Fishing Lodge
Harbottle, Northumberland

Flood Risk Assessment

Report Ref: JCC20-163-C-01
Revision: 00, August 2020

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Document Control Sheet

FISHING LODGE, HARBOTTLE, NORTHUMBERLAND

FLOOD RISK ASSESSMENT

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Project Reference: **JCC20-163**

Report Reference: **JCC20-163-C-01-00**

Status: **Planning**

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Revision Record:

Rev.	Date	Status	Prepared	Signed	Checked	Signed	Approved	Signed
00	17/08/2020	Planning	A Short		T Holland		K Haigh	

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1 BACKGROUND

1.1 BRIEF

JC Consulting Ltd (JCC) has been commissioned by Mr & Mrs O'Kane (The Client) to undertake a Level 1 Flood Risk Assessment (FRA) for a site which is proposed to be redeveloped from an existing farm building to a residential dwelling to be used for holiday rental with associated infrastructure and soft landscaping. This site-specific FRA has been completed to support the planning application.

A site location plan is shown in Figure 1.1. The site is located at Ordnance Survey Grid Ref: NT 93895 04590.

Figure 1.1-1 - Ordnance Survey Map – Site Location

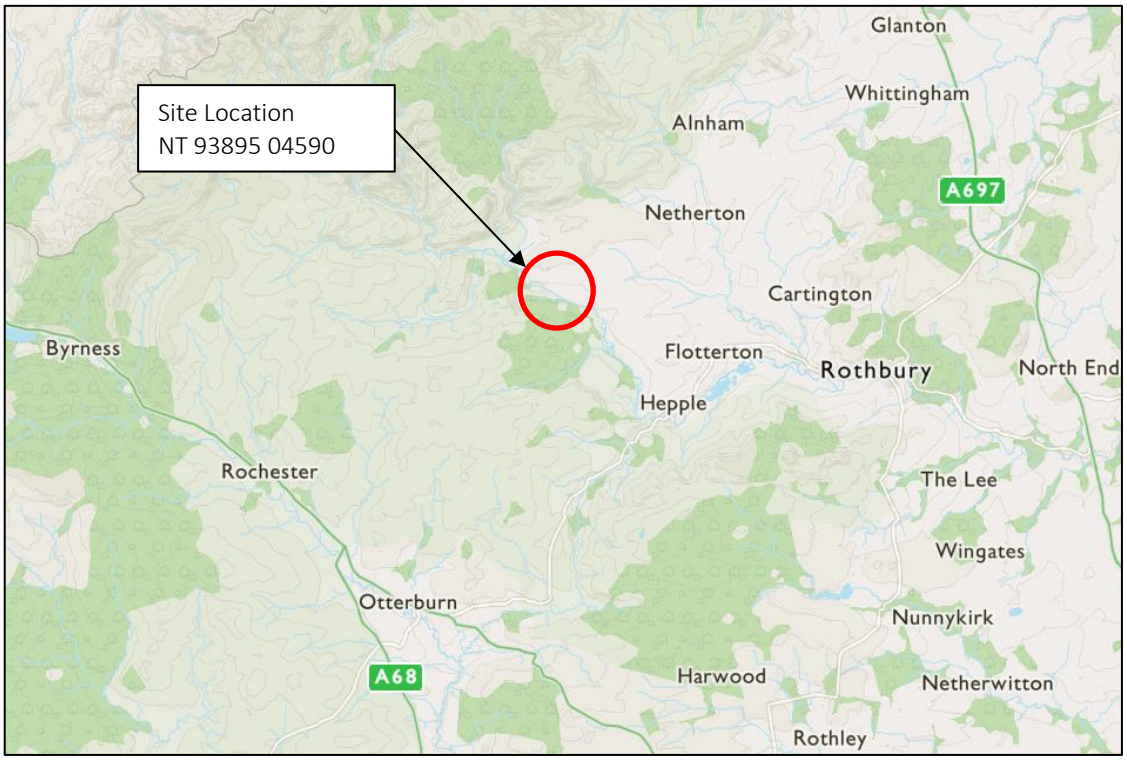


Figure 1.1-2 - Ordnance Survey Map – Site Location

Developments have the potential to be at risk of a range of flooding mechanisms and increase the potential flood risk to the development site and the surrounding area. As such flood risk is assessed with respect to risk to human life, damage to properties and the effect the development may have on surrounding watercourses, bodies of water and drainage systems. This Level 1 FRA has been prepared to examine the possible sources of flooding, within the context of the National Planning Policy Framework (NPPF) and Technical Guidance.

Consultation will be undertaken with the Environment Agency (EA), Northumbrian Water Limited (NWL) and Northumberland County Council (NCC) as part of the planning application. Data has also been gathered from a number of other sources including; National Soil Research Institute (NSRI), local ground investigations, aerial photographs, Ordinance Survey (OS), evidence obtained from the EA online tools and anecdotal evidence.

1.2 REPORT SCOPE

The Objectives of this report are as follows: The Level 1 FRA is based on readily available existing information, including reference to the NCC Strategic Flood Risk Assessment (SFRA) to confirm the extent of flood risk at the site. The report includes the review of site information and likely extent of any flood risk on the site; identification of whether there are any flooding or surface water management issues related to the development that may warrant further consideration; identification and scoping of other flood risks as required i.e. groundwater flooding; and determining whether further assessment is required i.e. a Level 2 FRA.

A FRA should consider a range of flooding mechanisms to satisfy the following three key objectives:

- To assess flood risk to the proposed development and to demonstrate whether any residual risk to the development and its user would be acceptable;
- To assess the potential impact of the proposed development on flood risk elsewhere and to demonstrate that the development would not increase flood risk elsewhere; and
- To satisfy the requirements of national planning policy.

Flood risk should be considered alongside other spatial planning matters such as transport, housing, economic growth, natural resources, regeneration, biodiversity, the historic environment and the management of other hazards. Policies should recognise the positive contribution that avoidance and management of flood risk can make to the development of sustainable communities, including improving local amenities and better overall quality of life.

A FRA should be carried out to an appropriate degree at all levels of the planning process. It should assess the risks of all forms of flooding to and from the development, taking into account climate change, and should inform the application of the sequential approach if applicable.

CIRIA C624 “Development and Flood Risk – Guidance for the Construction Industry” recommend a phase approach with three levels of assessment as define below:

- Level 1: Screening Study to identify whether there are any flooding or surface water management issues related to a development site that may warrant further consideration. The screening study will ascertain whether a Level 2 or 3 FRA is required.
- Level 2: Scoping Study to be undertaken if the Level 1 FRA indicates that the site may lie within an area that is at risk of flooding, or that the site may increase flood risk due to increase run-off. This study should confirm the sources of flooding which may affect the site.
- Level 3: Detailed Study to be undertaken if the Level 2 study concludes that the quantitative analysis is required to assess the flood risk related to the development site.

2 RELEVANT POLICY, LEGISLATION AND GUIDANCE

2.1 OVERVIEW

The Level 1 FRA has been undertaken using the following legislation and guidance:

National Planning Policy Framework

- Flood and Water Management Act
- Northumberland County Council Strategic Flood Risk Assessment – Level 1
- Northumberland Local Flood Risk Management Strategy
- North East Northumberland Catchment Flood Management Plan

2.2 NATIONAL PLANNING POLICY FRAMEWORK

The NPPF published in July 2018 and updated in February 2019, is a key part of the government's reform to make the planning system less complex and more accessible; to protect the environment and to promote sustainable growth.

In addition, the Technical Guidance to the NPPF published by the Department for Communities and Local Government has also been reviewed in relation to flood risk. This document provides additional guidance to ensure the effective implementation of the planning policy set out in the NPPF on development in areas at risk of flooding.

The NPPF aims to prevent inappropriate development in areas at risk of flooding and to ensure that, where development is necessary in areas at risk of flooding, it is safe without increasing flood risk elsewhere. Local Authorities should only consider development in flood risk areas appropriate where informed by a site specific FRA, based upon the EA's Standing Advice on flood risk.

The NPPF requires that a site-specific FRA is required for proposals of 1 hectare or greater in Flood Zone 1; all proposals for new development (including minor development and change of use) in Flood Zones 2 and 3, or in an area within Flood Zone 1 which has critical drainage problems (as notified to the local planning authority by the EA); and where proposed development or a change of use to a more vulnerable class may be subject to other sources of flooding. This means that the FRA should identify and assess the risks of all forms of flooding to and from the development and demonstrate how flood risks will be managed so that the development remains safe throughout its lifetime, taking climate change into account.

Development should be directed as far as practicable towards Flood Zone 1 areas (Low Probability (<0.1% Annual Exceedance Probability (AEP) of fluvial/ sea flooding)) to avoid fluvial flood risks wherever this is possible. For development proposed in Flood Zone 1, if the development area is greater than 1 hectare a FRA will still be required to address design issues related to the control of surface water runoff and climate change, as well as considering any other potential sources of flood risk for the development site.

2.3 THE FLOOD AND WATER MANAGEMENT ACT 2010

The Flood and Water Management Act 2010 determined the need for flood risk to be managed within the framework of National Strategies for England and Wales and within Local Strategies for each Local Flood Authority Area. The national strategy for England sets out the principles for flood risk management and which organisations are responsible for implementation.

In accordance with the national strategy for England, Lead Local Flood Authorities (LLFAs) have been allocated responsibility for developing independent Local Flood Risk Management Strategy's (LFRMS's) to address sources of local flooding. Each LFRMS identifies which local organisation is accountable for managing flood risk and establishes partnership agreements, as well as undertaking an assessment of flood risk and developing plans / actions, for tackling these risks.

2.4 NORTHUMBERLAND COUNTY COUNCIL STRATEGIC FLOOD RISK ASSESSMENT – LEVEL 1

The Level 1 Strategic Flood Risk Assessment (SFRA) was undertaken to provide a robust assessment of the extent and nature of the risk of flooding and its implications for land use planning. The principle aim is to set out flood risk constraints to help inform the preparation of the Local Development Framework for Northumberland.

2.5 LOCAL FLOOD RISK MANAGEMENT STRATEGY FOR NORTHUMBERLAND COUNTY COUNCIL

The Local Flood Risk Management Strategy for Northumberland was prepared to meet the requirements of the Flood risk Regulations, 2011. Northumberland County Council has a duty to develop, maintain, apply and monitor a strategy for local flood risk management that encompasses all sources of flooding. This strategy aims to provide a framework for how they will manage local flood risk.

2.6 NORTH EAST NORTHUMBERLAND CATCHMENT FLOOD MANAGEMENT PLAN

The North East Northumberland Catchment Flood Management Plan provides and overview of flood risk within the catchment and sets out the preferred plan for sustainable flood risk management. It identifies that the upper part of the River Coquet catchment reacts quickly to rainfall events, but that levels also fall quickly. To protect the catchment, it is identified that future development of the River Coquet floodplain should be avoided.

3 SITE AND SURROUNDINGS

3.1 SITE LOCATION AND DESCRIPTION

The application site is situated on the bank of the River Coquet within Northumberland, located at Ordnance Survey Grid Ref: NT 93895 04590. The development site is broadly rectangular in shape, encompassing an area of approximately 0.12ha.

There is an existing building on the site which has previously been used as part of the farm buildings.

The site is bounded by the River Coquet to the north, with pastoral farmland to the east, south and west. The village of Harbottle is approximately 300m to the west to the west of the site.

The application is for the redevelopment of an existing building from a farm building to be used as a residential dwelling used for holiday rental.

3.2 TOPOGRAPHY

A topographical survey for the site has not been completed. However, based on the Ordnance Survey data, it is understood that the approximate elevation of the site is 134m AOD, and that the site slopes towards the River Coquet to the north.

3.3 HYDROLOGY

The Ordnance Survey maps and EA maps show that the site is in within the catchment of The River Coquet, which ultimately discharges to the North Sea approximately 35km downstream of the site. No other named watercourses or drainage ditches are understood to be within the vicinity of the site.

3.4 DRAINAGE

NWL records for the site have not been obtained due to the distance from other infrastructure, it is assumed that there is no adopted sewerage within 100m of the site. It is assumed that surface water from the site and existing building is not formally collected and is discharged to the River Coquet over land at an uncontrolled flow rate.

3.5 FLOOD DEFENCE

There are no flood defence structures present within 1km of the site boundary identified on the EA flood maps.

3.6 RESERVOIR

There are no reservoirs or bodies of water within 1km of the site boundary.

3.7 GEOLOGY AND HYDROLOGY

A Site Investigation has not yet been carried out for the site.

The BGS Geology of Britain Viewer (2014) indicates that the sites bedrock geology comprises of the Ballagan Formation - Sandstone, Siltstone And Dolomitic Limestone. Sedimentary Bedrock formed approximately 345 to 359 million years ago in the Carboniferous Period. Local environment previously dominated by rivers.

Superficial deposits comprise of Alluvium - Clay, Silt, Sand And Gravel. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by rivers.

4 CURRENT SITE FLOOD CLASSIFICATION

4.1 FLOOD RISK AND PROBABILITY

The risk framework outlined in the SFRA defines the flood risk using the categories in Table 4.1. The EA flood map defines the geographical extent of fluvial flooding for Flood Zones 1, 2, 3a and 3b.

Table 4.1 Fluvial Flood Zone Definition

Flood Zone	Definition	Probability
Flood Zone 1	At risk from flood event greater than the 1 in 1000 year event (greater than 0.1% annual probability).	Low Probability
Flood Zone 2	At risk from flood event between the 1 in 100 and 1 in 1000 year event (between 1% and 0.1% annual probability)	Medium Probability
Flood Zone 3a	At risk from a flood event less than or equal to the 1 in 100 year event.	High Probability
Flood Zone 3b	Land which would flood with an annual probability of 1 in 20 (5%) or greater in any year or is designed to flood in an extreme (0.1%) flood or otherwise defined by the Local Planning Authority. This zone also comprises land where water has to flow or be stored in times of a flood.	Functional Flood Plain

Flooding is a natural process that can present a range of different risks depending on its form. Flood practitioners and professionals define the risks presented by flooding according to an Annual Exceedance Probability (AEP), or as having a 'return period'.

Flood Risk includes the statistical probability of an event occurring and the scale of the potential consequences. Flood risk is estimated from historical data and expressed in terms of the expected frequency of a flood of a given magnitude. The 10 year, 50 year and the 100 year floods have a 10%, 2%, and 1% chance of occurring in any given year, respectively. However, over a longer period the probability of flooding is considerably greater.

For example, for the 100 year return period flood:

- There is a 1% chance of the 100 year flood occurring or being exceeded in any single year;
- A 26% chance of it occurring or being exceeded in a 30 year period; and
- A 51% chance of it occurring or being exceeded in a 70 year period.

Table 4.2 below provides a summary of the relevant AEP and corresponding return period events of a particular severity.

Table 4.2 Definition of AEP and Return Period Flood Events

AEP	Definition
100%	1 in 1 Year
10%	1 in 10 Years
2%	1 in 50 Years
1%	1 in 100 Years
0.5%	1 in 200 Years
0.1%	1 in 1000 Years

4.2 FLOOD RISK VULNERABILITY AND FLOOD ZONE COMPATIBILITY

In terms of flood risk vulnerability, the proposed development is classified as "More Vulnerable" in the NPPF and SFRA which includes buildings used for dwelling houses and hotels.

The SFRA states that the suitability of all sites in flood risk terms will be subject to ratification by the EA, a detailed site-specific FRA being prepared to support any planning application and demonstration that surface water runoff from the development will pose no detrimental impact to off-site areas.

The proposed site is classified as More Vulnerable Infrastructure and as such is suitable for Flood Zones 1 and 2 with an exception test required for developments in Flood Zone 3. The site is classified by the EA as Flood Zone 3, please refer to Appendix A. On this basis the development site has a high probability of flooding, and the various flooding mechanisms and possible mitigation measures should be considered.

4.3 FLOOD ASSESSMENT

Potential sources of flooding and associated mechanisms for review are as follows:

- Tidal Sources - Potential flooding resulting from tidal sources;
- River (Fluvial and Tidal) Sources - Potential flooding resulting from watercourses near to the site or from the sea;
- Groundwater Flooding- Potential flooding as a result of rising groundwater levels;
- Overland/Surface water (Pluvial) Flooding - Potential flooding as a result of surface water flows from adjacent land;
- Sewers and Drains - Potential flooding resulting from sewers or drains;
- Canals and Artificial Waterways - Potential flooding resulting from failure or overtopping canal networks;
- Reservoir/Lake Flooding - Potential flooding resulting from overtopping or bursting of reservoirs or lakes;
- Infrastructure - Potential flooding as a result of failed or burst water mains; and
- Climate Change – Potential rise in sea levels and estimated peak flows of watercourse.

4.4 TIDAL FLOODING

Coastal flooding occurs when sea levels rise above the normal tidal range. This can happen anywhere around the coast, including in estuaries. Tidal flooding is a result of one or a combination of high tides, storm or tidal surges, wave action and high sea levels combining with high river flows.

The site is located inland and does not lie within an area at risk of tidal flooding. Tidal flooding is therefore not a flood risk associated with this proposed development and requires no further consideration.

4.5 RIVER (FLUVIAL) FLOODING

The proposed site is considered as More Vulnerable Infrastructure and as such is suitable for development within Flood Zones 1 and 2 with an exception test required for developments in Flood Zone 3. The EA mapping service which is used to confirm the extent of a flood zone within the vicinity of a site shows that the site is located within Flood Zones 2 and 3, as shown in Figure 4.5.

According to the EA, where there is blue shading, this shows the area where flooding from a river is possible in an extreme event. The site is considered to be at a high risk of fluvial flooding (greater than 3.3% annually).

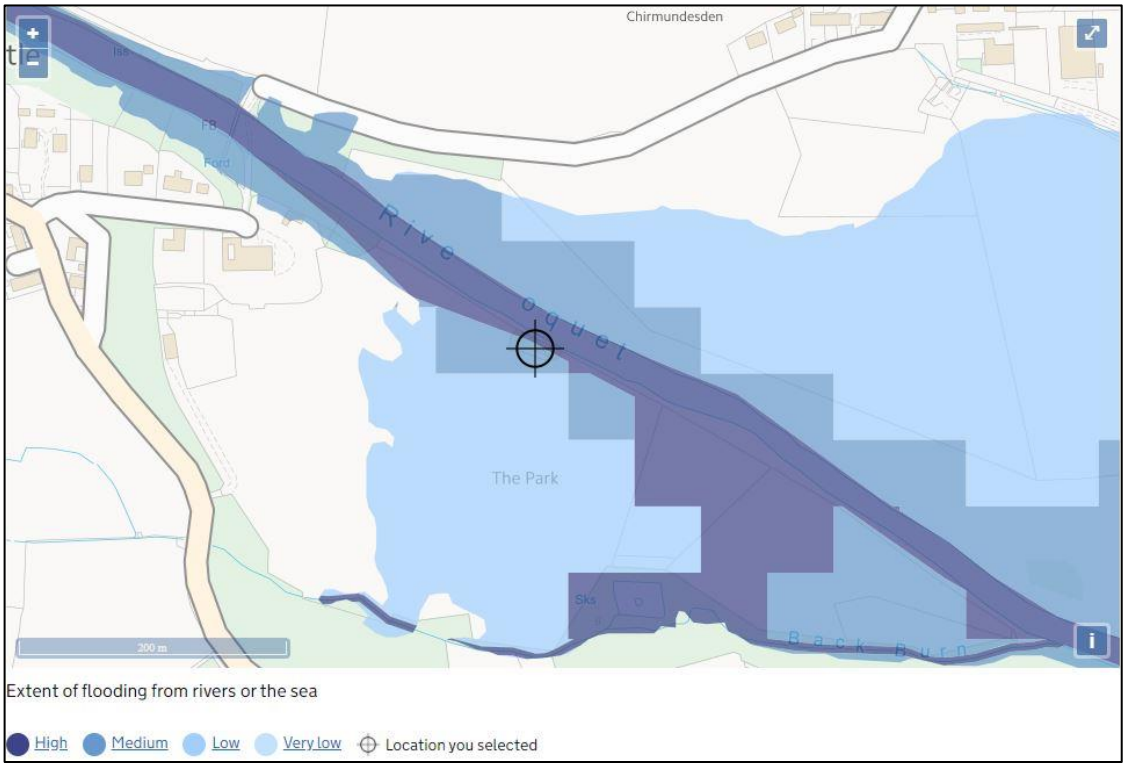
Fluvial flooding occurs when water courses receive an increased volume of surface water run-off. This can be exacerbated by new developments introducing increased areas of impermeable surfaces to the catchment and reducing the time of entry of flows to the water course. Given that the proposed development is for the redevelopment of an existing building, a sequential test that would normally be required is not considered to be necessary as it is not possible to locate the development in an alternative location. Similarly, as it is not proposed to alter the existing building footprint, it is not considered that an exception test is necessary as the development will not change the flood risk to neighbouring areas or anywhere else in the catchment. Please refer to Appendix B for the Proposed Site Layout.

Given that part of the site has been identified as at risk of fluvial flooding, it is proposed that the building operators subscribe to the EA flood warning system and implement a robust flood safety strategy to ensure all staff are aware of safe access and egress routes in the event of a flood. The flood water depth and velocities have been considered in accordance with the EA guidance to establish the Flood Hazard Rating. Based on the EA fluvial flood maps, using a water depth of 300mm and a velocity of 0.25 m/s, the site is considered to have a Moderate degree of flood hazard. This means it is considered to be dangerous for some (i.e. children), where the danger is deep or fast flowing water.

Based on the proposed use of the site, it is unlikely that there will be children or vulnerable people on the site who would require special evacuation measures. It is considered that evacuating and directing staff and customers to Harbottle village or the field to the south would offer safety from flooding.

Whilst it is not considered to be necessary or economical to construct flood defences to the building, it is worth considering flood resilience measures as part of the redevelopment, these include ensuring all electrical sockets are fed from above with a minimum level of 600mm above the floor level and installing flood gates to external doors.

Table 4.5 Environment Agency – Fluvial Flood Map



4.6 GROUNDWATER FLOODING

Groundwater flooding generally occurs during intense, long-duration rainfall events, when infiltration of rainwater into the ground raises the level of the water table until it exceeds ground levels. Groundwater flooding may take weeks or months to dissipate as groundwater flow is much slower than surface water flow and water levels thus take much longer to fall. Groundwater flooding is sporadic in time and location, but when it does occur, it usually lasts longer than surface water flooding and interferes with property and infrastructure (such as roads). Groundwater levels may also rise as a result of reactivating springs.

Based on the geological information available it is unlikely that the geological strata would be highly responsive to rainfall events and therefore the changes in groundwater level over time are unlikely to be significant resulting in groundwater flooding issues.

A review of the ground investigation will need to be carried out. The information available suggests that the site is not at risk from groundwater flooding.

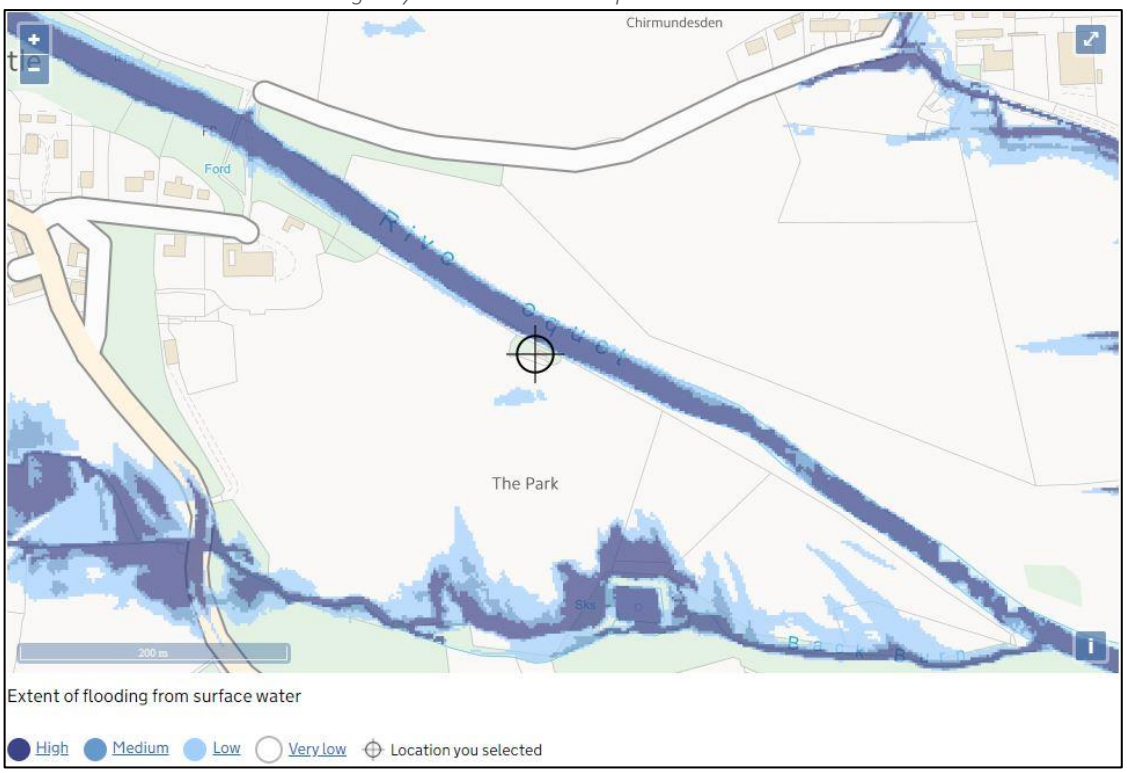
4.7 OVERLAND/SURFACE WATER (PLUVIAL) FLOODING

Pluvial and overland flow results from rainfall that fails to infiltrate the surface and travels over the ground surface. This is exacerbated by low permeable urban development or low permeability soils and geology (such as clayey soils). Overland flow is likely to occur at the base of an escarpment and low points in terrain. Local topography and built form can have a strong influence on the direction and depth of flow. The design of development down to a micro-level can influence or exacerbate this. Overland flow paths should be taken into account in spatial planning for urban developments. In addition, surface water flooding can be exacerbated if development increases the percentage of impervious area.

The EA flood map as shown in Figure 4.7 has identified that there is a very low risk (less than 0.1% annually) of surface water flooding on the site.

Surface water flooding can be exacerbated if development increases the percentage of impervious area which has the potential to change the surface water flow regime for the site and the surrounding area. Any development should look to restrict surface water flows to that of Greenfield run off and attenuate flows in excess of this. It is important to ensure that any surface water flows generated by the change to impermeable area are collected on site and do not pass in to neighbouring land. On the basis that it is not proposed to increase the existing building footprint or impermeable area as part of the development, it is not considered that the will be an increase in the pluvial flood risk. As it is not proposed to modify the plan arrangement of the site, it is not proposed to change the existing surface water drainage arrangement, therefore, it is not considered that there will be an increase in flood risk up or downstream in the River Coquet catchment.

Table 4.7 Environment Agency – Pluvial Flood Map



4.8 SEWER FLOODING

Flooding can occur when the sewerage infrastructure becomes overwhelmed by heavy rainfall (due to inadequate capacity) or blockages in drain systems (such as silt or debris accumulation). Works above or adjacent to existing sewer networks may also damage buried pipeline to the extent that it leads to flooding through damage during excavations or through damage causing blockages below ground.

There are not understood to be any sewerage within of the site and as such no further consideration of this flooding type is required.

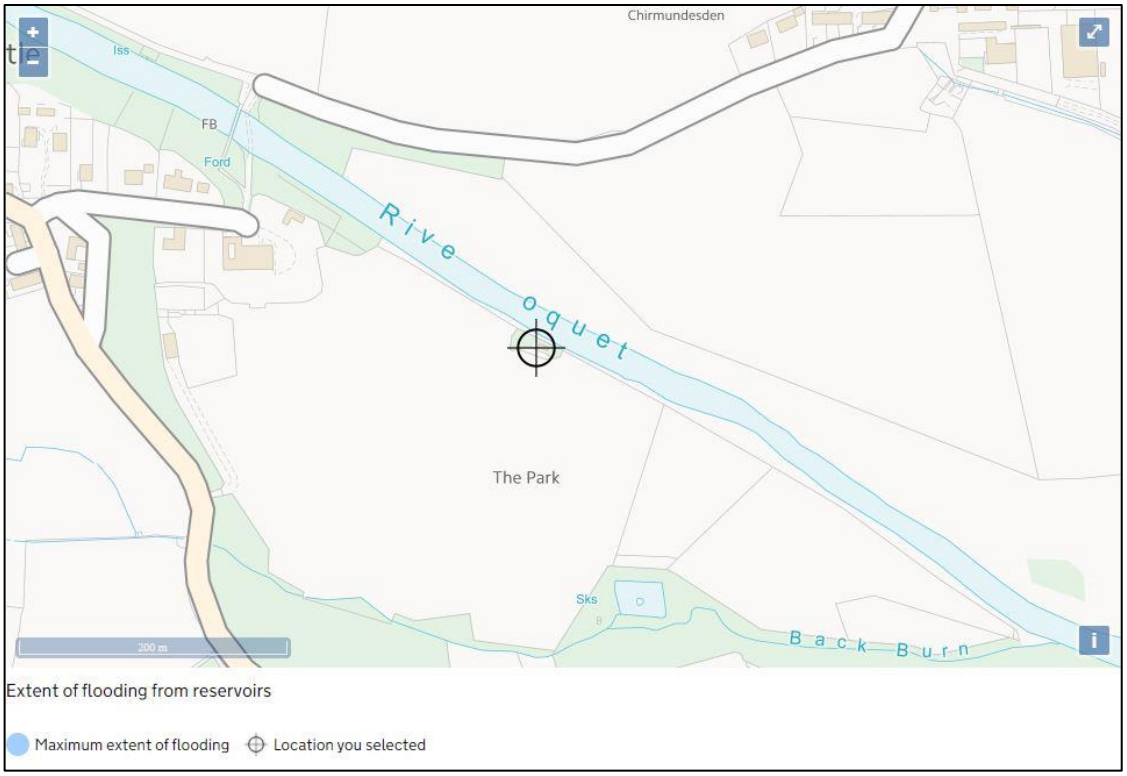
4.9 CANALS AND ARTIFICIAL WATERWAYS

There are no canals or artificial waterways within 1km of the site boundary, as such flood risk is considered low as such no further consideration of this flooding type is required.

4.10 RESERVOIRS AND LAKES

When reservoirs and lakes flood, there can be implications beyond the immediate area of the water body. The EA flood map shown in Figure 4.10, shows that the site is not considered to be at risk of flooding from failure of a body of water.

Table 4.10 Environment Agency – Reservoir Flood Map



4.11 WATER MAINS

NWL asset records for the site have not been obtained. However, it is not anticipated that there will be any public water mains within the vicinity of the site. The risk to the development is considered low and as such no further consideration of this flooding type is required. The risk to the development is considered low and as such no further consideration of this flooding type is required.

4.12 CLIMATE CHANGE

Climate change will be the major cause of increased flood risk in the future. The CFMP suggests that for climate change the EA tested the following changes up to 2110:

- Further to review of paragraphs 30 to 32 of the Flood Risk and Coastal Change section of the planning guidance, it is understood that to adequately take climate change into account for the site, it should be considered to be within the upper end allowance category for Table 1 peak river flow allowances by river basin district (use 1961 to 1990 baseline). As such a 50% allowance for climate change should be allowed;
- A total sea level rise of 1050 mm by the year 2110. This will increase the probability of tidal flooding and increase the length of time that watercourses will not be able to flow freely to the sea at high tide (tide-locked).
- Therefore climate change was shown to have a significant impact on flood risk.

The Analysis of UK Climate Projections 2018 (UKCP18) found that:

- There has been an increase in annual average rainfall over the UK, especially over Scotland where the most recent decade (2008–2017) has been on average 11% wetter than 1961–1990 and 4% wetter than 1981-2010.
- In recent decades there has been an increase in annual average rainfall over the UK, the most recent decade (2008–2017) has been on average 11% wetter than 1961–1990 and 4% wetter than 1981-2010.

It has been predicted that the UK's coastal flood risk will increase under all the emission scenarios used in UKCP18, because of mean sea level rise. This will result in an increase in the frequency and magnitude of extreme water levels around the UK coastline. This increase in coastal flood risk combined with a likely increase in precipitation in winter is likely to result in more frequent flooding in various parts of the UK.

The impact of climate change will likely increase the risk of flooding from several of the mechanisms considered, therefore it is recommended that the resident of the property sign up to the EA flood warning service and consider appropriate protection measures. It is not anticipated that an evacuation plan for the site is required as the normal access locations will be available.

Technical Guidance to the NPPF and the PPG include for an increase in the peak rainfall intensity of up to 30%, as well as increase in peak flows in watercourses of up to 20% within 100 years. This will significantly affect smaller urban catchments, leading to rapid runoff into and subsequent increased flows within watercourses, surface water flooding, surcharging of gullies, drains and sewer flooding.

CFMPs have also considered flood risk for the next 50-100 years and have taken into account the flood risk drivers of climate change, urban development and changes in land use.

Catchment models and the Modelling and Decision Support Framework (MDSF) software were used in the CFMP to test sensitivity to the flood risk drivers across the catchments in the study area.

The location of future urban developments and flood defences within a catchment can heavily influence flood risk in the area and has the potential to further increase flood risk at areas downstream of such developments. Impacts include the lowering of the SoP offered by flood defences and the carrying capacity of culverts, drains, sewers and watercourse channels. This potentially leads to areas being at risk of flooding that were previously not at risk and highlights the increasing conflicts and pressures that are emerging between climate change scenarios and future development aspirations.

The NPPF sets out important objectives in order to tackle climate change, sea level rise and avoid flood risk. The purpose of design policies should be to ensure that developments are sustainable, durable and adaptable to natural hazards such as flooding. Following this guidance, it should be possible to mitigate against increased flood risk through incorporating 'flood proofing' measures such as raised finished floor levels into the development design, and/or development of compensatory storage and flood storage basins. The Adaptation Strategies for Climate Change in the Urban Environment (ASCCUE) project is a study undertaken collaboratively by the University of Manchester, The University of Cardiff, University of Southampton and Oxford Brooks University. One of the aspects examined was surface water runoff during extreme rainfall events. With an increase in development, there comes an increase in the amount of impermeable areas thus leading to increased runoff during storm events.

5 CONCLUSIONS AND RECOMENDATIONS

5.1 CONCLUSIONS

This Level 1 FRA concludes that:

- Tidal Flooding – The Environment Agency mapping shows that the site is not at risk of flooding and as such will not require further assessment
- River Flooding (Fluvial) – The EA mapping service which is used to confirm the extent of a flood zone within the vicinity of a site shows that the site is located within Flood Zone 3. As the proposed development is for the redevelopment of an existing building it is not considered that a sequential test or exception test are required. Appropriate consideration should be given to the EA flood warning system, providing an appropriate evacuation plan and flooding resilience measures;
- Groundwater Flooding - there is a low risk of groundwater flooding occurring at the site, therefore no further assessment is required with respect to groundwater flooding;
- Surface Water (Pluvial) Flooding - the EA mapping shows that the site is not at risk of flooding. As it is not proposed to change the footprint of the existing building it is not considered that there will be any change to the surface water flooding to the site, surrounding area or the wider catchment;
- Sewer Flooding - There are no known previous flooding incidents from the sewers located surrounding the site and as such there is considered to be low risk of sewer flooding affecting the site;
- Canals and Artificial Waterways Flooding – the location of canals and artificial waterways are sufficiently far from the site and therefore unlikely to result in flood risk and as such will not require further assessment;
- Reservoirs and Lakes – The Environment Agency mapping shows that the site is not at risk of flooding from reservoirs, therefore no further assessment is required with respect to reservoir flooding;
- Water Mains – NWL asset records for the site have not been obtained, however the location of the site suggests that there will not be any water mains within the vicinity of the site and does not require further assessment;
- Climate Change - the potential impacts of climate change will likely increase the risk of flooding and suitable protection measures should be considered.

5.2 RECOMMENDATIONS

The site is located in Flood Zone 3, however, as it is proposed to redevelop an existing building it is considered to be suitably located. As it is not proposed to increase the footprint of the existing building it is not considered that it will have any impact on the River Coquet or its catchment.

It is recommended that the landowner and building occupant subscribe to the Environment Agency flood warning service and develop a robust flood evacuation procedure. The evacuation procedure must include suitable access and egress routes to areas outside of the areas susceptible to flooding.

LIST OF APPENDICES

APPENDIX A

ENVIRONMENT AGENCY FLOOD MAP FOR PLANNING

Flood map for planning

Your reference	Location (easting/northing)	Created
Eastfield	**393928/604571**	**12 Aug 2020 13:01**

Your selected location is in flood zone 3, an area with a high probability of flooding.

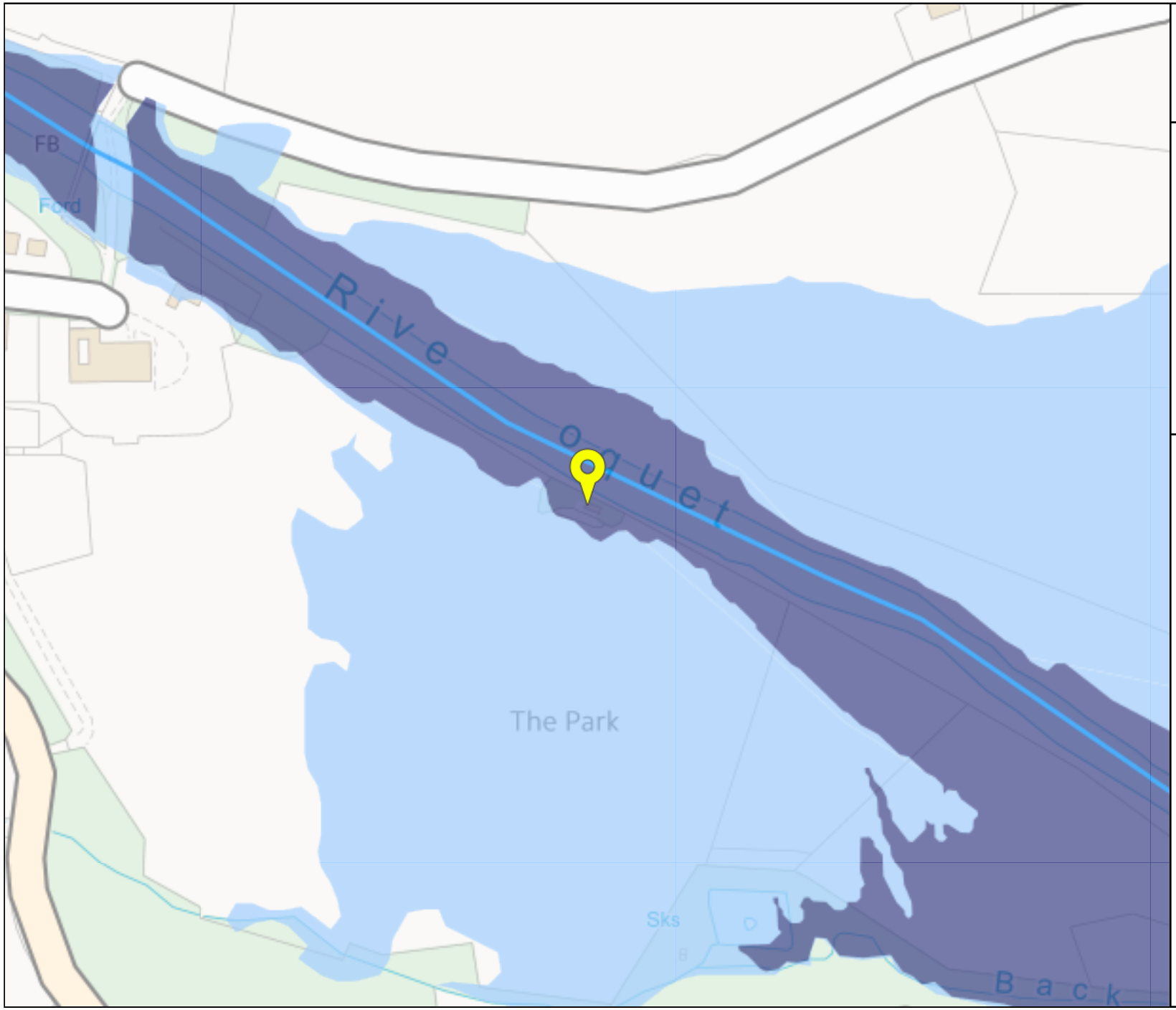
This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see www.gov.uk/guidance/flood-risk-assessment-standing-advice)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.



Environment Agency

Flood map for planning

Your reference
Eastfield

Location (easting/northing)
393928/604571

Scale
1:2500

Created
12 Aug 2020 13:01

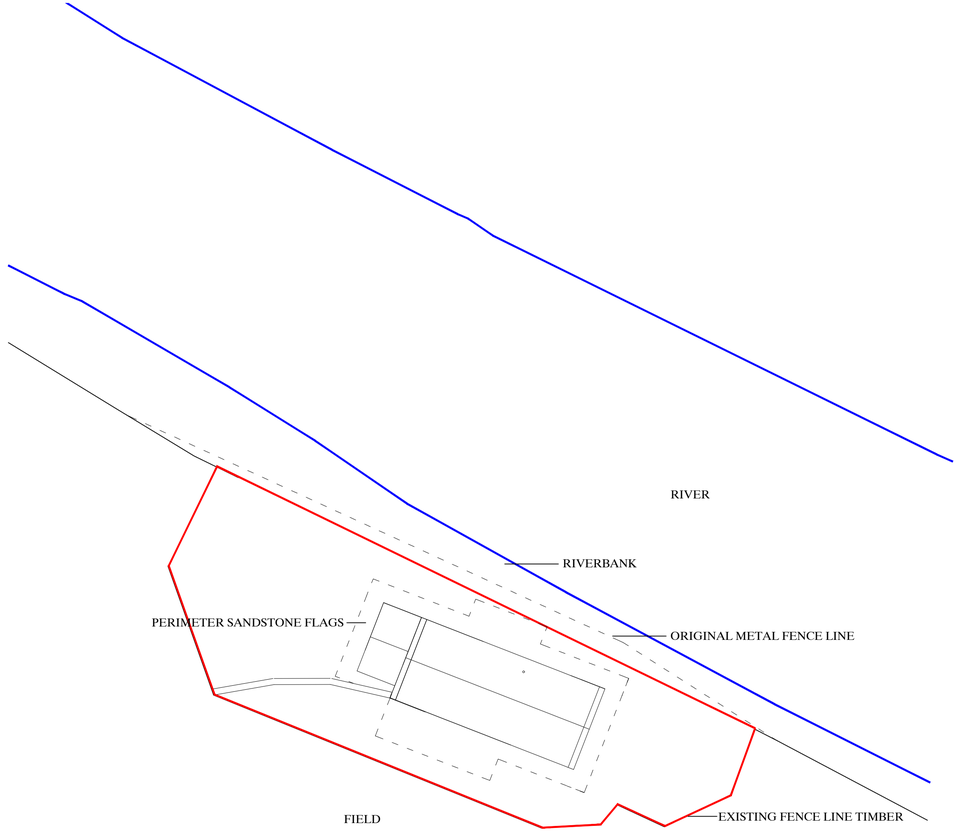
- Selected point
- Flood zone 3
- Flood zone 3: areas benefitting from flood defences
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Flood storage area

0 20 40 60m

APPENDIX B

PROPOSED SITE LAYOUT

EXISTING BLOCK PLAN



PROPOSED BLOCK PLAN

EXISTING BLOCK PLAN

North

0m 5m 10m 15m 20m 25m

REVISION	DATE	SPECIFICATION	DRAWN
-	-	-	-

PROJECT: EASTFIELD PADDOCK			CLIVE MATTISON ARCHITECTURAL SERVICES LTD TOWN HALL OFFICE FENKLE ST ALNWICK NORTHUMBERLAND NE66 1HR TEL / FAX 01665 603346 MOBILE 0797 388 4389 clivemattison@fastmail.fm
DRAWN TITLE: PROPOSED BLOCK PLAN			
CLIENT: MEURICHIA NORRIS			
DATE: Apr 2019	SCALE: 1/200@A1	DRAWN: CM / CHECKED: CM	
DRAWN STATUS: PLANNING			DRAWN No: 2019 (0-) 002 / REV: -