

1414-0189-15

PW

Rivett House

Langhole Drove

Pinchbeck

Spalding

Lincs

PE11 3XP

8th June 2015

Dear Sir/Madam

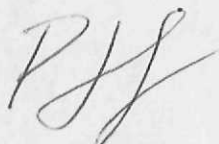
**RE: Application for Planning Permission for a new dwelling at Rivett House,
Langhole Drove, Pinchbeck. PE11 3XP. Ref No**

Following my application for Planning Permission for a two storey dwelling at the above property, which is now registered, I enclose 4 copies of the following document to accompany my application.

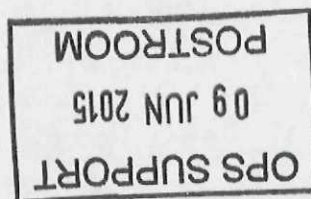
Flood Risk Assessment June 2015

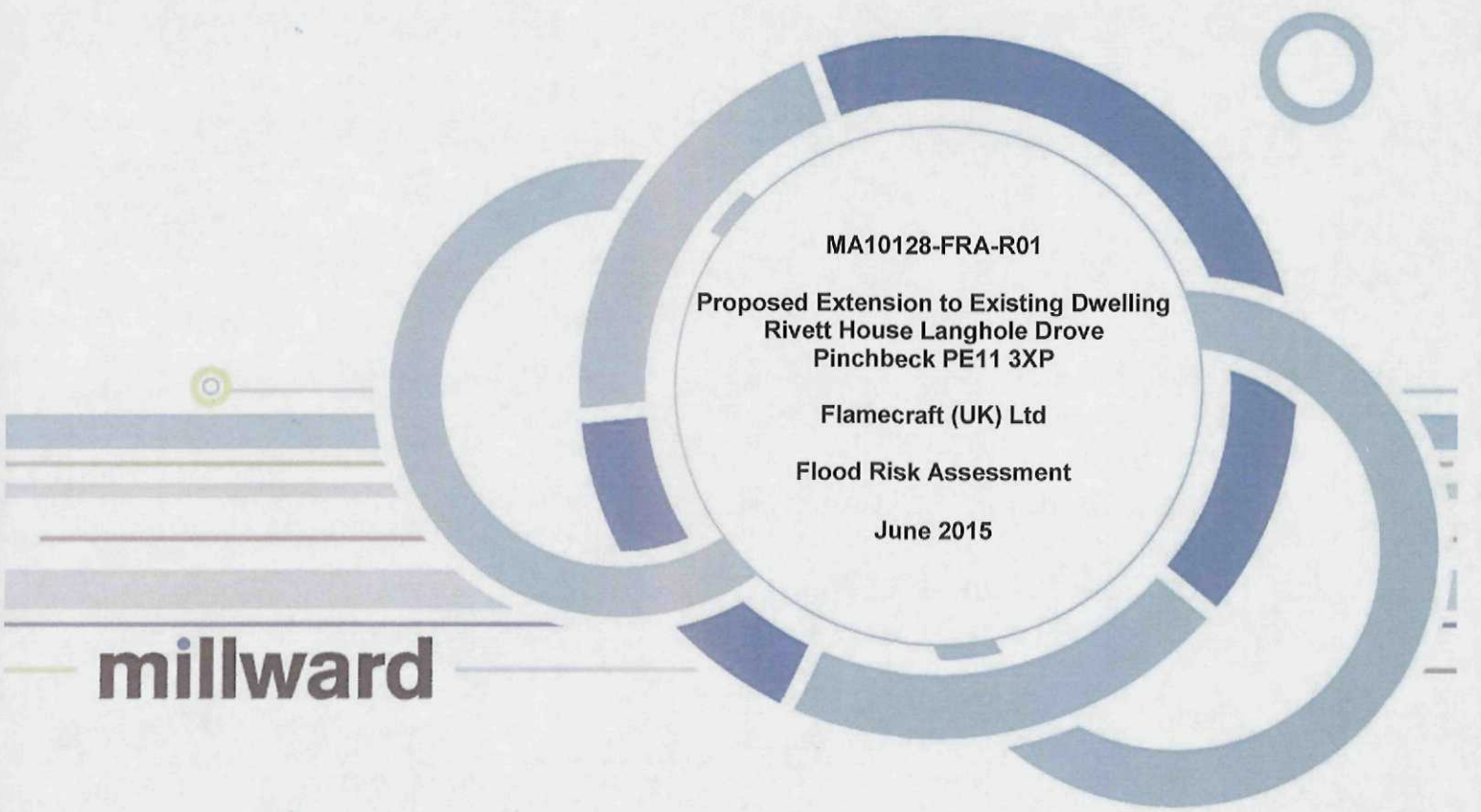
I trust this is in order and meets with your approval but if you have any further queries please do not hesitate to contact me.

Yours sincerely,



Mr. P GRIMWOOD.



The logo for 'millward' is in a bold, lowercase sans-serif font. To its left are several horizontal lines in shades of blue and green, with a small circular icon containing a stylized 'm'. To the right of the logo is a large, complex graphic consisting of several interlocking circular and semi-circular bands in various shades of blue and grey, creating a sense of movement and engineering.

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MA10128-FRA-R01

**Proposed Extension to Existing Dwelling
Rivett House Langhole Drove
Pinchbeck PE11 3XP**

Flamecraft (UK) Ltd

Flood Risk Assessment

June 2015

- Civil & Structural Engineering
- Environmental & Geotechnical
- Flood Risk & Drainage
- Highways & Infrastructure
- Structural Inspections
- Transportation

REVISION

Reference	Revision	Author	Date
MA10128-FRA-R01	Initial Issue for Planning	JMcK	June 2015

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APPENDICIES

Appendix A – Drawings

Site Location Plan: MA10128/001

Proposed Site Layout : AB02 Rev B

Lidar Contour Plan: MA10128/002

Appendix B – Consultations

Environment Agency Product 3 data

1. INTRODUCTION

- 1.1 Millward have been appointed to undertake a Flood Risk Assessment (FRA) for proposed alterations and extensions to an existing dwelling on the site of existing residential property of Rivett House, Langhole Drove, Pinchbeck PE11 3XP.
- 1.2 This FRA is undertaken in accordance with the National Planning Policy Framework and associated Technical Guidance Document March 2012 (NPPF).
- 1.3 This FRA discusses and provides both a qualitative assessment and quantitative assessment for the replacement dwelling in terms of flood risk, future flood risk over the anticipated lifetime of the development and reference to the sequential and exception test using a precautionary and risk based approach.



2 THE SITE

- 2.1 The site is located to the north side of Langhole Drove which is situated approximately 0.6 miles north west of the centre of Pinchbeck totalling 0.110 Hectares (1100m²) in area (Including the garden area). The site location is shown on drawing MA10128/001 contained within Appendix A.
- 2.2 Vehicular access to the site will be via a dropped verge crossing from Langhole Drove to the frontage.
- 2.3 The development is currently the site of an existing residential dwelling which is to be altered and extended as part of the proposals.
- 2.4 Site levels within the development area vary from 4.25m AOD to the rear of the site adjacent to the dyke and 4.5m AOD to the eastern extents adjacent to Langhole Drove. At the location of the existing dwelling ground levels are circa 4.35m AOD. These levels are based upon LiDAR terrain data (5m intervals).
- 2.5 The existing dwelling finished floor level is 4.45m AOD.
- 2.6 The existing surface water drainage connections and foul water connections / form of drainage will be re-used as part of the replacement dwelling. The roof drainage area increase due to the replacement dwelling is 150m² which constitutes just a 2 l/s increase in surface water flows from the development area.



3 CONSULTATIONS

3.1 Environment Agency (EA)

- 3.1.1 The Environment Agency national flood risk maps available on their web site have been interrogated firstly to define in terms of planning what flood zone the site is contained within.
- 3.1.2 The development site is contained just within Flood Zone 3 and identified to be benefitting from flood defences which in accordance with Table 1 of the NPPF Technical Guidance document, is defined as High Probability having greater than a 1 in 100 chance (>1%) of flooding from rivers in any one year (excluding the presence of flood defences).
- 3.1.3 Therefore, further Environment Agency consultation has taken place to obtain further more site specific data to allow a site specific assessment of this development to take place.
- 3.1.4 The Environment Agency have provided Product 3 information for this site which includes in channel watercourse levels for the River Glen which is situated 230m east of the development, confirmation of the standard of protection of the defences, records of historical flooding. A copy of this information is contained within Appendix B.
- 3.1.5 The closest river node to the site is GLEN 6091 which confirms in channel water levels of 4.35m AOD for the 1 in 100 year event, 5.12m AOD for the 1 in 100 year plus climate change scenario and 4.52mm AOD for the 1 in 100 year scenario.
- 3.1.6 The existing flood defences are constructed to a 1 in 100 year standard which means that the site would not flood from the River Glen in the 1 in 100 year event as long as the defences do not fail.



4 SEQUENTIAL AND EXCEPTION TESTS

4.1 Sequential Test

4.1.1 The site is currently a dwelling and the proposals are for alterations and extension of the dwelling on the same site. We consider that the Sequential Test should not apply in this instance as the site is currently in use for a single dwelling and the proposals will not increase the number of dwellings on the site.

4.1.2 In line with the National Planning Policy Framework paragraph 104, applications for minor development should not be subject to the sequential test. Minor development includes for householder development including physical extensions to the dwelling itself as confirmed in the NPPF Technical Guidance

4.2 Exception Test

4.2.1 As the proposed development is not considered to require the Sequential Test then the Exception Test does not need to be applied in this instance.



5 PROPOSED DEVELOPMENT

- 5.1 The development proposals consist of alterations and extension to the existing Rivett House dwelling with associated car parking / driveway space and gardens to the east side with a garage off road) and a garden area to the side of the proposed dwelling. The proposed plan layout of the development is shown on drawing AB-02 Rev B contained in Appendix A.
- 5.2 The proposals will utilise the existing surface water drainage connection as the underlying soil strata is clay formation and unsuitable for infiltration drainage.
- 5.3 Foul drainage would utilise the existing connection point into the existing sewer (or treatment system) with anticipated peak foul flows of less than 1 l/s (Circa 0.2 l/s) into the existing sewer system.
- 5.4 Minimum finished floor levels of the dwelling extensions are to be 4.65m AOD which is circa 300mm above the current ground levels on the site in line with conversations between the developer and the Environment Agency at pre planning stage.



6 FLOOD RISK

6.1 Flooding From Watercourses

- 6.1.1 The development area is shown within Flood Zone 3 (Greater than a 1 in 100 (0.1%) chance of flooding in any one year – High Probability in line with the NPPF) from watercourses. However the site is shown within an area benefitting from flood defences.
- 6.1.2 The EA consultation shows the locations of the flood defences which confirm a flood defence location along the line of the River Glen to the east of the site approximately 230m away from the site. These raised embankments are built to a 1 in 100 year event standard as confirmed by the Environment Agency and are of a good standard of repair.
- 6.1.3 The EA have provided in channel water levels for the River Glen which confirms that the River Glen water levels would be 4.35m AOD. At the 1 in 100 year event, should the defences fail, the extents of flooding may potentially reach the site but would be extremely shallow and would be 300mm below the finished floor level of the dwelling.
- 6.1.4 At the 1 in 1000 year event scenario the River Glen levels are would be 4.52m AOD 130mm below the proposed finished floor level of the dwelling. Externally flood depths expected would be circa 170mm depth.
- 6.1.5 The site is within an area deemed to be a rapid inundation zone should the flood defences overtop or fail and the South Holland SFRA confirms in the velocity mapping that flow rates of 0.25 or greater may occur during time of flood. Therefore safe access egress for the site is not considered viable, as due to the great expanse of the flood zone it is not practicable but with the finished floor level of the property raised above the 1 in 100 and 1 in 1000 flood levels (in channel – the flood plain levels will be lower than this) the dwelling provides a sufficient means of safe refuge at ground floor and also first floor is required during any flood event.

6.1.6 The site has not been affected by flooding in the past according to records held by the Environment Agency.

6.1.7 The risk of flooding to the development area from fluvial sources is considered to be **MEDIUM** probability as the site is situated in an area which is protected by the flood defences up to and including the 1 in 100 year event scenario as long as the flood defences hold. Section 6.6 discusses the effects of climate change on the development.

6.2 Flooding From Land / Adjacent Development

6.2.1 The main risk of flooding to this site is from the impermeable surfaces within the adjacent road area to the frontage of the site which due to failure of the existing adopted drainage systems or intense rainfall saturating the soil resulting in run off over land instead of interception by drainage infrastructure.

6.2.2 Any overland flow from adjacent development site is likely to be shallow and there are no low points within the site which would create a localised depression in the ground which would be at risk of ponding / pooling water from this source. Indeed the finished floor level of the dwelling is above the adjacent road (Langhole Drove) and therefore pathways of any flood water from this source would not be towards the dwelling itself.

6.2.3 Overall the risk of flooding from this source is considered to be **LOW**.

6.3 Flooding From Infrastructure Failure

6.3.1 The site is not within an area deemed to be at risk of flooding from reservoirs (according to the data on the EA website).

6.3.2 As the site is outside the limits of any deemed flood extents from a reservoir failure, the risk of flooding to the site considered **LOW**.



6.4 Flooding From Groundwater

- 6.4.1 There are no confirmed records of groundwater flooding in the vicinity of the site in the SFRA.
- 6.4.2 Existing soil strata is defined as being predominantly clays which are generally impermeable (or very low permeability) and therefore raising of groundwater to the surface is highly unlikely in this location.
- 6.4.3 Overall the risk of flooding from this source is considered to be **LOW**. However the raised finished floor levels of the proposed dwelling will provide sufficient protection should groundwater flooding risk become greater over the lifetime of the development.

6.5 Flooding From Sewers

- 6.5.1 There are existing road gullies which serve Langhole Drove and these drain water from the surface of the road directly into a field ditch to the south of Langhole Drove. There are no records of sewers in the vicinity of the site.
- 6.5.2 If any of these gullies were to flood, the water flow routes would be along the existing highway and would be considered to be shallow in depth. The raised finished floor levels from Langhole Drove would ensure no flooding of the internal rooms of the dwelling due to flooding from this source.
- 6.5.3 Overall the risk of flooding from this source is considered to be **LOW**.

6.6 Flooding From Climate Change

- 6.6.1 The NPPF Technical Guidance Document confirms in Table 5 that peak rainfall intensity is estimated to increase up to 30% over the lifetime of this development (100 years) and peak river flows by 20%. This site is also affected by tidal aspects as the River Glen can become locked by the high tides.



- 6.6.2 The EA consultation shows the anticipated flood levels for several flood events including the 1 in 100 year including the climate change forecast and this data confirms in channel water levels of 5.12m AOD.
- 6.6.3 This level in channel is circa 770mm higher than the site but levels in the flood plain from this source, (River Glen) would be lower than this in channel level. As the flood extents in this area are over a large area the drop in levels in the flood plain are likely to be significant as the water spreads out over a large area.
- 6.6.4 The South Holland SFRA hazard mapping does not extend into this location but there are depth and velocity maps available.
- 6.6.5 Velocities are likely to be 0.25 m/s (possibly greater) with anticipated depths at the 1 in 100 plus climate change event from fluvial and 1 in 200 year event tidal (plus climate change). Depths on the plans show 0.5 to 1m depth based upon the SFRA data. The data we have on a more site specific basis show site levels and in channel water levels showing a maximum depth of 700mm which is mid-range of the SFRA data and seems verifiable.
- 6.6.6 Overall the risk of flooding from this source is considered to be **MEDIUM** and there are mitigation measures proposed to deal with this residual risk.

6.7 Flooding from Breach or overtopping Scenarios



6.7.1 Due to the minor nature of the development and the fact that this is currently a dwelling a simple approach to assessment of a breach scenario has been applied in accordance with FD2320/TR2.

6.7.2 Flood defences reduce the risk of flooding but do not eliminate risk completely. Development behind defences should therefore be planned with due regard to the flood risk in the defended area.

6.7.3 Simple Approach;

- The development site is 230m from the River Glen flood defence.
- The existing site survey confirms site levels in the vicinity of the property of 4.35m AOD. Crest levels of the defence are circa 5m AOD from the LiDAR data obtained for the site and surrounding area.
- Standard of protection is classified by the EA is 100 year.
- For overtopping of the defence the 1 in 100 plus climate change level (in channel) is 5.12m AOD and the defence level is circa 5.0m.
- For breach, the head above flood plain is $5.12\text{m} - 4.35\text{m} = 0.77\text{m}$ at the 1% Fluvial and 0.5% Tidal

6.7.4 From table 12.1 Danger to people from Overtopping

Table 12.1 - Danger to people from overtopping relative to distance from defence

Distance from defence (m)	Head above crest level (m)			
	0.5	1	2	3
100				
250				
500				
1000				
1500				
2000				
2500				
3000				
3500				
4000				
4500				
5000				

Key:
 Danger for some
 Danger for most
 Danger for all

R&D OUTPUTS: FRA GUIDANCE FOR NEW DEVELOPMENT: PHASE 2 FD2320/TR2

104

6.7.5 The distance from the defence is circa 230m, head above crest at the 1 in 100 year plus climate change event is 0.12m. Therefore from table 12.1, danger to people is classified as **Danger For Some in the overtopping scenario.**

6.7.6 From Table 12.2 Dander to people from Breaching.

Table 12.2 - Danger to people from breaching relative to distance from defence

Distance from breach (m)	Head above floodplain (m)						
	0.5	1	2	3	4	5	6
100							
250							
500							
1000							
1500							
2000							
2500							
3000							
3500							
4000							
4500							
5000							

Key:
 Danger for some
 Danger for most
 Danger for all



- 6.7.7 The distance from the defence is circa 230m, head above floodplain at 1 in 100 year plus climate change event is 0.77m. Therefore from Table 12.2, danger to people is classified as **Danger For Some in the Breach Scenario**.
- 6.7.8 This development, whilst in the rapid inundation zone for the River Glen is classified as a Danger for Some in the overtopping and breach scenarios in line with FD2320. The development is for minor development on an existing residential plot.
- 6.7.9 It is considered that it is not viable to provide a safe means of access / egress to the proposed development (which is also the case for essentially the whole of Pinchbeck) and therefore a safe area of refuge within the dwelling is the most pragmatic approach to ensure the development is as safe as possible.
- 6.7.10 It is considered that the first floor of the dwelling would provide this area of safe refuge and would allow over 1.2m worth of freeboard allowance at a level of 6.95m AOD (assuming 2.3m between floor levels).

7 MITIGATION MEASURES

7.1 Essential Mitigation Measures

- 7.1.1 The assessment of flood risk in Section 6 of this assessment confirms a **LOW** risk of flooding from all sources of flooding other than from fluvial / tidal which is **MEDIUM**
- 7.1.2 An essential mitigation measure required to protect the proposed site from residual risk of flooding which is a minimum finished floor level of 4.65m AOD which ensures the finished floor levels are above even the 1 in 100 and 1 in 1000 in channel depths (not including climate change) should there be a breach in the defences.
- 7.1.3 A flood evacuation plan is considered essential to the safety of the dwelling. The flood evacuation plan is considered to be required to be conditioned as part of any planning permission to be approved before final occupation of the dwelling.

7.2 Recommended Mitigation Measures

- 7.2.1 The dwelling should have concrete ground floors with damp proof membranes as they are regarded as the most flood resilient floor types with effective connections between the dpc and dpm. The dpm should be between the surface screed and the concrete slab as this enables the concrete floor to dry out quickly and would also protect against any rising groundwater (unlikely) should flood risk from this source increase over the lifetime of the development.
- 7.2.2 Introduce one way valves into the domestic drainage runs for the dwelling to prevent sewage backing up into the dwelling.
- 7.2.3 Electrical circuits should be in the void between the ground and first floor of the property and down towards any light switches and sockets located within the ground floor area. This would protect against any potential flooding damage (highly unlikely but prudent to do this as part of the construction).



- 7.2.4 Implementation of removable flood gates at all entrances to the dwelling should be considered to provide further protection to the proposed internals of the dwelling should there be a breach scenario.
- 7.2.5 Use lime plaster or cement render instead of gypsum plaster at ground floor level.
- 7.2.6 Move service meters, boilers above the anticipated flood levels (a minimum of 500mm above proposed finished floor level).
- 7.2.7 External gradients should fall away from the dwelling on this site which will be required due to the topography of the site.

8 CONCLUSIONS

- 8.1 This Flood Risk Assessment serves to review, assess and quantify (where applicable) the sources, or any potential flooding, the pathways of this flooding and potential receptors within the vicinity of the site.
- 8.2 The assessment of flood risk undertaken for this development confirms that the risk of flooding is **LOW** from all sources of flooding other than fluvial sources which classed and **MEDIUM**.
- 8.3 From the simple approach to assess the breach scenario and risk to people at the site, the risk to people in the overtopping and breach scenario Dander for some.
- 8.4 The recommended mitigation measures will provide further protection to the development and reduce any residual risk (however low) as far as practicable. It is recommended that compliance with the recommendations of this FRA are conditioned as part of any planning permission.
- 8.5 This assessment concludes that the site is suitable for development for residential use without unacceptable risk of flooding from all sources to the site itself and elsewhere as long as the essential and recommended mitigation measures are implemented.

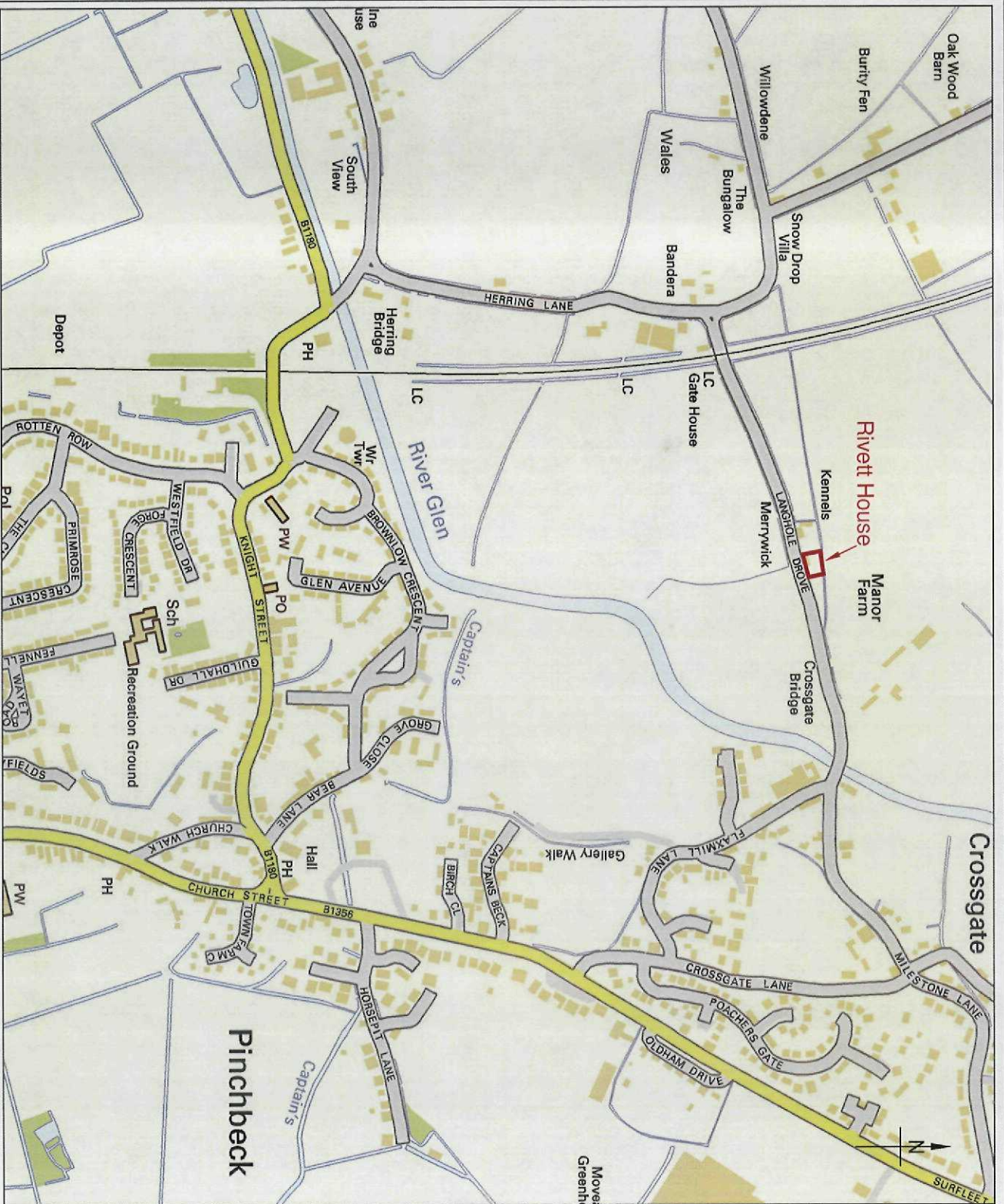


Appendix A – Drawings

Site Location Plan: MA10128/001

Proposed Site Layout: AB02 Rev B

LiDAR Contour Plan: MA10128/002



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ASSOCIATED DRAWINGS

NO. TITLE

NOTES

REV	DATE	BY	DETAILS	CHECKED
			AMENDMENTS	

CLIENT
Flamecraft (UK) Ltd

PROJECT
Rivett House
Langhole Drive
Pinchbeck PE11 3XF

TITLE

Site Location Plan

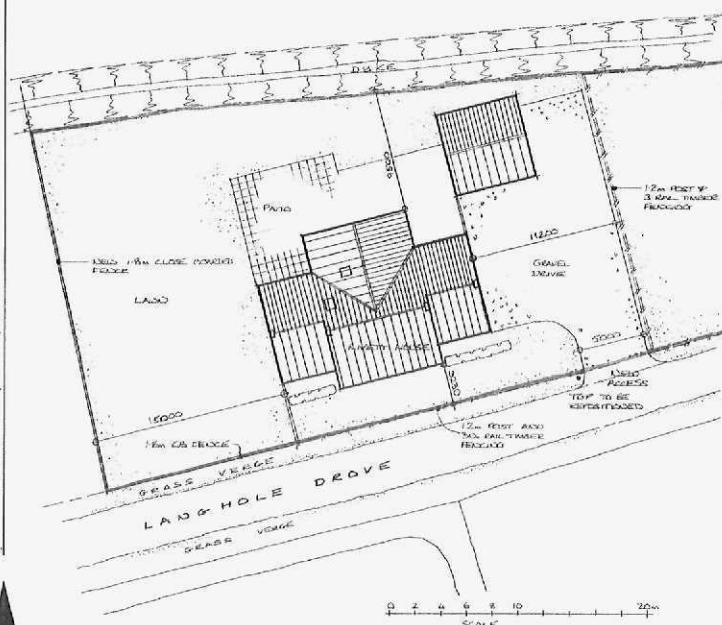
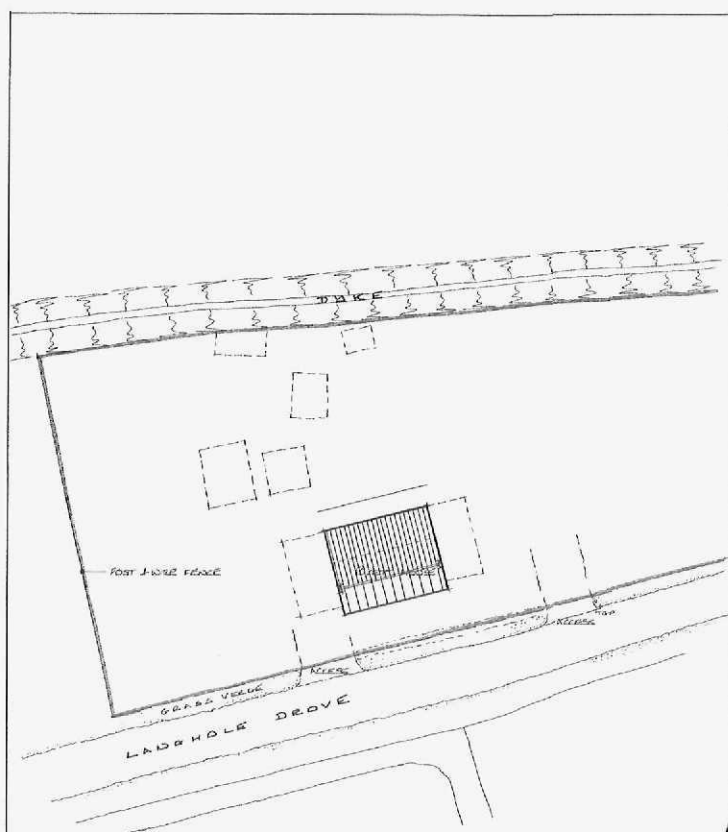
DRAWING NO.	DRAWING STATUS
MA10128/001	PLANNING

SCALE	DRAWN	CHECKED	APPROVED BY
1:2500	JMK	JMK	JMK
DATE	DATE	DATE	DATE
04 JUNE 2015			

millward



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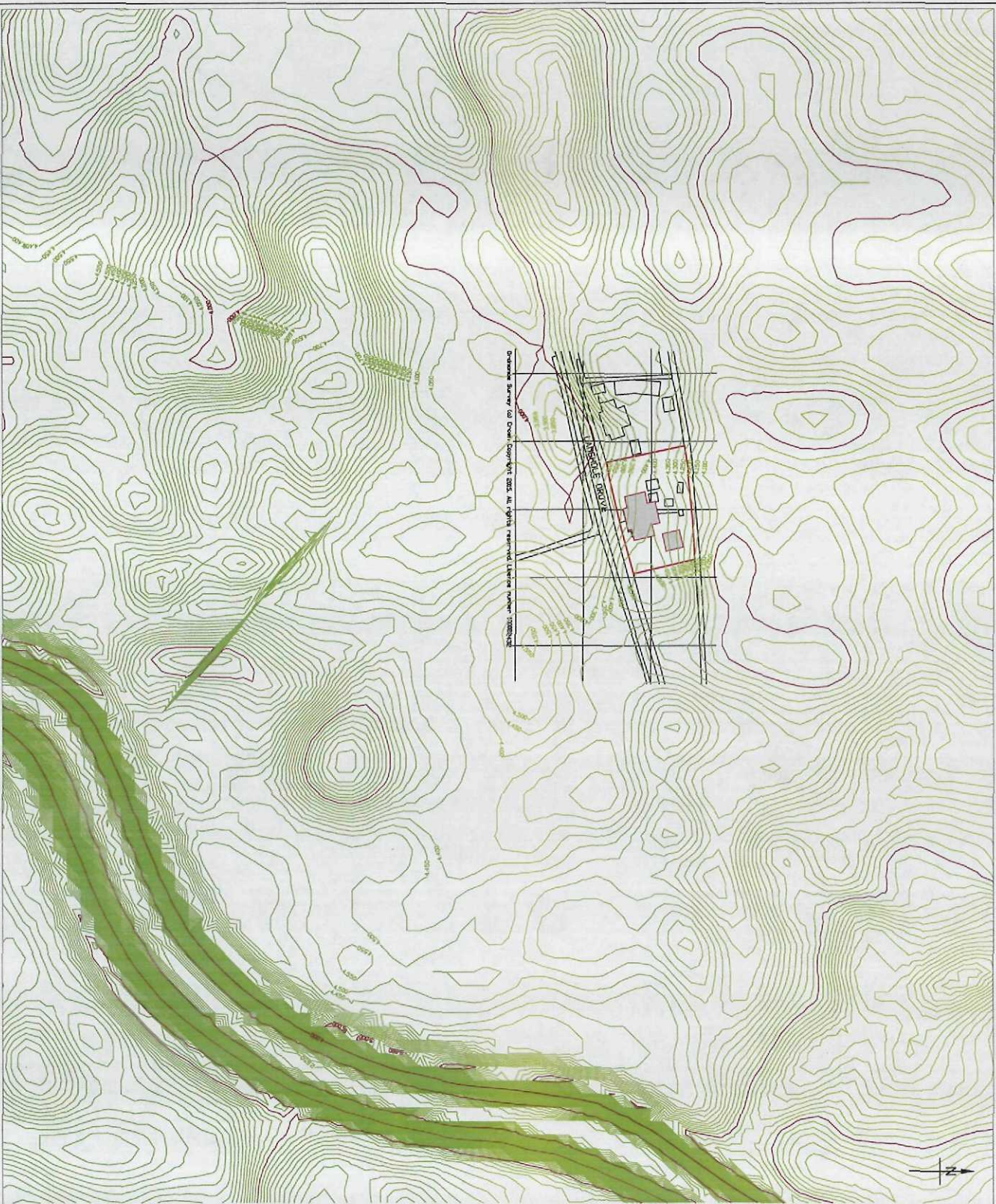


A 2/25/2014		EXTENSION SIZE NEEDED FOR PASSING			
Project ALBERTO AND ESTHER TO GET THROUGH LANDSCAPE, FIREWORK	Copyright needed No action	All extensions to be checked on site			
County EXISTING AND PROPOSED SITE PLAN		Date 2/25/2014	State 1-200 (A.A.)	Job No AB-02	Rev B

ASSOCIATED DRAWINGS

No. TITLE

NOTES



REV DATE BY DETAILS CHK'D

AMENDMENTS

CLIENT

Flamecraft (UK) Ltd

PROJECT

Rivett House
Langhole Drove
Pinchbeck
PE11 3XP

TITLE

LIDAR Levels

DRAWING No. MA101287002 DRAWING STATUS PLANNING

SCALE	1:1000	DRAWN	CHK'D	APP'D
DATE	04 June 2015	JMK	JMK	JMK

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Appendix B – Consultations

Environment Agency Product 3 data

Jason McKellar
jason@millward.co.uk

Our ref: CCN/2015/39260

Date: 26 May 2015

Dear Jason

**Basic Flood Risk Assessment Data Request for Rivett House, Langhole Drove,
Pinchbeck, Spalding, Lincolnshire, PE11 3XP**

Thank you for your request of 8 May 2015 to use Environment Agency data, Product 3, in the development of the Flood Risk Assessment (FRA) for the above site. The information is attached.

If you have requested this information to help inform a development proposal, then you should note the detail in the attached advisory text on the use of Environment Agency Information for Flood Risk Assessments.

Flood Map

The attached map includes the current Flood Map for your area. The Flood Map indicates the area at risk of flooding, **assuming no flood defences exist**, for a flood event with a 0.5% chance of occurring in any year for flooding from the sea, or a 1% chance of occurring for fluvial (river) flooding. It also shows the extent of the Extreme Flood Outline which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

The Flood Map only indicates the extent and likelihood of flooding from rivers or the sea. It should also be remembered that flooding may occur from other sources such as surface water sewers, road drainage, etc.

Fluvial Flood Levels

The fluvial flood levels for the model nodes shown on the attached map are set out in the table below. They are measured in metres above Ordnance Datum Newlyn (mODN).

Node Label	Easting	Northing	Annual Exceedance Probability - Maximum Water Levels (mODN)				
			4% (1 in 25)	1% (1 in 100)	1% (1 in 100) inc Climate Change	0.1% (1 in 1000)	0.1% (1 in 1000) inc Climate Change
GLEN 5694	524101	326832	4.23	4.33	5.12	4.49	5.30
GLEN 6091	523955	326471	4.25	4.35	5.12	4.52	5.31
GLEN 6289	523833	326338	4.26	4.36	5.13	4.54	5.32
GLEN 6685	523601	326084	4.28	4.39	5.14	4.58	5.33

These levels are taken from the Welland Catchment Model (August 2007) and are the most up-to-date currently available. We aim to review our models on a regular basis, so if you are using these levels more than twelve months from the date of this letter, please contact us again to check that they are still valid.

Please note that these levels are "in-channel" levels and therefore may not represent the flood level on the floodplain, particularly where the channel is embanked or has raised defences.

Fluvial Defence Information

The fluvial defences along the right bank of the River Glen in the vicinity of the site consist of raised earth embankments. They are in good condition and provide protection against a flood event with a 1% chance of occurring in any year (1 in 100). We inspect these defences regularly to ensure that any potential defects are identified early.

History of Flooding

With regards to the history of flooding I can advise that we do not have any records of flooding in this area. It is possible that other flooding may have occurred that we do not have records for, and other organisations, such as the Local Authority or Internal Drainage Boards, may have records.

Land Drainage

The information provided is limited to flood risk from the sea and rivers with catchment areas greater than 3km². The property is in an area of extensive land drainage which may pose an additional risk of flooding. Further information should be sought from the Black Sluice Internal Drainage Board (tel: 01205 361061).

Other Information Requested

South Holland Strategic Flood Risk Assessment (SFRA) (Update 2010) is available at: <http://www.sholland.gov.uk/environment/plandev/localplan/background/lfraupdatefinal2010.htm>. You should review the hazard mapping to inform your Flood Risk Assessment.

Further details about the Environment Agency information supplied can be found on the GOV.UK website:

<https://www.gov.uk/browse/environment-countryside/flooding-extreme-weather>

If you have requested this information to help inform a development proposal, then you should note the information on GOV.UK on the use of Environment Agency Information for Flood Risk Assessments

<https://www.gov.uk/planning-applications-assessing-flood-risk>
<https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion>

Supporting Information

This information is provided subject to the enclosed notice which you should read.

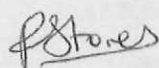
I hope that we have correctly interpreted your request. Please see the attached Standard Notice or licence for details of permitted use.

We respond to requests for recorded information that we hold under the Freedom of Information Act 2000 (FOIA) and the associated Environmental Information Regulations 2004 (EIR).

If you are not satisfied with our response to your request for information you can contact us within 2 calendar months to ask for our decision to be reviewed.

If you have any queries or would like to discuss the content of this letter further please contact myself at the Environment Agency.

Yours sincerely



Rachael Storey
FOR Ben Thornely
Partnership and Strategic Overview Team Leader
Lincolnshire & Northamptonshire Area

Direct dial 01536 385225
e-mail psown@environment-agency.gov.uk

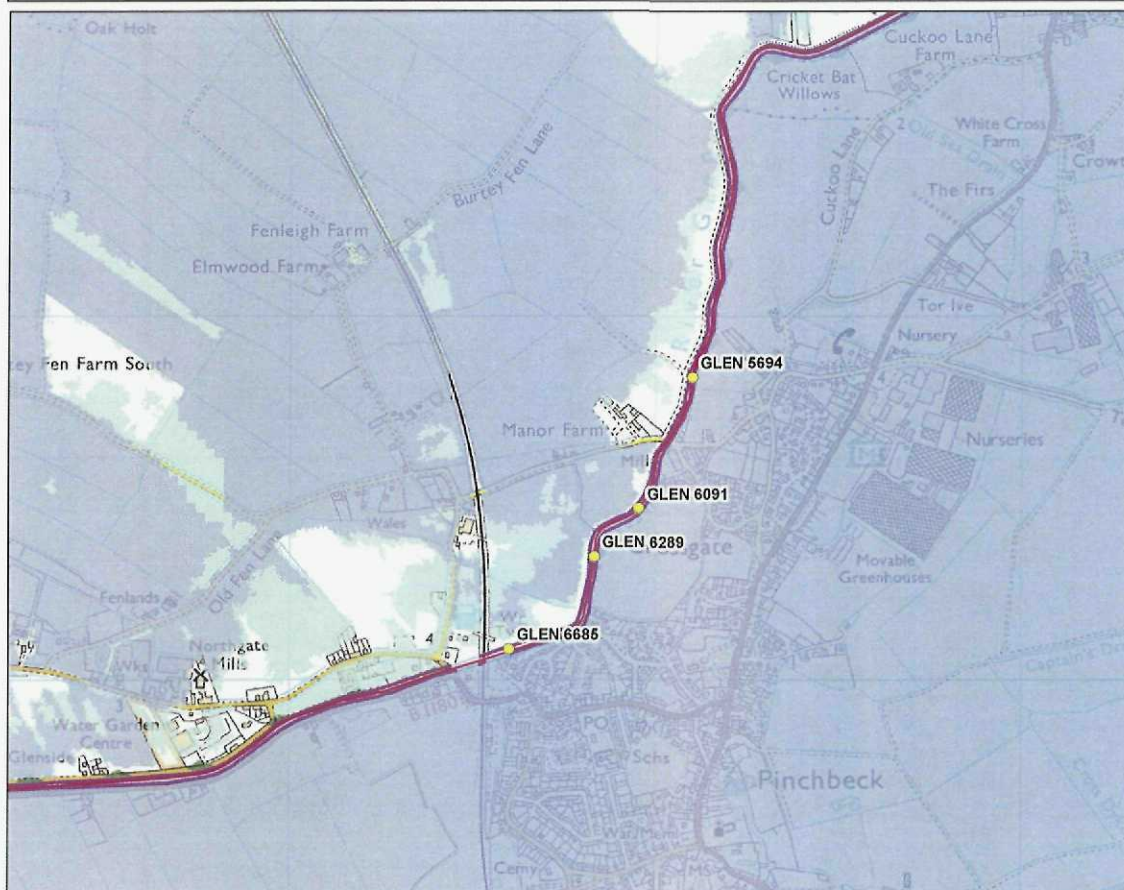


Awarded to Lincolnshire & Northamptonshire Area

Enc.
FRA Advisory Text
Basic FRA Map
Standard Notice

Basic FRA Map

Map centred on TF 23773 26622 - created May 2015 [Ref: CCN-2015-39260]



Scale 1:10,000



- Model Nodes
- Main River
- Raised Defences
- Area at Risk of Flooding from Rivers or The Sea
- Extreme Flood Outline

Dark blue shows the area that could be affected by flooding, either from rivers or the sea, if there were no flood defences. This area could be flooded.

- from the sea by a flood that has a 0.5% (1 in 200) or greater chance of happening each year.

- or from a river by a flood that has a 1% (1 in 100) or greater chance of happening each year.

Light blue shows the extent of the Extreme Flood Outline, which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

These two colours show the extent of the natural floodplain if there were no flood defences or certain other manmade structures and channel improvements. Sites outside the two extents, but behind raised defences, may be affected by flooding if the defences are overtopped or fail.

Created by the Partnerships & Strategic Overview Team, Kettering

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Use of Environment Agency Information for Flood Risk / Flood Consequence Assessments

Important

If you have requested this information to help inform a development proposal, then we recommend that you undertake a formal pre-application enquiry using the form available from our website:-

<http://www.environment-agency.gov.uk/research/planning/33580.aspx>

Depending on the enquiry, we may also provide advice on other issues related to our responsibilities including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.

In **England**, you should refer to the Environment Agency's Flood Risk Standing Advice, the technical guidance to the National Planning Policy Framework and the existing PPS25 Practice Guide for information about what flood risk assessment is needed for new development in the different Flood Zones. These documents can be accessed via:

<http://www.environment-agency.gov.uk/research/planning/82587.aspx>

<http://www.communities.gov.uk/publications/planningandbuilding/nppftechnicalguidance>

<http://www.communities.gov.uk/publications/planningandbuilding/pps25guideupdate>

You should also consult the Strategic Flood Risk Assessment produced by your local planning authority.

In **Wales**, you should refer to TAN15 for information about what flood consequence assessment is needed for new development in the different flood zones

<http://new.wales.gov.uk/splash;jsessionid=8ylGTfGZthmB0t2vhp6hS1GcB1LXvZzB3Ylczf20Xn7LK3zK0nMk!981825250?orig=/topics/planning/policy/tans/tan15/>

You should also consult the Strategic Flood Consequence Assessment if one has been produced by your local planning authority.

In both **England and Wales** you should note that:

1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk / Consequence Assessment (FRA / FCA) where one is required, but does not constitute such an assessment on its own.
2. This information covers flood risk from main rivers and the sea, and you will need to consider other potential sources of flooding, such as groundwater or overland runoff. The information produced by the local planning authority referred to above may assist here.
3. Where a planning application requires a FRA / FCA and this is not submitted or deficient, the Environment Agency may well raise an objection.
4. For more significant proposals in higher flood risk areas, we would be pleased to discuss details with you ahead of making any planning application, and you should also discuss the matter with your local planning authority.