and lunch time and not a formalised play space such as the sports pitch and MUGA.

## 2. Assessment of School Rooftop Play Space

2.1. The Rooftop Play area is located on top of the third storey of the proposed school building. Surrounding the Rooftop Play area is a 1.1m high edge solid barrier with netting above. The Rooftop Play area is at a higher level (approximately 10.6m above ground level) than the height of the closest existing residential receptors on Watney Road and Lower Richmond Road (ground floor receptor location 1.5m above ground level). Existing residential receptors therefore benefit from distance attenuation and screening of noise generated from children playing within this Rooftop Play area. Predicted noise from the Rooftop Play area are presented in Table 1. The calculations take account of both distance and screening attenuation. A nominal 10dB screening has been applied on the basis that there is no line of sight from a receptor at ground level to the Rooftop Play area. It is also assumed that not all 1,200 pupils would occupy the Rooftop Play area at the same time, and for assessment purpose it is assumed 600 pupils would be within the Rooftop Play area. Of the 600 pupils, it has been assumed 200 would be engaged in normal conversation (60dB(A) at 1m), 200 using raised voices (70dB(A) at 1m) and 200 shouting (80dB(A) at 1m). The source noise levels are as extracted from Acoustics of Schools: a design guide, BB93, November 2015.

Table 1: Predicted Noise From Rooftop Play

Sensitive Receptor	Horizontal Distance Rooftop Play to SR (m)	Distance Attenuation	Barrier Attenuation	Rooftop Play Noise Level at SR	Prevailing Noise Level dB L <sub>Aeq,T</sub>	Combined Noise Level dB L <sub>Aeq,T</sub>	Change in Ambient
SR A Watney Road	95	40	10	54	58	59	1
SR B Williams Lane	135	43	10	51	58	59	1
SR C Lower Richmon d Road	60	36	10	58	71	71	0

- 2.2. Based on the above assumptions, when the Rooftop Play area is in use with 600 pupils then a change in the ambient noise level of +1dB is predicted at receptors on Watney Road and Williams Lane, with no change at receptors on Lower Richmond Road, which is considered to be insignificant (Refer to Table 9.8 of March 2022 ES for magnitude criteria).
- 2.3. With regard to future residential receptors within the proposed Development, some residents of Blocks 14 and 15 would look directly down on the Rooftop Play area and therefore be subject to an increase in ambient noise levels when this area is in use. The proposal indicates 8 storeys for Block 15 and 6 storeys for Block 14. This could be dealt with by a suitably worded planning



condition to ensure the daytime internal ambient noise levels achieve 35dB  $L_{Aeq,T}$  when the Rooftop Play area is in use.

### 3. Assessment of Play Space Noise

- 3.1. Supplementary Planning Guidance 'Shaping Neighbourhoods: Plan And Informal Recreation' issued as part of the London Plan, does not provide specific guidance with regard to noise it only states 'The design of play space should take into account ....noise (from busy main roads for instance)' and 'avoid locations to avoid noise disturbance'.
- 3.2. The location of the proposed play space together with the targeted age range are presented on page 16 Figure 'Play Strategy' of the Landscape Design Planning Addendum Rev 00 July 2022 document. The potential noise from these areas at a distance of 15m has been predicted based on BB93 noise sources data, distance attenuation based on a point source with an increase in the overall level based on the number of children which the play space can accommodate (+10 x Logarithm of the number of children). Of these children it is assumed for calculation purposes that 45% would be engaged in normal conversation (60dB(A) at 1m), 45% using raised voices (70dB(A) at 1m) and 10% shouting (80dB(A) at 1m).
- 3.3. The predicted noise at a distance of 15m is indicated on Figure 1 and in Table 2. The predicted noise levels are indicative based on the assumptions stated above.

Table 2: Predicted Noise Level From Play Space At 15m

ID (refer to Figure 1)	Play Space Location	Year Group	No. of Children	Indicative Noise Level at 15m (dB(A))
Α	North Block 18	5-11 yrs	13	58
В	Courtyard Block 19	Under 4	95	66
С	Courtyard Block 19	5 11 yrs	86	66
D	Courtyard Block 19	Under 4	26	61
E	West Block 21	Under 4	12	57
F	East Block 17	5-11 yrs	14	58
G	East Block 15	Under 4	5	54
Н	East Block 15	Under 4	20	60
1	East Block 18	12+ yrs	18	59
J	East Block 4	12+ yrs	12	57
K	East Block 3	Under 4	25	61
L	East Block 3	Under 4	38	62
M	North Block 2	5-11 yrs	47	63
N	West Block 7	5-11 yrs	40	63
0	West Block 7	5-11yrs	46	63



ID (refer to Figure 1)	Play Space Location	Year Group	No. of Children	Indicative Noise Level at 15m (dB(A))
Р	East Block 1	12+ yrs	39	62
Q	West Block 8	Under 4	32	62
R	West Block 8	5-11 yrs	34	62
S	North Block 5	12+ yrs	14	58
Т	West Block 11	5-11 yrs	3	51
U	West Block 11	5-11 yrs	10	57
V	West Block 11	5-11 yrs	8	56
W	West Block 10	Under 4	7	55
X	West Block 10	Under 4	10	57
Υ	East Block 11	Under 4	8	56
Z	East Block 11	5-11 yrs	9	56
AA	East Block 11	Under 4	8	56
AB	North Block 11	12+ yrs	3	51
AC	North Sports Pitch	5-11 yrs	21	60
AD	South Sports Pitch	Under 4	26	61
AE	South Sports Pitch	5-11 yrs	25	61

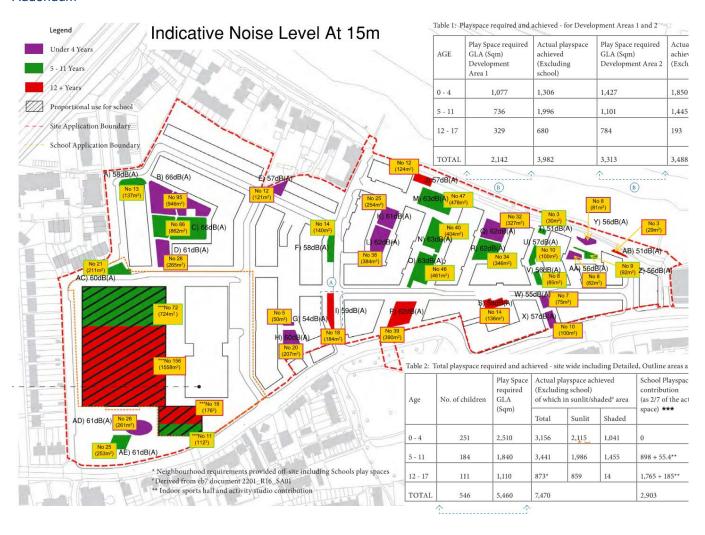
3.4. Noise from the play space at a distance of 15m is predicted to range from 51 to 66dB(A) depending on the number of children using the play space. The assessment is based on it being used at full capacity. This is considered to be comparable to noise arising from residential gardens and should be reviewed in the context of the source noise levels stated in BB93, namely a noise level of 60dB(A) at 1m from a person during normal conversation, increasing to 70dB(A) for a raised voice. This scenario occurs as people are walking and talking down a street, pathway or sitting down talking to each other. Although use of the play space is likely to give rise to localised increase in prevailing ambient noise levels when in use, they are predicted to be at a noise level that should be acceptable and therefore on balance regarded as 'insignificant' in term of their potential effect.

#### 4. Conclusion

As set out above, the assessments undertaken regarding noise generated by use of the Rooftop Play area and the play spaces within the proposed Development indicate insignificant effects to existing and future residential receptors.



Figure 1: Indicative Noise Levels Identified at 15m at each of the play spaces identified on page 16 of the Stag Brewery Landscape Design Planning Addendum



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