WOOTTON HALL PARK
NORTHAMPTON, NN4 0JA

FLOOD RISK ASSESSMENT
FOR
JONES LANG LASALLE

June 2016

Our Ref: HLEF42515/001R

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Date: 3rd June 2016

This report has been prepared in the RPS Group Quality Management System to British Standard EN ISO 9001:2008

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1. The following notes should be read in conjunction with the report:

2. This report contains only that available factual data for the site, which was obtained from the sources, described in the text. These data were related to the site on the basis of the location information made available to RPS by the client.

3. The assessment of the site is based on information supplied by the client. Relevant information was also obtained from other sources.

4. The report reflects both the information provided to RPS in documents made available for review and the results of observations and consultations by RPS staff.

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6. This report is prepared and written in the context of the proposals stated in the introduction to this report and its contents should not be used out of context. Furthermore new information, changed practices and changes in legislation may necessitate revised interpretation of the report after its original submission.

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1 INTRODUCTION

1.1 RPS was commissioned to undertake a Flood Risk Assessment (FRA) of Wootton Hall Park, Northampton NN4 0JA in relation to the proposed development of the site to provide temporary school accommodation.

1.2 The aim of the FRA is to outline the potential for the site to be impacted by flooding, the impacts of the proposed development on flooding in the vicinity of the site, and the proposed measures which could be incorporated into the development to mitigate the identified risk. The report has been produced in accordance with the guidance detailed in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance (PPG). Reference has also been made to the CIRIA SUDS manual (C753), the West Northamptonshire Strategic Flood Risk Assessment (SFRA).

1.3 This report has been produced in consultation with the Environment Agency (EA) and the Lead Local Flood Authority (LLFA).

1.4 This report is not intended to provide formal details of the final drainage design for the development. However, it provides information regarding the capabilities of the conceptual surface water drainage strategy to meet the requirements of the NPPF.

1.5 The desk study was undertaken by reference to information provided / published by the following bodies:

- EA
- British Geological Survey (BGS)
- Ordnance Survey (OS)
- Anglian Water
National Planning Policy

2.1 The PPG released in March 2014, advises of the requirements for a site specific Flood Risk Assessment (FRA) for any of the following cases:

- All proposals (including minor development and change of use) located within the EA designated floodplain, recognised as either Flood Zone 2 (medium probability) or Flood Zone 3 (high probability);
- All proposals greater than 1ha in an area located in Flood Zone 1 (low probability);
- All proposals within an area which has critical drainage problems (as notified to the Local Planning Authority by the EA); and
- Where proposed development may be subject to other sources of flooding.

2.2 In a written statement to Parliament on 18th December 2014, the Secretary of State for Communities and Local Government strengthened existing planning policy on sustainable drainage, making it clear that sustainable drainage systems should be provided in new developments, unless demonstrated to be inappropriate. The statement requires that:

‘in considering planning applications, local planning authorities should consult the relevant lead local flood authority on the management of surface water; satisfy themselves that the proposed minimum standards of operation are appropriate and ensure through the use of planning conditions or planning obligations that there are clear arrangements in place for ongoing maintenance over the lifetime of the development. The sustainable drainage system should be designed to ensure that the maintenance and operation requirements are economically proportionate’.

2.3 These changes took effect from 6 April 2015. This policy applies to all developments of 10 homes or more and to major commercial development.

2.4 Defra published their ‘Non-statutory technical standards for sustainable drainage systems’, in support of the above policy changes, in March 2015.

Local Planning Policy

2.5 The West Northamptonshire Joint Core Strategy Local Plan was adopted in December 2014 and contains the following policy relating to flood risk and drainage:
Policy BN7 – Flood Risk

2.6 Development proposals will comply with flood risk assessment and management requirements set out in the National Planning Policy Framework and Planning Practice Guidance and the West Northamptonshire Strategic Flood Risk Assessment to address current and future flood risks with appropriate climate change allowances.

2.7 A sequential approach will be applied to all proposals for the development in order to direct development to areas at the lowest probability of flooding unless it has met the requirements of the Sequential Test and the Exception Test as set out within Table 6.

2.8 All new development, including regeneration proposals, will need to demonstrate that there is no increased risk of flooding to existing properties, and proposed development is (or can be) safe and shall seek to improve existing flood risk management.

2.9 All proposals for development of 1 hectare or above in Flood Zone 1 and for development in 2, 3a or 3b must be accompanied by a Flood Risk Assessment that sets out the mitigation measures for the site and agreed with the relevant authority.

2.10 A Flood Risk Assessment must also accompany proposals where it may be subject to other sources, and forms, of flooding or where other bodies have indicated that there may be drainage problems.

2.11 In order to meet the Exception Test development must:

- Demonstrate that the development provides wider sustainability benefits to the community that outweigh the flood risk;
- Be located on previously developed land; and
- Be accompanied by a site specific Flood Risk Assessment that demonstrates that the development will be safe for its lifetime without increasing flood risk elsewhere and where possible, reduce flood risk overall.

2.12 Where flood risk management requires the use of sustainable drainage systems to manage surface water runoff, these should:

- Separate surface water from foul and combined sewers;
- Be accompanied by a long term management and maintenance plan; and
- Protect and enhance water quality.

2.13 The design standard for the Upper Nene catchment (through Northampton and within the Nene catchment upstream of Northampton) is the 0.5% probability (1 in 200 chance of occurring in any
year) event plus climate change. Surface water attenuation should be provided up to this standard.

2.14 No policies relating to flood risk and drainage were saved from the 1997 Northampton Local Plan, following the Planning and Compulsory Purchase Act 2004.

2.15 The Northamptonshire County Council ‘Surface Water Guide for Developers’ contains further guidance for the design of drainage schemed within the County. This guidance has been reviewed in conjunction with the production of this FRA report.

2.16 The West Northamptonshire SFRA identifies and maps flood risk from all sources at a borough-wide scale as well as providing guidance on producing site specific FRAs. Relevant information from the SFRA has been referenced throughout this FRA report.
3 CONSULTATION

3.1 The public sewer network within the vicinity of the site is operated by Anglian Water. RPS is awaiting the results of a pre-development enquiry has been made to Anglian Water.

3.2 Anglian Water have advised that they have no records of flooding in the vicinity of the site that can be attributed to capacity limitations in the public sewerage system.

3.3 The conceptual surface water attenuation scheme presented in the FRA (see section 10) is intended to demonstrate that a feasible surface water attenuation solution can be achieved on the site to meet the requirements of the NPPF. The detailed drainage design for the proposed development will be finalised in consultation with Anglian Water at detailed design stage.

3.4 The LLFA is Northamptonshire County Council (NCC). RPS was advised that despite the site’s temporary use, it must comply with NCC’s drainage requirements and provide attenuation for the 1 in 200 year plus climate change (in accordance with the EA’s new climate change guidance) event. In addition to the site’s location upon potentially permeable stratum, soakaway testing must be undertaken at the pre-submission stage to investigate the suitability of the use of infiltration techniques at the site, in accordance with the Drainage Hierarchy.

3.5 The site is not located within an IDB District.
4 SITE DESCRIPTION

Site Description

4.1 The site is located at National Grid Reference SP 75268 57633. It is irregular in shape, occupying an area of approximately 2.5 hectares. A site location plan is provided in Figure 1.

4.2 The site is currently primarily occupied by a playing field which comprises part of Wootton Hall Park. A small car park is located in the west of the site, with a sports club house and associated parking in the northeast of the site.

4.3 The site is currently accessed from Wootton Hall Park to the west.

4.4 The site is currently occupied 90% by soft landscaping and 10% by hardstanding.

Surrounding Land Uses

4.5 The site is located within a mixed residential and commercial (associated with Northamptonshire Police Headquarters) area.

4.6 There are no designated sensitive areas (e.g. Special Area of Conservation (SAC), Special Protection Area (SPA) or Site of Special Scientific Interest (SSSI)) within close proximity to the site. However, the site is located within an SSSI Impact Risk Zone, with restrictions in place for any discharge of water or liquid waste that is more than 20m³/day.

Topography

4.7 A Topographic Survey of the main body of the site (the sports field) was undertaken by CSL Surveys Ltd (March 2016, ref. 05416RP). Levels within this area vary between 100.15m AOD in the northwest and 97.52m AOD in the southeast. The site slopes down towards the southeast. The topographic survey is located in Appendix A.
5 PROPOSED DEVELOPMENT

5.1 It is proposed to develop the site to provide temporary modular classrooms arranged over ground and first floors for use as a school for a period of three years. A plant room will be located at roof level. External hard court games areas and play space will be provided in the east of the site, a grass pitch in the north and car parking in the west of the site. Development plans are shown in Appendix C.

5.2 Vehicular and pedestrian access will continue to be from Wootton Hall Park to the west of the site with an additional route to the northeast of the site. A new pedestrian / cycle route will be created to the northwest of the site. A temporary access route for the construction phase will be constructed to the north of the site, connecting to Wootton Hall Park.

5.3 Following redevelopment, the site will be occupied approximately 10% by building footprint, 50% by hardstanding and 40% by soft landscaping.

5.4 The proposed use of the site is classified as ‘more vulnerable’ within the PPG.

5.5 At this stage, an indicative drainage layout has not been designed for the site. It is anticipated that surface water runoff will pass to existing surface water sewer. The acceptable discharge rate to the existing mains sewer will need to be agreed with Anglian Water in consultation with the LLFA and with reference to NCC’s Surface Water Guide for Developers.

5.6 The potential to provide surface water attenuation, including the use of Sustainable Drainage Systems (SuDS), has been considered as part of the preliminary design process (see Section 10 – Surface Water Management).
6 HYDROLOGICAL SETTING

Nearby Watercourses

6.1 Reference to OS Mapping indicates that the nearest surface water feature is a surface water drain located 250m southwest of the site. It flows in a southwesterly direction towards the Wootton Brook 1.15km southwest of the site.

6.2 No artificial watercourses or significant artificial features (e.g. canals, reservoirs) have been identified within 1km of the site.

Flood Risk Classification

6.3 The EA flood map (available online) indicates that the site is located within Flood Zone 1, whereby the annual probability of flooding from fluvial or tidal sources is classified as less than 1 in 1000. The EA Flood Map is provided in Figure 2.

6.4 The EA Risk of Flooding from Surface Water map (available online) indicates that the site is predominantly at a ‘very low’ risk of surface water flooding. This corresponds with an annual probability of flooding that is less than 1 in 1000. A small area in the southeast is indicated to be at a ‘low’ risk of surface water flooding, whereby the annual probability of flooding is greater than 1 in 1000 but less than 1 in 100. An area along the southern boundary of the site and to the north of the sports club house are indicated to be at a ‘high’ risk of flooding, whereby the annual probability is greater than 1 in 30. In the latter areas, whilst surface water flood depths are indicated to be greater than 300mm in places, floodwater velocities would remain almost entirely below 0.25 m/s.

6.5 EA mapping also indicates that the site is not located within an area potentially at risk from reservoir flooding.

6.6 The West Northamptonshire Level 1 SFRA was published in February 2009. It provides an overview of flood risk from various sources within the borough. Information of relevance to this assessment is summarised below:

- No Critical Ordinary Watercourses were identified within 1km of the subject site.
- The site is not located within a Local Flooding Hotspot. These flooding hotspots result from under capacity of structures, surface water flooding and the overflowing of watercourses.
- No historical flooding incidents were recorded to have occurred at the subject site from data provided by the Local Planning Authority, IDB, Water Company and the EA (both the historical flood map and information on local flooding issues).
• No documented groundwater flooding incidents were identified within the study area within Catchment Flood Management Plans (CFMPs) and therefore groundwater flooding was not considered to be a significant issue.

• The subject site was not identified as a potential development site and therefore was not specifically assessed within the SFRA.
7 HYDROGEOLOGICAL SETTING

7.1 Reference to the BGS online mapping (1:50,000 scale) indicates that the southeastern corner of the site is underlain by Mid-Pleistocene Glaciofluvial deposits, comprising sand and gravel. No superficial deposits were recorded across the rest of the site. The site as a whole is underlain by the Stamford Member comprising sandstone and siltstone.

7.2 No readily available BGS borehole logs were located in close proximity to the site.

7.3 The soils are described as ‘freely draining lime-rich loamy soils’ by the National Soils Research Institute.

7.4 According to the EA’s online Groundwater Vulnerability Mapping, the Glaciofluvial deposits and the underlying Stamford Member are classified as Secondary A Aquifers. These formations are formed of permeable layers capable of supporting water supplies at a local scale, in some cases forming an important source of base flow to rivers.

7.5 Reference to the EA’s online groundwater Source Protection Zone maps indicates that the site is not located within a groundwater Source Protection Zone.
8 EXISTING DRAINAGE / WATER MAINS

8.1 Reference to Anglian Water plans of public sewers (shown in Appendix C) indicates that a 600mm diameter surface water sewer is located 35m west of the site. This flows in a northwesterly direction.

8.2 A manhole (ref. 1656; 35m west of the site) associated with this sewer has a cover level of 96.67m AOD and an invert level of 94.68m AOD.
9 FLOOD RISK AND MITIGATION

9.1 The key sources of flooding that could potentially impact the site are discussed below:

Fluvial / Tidal Flooding

9.2 The EA Flood Map (see Figure 2) indicates that the site is located within Flood Zone 1. The annual probability of fluvial or tidal flooding is classified as less than 1 in 1000.

9.3 There were no records of historical fluvial or tidal flooding at the subject site in the SFRA.

9.4 Dry access and egress is available for the site as the surrounding area is also located within Flood Zone 1.

9.5 As the site is located in Flood Zone 1 there will be no increase in fluvial / tidal flood risk as a result of the development.

9.6 The PPG details the suitability of different land uses within each flood zone. The proposed land use is classified as ‘more vulnerable’ and such uses are generally considered appropriate within Flood Zone 1.

9.7 Overall, the risk of flooding from fluvial or tidal sources is considered to be low.

Proposed Mitigation

9.8 No mitigation is required in relation to flooding from fluvial or tidal sources.

Flooding from sewers

9.9 Sewer flooding can occur during periods of heavy rainfall when a sewer becomes blocked or is of inadequate capacity. The site is currently served by sewers located beneath Hardwick Road to the west of the site (detailed in Section 8).

9.10 Anglian Water advised that they have no recorded of sewer flooding incidents in the vicinity of the site. No historical sewer flooding events were recorded at, or in the vicinity of, the subject site in the SFRA. In addition, the site is not located within a ‘Local Flood Hotspot’ as identified using data from Anglian Water, amongst other statutory authorities.

9.11 In the event of sewer surcharging in the vicinity of the site, water would likely flow in a southeasterly direction away from the site, rather than ponding at the subject site.

9.12 The discharge rate to the existing sewer will be agreed with Anglian Water to ensure that there is capacity to receive discharge from the site without significantly increasing flood risk.
Proposed Mitigation

9.13 It is recommended that finished ground floor levels are elevated 150mm above external site levels in accordance with standard construction techniques, to prevent water ingress in the event of sewer surcharging.

Surface water flooding (overland flow)

9.14 This can occur during intense rainfall events, when water cannot soak into the ground or enter drainage systems.

9.15 EA mapping indicates that the site is predominantly at a ‘very low’ or ‘low’ risk of surface water flooding, and would therefore only be affected by a rainfall event with a return period of less than 1 in 100 years. Whilst an area along the southern boundary of the site is at a ‘high’ risk of surface water flooding, RPS notes that all proposed buildings and designated play space is located outside of this area. Therefore, in the event of an intense storm, staff and pupils would not need to access this area and it could be cordoned off. The area of ‘high’ risk to the north of the sports club house is an area of car parking only, and a pedestrian route from the road to the north of the site is available that does not pass through this area. Therefore, should this area flood it would not significantly impact site users.

9.16 No historical flooding incidents were recorded at the site in the SFRA and the site was not identified to be within a ‘Local Flooding Hotspot’. In the event of overland flow, water would likely flow in a southeasterly direction away from the site, following local topography.

9.17 Surface water flooding from on-site sources is considered in Section 10 of this report.

Proposed Mitigation

9.18 It is recommended that finished ground floor levels are elevated 150mm above external site levels, to mitigate against the ingress of any ponded surface water.

9.19 Should a severe rainfall event occur and surface water pond along the southern boundary of the site or in the car park area in the northeast, these areas should be cordoned off to prevent access by staff and pupils.
Groundwater flooding

9.20 This can occur in low-lying areas when groundwater levels rise above surface levels, or within underground structures. BGS mapping indicates that the site is partially underlain by Glaciofluvial Deposits and wholly underlain by the Stamford Member, as a Secondary A Aquifer it is possible that shallow groundwater is present in this stratum, however, no basement levels are proposed at the subject site.

9.21 No recorded groundwater flooding incidents were identified to have occurred within West Northamptonshire, as such groundwater flooding was not considered to be of significant risk.

9.22 Soakaway testing will be undertaken to determine the suitability of infiltration techniques at the site. This will also ensure that the risk of groundwater flooding would not increase as a result of the use of soakaways.

Proposed Mitigation

9.23 No mitigation is required in relation to groundwater flooding.

Other Sources

9.24 There is a limited risk of flooding occurring as a result of a break in a water main. In the event of a burst water main, water would likely follow local topography and flow in a southeasterly direction away from the site.

9.25 The risk of flooding associated with reservoirs, canals and other artificial structures is considered to be low given the absence of any such structures in the site vicinity.

Proposed Mitigation

9.26 In line with good practice and as a precautionary measure, it is recommended that finished ground floor levels are raised 150mm above surrounding ground levels.

Event Exceedence and Residual Risk

9.27 The mitigation measures proposed as part of the development scheme are considered appropriate to mitigate against any residual risks or event exceedence scenarios.


10 SURFACE WATER MANAGEMENT

Introduction

10.1 Following redevelopment the area of hardstanding at the site will increase from 5% to 60%. It will therefore be necessary to compensate for this through the inclusion of SuDS techniques.

10.2 The West Northamptonshire Joint Core Strategy promotes the use of SuDS in all developments. For sites located within the Upper Nene catchment (which the subject site is), surface water attenuation must be provided on-site to enable a 5 l/s discharge rate during a 1 in 200 year plus climate change rainfall event (using the EA’s new climate change allowances).

10.3 Under the PPG, SuDS should be provided for major developments unless demonstrated to be inappropriate. The non-statutory technical standards for SuDS (Defra, March 2015) states that the peak runoff rate from the development for the 1 in 1 year and 1 in 100 year rainfall event should not exceed the equivalent greenfield rate for greenfield developments. Where reasonably practicable, the runoff volume from the development for the 1 in 100 year, 6 hour rainfall event should be constrained to the greenfield volume for greenfield developments.

10.4 RPS understands that the drainage strategy for the proposed development is being designed by others and that it is detailed within a separate report.

Consideration of Sustainable Drainage Systems

10.5 The potential for the use of SuDS has been considered at this stage.

Swales, detention basins and ponds

10.6 Upon initial inspection, the use of swales and basins appears to be feasible at the site. The drainage design report will identify where and how these features can be incorporated.

Soakaways

10.7 Reference to BGS mapping indicates that the site is underlain by Glaciofluvial Deposits and the Stamford Member, which are likely to be permeable. The soils are described as ‘freely draining lime-rich loamy soils’ by the National Soils Research Institute. Given the reported geological conditions beneath the site, it is considered that soakaways could provide a feasible method for the disposal of surface water runoff from the site. Infiltration testing has been undertaken and will be used to determine the suitability of soakaways at the site in the drainage design report.
Rainwater Harvesting

10.8 The attenuation benefits provided through the use of rainwater harvesting are considered to be limited, and would only be realised when the tanks were not full. The use of rainwater harvesting for supplying water to flush toilets will be considered at detailed design stage.

Green roofs

10.9 Due to the temporary nature of the proposed building on site, it is considered that structural concerns will preclude the use of a green roof at the site.

Porous / Permeable Paving

10.10 Permeable paving will be used, where appropriate. Storage would be provided within the sub-grade material prior to either infiltration (dependent upon the results of infiltration testing) or controlled discharge to the receiving stormwater sewer.

Modular Underground Attenuation Tanks

10.11 Following the Drainage Hierarchy, priority should be given to the use of infiltration techniques and soft engineered solutions ahead of the use of an underground attenuation tank.

Conceptual Surface Water Attenuation Scheme

10.12 The conceptual drainage design will be provided within the separate drainage report.

Maintenance of Sustainable Drainage Systems

10.13 The detailed design of the surface water attenuation scheme will take account of the construction, operation and maintenance requirements of surface and subsurface components. Access will be allowed for future maintenance of SuDS elements. A Maintenance Plan will be prepared by those undertaking the drainage design, stipulating a schedule for the inspection and maintenance of SuDS components to ensure efficient operation over the lifetime of the development.

Event Exceedence

10.14 The indicative surface water drainage concept will provide storage up to the 1 in 200 year plus climate change event. In an event exceeding this magnitude, detailed drainage design will identify mitigation measures to ensure that the resulting above-ground flooding will be confined to temporary shallow flooding of the on-site road network / car park and will not affect the buildings on site or significantly increase flood risk to off-site locations.
11 SEQUENTIAL TEST AND EXCEPTION TEST

Sequential Test

11.1 The NPPF requires the Local Authority to apply the Sequential Test in consideration of new development. The aim of the Test is to steer new development to areas at the lowest probability of flooding. Given that the subject site has not been allocated as one of the Council’s proposed future development sites, it has not been specifically assessed within the SFRA. Therefore the Sequential Test is based on the EA Flood Zones and information contained within the SFRA.

11.2 The site is located within Flood Zone 1 and is therefore considered to be at a low risk of fluvial and tidal flooding. No significant risks to the proposed buildings and designated playspace have been identified in relation to flooding from any of the other sources assessed. Therefore, the site is considered to pass the Sequential Test.

The Exception Test

11.3 According to Table 3 of the PPG to the NPPF, ‘more vulnerable’ developments are considered appropriate within Flood Zone 1 without the requirement to apply the Exception Test. Therefore, application of the Exception Test is not required for the proposed development.
12 SUMMARY AND CONCLUSIONS

12.1 The aim of the FRA is to outline the potential for the site to be impacted by flooding, the potential impacts of the development on flooding both onsite and in the vicinity, and the proposed measures which can be incorporated into the development to mitigate the identified risks. The report has been produced in accordance with the guidance detailed in the NPPF. Reference has also been made to the CIRIA SUDS manual (C753), the SFRA and following consultation with the LLFA.

12.2 The potential flood risks to the site, and the measures proposed to mitigate the identified risks, are summarised in the table below:

<table>
<thead>
<tr>
<th>Source of flooding</th>
<th>Identified Risk</th>
<th>Mitigation proposed</th>
<th>Residual risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L</td>
<td>M</td>
<td>H</td>
</tr>
<tr>
<td>Fluvial</td>
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<td>✓</td>
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<tr>
<td>Tidal</td>
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<td>Sewers</td>
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</tr>
<tr>
<td>Surface Water</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Groundwater</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Other Sources (e.g. reservoirs, water mains)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

12.3 The site is located within Flood Zone 1 and is therefore considered to be at a low risk of flooding from fluvial and tidal sources. Whilst areas of elevated surface water flood risk were identified along the southern boundary of the site and in the northeast of the site, no buildings or...
designated playspace are to be located within these areas. Therefore, these areas can be cordoned off to prevent access from staff and pupils in the event of a severe rainfall event and any resulting surface water ponding.

12.4 No significant risks have been identified in relation to flooding from other (non-pluvial) sources. It is recommended that finished floor levels are elevated at least 150mm above surrounding ground levels, this is a precautionary measure to help mitigate against any residual surface water, sewer or burst water main flooding.

12.5 The reduction of surface water runoff to a discharge rate of 5 l/s during a 1 in 200 year plus climate change rainfall event will need to be achieved through the use of appropriate attenuation techniques. [Further assessment will be provided in the final version of the separate drainage report.]

12.6 It has been demonstrated that the development meets the Sequential Test imposed under the NPPF.

12.7 Overall, it has been demonstrated that the development would be safe, without increasing flood risk elsewhere.
FIGURES
Figure 1: Site Location Plan
Map Date: Current
Scale: Not to scale
Figure 2: Environment Agency Flood Map
Map Date: Current
Scale: Not to scale
APPENDIX A

Topographic Survey
Levels Related to OSGB36 unless otherwise stated.

Although every effort has been made to confirm species of trees shown on this drawing if it is critical to design we do not accept responsibility for any errors and advise consultation with an arboriculturist.

Although every effort has been made to confirm type, run and size of drainage it is advisable to check these details against statutory authority records before proceeding with any design.

Do Not Scale From Paper Copies.
Although every effort has been made to confirm species of trees shown on this drawing if it is critical to design we do not accept responsibility for any errors and advise consultation with an arboriculturalist.

Although every effort has been made to confirm type, run and size of drainage it is advisable to check these details against statutory authority records before proceeding with any design.

Do Not Scale From Paper Copies

Levels Related to OSGB36 unless otherwise stated.

As determined by RICS guidelines, this survey has a presentation scale of 1:100. Interrogated dimensions will be within tolerance for this and smaller scales only.

If this is critical to design we suggest further investigation.

No responsibility for any errors beyond the visible fitout.

Every effort has been made to confirm the structure within the building, however this is a non-intrusive survey and we accept no responsibility for any errors and advise consultation with a structural engineer if it is critical to design.

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APPENDIX B

Development Plan
APPENDIX C

Anglian Water Sewer Plans
This plan is provided by Anglian Water pursuant its obligations under the Water Industry Act 1991 sections 198 or 199. It must be used in conjunction with any search results attached. The information on this plan is based on data currently recorded but position must be regarded as approximate. Service pipes, private sewers and drains are generally not shown. Users of this map are strongly advised to commission their own survey of the area shown on the plan before carrying out any works. The actual position of all apparatus MUST be established by trial holes. No liability whatsoever, including liability for negligence, is accepted by Anglian Water for any error or inaccuracy or omission, including the failure to accurately record, or record at all, the location of any water main, discharge pipe, sewer or disposal main or any item of apparatus. This information is valid for the date printed. This plan is produced by Anglian Water Services Limited (c) Crown copyright and database rights 2016 Ordnance Survey 100022432. This map is to be used for the purposes of viewing the location of Anglian Water plant only. Any other uses of the map data or further copies is not permitted. This notice is not intended to exclude or restrict liability for death or personal injury resulting from negligence.
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