ENGINEERING

Flood Risk Assessment
For the Retrospective Planning Application for the Replacement of The Dwelling Originally Consented as a Change of Use of the Original Barn at Puddock Road, Warboys Under Planning Application 21/01655/FUL With a New Residential Dwelling

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Flood Risk Assessment
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The Dwelling Originally Consented as a Change of Use of the
Original Barn at Puddock Road, Warboys Under
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1 Introduction

1.1 MTC Engineering (Cambridge) Ltd. has been asked to provide a Flood Risk Assessment in respect of the retrospective Planning Application for the replacement of the dwelling consented as a change of use of the original barn under Planning Application 21/01655/FUL at Cherry Lodge Farm, Puddock Road, Warboys with a new residential dwelling on behalf of S.D and A.M Robinson.

1.2 This Flood Risk Assessment is based on the following information:-

1.2.1 Environment Agency Modelled and Historical Flood Data.

1.2.2 Huntingdonshire District Council Strategic Flood Risk Assessment (SFRA).

1.2.3 Topographic Survey by C J Surveys Limited.

1.2.4 Proposed Site and Building Layouts by Partners in Planning and Architecture and JPT Design

1.2.5 British Geological Survey Mapping.

1.3 All the comments and opinions contained in this report including any conclusions are based on the information available to MTC Engineering (Cambridge) Ltd. during our investigations. The conclusions drawn could therefore differ if the information is found to be inaccurate, incomplete or misleading. MTC Engineering (Cambridge) Ltd. accept no liability should this prove to be the case, nor if additional information exists or becomes available with respect to this site.

1.4 MTC Engineering (Cambridge) Ltd. makes no representation whatsoever concerning the legal significance of its findings or any other matters referred to in the following report. Except as otherwise requested by the client, MTC Engineering (Cambridge) Ltd. are not obliged and disclaim any obligation to update the report for events taking place after the Assessment was undertaken.

1.5 This report is a Flood Risk Assessment of flooding issues associated with the proposed development. The information presented and conclusions drawn are based on statistical data and are for guidance purposes only. This report provides no guarantee against flooding of the study site or elsewhere, nor as to the absolute accuracy of water levels, flow rates and associated probabilities quoted.

2 Site Description

2.1 The site is located on the southeastern side of Puddock Road, Warboys, within the wider Cherry Lodge Farm site, as shown by the Location Plan provided in Appendix 1.

2.2 To the northeast, southeast and southwest the wider Cherry Lodge Farm site is bound by agricultural land on the southeastern side of Puddock Road, with sparse residential dwellings and agricultural buildings also present in the area, primarily fronting Puddock Road.

2.3 To the northwest the site is bound by Puddock Road, past which is open agricultural land.

2.4 The barn that is the subject of this application is surrounded on all sides by land within the Cherry Lodge Farm site, as shown by the red and blue lines on the location plan provided in Appendix 1. The main Cherry Lodge Farmhouse is to the southeast of the barn, with adjacent dwellings approved under Planning Applications 15/01938/PMBPA and 15/01923/PMBPA to the northeast and northwest, and two further existing barns to the southeast.

2.5 A topographic survey is provided in Appendix 2 (dating back to prior to the redevelopment of the original barn at the site). Puddock Road is raised above the surrounding lower lying fenland, with levels of about 0.25m above Ordnance Datum (AOD) in the vicinity of the site. External ground levels in the vicinity of the existing dwellings and barns in proximity to the site are about -0.2 to -0.3m AOD. The agricultural land surrounding the site is lower, with levels on the top of bank at the drain to the rear of the farmyard being about -1.2m AOD.

2.6 The finished floor level (FFL) of the barn is shown as -0.20m AOD, which was the minimum FFL required to be maintained under the original Flood Risk Assessment that was subsequently approved as part of Planning Application 21/01655/FUL for change of use of the barn to use of a residential dwelling (available via the planning portal).

2.7 When the replacement dwelling was constructed, surrounding ground levels remained unaltered however the FFL is raised approximately 6 courses of brick above ground level as shown in Appendix 3, thus approximately 450mm higher than the original FFL of -0.2m AOD, of at approximately 0.25m AOD.

2.8 A copy of the site and floor plans consented as part of the change of use of the existing barn under Planning Application 21/01655/FUL are provided in Appendix 4.

2.9 The site lies within the Warboys, Somersham and Pidley Internal Drainage Board (IDB) area, with drain 159 running to the rear of the site. As shown on the survey there is a piped section of this providing access to the agricultural land to the rear of the site, but the majority is open drain.

2.10 The IDB system here drains to the High Fen Pumping Station, which pumps drainage into the Fenton Lode (or Twenty Foot Drain).

2.11 Aside from the IDB drains there are some smaller private/riparian drains which take water from the primarily agricultural land in the area to the IDB system.

2.12 The only other significant surface water feature in the vicinity of the site is the Ouse Washes or Hundred Foot Washes Flood Storage Reservoir, which is located approximately 10km southeast of the site at its closest point.

2.13 British geological survey mapping shows the bedrock geology underlying the site is the Oxford Clay Formation of mudstone, with a superficial geology of Peat also present.

3 Sources of Potential Flood Risk

3.1 In accordance with the National Planning Policy Framework, all forms of flood risk need to be considered in respect of any development.

3.2 The first form of flood risk to be considered in respect of The National Planning Policy Framework is fluvial flooding.

3.3 The Environment Agency Flood Map for Planning (Appendix 5) indicates that the site and all the surrounding low-lying fenland lies in Flood Zone 3.

3.4 The recently updated SFRA mapping indicates a similar flood pattern to the Environment Agency Mapping in terms of Flood Zones but does not show the site to lie within the 1 in 100 year plus climate change flood plain that has been mapped in the district when defences are included.

3.5 The Flood Zones do not take into account either flood defences or climate change, however the Fenland area and this section of Huntingdonshire is unusual in that much of the area is historical flood plain that has been subsequently drained by a large scale pumped system that is highly unlikely to completely fail in the way more traditional defences such as raised embankments may be breached.

3.6 Any failures with the pumped system in the vicinity of the site that were to occur would now lead to a slowly increasing ponded water level in the lowest lying areas of fenland first, gradually increasing until such a time as emergency pumps were bought into action, or the original pumps repaired.

3.7 The most critical pumping station to the site is the High Fen Pumping Station, however, should this fail due to an interruption in power supply, or potentially longer term mechanical failure, any ponded water would begin ponding in the vicinity of the pumping station, which is at a much lower level than the site itself.

3.8 The Middle Level Commissioners and IDB also would take emergency action to maintain a suitable pump rate from the station before water levels rose to site level, and it is unlikely that a water level sufficient to give rise to flooding at the site would occur under any circumstances.

3.9 Should the network of smaller riparian drains in the vicinity of the site become blocked or over capacity under any circumstances, water would tend to flow overland and reenter the system downstream of the blockage without causing any significant flooding, whilst if over-capacity ponding of water would tend to occur in the lowest lying areas of surrounding fenland which are to the southeast of the site and given the level difference and available area at low levels it is not considered there is any scenario in which this would impact the site or proposed barn.

3.10 As such it is not considered that there is any significant risk of flooding to the proposed barn from either the IDB, Middle Level Commissioners, or riparian network of drains in the area.

3.11 The last risk of fluvial flooding to the site comes from the Ouse Washes, which provide fluvial/tidal flood storage for the River Great Ouse, thus could be considered as a fluvial, tidal or artificial flood risk. The greatest potential flood risk to the site would be in a breach event occurring to the southeast of the site, where a large volume of water could be quickly released into the surrounding low-lying fenland.

3.12 At a distance of more than 10km from the Ouse Washes the site lies outside of any rapid inundation zone, and by the time any water reached land in the vicinity of the site it would essentially be in the form of a slowly rising ponded water level.

3.13 The Environment Agency have modelled breaches of the Ouse Washes, and provided mapping of the resultant flooding in the surrounding area (Appendix 6). This shows that the site itself lies towards the edge of the area which would be impacted in such an event, with the velocity mapping confirming this would be by slowly rising ponded water only given that the velocity of water remains in the lowest category at 0 to 0.3m/s.

3.14 Puddock Road at the site frontage shows a maximum depth of flooding of 0 to 0.25m, thus based upon the level of this being at about 0.25m AOD along the site frontage this indicates a maximum water depth of approximately 0.5m AOD in the area. As an area of ponded flooding with no significant flows, this level would be maintained across the area including at the site of the proposed barn.

3.15 As such the worst-case water level that could occur at the site under any circumstances is estimated at 0.5m AOD, however the chances of a breach occurring in the Hundred Foot Washes is considered to be extremely low given that these are a key Environment Agency asset and therefore are well maintained and regularly inspected.

3.16 Aside from a breach event it is not considered there are any other significant flood risks to the site from the Ouse Washes.

3.17 Overall, unless a breach of the Ouse Washes occurs which is extremely unlikely, it is not considered that there are any significant fluvial, tidal, or artificial source risks of flooding to the site.

3.18 The second form of flood risk to be considered in respect of The National Planning Policy Framework is flooding from the sea.

3.19 The only significant tidal risk of flooding to the site comes from the Ouse Washes, which have already been assessed above, and the overall risk of the site flooding from the sea is considered to be extremely low with the only risk being a breach event.

3.20 The third form of flood risk to be considered in respect of The National Planning Policy Framework is flooding from land.

3.21 Intense rainfall, often of short duration, that is unable to soak into the ground or enter drainage systems can quickly run off land and result in local flooding. In developed areas, this flood water can be polluted with domestic sewage with foul sewer surcharge and overflow. 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 need to be taken into account in development to minimise the risk of flooding from overland flow.

3.22 The network of surface water drains in the area will pick up any significant surface water flows and drain these to the IDB systems, and any surface water that is not picked up by these systems will pond in the lowest lying areas which tend to be the agricultural fields.

3.23 The Environment Agency surface water flood map (Appendix 7) shows that even in a 1 in 1000-year event there is no flooding indicated in the vicinity of the barn which is the subject of this application and that all the land within the red line boundary is at a very low risk of flooding.

3.24 The fourth form of flood risk to be considered in accordance with The National Planning Policy Framework is flooding from rising groundwater.

3.25 Groundwater flooding occurs when water levels in the ground rise above surface elevations. It is most likely to occur in low lying areas underlain by permeable rocks (aquifers). These may be extensive, regional aquifers, such as chalk or sandstone, or may be localised sands and river gravels in valley bottoms underlain by less permeable rocks. Water levels below the ground rise during wet winter months and fall again in the summer as water flows out into rivers. In very wet winters, rising water levels may lead to the flooding of normally dry land.

3.26 The Site is shown on the British Geological Survey mapping as underlain by a bedrock geology of the Oxford Clay Formation, with a superficial geology of Peat.

3.27 These are both low permeability geologies which would not have a water table or any significant groundwater present, thus the risk of flooding occurring from rising groundwater is considered to be low.

3.28 The fifth form of flood risk to be considered in accordance with the National Planning Policy Framework is the risk of flooding from blocked, overloaded, or burst sewers and water mains.

3.29 There are no significant surface water sewers in the vicinity of the site and the overall risk of flooding from such sources is considered to be low.

3.30 The last form of flood risk to be considered in accordance with the National Planning Policy Framework is flooding from reservoirs, canals, or other artificial sources.

3.31 The only source of flood risk in the area that may be considered an artificial source of flood risk is the Ouse Washes, however the risk arising from these has already been considered and is very low with the only potential risk being associated with a breach.

4 The Proposal

4.1 The proposal involves a retrospective application for replacement of the dwelling consented under Planning Application 21/01655/FUL, with a copy of the floor plans from the new dwelling provided in Appendix 8. As can be seen the floor plans are extremely similar to those from the consented change of use, with the same number of bedrooms provided and all sleeping accommodation being at first floor level.

4.2 As detailed in Section 3 it is considered that the site is at a low risk of flooding from all potential sources of flood risk, with the only residual risk being a breach of the Ouse Washes occurring during an extreme event.

4.3 As a key Environment Agency asset that is regularly inspected and well maintained it is considered that the risk of a breach event occurring due southeast of the site is extremely low. However, in the unlikely event that this did occur the water level at the site is estimated at 0.5m AOD.

4.4 With regards the original change of use it was not considered practicable to raise the ground floor of the dwelling significantly above the FFL of the original barn which was set at -0.2m AOD, however the replacement of the building has allowed this to be raised to approximately 0.25m AOD. In addition to this the originally specified and approved measures to reduce the risk of occupants have/will also be implemented and these include:

- Firstly, no sleeping accommodation is provided at ground floor level, as shown on the plans in Appendix 8. This will ensure that there is no risk to sleeping occupants in the unlikely event that a breach occurs, and that the first floor provides a safe refuge for occupants if required.
- Secondly, occupants will be advised to register for the Environment Agency Flood Warning Service to ensure they are alerted of any potential breach event, which should ensure that if a breach of the Ouse Washes becomes a possibility, they will evacuate the site prior to any event occurring.

- Thirdly, flood resilient construction has been used to 0.3m above the maximum likely water level of 0.5m AOD at the site to ensure that the potential impact of any flooding that does occur upon the dwelling is minimised, with the measures including:
    - Firstly, all electrical sockets and service meters being set at a minimum level of 0.8m AOD.
    - Secondly all walls being constructed using materials that keep their shape in the event of flooding to a minimum height of 0.8m AOD and any plaster at or below 0.8m AOD using either a water-resistant plaster or installed as a sacrificial strip.

4.5 Safe access will be retained via Puddock Road in all events other than the unlikely event of a breach of the Ouse Washes, in which case flooding in the vicinity of the site would occur gradually only, thus likely allowing any occupants to safely leave the area prior to roads (which are generally raised above surrounding fenland) becoming flooded. Even if any occupants remained on site during such an event the first-floor accommodation will ensure that a safe place of refuge is provided. There is no difference between the currently proposed and the consented situation at the site.

4.6 As the site is defended against flooding in a 1 in 100 year plus climate change event there have been no impacts upon flood storage at the site associated with the replacement of the consented dwelling with a new dwelling.

5 Assessment

5.1 The proposal involves a retrospective application for replacement of the dwelling consented under Planning Application 21/01655/FUL by means of the change of use of an existing barn at Cherry Lodge Farm, Puddock Road, Warboys, with a new residential dwelling.

5.2 Under Annex 3 of the National Planning Policy Framework the proposed residential use would be classified as a ‘more vulnerable’ use.

5.3 The site is shown as lying in Flood Zone 3 on the Environment Agency Flood Map for Planning and SFRA mapping.

5.4 However, as detailed in section 3 this is due to the fenland area being a historic low-lying area that prior to the implementation of the current wide scale pumped drainage system would have been natural flood plain.

5.5 The actual present-day risk of flooding to the site from any source is however considered to be low, as detailed in Section 3, with the only risk being associated with a breach of the Ouse Washes which as a well maintained and regularly inspected Environment Agency asset is considered to be extremely unlikely to occur under any circumstances.

5.6 In accordance with the National Planning Policy Framework, development of a more vulnerable nature is appropriate in Flood Zones 1, 2 and 3 although a Sequential Test may be required in Flood Zones 2 and 3 and an Exception Test in Flood Zone 3.

5.7 Sequential Test

5.7.1 The aim of the Sequential Test is to where possible steer new development to areas at the lowest probability of flooding (Flood Zone 1), as stated in Paragraph 168 of the National Planning Policy Framework.

5.7.2 In this instance the Sequential Test is considered to be passed on the basis that the application seeks to replace an existing/consented residential dwelling. It therefore cannot be located to any alternative site or it would fail to be a 'replacement' application and would simply be for the provision of a new dwelling that would result in an additional dwelling as one would not be being removed as part of the development.

5.7.3 The proposal therefore cannot be relocated to any alternative site at a lower risk of flooding and therefore the Sequential Test is passed.

5.8 **Exception Test**

5.8.1 The first part of the Exception Test requires that development provides wider sustainability benefits to the community that outweigh the risk of flooding.

5.8.2 In this instance the replacement dwelling offers the opportunity to increase the finished floor level of the residential dwelling above that of the consented dwelling, thereby reducing the risk of flooding to the dwelling itself which is considered a sustainability benefit. As such the first part of the Exception Test is passed.

5.8.3 The second part of the Exception Test requires the development to be safe for its lifetime, which is demonstrated by this Flood Risk Assessment and the second part of the Exception Test is therefore also considered to be passed.

5.8.4 As both parts of the Exception Test are passed the Exception Test as a whole is considered to be passed.

5.9 Given the very low chance of a breach of the Ouse Washes occurring under any circumstances and that there is no other significant risk of flooding to the site, the raised FFL of approximately 0.25m AOD along with other measures as detailed in Section 4.4 including flood resilient construction which have been included at the replacement dwelling (as originally consented for the change of use of the barn to a residential dwelling) are considered appropriate to ensure that the risk of flooding is minimised.

5.10 All sleeping accommodation will continue to provided at first floor level to ensure that there is no risk to sleeping occupants and provide a safe refuge in the unlikely event that a breach was to occur as is the case with the consented dwelling.

5.11 Occupants will be advised to register for the Environment Agency Flood Warning Service to ensure they are alerted in the event that a breach of the Ouse Washes becomes a possibility.

5.12 Safe access to the site will be available in any flood event unless the Ouse Washes are breached in which case the site will provide a safe refuge for any occupant that does not safely exit the site. This remains identical to the situation with regards to the previously consented dwelling at the site.

6 Conclusion

6.1 The proposal involves a retrospective application for replacement of the dwelling consented under Planning Application 21/01655/FUL by means of the change of use of an existing barn at Cherry Lodge Farm, Puddock Road, Warboys, with a new residential dwelling.

6.2 The Environment Agency Flood Map and SFRA Mapping indicate that the site lies in Flood Zone 3, however this is primarily down to the fenland area being historical flood plain prior to being drained. The actual risk of the site flooding from any source is considered to be low with the only risk of significance being a breach of the Ouse Washes which is extremely unlikely to occur.

6.3 Both the Sequential and Exception Tests would be passed if required as detailed in Sections 5.7 and 5.8.

6.4 The raised FFL of 0.25m AOD will ensure that the replacement dwelling is better protected against flooding than the consented dwelling which had a minimum FFL of -0.2m AOD.

6.5 The additional flood resilient construction works detailed in Paragraph 4.4 will ensure that the replacement dwelling is adequately protected against any flooding that occurs above the FFL under any circumstances and is overall better protected against flooding than the dwelling consented under Planning Application 21/01655/FUL at the site.

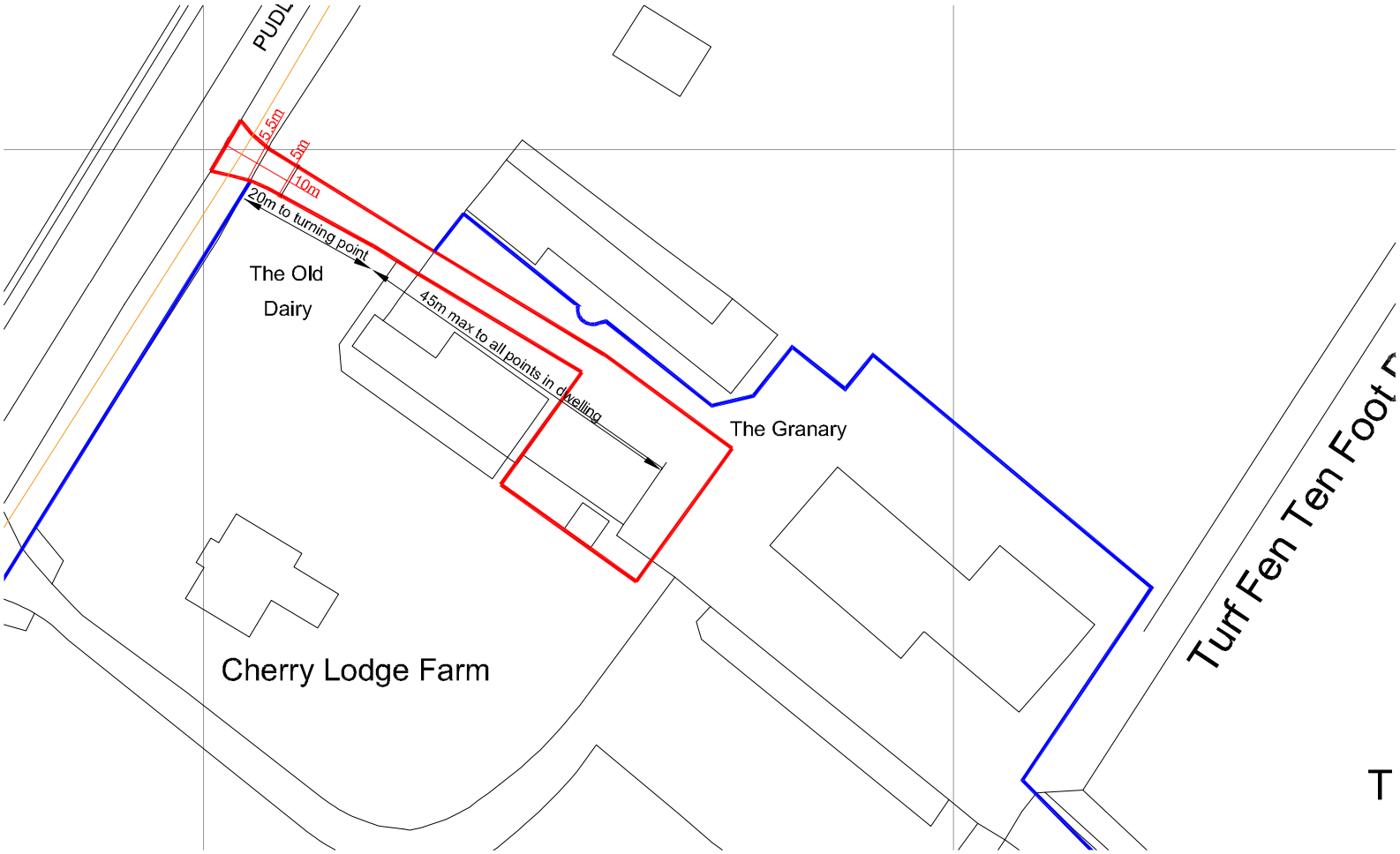
6.6 All sleeping accommodation will continue to be at first floor level as is the case with the previously consented dwelling, whilst there will be no increase to the number of bedrooms provided or potential people located in the flood plain, with access remaining identical to that associated with the consented dwelling at the site.

6.7 There will be no adverse impact upon flood storage in a 1 in 100 year plus climate change event or the off site risk of flooding.

6.8 There are no flood risk or drainage related grounds under The National Planning Policy Framework on which to object to the retrospective application for replacement of the dwelling at Cherry Lodge Farm, Puddock Road, Warboys consented under Planning Application 21/01655/FUL by means of the change of use of the original barn at the site, with a new residential dwelling.

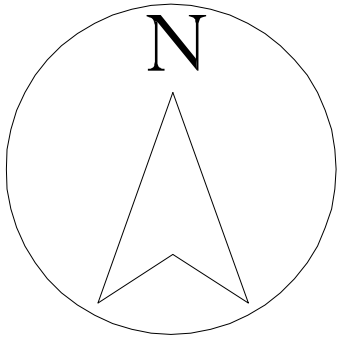
APPENDIX 1

SITE LOCATION PLAN



SITE LOCATION PLAN

SCALE 1:1250



APPENDIX 2

TOPOGRAPHIC SITE SURVEY



LEGEND

- Survey Station
- 26.43 — Level (cross indicates position unless arrowed)
- Kerb
- Drop Kerb
- Change of Surface
- Top / Bottom — Banking
- Hedge / Bush Canopy
- Gate
- Wall
- Fence
- Foul Drainage With dia. in mm
- Storm Drainage
- OH — Overhead Electricity Line
- UG — Underground Electricity Line
- OH — Overhead Telephone Line
- UG — Underground Telephone Line
- 0.4/8.0 12m — Tree with trunk(dia.)/ Ave spread(.dia.) Height if specified
- Sapling

ABBREVIATIONS (Where applicable)

GENERAL

- AV. Air Valve
- BB. Bellisha Beacon
- BG. Box Gully
- BL. Bollard
- BP. Boundary Post
- BS. Bus Stop
- CD. Cable Duct
- CL. Cover Level
- CM. Cable Marker
- CPS. Concrete Paving Slabs
- DP. Down Pipe
- ECB. Electricity Control Box
- ECP. Electricity Cable Pit
- EJB. Electricity Cable Junction Box
- EP. Electricity Pole
- ERP. Earthing Point
- FB. Flower Bed
- FH. Fire Hydrant
- FIG. Feeds into Ground
- FP. Footpath
- G. Gully
- GP. Gate Post
- GV. Gas Valve
- H. Hydrant
- IC. Inspection Cover
- IL. Invert Level
- KO. Kerb Outlet
- LP. Lamp Post
- MH. Manhole
- MKR. Marker
- NB. Notice Board
- NFI. No Further Information
- NSIF. Not Surveyed - Information From
- P. Post
- PM. Parking Meter
- PRV. Pressure Reducing Valve
- RE. Rodding Eye
- RG. Road Gully
- RS. Road Sign
- RWP. Rain Water Pipe
- SC. Stop Cock
- SP. Signpost
- SV. Sluice Valve
- T. Tree
- TCB. Telephone Call Box
- THL. Threshold Level
- TIC. Telephone Inspection Cover
- TJB. Telephone Junction Box
- TL. Traffic Light
- TP. Telephone Pole
- UTL. Unable to Lift
- VP. Vent Pipe
- WL. Water Level
- WM. Water Meter
- WV. Water Valve

FENCES AND WALLS

- BKW. Brick Wall
- BLW. Block Wall
- BW. Post & Barbed Wire Fence
- CB. Close Boarded Fence
- CI. Corrugated Iron Fence
- CP. Chestnut Paling Fence
- CW. Concrete Wall
- DSW. Dry Stone Wall
- IR. Iron Railing Fence
- OB. Open Boarded Fence
- PC. Post & Chain Fence
- PCL. Post & Chain Link Fence
- PF. Panel Fence
- PR. Post & Rail Fence
- PW. Post & Wire Fence
- PWM. Post & Wire Mesh Fence
- RW. Retaining Wall
- SF. Security Fence
- STW. Stone Wall
- SW. Sheep Wire Fence

OTHER ABBREVIATIONS USED ON THIS SURVEY

NOTES

SURVEY TIED INTO NATIONAL GRID OSTN15 AND OSGM15 DATUM FOR HEIGHT USING GPS EQUIPMENT UTILIZING THE TRIMBLE VRS NOW SYSTEM FOR REAL TIME KINEMATIC (RTK) CORRECTIONS NATIONAL GRID SCALE FACTOR HAS NOT BEEN APPLIED TO THE SURVEY UNLESS SPECIFIED

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SURVEY STATION SCHEDULE

STN	EASTINGS	NORTHINGS	LEVEL	REMARKS
101	531717.596	282484.029	−0.620	TEMP NAIL
102	531752.916	282473.455	−0.276	MAG NAIL IN GRAVEL
103	531776.080	282464.704	−0.344	MAG NAIL IN GRAVEL
104	531771.016	282441.805	−0.290	MAG NAIL IN ASPHALT
105	531736.507	282433.957	−0.769	TEMP NAIL

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CLIENT MRS ROBINSON C/O PARTNERS IN PLANNING & ARCHITECTURE

DATE	DRAWN	SHEET SIZE	SCALE
MAY 2021	CJ	A1	1:200

PROJECT TOPOGRAPHIC SURVEY
CHERRY LODGE, PUDDOCK ROAD, WARBOYS

DRAWING NO. 05721/T1

APPENDIX 3

PHOTO OF NEW DWELLING



APPENDIX 4

SITE AND FLOOR PLANS CONSENTED UNDER

PLANNING APPLICATION 21/01655/FUL

N

Existing dwelling approved
under planning ref.
15/01938/PMBPA

Existing dwelling approved
under planning ref.
15/01923/PMBPA

The Granary

Existing containers to be
relocated on site

Shed to be removed

SCALE 1:200 (METRES)

0 5 10 15 20

1:200 Block Plan

REV	DATE	BY	REVISION NOTES

Suite 2, Clare Hall,
St Ives Business Park,
Parsons Green,
St Ives,
Cambs, PE27 4WY

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Tel: 01480 494969
Email: enquiries@planningandarchitecture.co.uk
Web: www.planningandarchitecture.co.uk

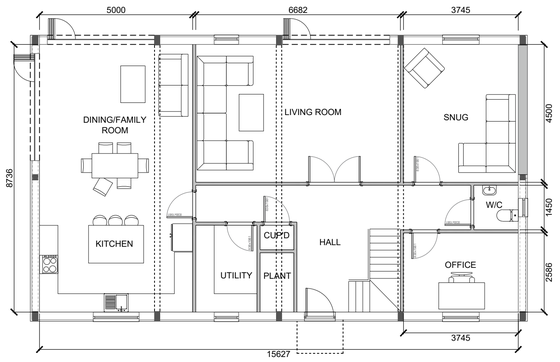
PARTNERS in PLANNING and ARCHITECTURE

PROJECT
Cherry Lodge
Puddock Road
Warboys
Huntingdon
PE28 2UB

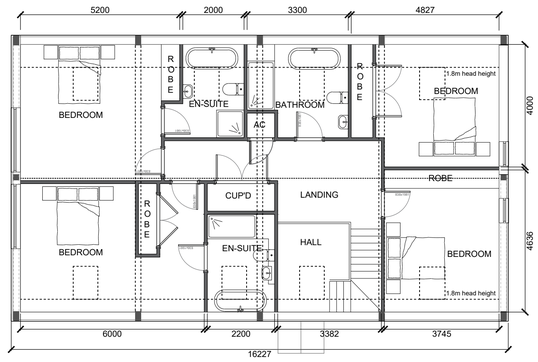
CLIENT
Mrs A. Robinson

DRAWING TITLE
Block Plan

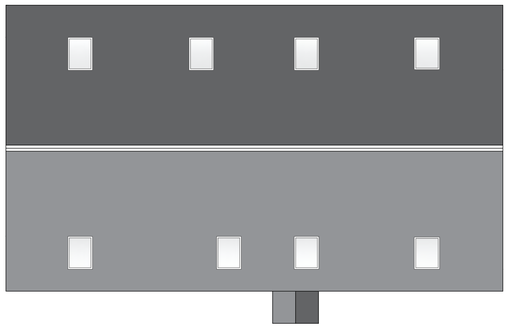
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SD	1:200 @ A3	
DATE	DWG. NO.	REV.
19.05.21	2021.14.102	



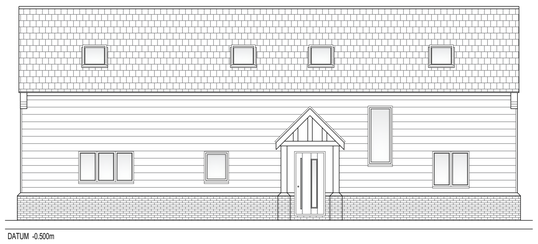
1:100 Ground Floor Plan



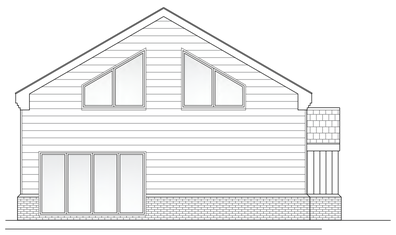
1:100 First Floor Plan



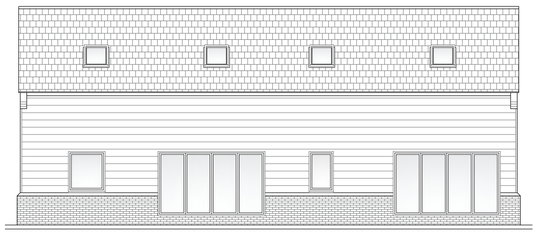
1:100 Roof Plan



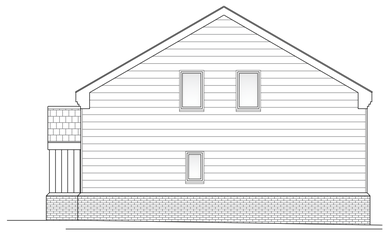
1:100 Front (North) Elevation



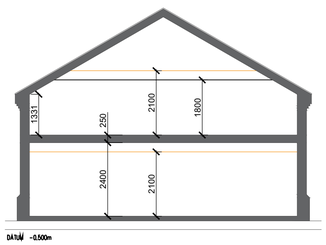
1:100 Side (East) Elevation



1:100 Rear (South) Elevation



1:100 Side (West) Elevation



1:100 Section A-A

SCALE 1:100 (METRES)

0 5 10

REV | DATE | BY | REVISION NOTES

Suite 2, Clare Hall,
St Ives Business Park,
Parsons Green,
St Ives,
Cambs, PE27 4WY

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Tel: 01480 494969
Email: enquiries@planningandarchitecture.co.uk
Web: www.planningandarchitecture.co.uk

PARTNERS in PLANNING and ARCHITECTURE

PROJECT
Cherry Lodge
Puddock Road
Warboys
Huntingdon
PE28 2UB

CLIENT
Mrs A. Robinson

DRAWING TITLE
Proposed Plans and Elevations

DRAWN BY	SCALE	REV.
SD	1:100 @ A1	
DATE	DWG. No.	
19.05.21	2021.14.103	

APPENDIX 5

ENVIRONMENT AGENCY FLOOD MAP FOR PLANNING

Flood map for planning

Your reference	Location (easting/northing)	Created
<Unspecified>	**531736/282472**	**23 Jan 2024 10:16**

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

This means:

- you may need to complete a flood risk assessment for development in this area
- you should ask the Environment Agency about the level of flood protection at your location and request a Flood Defence Breach Hazard Map (You can email the Environment Agency at: enquiries@environment-agency.gov.uk)
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (find out more at www.gov.uk/guidance/flood-risk-assessment-standing-advice)

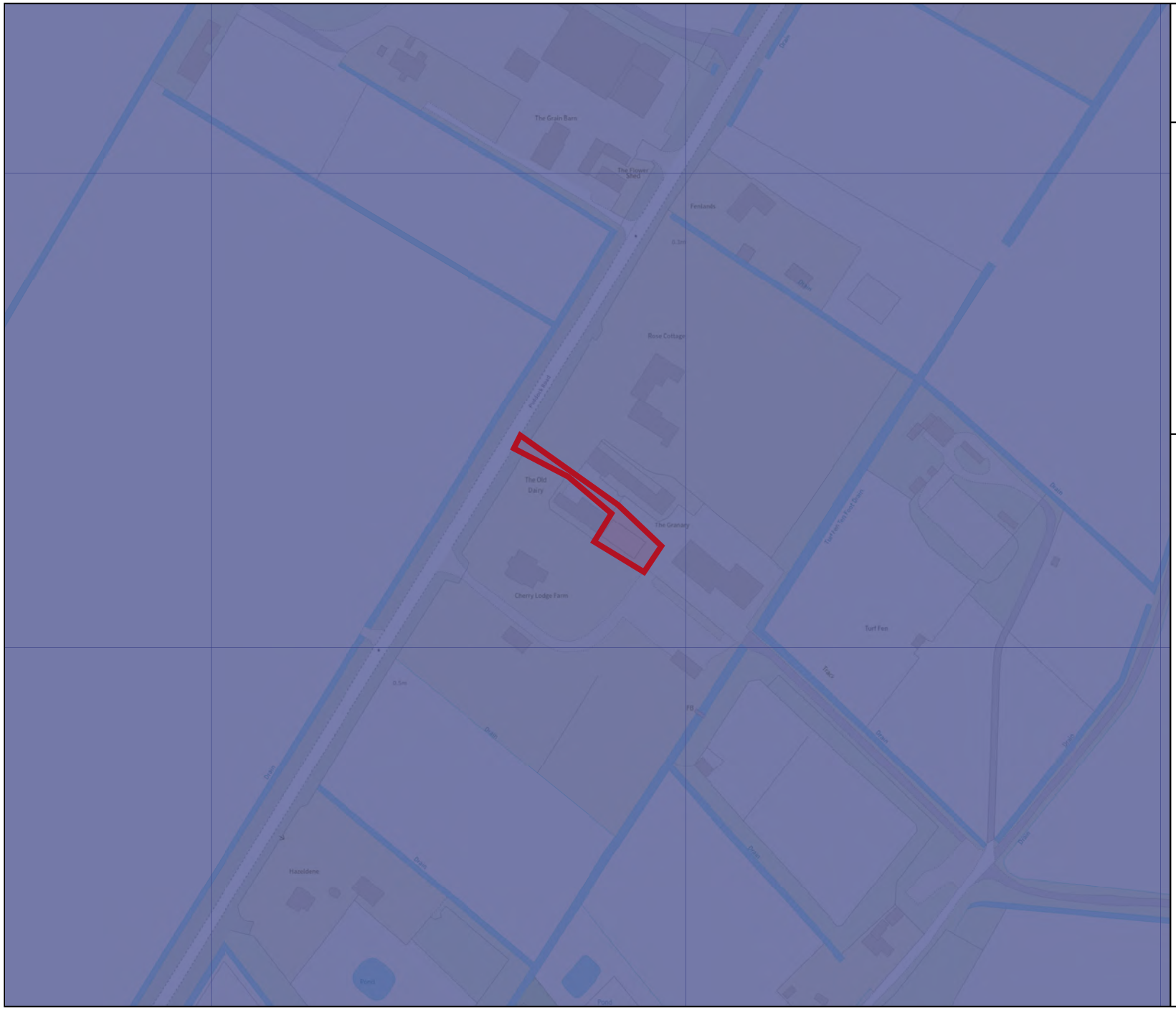
Notes

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.

Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2022 OS 100024198. https://flood-map-for-planning.service.gov.uk/os-terms



Environment Agency

Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
531736/282472

Scale
1:2500

Created
23 Jan 2024 10:16

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

0 20 40 60m

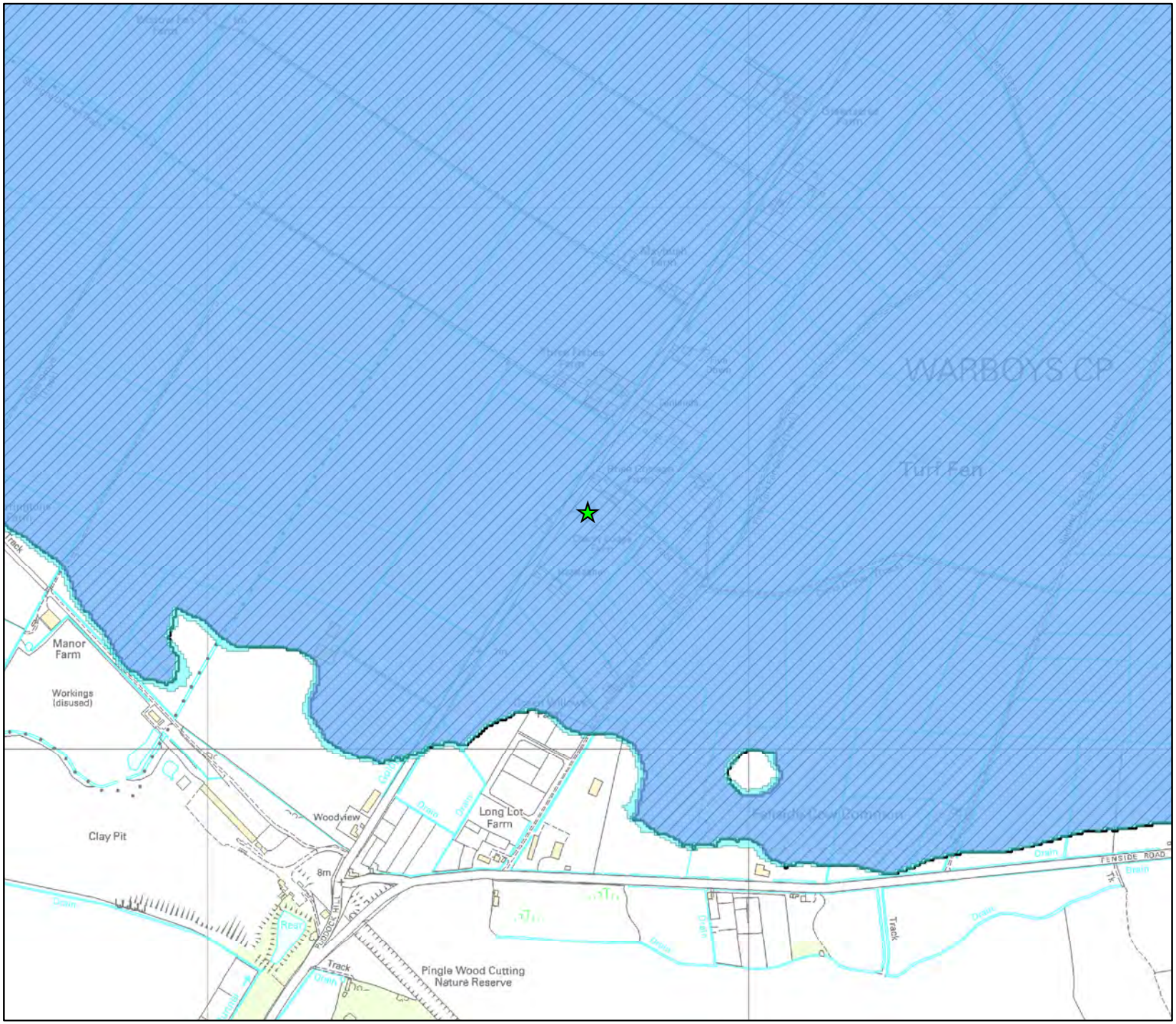
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APPENDIX 6

ENVIRONMENT AGENCY MODELLED FLOOD DATA

Flood Map for Planning (Rivers and Sea)
centred on Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB

NGR TL3170382436
Ref 212765
Created 20/04/2021



Environment Agency
Bromholme Lane,
Brampton,
Cambridgeshire
PE28 4NE

Environment Agency

Legend

- Site
- Flood Zone 3
- Flood Zone 2
- Flood Map Defences
- Areas Benefitting from Defences
- Flood Storage Areas

0 0.125 0.25 0.5 km

Information

Flood Map for Planning (assuming no defences)

Flood Zone 3 shows the area that could be affected by flooding:
- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.

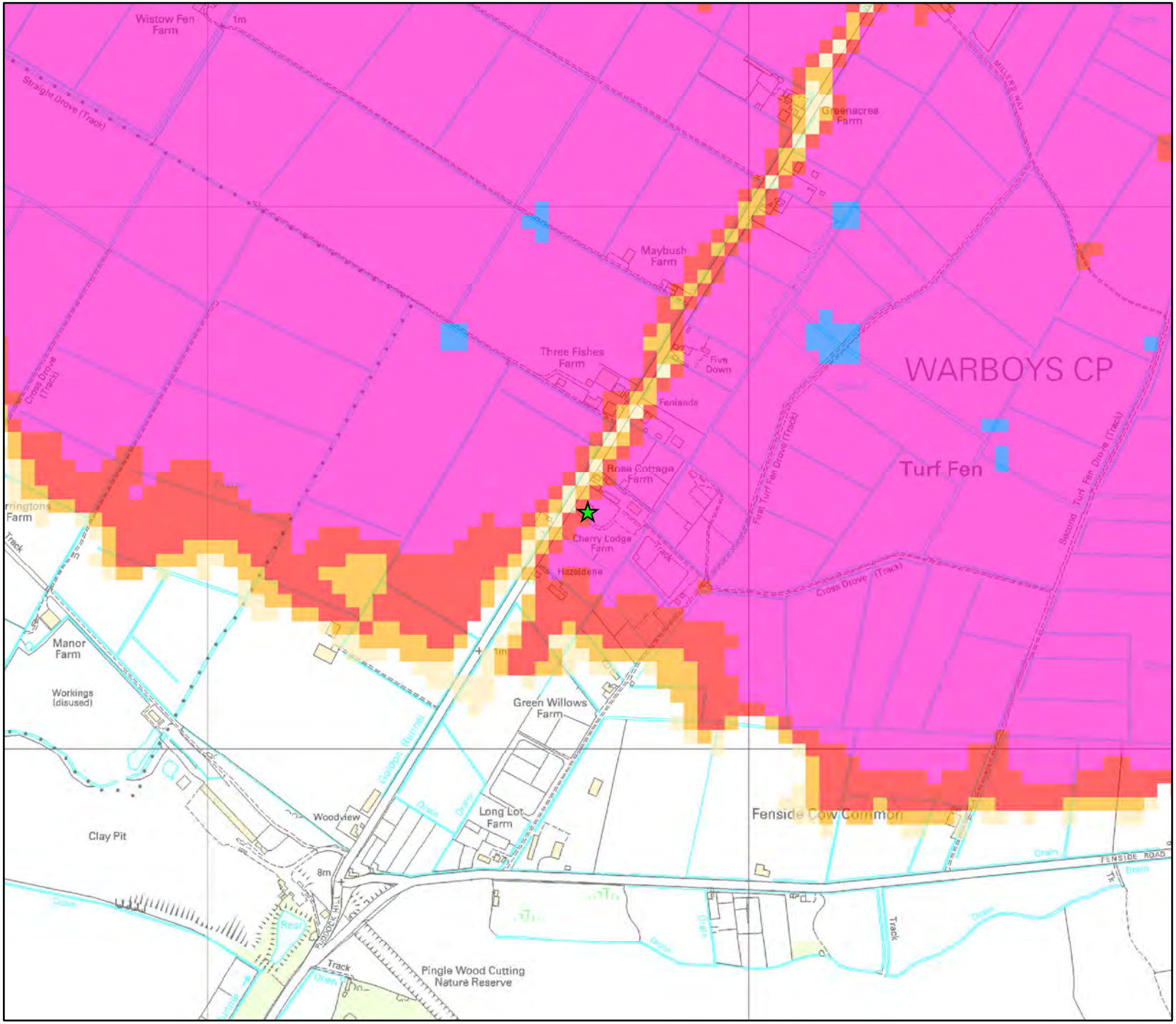
Flood Zone 2 shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.

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Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY Tel: 03708 506 506 (Mon-Fri 8-6).
Email: enquiries@environment-agency.gov.uk

Map Showing the Maximum Flood Depth (combined breach) centred on Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB

NGR TL3170382436
Ref 212765
Created 20/04/2021



Environment Agency
Bromholme Lane,
Brampton,
Cambridgeshire
PE28 4NE

Environment Agency

Legend

- Site
- 0m to 0.25m
- 0.25m to 0.5m
- 0.5m to 1m
- 1m to 2m
- >2m

0 0.125 0.25 0.5 km

Information

1. The map is based on computer modelling of simulated breaches at specific locations and a failure of Earith Sluice for the 1% AEP event. Each breach/failure has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, or different flood flows may all give different results.
2. The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring.
3. An allowance for climate change has only been incorporated into the modelling for a limited number of breaches. If available, these outlines have been provided, but are based on a 20% increase in flows to account for climate change impacts.

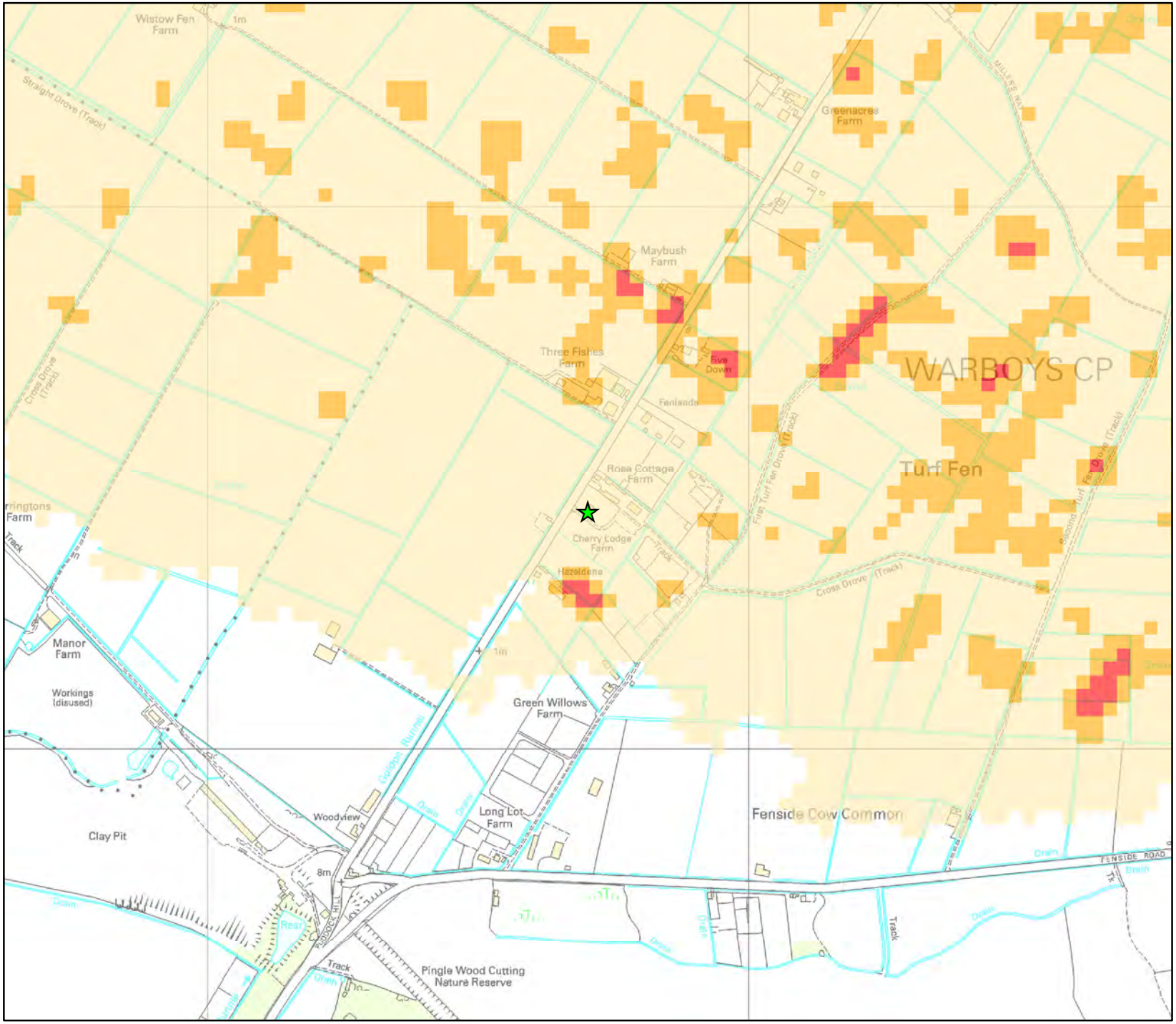
We have recently released updated guidance on climate change allowances for flood risk assessments.

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Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY Tel: 03708 506 506 (Mon-Fri 8-6).
Email: enquiries@environment-agency.gov.uk

Map Showing the Maximum Flood Velocity (combined breach) centred on Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB

NGR TL3170382436
Ref 212765
Created 20/04/2021



Environment Agency
Bromholme Lane,
Brampton,
Cambridgeshire
PE28 4NE

Environment Agency

Legend

- Site
- 0m/s to 0.3m/s
- 0.3m/s to 1m/s
- 1m/s to 1.5m/s
- 1.5m/s to 2.5m/s
- >2.5m/s

0 0.125 0.25 0.5 km

Information

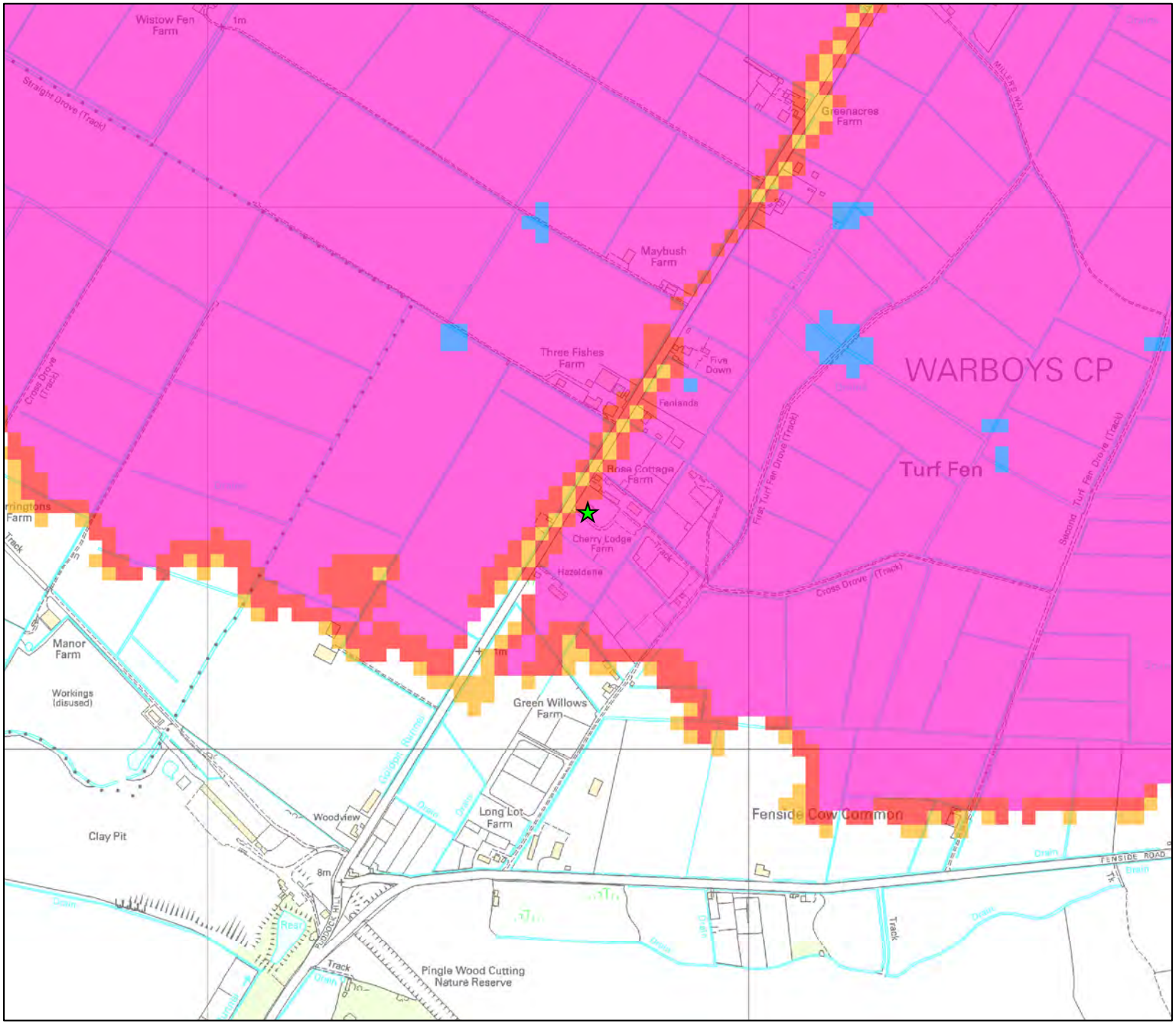
1.The map is based on computer modelling of simulated breaches at specific locations. Each breach has been modelled individually and the results combined to create this map.Multiple breaches, other combinations of breaches, or different flood flows may all give different results.
2.The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring.
3. An allowance for climate change has only been incorporated into the modelling for a limited number of breaches. If available, these outlines have been provided, but are based on a 20% increase in flows to account for climate change impacts. We have recently released updated guidance on climate change allowances for flood risk assessments.

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Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY Tel: 03708 506 506 (Mon-Fri 8-6).
Email: enquiries@environment-agency.gov.uk

Map Showing the Maximum Hazard Rating (combined breach) centred on Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB

NGR TL3170382436
Ref 212765
Created 20/04/2021



Environment Agency
Bromholme Lane,
Brampton,
Cambridgeshire
PE28 4NE

Environment Agency

Legend

- Site
- Low Hazard
- Danger For Some
- Danger For Most
- Danger For All

0 0.125 0.25 0.5 km

Information

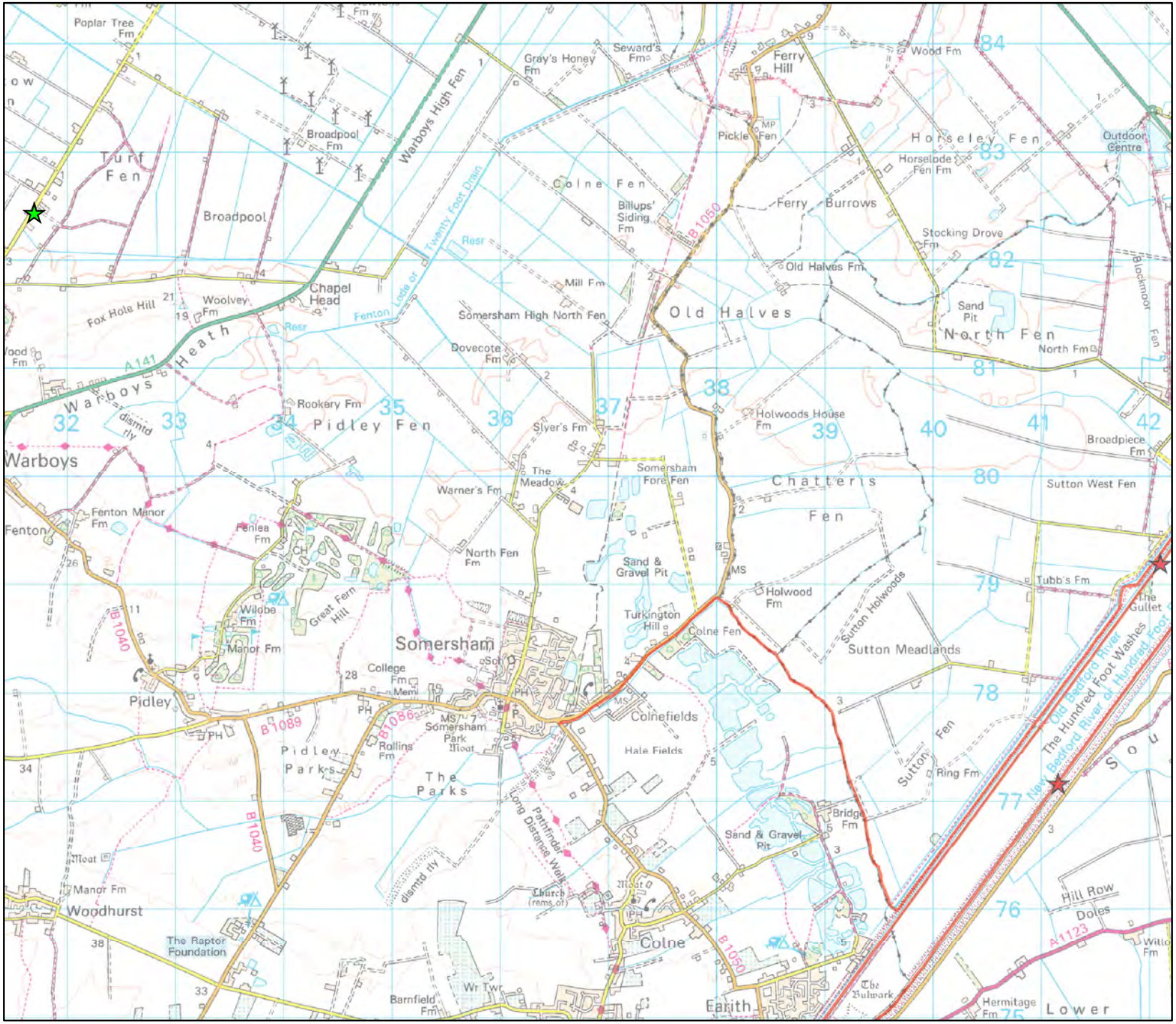
1.This map shows the level of flood hazard to people (hazard rating) if our flood defences are breached at certain locations and a failure of Earith Sluice. The hazard rating depends on the depth and velocity of floodwater and maximum values of these are also mapped.
2.The map is based on computer modelling of simulated breaches at specific locations. Each breach has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, or different flood flows may all give different results.
3.The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring.
4. An allowance for climate change has only been incorporated into the modelling for a limited number of breaches. If available, these outlines have been provided, but are based on a 20% increase in flows to account for climate change impacts. We have recently released updated guidance on climate change allowances for flood risk assessments.

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Email: enquiries@environment-agency.gov.uk

Modelled Breach Locations
centred on Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB

NGR TL3170382436
Ref 212765
Created 20/04/2021



Environment Agency
Bromholme Lane,
Brampton,
Cambridgeshire
PE28 4NE

Environment Agency

Legend

- Site
- Breach Locations 1% AEP

0 0.5 1 2 km

Information

1.The map shows the locations of computer simulated breaches. Each breach has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, or different flood flows may all give different results.
2. If you require the results from individual breach simulations, please request these by emailing Enquiries_EastAnglia@environment-agency.gov.uk
3.The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring.
4. AEP - Annual Exceedance Probability - The probability of a given event occurring in any one year. Please note this is not a return period.

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Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY Tel: 03708 506 506 (Mon-Fri 8-6).
Email: enquiries@environment-agency.gov.uk

Datasheet - Product 4

20 April 2021

Reference Number	212765
Site	Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB
Customer	Esther Gentle
NGR	TL3170382436

This datasheet provides supporting information for your Product 4. It will be clearly indicated if we are unable to provide information to fulfil any part of your request.

Model Summary

Important Information

The following information should considered when using the material provided to fulfil this request.

No Modelled Water Levels and Flows

Unfortunately we do not hold any modelled level and flow data that is relevant for this site.

Recorded Flood Events

Where included, the Recorded Flood Event Outlines map provides an indication of areas which have flooded. Not all properties shown to be within the outline will have flooded.

Flood Event	Start	End	Source	Cause
None			N/A	We have no historic flood event information for this area. It is possible that other flooding may have occurred that we do not have records for, and other organisations such as: local authorities or IDBs may have records.

APPENDIX 7

SURFACE WATER FLOOD MAP

Flood risk

Extent of flooding

Location

Enter a place or postcode

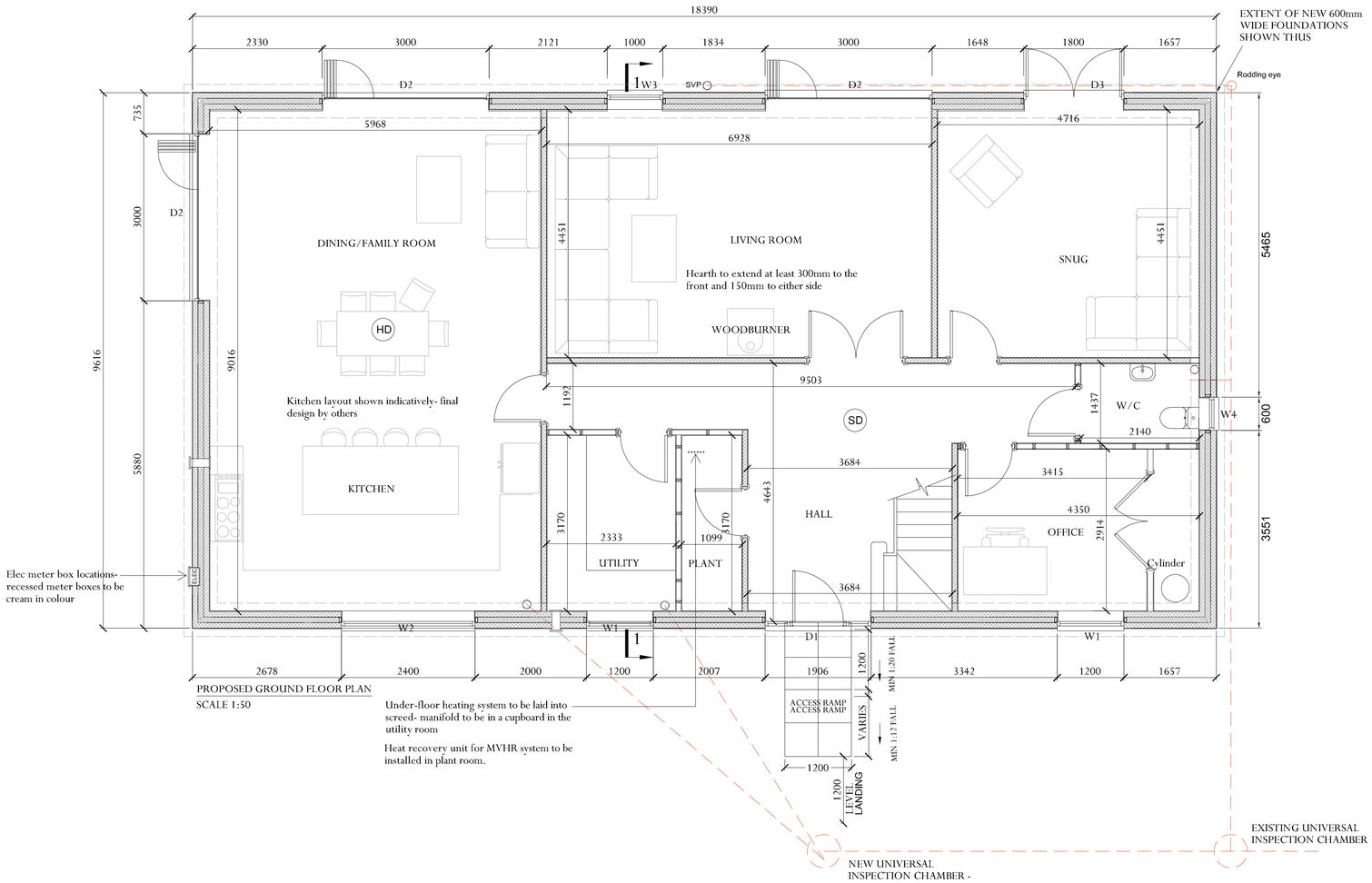


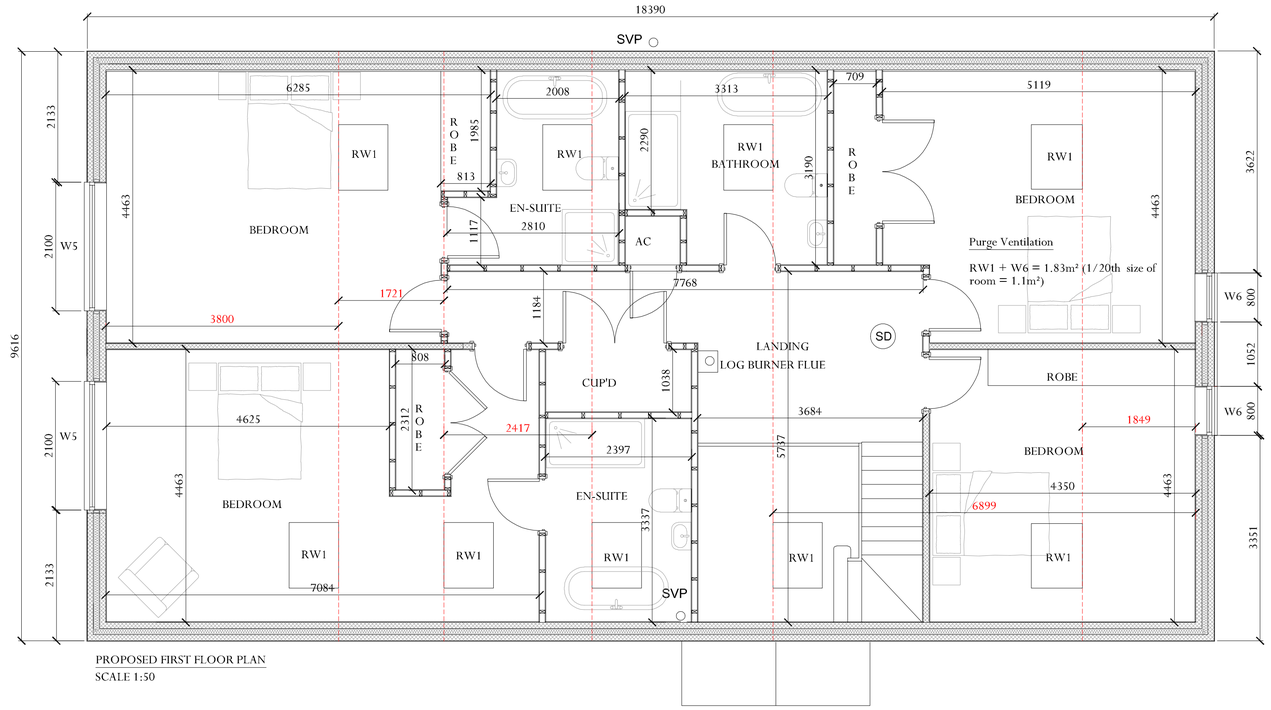
Extent of flooding from surface water

High Medium Low Very low Location you selected

APPENDIX 8

PROPOSED FLOOR PLANS





DETAILING BY JPT DESIGN

WWW.JPTDESIGN.CO.UK

NOTES :

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.

EXTERNAL DOOR & WINDOW SCHEDULE (STRUCTURAL OPENING SIZES)

REF	WIDTH(mm)	HEIGHT(mm)	QTY	REMARKS
W1	1200	1000		
W2	2400	1000		
W3	1000	1000		
W4	600	1000		
W5	2100	VARIOUS		
W6	800	1300		EGRESS WINDOWS
RW1	780	1070	9	ROOF WINDOWS
D1	1000	2100	1	EXTERNAL DOOR WITH 2 No 450mm x 2100mm SIDELIGHT
D2	3000	2100	3	BI-FOLD DOORS
D3	1800	2100		FRENCH DOORS

INTERNAL SINGLE DOOR SIZES

DOOR CLEAR OPENING WIDTH(mm)	CORRIDOR PASSAGEWAY WIDTH(mm)
750 OR WIDER	900 WHEN APPROACHED HEAD ON
750	1200 WHEN APPROACH IS NOT HEAD ON
775	1050 WHEN APPROACH IS NOT HEAD ON
800	900 WHEN APPROACHED NOT HEAD ON

LEGEND

- (HD) INDICATES POSITION OF MAINS POWERED HEAT DETECTORS
- (SD) MAINS POWERED, INTERLINKED WITH BATTERY BACK UP SMOKE DETECTOR
- (CD) CARBON MONOXIDE DETECTORS
- FD INDICATES 30 MINUTE FIRE RESISTING DOOR WITH INTUMESCENT STRIPS AND DOOR CLOSER.
- INDICATES WALLS TO BE REMOVED.
- INDICATES STEELWORK TO STRUCTURAL ENGINEERS DETAILS.
- INDICATES NEW DRAINAGE WHICH CONNECTS INTO EXISTING DRAINAGE.

SCALE RULER

1:1 0 10mm 20 30 40 50 60 70 80 90 100
1:100 0 1m 2 3 4 5 6 7 8 9 10
1:20 0 200mm 400 600 800 1000 1200 1400 1600 1800 2000
1:200 0 2m 4 6 8 10 12 14 16 18 20
1:5 0 100mm 200 300 400 500
1:50 0 1m 2 3 4 5
1:1250 0 10m 20 30 40 50 60 70 80 90 100 110 120
1:2500 0 20m 40 60 80 100 120 140 160 180 200 220 240

JPT DESIGN
RESIDENTIAL PLANNING & DEVELOPMENT ENGINEERING
THE STUDIO, 23 HALIFAX ROAD, UPPER CAMBOURNE CB23 6AX
WWW.JPTDESIGN.CO.UK

Drawing Title -

CONSTRUCTION DETAILS

Client - MR & MRS ROBINSON

Address - CHERRY LODGE FARM, PUDDOCK ROAD, WARBOYS, PE28 2UB

Scale - AS SHOWN @ A1 Date - APRIL

Dwg. No. - JPT/MR/0422/102 Rev. - BR04

partner LABC