

## Stag Brewery, Mortlake

## **Flood Risk Assessment**

## Addendum for the Exception Test

**Reselton Properties** 

REPORT REF: 512/SP02/ADDENDUM

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#### 1 Background

This is an Addendum to the Flood Risk Assessment (FRA)<sup>1</sup> issued for the Stage Brewery Site at Mortlake and relating to the following applications:

- Application A (22/0900/OUT); and
- Application B (22/0902/FUL).

The Environment Agency has been consulted throughout the planning process:

- Flood level data (Product 4) was obtained in July 2017 for use in the FRA. The acceptability of these data was confirmed with the Environment Agency in February 2022.
- A Level 1 Scoping FRA was submitted to the Environment Agency in July 2016. Their response dated August 2016 has informed the design process and the FRA.
- Useful discussion has been held with the Environment Agency in 2018 and 2019 to agree the details of the river wall;
- The Environment Agency confirmed that they had "no objection" to the proposal as per their response of 8<sup>th</sup> October 2019 which also laid out relevant Conditions.

This Addendum has been requested by the London Borough of Richmond upon Thames (LBRuT) in an email dated 3<sup>rd</sup> March 2023 with further clarification sought on 3<sup>rd</sup> April 2023 as to how the components of the Exception Test as presented in the FRA meet paragraph 164 of the NPPF.

Paragraph 164 of the NPPF<sup>2</sup> states that:

The application of the exception test should be informed by a strategic or site-specific flood risk assessment, depending on whether it is being applied during plan production or at the application stage. To pass the exception test it should be demonstrated that:

- a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and
- b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

This FRA Addendum deals with:

- Sustainability Benefits in Section 2;
- Flood Risk Review in Section 3;
- Comment on flood resistance and resilience in Section 4; and
- Summary in Section 5 including a summary table for the Exception Test.

<sup>&</sup>lt;sup>1</sup> Stag Brewery, Mortlake: Flood Risk Assessment. For Reselton Properties. Report by Hydro-Logic Services through Corylus, February 2022 [Environmental Statement Appendix 12.1].

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file /1005759/NPPF\_July\_2021.pdf

#### 2 Wider Sustainability Benefits

The planning applications has been developed to provide a holistic approach to sustainability. This Section summarises the key benefits that are being offered as part of the proposal. For more detail, please refer to the submitted Sustainability Statement<sup>3</sup> and Planning Statement<sup>4</sup>:

#### 2.1 Ecological enhancement:

- A mixture of soft and hard landscaping is proposed throughout the Development. A mix of evergreen and deciduous trees are proposed across the Site, which includes up to 428 new trees and up to 99 individual and 3 tree groups retained. All residential courtyards on ground level would be enclosed with 1.5 m high hedge planting;
- a minimum of 10 bat boxes would be incorporated in the Development located east of Ship Lane (note, number of bat boxes within the outline component of the Site would be determined following the reserved matters application);
- provision of 20 bird nesting boxes, including 5 bird boxes suitable for swifts and 15 for other bird types in the Development located east of Ship Lane in Development Area 1 (note, number of bird boxes within the outline component of the Site would be determined following the reserved matters application);
- a peregrine falcon nest box would be incorporated into the proposed Development on the roof of the Maltings (Building 4);
- use of native species, or species of benefit to wildlife throughout the Development. This
  would include littoral plant species in areas close to the river edge responding to existing
  riverside vegetation and native trees located in a grove in the community park south of the
  proposed school;
- incorporation of deadwood features within landscape areas, to provide opportunities for a range of invertebrates; and
- of biodiversity roofs, including a mix of green and brown roofs. Green roofs would include a
  wildflower and native grasses mix whilst brown roofs would incorporate photovoltaic (PV)
  panels in some areas and would be seeded with plant species collected from the Site or
  nearby, including log piles, slabs and twigs gathered from the local area. Where possible, the
  substrate depth would be varied to provide opportunities for small pools of water to collect
  on the roof.

<sup>&</sup>lt;sup>3</sup> Sustainability Statement-Rev 02 REP-by Hoare Lee, 2310513-5A-20220210.

<sup>&</sup>lt;sup>4</sup> Gerald Eve (2022); Town Planning Statement, report ref: 4150-7644-7284, v. 1.

#### 2.2 Site user wellbeing:

- Improve access to green infrastructure by providing green space throughout the Proposed Development.
- Enable people to live healthy and active lifestyles due to the provision of suitable cycle parking to encourage commuting by bike which is a low-carbon mode of transport.
- Allow staff/occupiers and visitors of all ages and stages of life to access the Proposed Development's non-residential areas by ensuring suitable access provisions.

#### 2.3 Energy strategy:

- The proposed energy strategy follows a fabric first approach in accordance with the energy hierarchy.
- An all-electric heating strategy will be adopted to enable ongoing decarbonisation from the National Grid.
- Low carbon technologies such as Air Source Heat Pump (ASHP) and rooftop Photovoltaic (PV) panels have been incorporated to demonstrate significant reduction in carbon emissions compared to the Part L 2021 baseline.

#### 2.4 Resource management:

- Elements of existing structure on the site will be repurposed to form part of the overall offering, reducing the overall embodied carbon associated with the Proposed Development.
- Specification of water fittings will ensure that potable water demand is lowered in line with the adopted planning policies and environmental certifications being sought (e.g. BREEAM).
- The submitted Site Waste Management Plan (SWMP) details the approach to demolition and excavation to ensure that waste generated during the construction stage will be diverted from landfill or reused on site where feasible.
- The Site has been developed to be climate resilient.

#### 2.5 Economic & Social:

Extracts from the Planning Statement that outline the Public Benefit are provided in Appendix A. The key benefits are:

- The provision of over 1,000 new homes (including affordable housing);
- Provision of a multi-generation secondary school;
- New sixth form entry secondary school;

- Provision of MUGA and sports hall as part of the secondary school for use by students and the local community (by agreement);
- Significant place-making and architectural benefits including the creation of a new active high street and river front uses, opening up of the Site through creation of new publicly accessible open and green spaces, and high-quality architecture which includes incorporation of the existing historic buildings;
- Provision of new community spaces, including a community centre on the ground floor of Building 5;
- Provision of job growth and new employment opportunities.
- Investment in highways improvement works and bus contribution to TfL and
- Creation of new pedestrian and cycle routes through the Site to add to existing local connections, including enhancing the existing towpath and creating a new expansive link from Mortlake Green through to the river.

#### 3 Flood Risk Review

#### 3.1 Introduction

This Section restates key aspects of the FRA to reaffirm that the development satisfies the requirements of the Exception Test in relation to flood risk, namely that "the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall".

The cross-references in square brackets in the following text are to the appropriate Sections of Appendix 12.1 of the March 2022 Environmental Statement.

#### 3.2 Confirmation that the development will be safe for its lifetime

These points confirm that the Site will be safe for its lifetime from flooding:

- i. Flood levels at the site result from a complex interaction of predominantly tidal factors and the operation of the Thames Barrier. The Environment Agency has provided the results of detailed hydraulic modelling from the TE2100 Study. The reference flood level for the site is 6.03 mAOD for 2100 which is consistent with the proposed usage which includes residential use [Section 3.3 and 3.5 of the original FRA].
- ii. **Finished floor levels for the residential development** are at a minimum level of 7.03 mAOD throughout the Site. [Section 4.2.3 of the original FRA] This includes the Maltings where the lowest proposed residential use is on the first floor for which the FFL is 8.63 mAOD.
- iii. The Finished Floor Level for non-residential use is predominantly at a level of 6.03 mAOD with some below this level. These include commercial buildings along Mortlake High Street and the existing Maltings Building. These have been reviewed individually to ensure that the residual risk is appreciated in the design and to ensure that there is safe access to higher levels. [Section 4.2.3 of the original FRA and Appendix B of this Report].
- iv. **The Finished Floor Level for the School** has been agreed with the Environment Agency at a level of 5.9 mAOD. This follows from a shorter design life for the School with a consequential reduction in the allowance for climate change.
- v. The site currently benefits from **tidal flood defences** along the river frontage. These are formed from the residual walls from historic buildings plus The Maltings, a building which is being retained. As part of the development, the tidal defences will be remodelled. The crest will be at, or above, the Environment Agency's recommended 2100 crest level of 6.70 mAOD, so there will be no need to increase the defences over this timescale. The risk of breach of the new defences is considered negligible, due to the landscaping of the site and backfilling on the landward side of the defences. A more open river frontage will be created in line with the aspirations of the Environment Agency. A small section of the tidal defences that are currently formed by Ship Lane will need to be raised in the future with the current

proposal based on the raising of Ship Lane to create a passive defence. [Section 4.2.2 of the FRA].

- vi. **The Basement** is not for habitation and is solely for car/bike parking and plant with separate car parks under the parts of the Site, east and west of Ship Lane. There are two entry/exit ramps for the car park to the east of Ship Lane; that in Ship Lane will be located above the reference flood level, whilst that in Mortlake High Street will be protected by a self-activating flood barrier [Section 4.2.4 of the original FRA]. The single entry/exit for the car park to the west of Ship Lane will be above the reference flood level.
- vii. The basement is mostly located above local groundwater levels as noted in FRA [Section 3.3.2 and 4.2.6 of the original FRA]. There is potential for minor encroachment under the car park and for the lower basement under the cinema. Whilst this encroachment is not considered to pose any groundwater flood risk, either on-site or off-site, it will need to be taken account of in design and construction of the basement, as noted in the Basement Impact Assessment<sup>6</sup>.
- viii. **Safe access and egress** is provided within the site, where access is available to all residential property with at, or above the reference flood level for 2100 [Section 4.2.5 and Appendix G of the FRA].
- ix. **The Residual Risks** are mainly due to the risk of breach of the tidal defences. This risk is negligible for current flood levels but will increase in line with projected increases in tidal flood levels. **Breach modelling** has been undertaken [Appendix D and Section 4.3.4 of the original FRA]. This has shown that there is a general reduction in flood extents and depths resulting from a breach following the development of the Site. Other risks have been assessed and are considered to be negligible [Section 4.4]. A maintenance programme of key drainage infrastructure should be put in place by Site Managers to ensure that residual risks are minimised.
- x. **Flood risks during the period of construction** have been assessed and, with the adoption of standard site management practice, they should be of no practical consequence. It is anticipated that the construction of the basement will require dewatering of the excavation area [Section 4.5 of the original FRA].
- xi. The appropriate climate change allowances have been incorporated into the FRA. The peak levels in the River Thames have been provided by the Environment Agency and reflect their modelling undertaken as part of the TE2100 work. Levels for 2100 have been used for residential use with levels for 2065 used for commercial uses with shorter design life. These levels have been used to inform development across the Site and the breach modelling. Projected increases in rainfall of +40% have been incorporated into the Surface Water Drainage Strategy in accordance with Environment Agency guidelines. The climate change

<sup>&</sup>lt;sup>6</sup> Former Stag Brewery, Mortlake. Waterman Infrastructure & Environment Limited. Basement Impact Assessment Report. April 2023, Ref WIE18671-100.R.24.2.2.BIA.

allowances were revised in 2022<sup>7</sup>; however, the provisions used for the FRA are still appropriate under the latest guidelines.

# 3.3 Confirmation that the proposed development will not lead to an increase in flooding elsewhere

The following points confirm that the proposed development will not lead to an increase in flooding elsewhere:

- i. It has been confirmed by the Environment Agency that, since the area is affected by tidal flooding, there is no requirement to provide **Flood Storage Compensation** [Section C.1 and Section 4.3.2 of the original FRA].
- ii. The surface water drainage strategy has been prepared under separate cover by Waterman IE. Subsequent to submission of the planning application, the drainage strategy has been subject to minor updating to respond to consultee comments<sup>8</sup>. Part of the site would discharge on an unrestricted basis to the River Thames. The remainder would discharge to the Thames Water sewer, via attenuation storage that would lead to a 95% reduction below the existing rate of runoff. This satisfies the requirements of the NPPF and the London Plan and reduces the pressure on existing sewerage infrastructure [Section 4.3.3 of the original FRA].
- iii. Appropriate **treatment** would be incorporated into the drainage system to ensure that the quality of water discharged is acceptable. This would be achieved through the incorporation of green roofs, permeable paving aggregate sub-base, rain gardens, and rainwater harvesting. A biomat filtration system within the attenuation tanks and downstream defenders or similar hard engineered solution would also be incorporated if deemed necessary at detailed design to ensure discharge is appropriately treated [Section 4.3.3 of the original FRA].
- iv. The proposed development is considered to have no significant influence on **groundwater levels** in the surrounding area. This follows from the hydraulic gradient being away from the River Thames [Section 4.3.5 of the original FRA].

#### 3.4 Flood Risk Reduction to the wider community

Flood risk reductions for the wider community are envisaged as follows:

i. Under the conditions envisaged by the Flood Emergency Plan, the development would provide benefits to **the wider community** including the provision of emergency car parking;

<sup>&</sup>lt;sup>7</sup> <u>https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances</u>

<sup>&</sup>lt;sup>8</sup> The Former Stag Brewery, Mortlake. Waterman Infrastructure & Environment Limited, Drainage Strategy, April 2023, Report WIE18671-104-R-11-7-1-DS.

use of the proposed emergency access and use of the site as a refuge [Appendix F of the original FRA].

- ii. As noted in point ii above, the attenuation storage will lead to a **95% reduction** below the existing rate of runoff into the Thames Water Sewer system achieved in part by permeable paving, rain gardens, and underground attenuation tanks. This will provide spare capacity in the network and reduce the incidence of surface water flooding.
- iii. Appropriate treatment would be incorporated into the drainage system to ensure that the quality of water discharged is acceptable. This would be achieved through the incorporation of green roofs, permeable paving aggregate sub-base, rain gardens, and rainwater harvesting. A biomat filtration system within the attenuation tanks and downstream defenders or similar hard engineered solution would also be incorporated if deemed necessary at detailed design to ensure discharge is appropriately treated. These measures will contribute to improved discharge water quality and reductions in sediment. These, in turn, can contribute to more effective and sustainable drainage systems.
- iv. It is considered that the proposed development would result in a significant reduction in residual risk. This is partly due to the greater integrity of the defences, post development, and partly due to likely lower incidence of breach at the stop-logs in Bull's Alley.
- v. The **breach modelling** undertaken as part of this FRA has shown that in the event of a breach, there will be a general reduction in flood extent and depths in the streets surrounding the Site compared with the Environment Agency modelling [Section 4.3.4 & Appendix D of the original FRA].

#### 4 Flood Resilience and Flood Resistance

Further clarification has been sought from LBRuT in relation to the following:

- Flood resistance which are measures to exclude flood water from properties; and
- Flood resilience being the use of flood resistant materials in construction that can speed the recovery following a flood event.

This Section reviews the requirement for and use of such measures for the application.

The Site is currently protected by flood defences to a standard of 1 in 1,000 (0.1%) with the following description provided by the Environment Agency:

The design standard of protection of the flood defences in this area of the Thames is 0.1% AEP; they are designed to defend London up to a 1 in 1000 year tidal flood event. The defences are all raised, man-made and privately owned. It is the riparian owners' responsibility to ensure that they are maintained to a crest level of 5.94 m AODN (the Statutory Flood Defence Level in this reach of the Thames). We inspect them twice a year to ensure that they remain fit for purpose. The current condition grade for defences in the area is 2 (good), on a scale of 1 (very good) to 5 (very poor).

It is proposed that the defences will be raised in line with the requirements of the Environment Agency TE2100 strategy. As outlined in the FRA [Section 4.2.2], defences will be raised to a level of 6.70 mAOD to maintain the design standard up to 2100 based on current design assumptions.

The risk of overtopping of the defences is very small given the design standard plus freeboard provision. The negligible risk of overtopping means that any additional flood resistance/resilience measures are not warranted.

There is a risk that the defences may be breached and that such a breach may affect the Site. The likelihood of a breach along the river frontage is likely to be low given the condition of the defences and that they will be backfilled for much of the frontage. However, there remains a theoretical risk of breach at Bulls Alley, immediately east of the Site. The potential impacts of a breach at this location have been investigated through modelling and described in Appendix D of the FRA.

It is not possible to quantify the risk; though the risk can be mitigated through regular inspection and appropriate maintenance. The defences are accessible and subject to regular inspection which should highlight the need for any corrective action.

## The practical risk of a breach is considered low and does not warrant any specific flood resilience measures.

However, some flood resistance measures are warranted in the unlikely event of a breach, as described in the FRA:

- Flood proof door for the sub-station in Building B10 (Flexible Use and sub-station) [Section 4.2.3, p56]; and
- Self-activating flood barrier for the basement car park entry from Mortlake High Street [Section 4.2.4, page 58].

Flood resistance measures will be required where there is potential for groundwater ingress into basement structures. As noted in the Basement Impact Assessment for interventions to the east of Ship Lane, basements will be designed to prevent water penetration [Section 2.5 of BIA].

#### 5 Summary

This Addendum has reviewed the application of the Exception Test in respect of the proposed redevelopment of the Stag Brewery, Mortlake under Applications A and B.

- Section 2 summarises the key sustainability benefits that form part of the proposed scheme.
- Section 3 has confirmed that the Site can be developed safely over its lifetime, will not increase flood risk elsewhere and will offer some overall reduction in flood risk.
- Section 4 has described the flood risk context in relation to the requirements for flood resilient and resistant construction. Flood resistant measures are proposed at two locations whilst there are no recommendations for flood resilience due to the low risk of overtopping and breach of the defences.

It is thus concluded that the requirements of the Exception Test are passed. Table 1 is offered as a succinct summary of the key components of the Exception Test.

	Policy requirement	Но	w the scheme meets policy
А	The development would provide wider	Wi	ider sustainability benefits of redeveloping
	sustainability benefits to the community that	thi	s brownfield site include the following
	outweigh the flood risk	ес	onomic and social benefits (Section 2.5)):
	<ul> <li>The re-use of suitable brownfield land as</li> </ul>	•	The provision of over 1,000 new homes
	part of a local regeneration scheme.		(including affordable housing);
	<ul> <li>An overall reduction in flood risk to the</li> </ul>	•	Provision of a multi-generation secondary
	wider community through the provision of,		school;
	or financial contribution to, flood risk	•	New sixth form entry secondary school;
	management infrastructure.	•	Provision of MUGA and sports hall as part of
	• The provision of multifunctional Sustainable		the secondary school for use by students and
	Drainage Systems that integrate with green		the local community (by agreement);
	infrastructure, significantly exceeding the	•	Significant place-making and architectural
	Framework policy requirements for SUDs		benefits including the creation of a new
			active high street and river front uses,
			opening up of the Site through creation of
			new publicly accessible open and green
			spaces, and high-quality architecture which
			includes incorporation of the existing historic
			buildings;
		•	Provision of new community spaces,
			including a community centre on the ground
			floor of Building 5;
		•	Provision of job growth and new
			employment opportunities.
		•	investment in nignways improvement works
			Continue of new nodestrian and evels results
		•	creation of new pedestrian and cycle routes
			connections, including onbansing the
		•	includes incorporation of the existing historic buildings; Provision of new community spaces, including a community centre on the ground floor of Building 5; Provision of job growth and new employment opportunities. Investment in highways improvement works and bus contribution to TfL and Creation of new pedestrian and cycle routes through the Site to add to existing local connections, including enhancing the

Table 1: Exception Test – Summary of key points

existing towpath and creating a new expansive link from Mortlake Green through to the river.
Other sustainability benefits are as follows:
<ul> <li>Ecological enhancement (Section 2.1)</li> <li>Mix of evergreeen and deciduous trees proposed, including up to up to 428 new trees and up to 99 individual and 3 tree groups retained</li> <li>Minimum of 10 bat boxes and provision of 20 bird nest boxes and a peregrine falcon nest box;</li> <li>Use of native species, or species of benefit to wildlife throughout the Development;</li> <li>incorporation of deadwood features within landscape areas, to provide opportunities for a range of invertebrates; and</li> <li>biodiverse roofs, including a mix of green and brown roofs.</li> </ul>
<ul> <li>Site user wellbeing (Section 2.2)</li> <li>Improve access to green infrastructure by providing green space throughout the Proposed Development;</li> <li>Enable people to live healthy and active lifestyles due to the provision of suitable cycle parking to encourage commuting by bike; and</li> <li>Allow staff/occupiers and visitors of all ages and stages of life to access the Proposed Development's non-residential areas by ensuring suitable access provisions.</li> </ul>
<ul> <li>Energy strategy (Section 2.3)</li> <li>proposed energy strategy follows a fabric first approach in accordance with the energy hierarchy;</li> <li>An all-electric heating strategy will be adopted to enable ongoing decarbonisation from the National Grid; and</li> <li>Low carbon technologies such as Air Source Heat Pump (ASHP) and rooftop Photovoltaic (PV) panels have been incorporated.</li> </ul>
Resource management (Section 2.4)• Elements of existing structure will be repurposed to form part of the overall offering, reducing the overall embodied carbon:

		<ul> <li>Specification of water fittings will ensure that potable water demand is lowered;</li> <li>The submitted Site Waste Management Plan (SWMP) has been prepared to ensure that waste generated during the construction stage will be diverted from landfill or reused on site where feasible; and</li> <li>The Site has been developed to be climate resilient.</li> </ul>
		Flood risk management infrastructure provided through the project that contributes to reducing flood risk includes refurbishment of the tidal defences, drainage infrastructure that will reduce site runoff and benefits arising from the Flood Emergency Plan. The proposed drainage strategy achieves a 95% reduction in the rate of runoff to the Thames sewer network, exceeding the policy requirements. This would be achieved through the incorporation of green roofs, permeable paving aggregate sub-base, rain gardens, and rainwater harvesting and attenuation storage.
В	<ul> <li>Taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall. development will be safe for its lifetime</li> <li>Incorporating green infrastructure</li> <li>make additional space for the flow and storage of flood water.</li> <li>Providing SUDs that manage flood risk beyond the proposed site and above the usual standard.</li> <li>Providing or making contributions to flood risk management infrastructure that will provide additional benefits to existing communities and/or by safeguarding the land that would be needed to deliver it.</li> </ul>	<ul> <li>Green infrastructure is to be provided as described in Section 2.1</li> <li>The crest level of the proposed defences is at a minimum of 6.70 mAOD. This is the level recommended in the TE2100 Plan for 2100. It is therefore well above the current statutory level and obviates the need for any raising to be undertaken for the foreseeable future.</li> <li>Being located in tidal flood risk areas, there is no requirement to make additional space for the flow and storage of flood water. However, breach modelling shows that flood extents would be reduced with other benefits described in Section 3.3.</li> <li>Drainage: The runoff rate is reduced by 95% and exceeding local planning policy requirements.</li> <li>Residential finished floor levels at a minimum of 7.03 mAOD will provide freeboard of 1 m exceeding policy requirements.</li> </ul>

	•	The default FFL for non-residential use is
		6.03 mAOD. The instances where the FFL is
		lower than the design flood levels are listed
		in Appendix B. This has been
		accommodated in the design and in all
		cases, safe internal access is available to
		"safe (dry)" levels.
	•	Under the conditions envisaged by the Flood
		Emergency Plan, the development would
		provide benefits to the wider community
		including the provision of emergency car
		parking; use of the proposed emergency
		access and use of the site as a refuge.

#### Appendix A Extracts from Planning Statement highlighting Public Benefit



Harm is judged to be at the lower end of Less than Substantial, and although the heritages would be subject to change which would reduce their significance, the loss would be minimal.

- 16.38 <u>Planning balance:</u> Paragraph 202 of the NPPF states that, where a development proposal would lead to 'less than substantial harm', this harm must be balanced against the public benefits of the Proposed Development. The public benefits of the scheme are substantial and wide ranging, and it is considered that these benefits significantly outweigh the less than substantial harm caused to the Mortlake Conservation Area. The public benefits resulting from the Proposed Development are as follows:
  - i. Up to 1,085 new homes across the Site, providing an appropriate mix of units, tenure types and sizes, and making a positive contribution to the housing shortfall and overall need as identified by the London Plan, and which will help to support London's growth as a world class city.
  - ii. Of these 1,085 new homes, the scheme will provide affordable housing, which will provide a unique opportunity to maximise the delivery of affordable housing provision across the borough, to deliver for a more varied type of housing and for different levels of affordability. This will also help make a positive and significant contribution towards overall need for housing and ensure that the redevelopment of the Site will contribute positively to the creation of mixed and inclusive communities.
  - iii. Delivery of a new 6 form entry secondary school, with a capacity to provide secondary school places for 1,200 pupils. This will ensure that there is an adequate supply of good quality education and childcare facilities to help meet the growing need for secondary school places across London, in accordance with paragraph 5.3.5 of the London Plan, whilst offering greater educational choice.
  - iv. Mix of high street uses including 4,547sqm of office space, a new cinema and up to 4,839sqm of flexible uses (retail, restaurant, leisure, community). This will help to support the vitality of viability of the scheme and ensure that the design approach creates new active frontages, which will help to encourage strong, resilient, accessible and inclusive hubs with a diverse range of uses that meet the varied needs of Londoners, including main town centre uses, night-time economy, civic, community, social and residential uses.

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- v. The scheme will utilise its proximity to the River Thames as a key asset and provide a new water sports centre (boathouse) to utilise this which will provide for informal waterside recreation and access. This will help to increase public access and optimise the use of land to ensure the scheme maximises the wider public benefits on balance.
- vi. The scheme will retain the existing Maltings building and refurbish the building to bring it back into viable, active community use for the benefit of the public.
- vii. The scheme will deliver new, well-designed architecture which will result in beneficial improvements to river front views, as a result of the introduction of high-quality buildings of considerable scale. Several sports facilities will be provided including a full-size floodlit football pitch, indoor and outdoor MUGAs, an indoor activity hall and associated changing room facilities. The proposed enhancement and improvements to the existing and provision of new facilities and spaces will allow for year-round usage for the benefit of the new school and community. The use of these facilities will be subject to a Community Use Agreement, which will actively encourage and promote the multi-use of the premises and access for a range of user groups. This will enable and promote physical activity and encourage healthier lifestyles and habits for all ages.
- viii. Job growth and new employment opportunities, during both the construction period and post-completion, supporting local regeneration and enabling access to a wide range of jobs, enhancing the skills of local people and driving growth to benefit the area and London.
- A significant CIL contribution to support and fund new infrastructure that the Council and local communities want, including significant contributions towards Mayoral CIL.
- x. A programme of investment in highways improvement works are proposed. These works are required to facilitate the development of the new secondary school and/or the wider masterplan development.
- A bus contribution in-lieu will be made payable to TfL to help support improvements to a bus service for the benefit of the public.

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- xii. The development may contribute towards Controlled Parking Zones ("CPZ") either to support the introduction or extension of parking or waiting controls in the area to alleviate any parking stress that the development may generate.
- xiii. A contribution in-lieu towards upgrade works to the level crossing on Sheen Lane.
- xiv. The proposals will create new public routes and cycle ways, both to and from a previously closed site. This will help to create new, healthy routes and improve the overall permeability of the Site both by foot and cycle and connect to local walking and cycling networks; as well as public transport.
- xv. The proposals should help to create a healthy environment in which people choose to cycle, through securing provision of 2,697 new cycle parking spaces (long and short stay), which will be fit for purpose, secure and well-located across the development.
- xvi. A cash-in-lieu contribution towards the carbon offset fund to ensure that the development maximises energy efficiency and can help to cut pollution and keep energy consumption lower.
- xvii. Improvements to the city's green infrastructure to provide over 400 new trees and other vegetation, which will be incorporated into the public realm proposals for the development across the whole of the Site. This will help to provide several public benefits including: rainwater management through sustainable drainage, reduce exposure to air pollution, moderate surface and air temperature, and improve overall levels of biodiversity.
- xviii. A total provision of 4.83 (including towpath) / 4.54 (excluding towpath) ha of open space across the whole to be of a better quality and more accessible to the public, which represents an average of approximately 51% of the overall site area.
- xix. Creation of a new public route to the River Thames and new open spaces adjacent, together with improvement works to the existing towpath.
- 16.39 All of these elements would result in a substantial social economic and environmental benefits. These public benefits, in the context of paragraph 202 of the NPPF, far outweigh the identified harm caused.

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## Appendix B Evaluation of Buildings where FFL is lower than the design flood level

Building	Flood level	FFL	Comment
	(mAOD)	(mAOD)	
Cinema (B01) – office	5.52 (to 2065)	5.10	Internal access available to higher levels
Cinema (B01) – basement access	5.52 (to 2065)	5.565	Entrance (cill) is above the flood level
Maltings (B04) – access	6.03	5.53	There is no practical route for water to affect this part of the Site. If it did, the
			hazard rating for the access is graded as "safe for all" to reach a safe level of
			6.03 mAOD.
Lobby/restaurant (B05)	5.52 (to 2065)	5.15	Internal access available to higher levels
Flexible Use (B06)	5.52 (to 2065)	5.22	Internal access available to higher levels
Boathouse (B09)	5.62 (to 2065)	4.90	Internal access available to higher levels



Planning

Landscape

Architecture

Hydrology

Ecology

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