LEGEND

SERVICES

AV	AIR VENT
CAJB	CABLE JUNCTION BOX
CATV	CABLE TELEVISION COVER
CD	CABLE DUCT
CIP	CABLE INSPECTION POINT
EIC	ELECTRIC INSPECTION COVER
EJB	ELECTRIC JUNCTION BOX
EP	ELECTRICITY POLE
ER	EARTHING ROD
FH	FIRE HYDRANT
GIC	GAS INSPECTION COVER
GJB	GAS JUNCTION BOX
GV	GAS VENT
MK(E)	SERVICE MARKER (ELECTRIC)
MK(G)	SERVICE MARKER (GAS)
MK(W)	SERVICE MARKER (WATER)
SC(E)	STOP COCK (E)
SC(G)	STOP COCK (GAS)
SC(W)	STOP COCK (W)
SPP	SUPPORT FOR TELEPHONE POLE
SVG	STOP VALVE GAS
TIC	TELEPHONE INSPECTION COVER
TJB	TELEPHONE JUNCTION BOX
TP	TELEPHONE POLE
WIC	WATER INSPECTION COVER
WJB	WATER JUNCTION BOX
WM	WATER METER

LEVELS

DPC	DAMP PROOF COURSE
THL	THRESHOLD LEVEL
T.O.C	TOP OF CHIMNEY
T.O.W	TOP OF WALL
WL	WATER LEVEL

INTERNAL

CLG	CEILING LEVEL
DHL	DOOR HEAD LEVEL
FL	FLOOR LEVEL
SCLG	SUSPENDED CEILING LEVEL
US	UNDERSIDE
USB	UNDERSIDE OF BEAM
WCL	WINDOW CILL LEVEL
WHL	WINDOW HEAD LEVEL

DRAINAGE

BD	BACK DROP
BL	BASE/BED LEVEL
CL	COVER LEVEL
CP	CATCH PIT
DC	DRAINAGE CHANNEL
DP	DOWN PIPE
G	GULLY
IC	INSPECTION COVER
IL	INVERT LEVEL
MH(C)	MANHOLE (COMBINED)
MH(T)	MANHOLE (TOUL)
MH(S)	MANHOLE (SURFACE WATER)
RE	RODDING EYE
RWP	RAIN WATER PIPE
SG	SIDE ENTRY GULLY
SVP	SOIL VENT PIPE
UIG	UNABLE TO LIFT
VP	VENT PIPE
WO	WASH OUT

FEATURES

B	BOLLARD
BH	BORE HOLE
BP	BRICK PILLAR
BS	BUS STOP
CPS	CONCRETE PAVING SLABS
FB	FLOWER BED
LB	LITTER BIN
LC	LIGHTING COLUMN
P	POST
PB	POST BOX
RNP	ROAD NAME PLATE
RS	ROAD SIGN
SW	SOLDIER WALL
SP	SIGN POST
SU	STEP(S) UP
TCB	TELEPHONE CALL BOX
TH	TRIAL HOLE
TS	TREE STUMP

CONTROL

OSBM	ORDNANCE SURVEY BENCH MARK
STN	SURVEY STATION
TBM	TEMPORARY BENCH MARK

TREE (girth/spread/height/species/no. of boles)

DIRECTION OF LEAN

CHANGE IN FENCE TYPE

GATE — GATES

FENCE

BUILDING

OVER HEAD BUILDING LINE

FACE OF WALL

BACK OF RETAINING WALL

LINE

CHANGE OF SURFACE

EDGE OF UNDERGROWTH

BANKING

TOP OF BANK

BOTTOM OF BANK

KERB

DROP KERB

VERGE

CONTOUR WITH VALUE

OVER HEAD WIRE

HEDGE/TREE LINE

FOR FUTURE SURVEY WORK OR SETTING OUT, J C WHITE GEOMATICS LIMITED QUOTED SURVEY CONTROL COORDINATES & 'A' LEVELS MUST BE USED. UNDER NO CIRCUMSTANCES SHOULD ANY OTHER SURVEYED POINTS ON THE DRAWING BE USED OTHER THAN AS A GROSS ERROR CHECK.

TREE GIRTHS AND SPREADS ARE QUOTED AS A MEAN SIZE, AND SHOWN TO SCALE.

WHILST EVERY EFFORT IS MADE TO IDENTIFY TREE SPECIES AND GAUGE HEIGHTS, NO RESPONSIBILITY CAN BE TAKEN FOR THE ACCURACY OF THIS INFORMATION.

WHILST EVERY EFFORT IS MADE TO ENSURE THAT PIPE DIAMETERS, INVERT LEVELS AND DRAINAGE TYPES ARE CORRECT, THE ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED, AND IT IS STRONGLY RECOMMENDED THAT EXISTING SERVICES ARE CHECKED PRIOR TO THE COMMENCEMENT OF ANY DETAILED DESIGN AND CONSTRUCTION WORKS.

LEVELS AT KERB LINES ARE CHANNEL LEVELS.

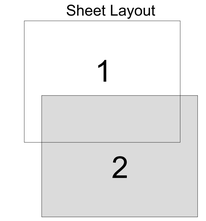
ALL COORDINATES AND LEVELS ARE BASED ON A LOCAL GRID CENTRED ON AN OS ACTIVE RINEX DERIVED COORDINATE AND DATUM FOR STN 3, ALL COORDINATES HAVE BEEN COMPUTED USING A SCALE FACTOR OF 1.00000.

DUE TO THE UNMAINTAINED NATURE OF THE SITE, IT CANNOT BE GUARANTEED THAT ALL FEATURES HAVE BEEN SURVEYED.

CONTOUR INTERVAL 0.5 METRES.

CONTROL SCHEDULE				
STATION	EASTING	NORTHING	HEIGHT	DESCRIPTION
1	590926.522	147251.054	93.126	Peg
2	590872.509	147209.080	94.489	Nail
3	591000.849	147232.945	95.316	Peg
4	590893.898	147281.936	92.204	Nail

Sheet Layout



J. C. WHITE
Geomatics Limited
Shrine Barn, Shrine Farm, Sandling Road, Postling, Hythe, Kent, CT21 4HE
Tel : 01303 261212 Fax : 01303 264040
Email : survey@jcwhite.co.uk Web site : www.jcwhite.co.uk

- GPS Surveys
- Volumetric Surveys
- Topographical Surveys
- Measured Building Surveys
- Laser Scanning
- Setting Out
- Boundary Disputes
- Engineering Surveys
- Deformation & Settlement Surveys
- Scan to BIM Modelling

CLIENT

Jarvis Strategic Land Ltd

JOB TITLE

Land NE of New Road,
Egerton,
TN17 9DN.

DRAWING TITLE

Topographical
Survey

JOB No. *19/00/215*		DATE *June 2020*
SURVEYED BY *J.Turnbull*		DRAWN BY *J.Turnbull*
SCALE *1:200*	DWG. No. *2 of 2*	REV. No.

CAD PLOT DATE	ORIGINAL SHEET SIZE	CADFILE NAME
01.07.2020	*A0*	*1900215 - Egerton.dwg*

Appendix C Flood Risk

Figure 2 – EA Flood Map for Planning
Figure 3 – EA Risk of Flooding from Surface Water

from Southern Water

gemma.nelmes@stantec.com

Date

5th October 2020

Contact

Tel 0330 303 0368

Dear Ms Nelmes

The Environmental Information Regulations 2004
Request for Information

Thank you for your request for information which we received on 16th September 2020. We have dealt with your request under the Environmental Information Regulations 2004. This letter provides the response to your request, as follows:

"*Hopefully you can be of assistance. Stantec has been commissioned to undertake a flood risk assessment and drainage strategy for the site shown in the attached location plan and we would be very grateful for the following information where available. The proposals are for a residential development with open green space and has an approximate grid reference of TQ 90973 47282.*

We have also requested information from the Environment Agency as well as received a pre-application response from Kent County Council, but we would be very grateful for the following information as available:

- *Any records of flooding in the vicinity of the site.*
- *Maps or information regarding surface water and foul drainage system locations.*
- *Any capacity issues in either network.*
- *Types of SuDS likely to be acceptable to Southern Water and confirmation of the Southern Water policy of adopting sewer upstream of SuDS features.*
- *Anything else you feel is relevant that an FRA would need to consider.*"

We can confirm that Southern Water does hold some information of the type you have requested as follows:

- **Any records of flooding in the vicinity of the site.**

We've located the area & buffered out 200m from the point closest to our catchment. Over the last 10 years we've only had 1 flooding incident in the area. Details of this can be seen enclosed and below.

This was an external flooding event, caused by a blockage in the sewer network (unfortunately no detail on what the blockage was formed of). Apart from that there were 2x other blockages, 1x odour issue & 2x WPS failures – but none led to flooding.

- **Maps or information regarding surface water and foul drainage system locations.**

Ordinarily we would invite you to inspect the sewer records at our Durrington Offices, yet due to the current Coronavirus situation we have suspended this service. Alternatively, historic sewer records can be found through our website: https://www.southernwater.co.uk/property-searches/sewer-and-water-maps

- **Any capacity issues in either network.**

For capacity issues you can perform a capacity check via our pre development enquiry facility on our portal: https://developerservices.southernwater.co.uk/

Any developer wishing to connect to our network would be asked to carry out a capacity check via this service.

- **Types of SuDS likely to be acceptable to Southern Water and confirmation of the Southern Water policy of adopting sewer upstream of SuDS features.**

Our adoption policy for SUDs is currenlty in prgoress and such we cannot provide this at this time. We will be publishing our adoption policy for SUDs by end October and it will be on the Developer Services portal at that time.

We are entitled to make a reasonable charge for information provided under the Regulations. Details of our charging scheme can be found on our website: https://www.southernwater.co.uk/water-for-life/protecting-the-environment/environmental-information. In this case we have decided to waive our charge.

If you are dissatisfied with the handling of your request, you have the right to ask for an internal review. Internal review requests should be submitted within forty working days of the date of receipt of this response and should be addressed to Head of Legal, Southern Water Services Ltd, Southern House, Yeoman Road, Worthing, West Sussex BN13 3NX or you can email InternalComms@southernwater.co.uk.

If you are dissatisfied with the outcome of the internal review, you can apply, without charge, to the Information Commissioner, who will consider whether Southern Water has complied with its obligations under the Regulations, and can require Southern Water to remedy any problems. You can find out more about how to do this, and about the Regulations in general, on the Information Commissioner's website at: www.ico.org.uk. Complaints to the Information Commissioner can be made via the "report a concern" section of the Information Commissioner's website.

Please do not hesitate to contact us if you have any queries.

Yours sincerely

EIR Officer

Southern Water, Southern House, Yeoman Road, Worthing BN13 3NX
southernwater.co.uk

Richard Laker

Flood and Water Management
Invicta House
Maidstone
Kent
ME14 1XX
Website: www.kent.gov.uk/flooding
Email: suds@kent.gov.uk
Tel: 03000 41 41 41
Our Ref: NON/2020/079758
Date: 12 August 2020

Application No: pre app

Location: Field immediately north of New Road and Stone Hill Road junction, Egerton, Ashford, nearest postcode TN27 9DN

Proposal: It is proposed to construct up to 15 residential dwellings on the 2 hectare site

Thank you for your enquiry in relation to the above site. We have reviewed our records that we hold for your site and we can provide you with the following information:

Site Conditions

Surface Water flood mapping available freely online at the .GOV website. A print screen below of the site and surrounding area indicates that there is a "medium" and low" risks of flooding for the north eastern part of the site. From the mapping, it would appear that this may be attributed to a possible surface water flow path or just localised depressions in the ground. We would advise that further investigations are made into this.

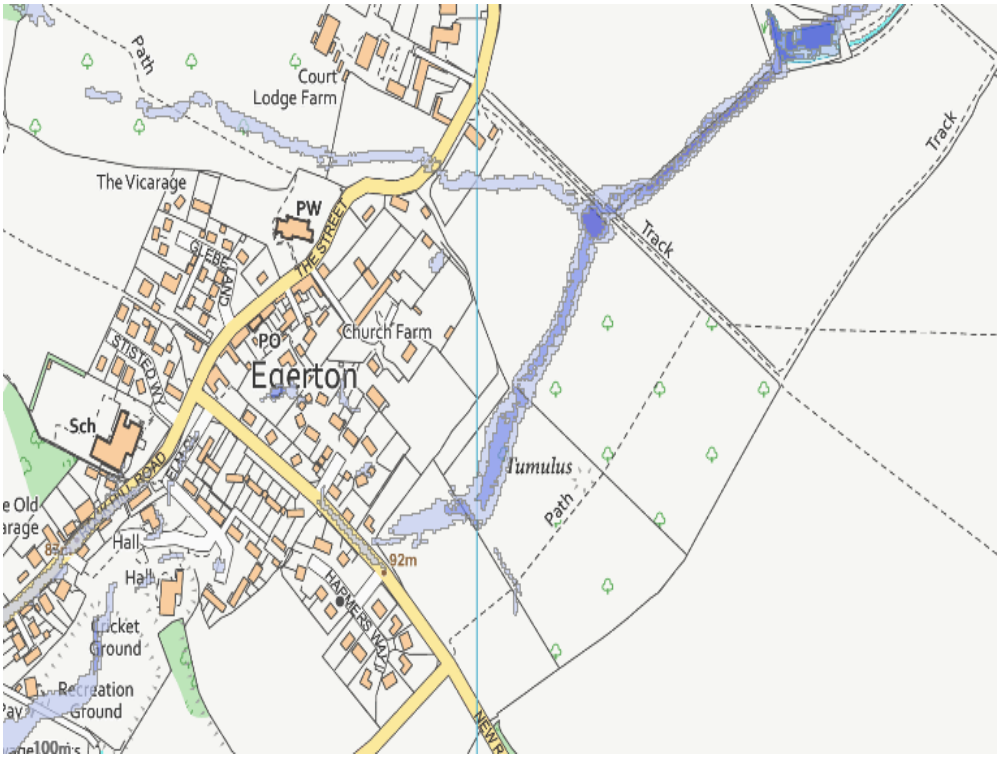


Figure 1: Surface Water Flood Mapping of the area taken from Environment Agency online mapping.

Groundwater mapping from the British Geological Survey indicates that the depth to groundwater is likely to be more than 5m below ground level all year round. This should be confirmed by ground investigations.

BGS mapping also highlights that the site is underlain by Hythe bed formation that typically provides free draining soil suitable for infiltration. Whilst infiltration is likely possible on site, caution should be applied as this geology can be known for loosely infilled features known as 'gulls'. As such, any infiltrating feature may lead to ground instability if these features are present and are inundated with water. It is therefore essential for the future drainage design to include detailed ground investigations that include infiltration testing to support the application.

Database (recorded) flood events

An extensive flood history search from our highway database has been undertaken of the roads and surrounding areas. Our database records report of flooding to highways only unless additional information is provided. There are only several reports of flood events in the surrounding roads of this site and a summary has been provided below:

Harmers Way (Opposite site):

13/02/2020- Flooding at the junction with New Road. Depth of water has reached kerb height and is being displaced by cars driving through.

20/12/2019- Flooding on the road that covers both lanes at junction with New Road.

11/01/2011- Road at Junction with New Road immersed with water.

From our records, it indicates that the drains were cleansed each time a call was reported.

Stonebridge Green Road:

Numerous reports of road flooding from 2008, with the most recent report being logged on the 26th May 2020. Collectively, these reports single out that the lack of drainage along this road is the cause of the regular flooding. The lack of gullies has allowed water to flows uncontrolled down the country road and to pond in localised depressions or spill off into neighbouring land.

Drainage Design:

For a future design of the site, It is preferable that above ground features are used against below ground storage options where possible. This is in the effort to provide multifunctionality, reflecting the requirements of the National Planning Policy Framework (February 2019).

The Environment Bill (October 2019) requires a 'biodiversity net gain', whereby new developments should enhance biodiversity and to not only mitigate against

development. As mentioned above, it is preferable for above ground features to be used and it should therefore be demonstrated that above ground SuDs features have been thoroughly considered and any reasons preventing these being incorporated into the development are made clear within the planning submission.

The standard for drainage design is for all new major developments to be able to accommodate storm events up to and including the 100 +20% for climate change (EA guidance). The rate of infiltration into the underlying geology will determine on the amount of attenuation storage required on site to accommodate these 100 year storm events.

Infiltrating SuDs features such as basins, swales and soakaways are advised for consideration on site however, being located at appropriate seperation distances from properties/ foundations. This seperation distance is more important given the underlying geology of Hythe Beds.

Pollution Control:

Within Kent County Councils Drainage and Planning Policy Statement 2019, we ask that developments safeguard water quality through providing pollution controls on site which provide treatment prior to discharge to watercourses. We would expect to see demonstrated that surface water is managed appropriately and that any new drainage system complies with the required total treatment levels as detailed within Ciria Suds Manual (2015) Part E section 26 and is detailed within the future drainage strategy report.

Above ground <u>SuDs</u> design:

<u>Basins/ Swales</u>

Where swales and basins are proposed, they should be designed with side slopes of 1 in 4, or where space is limited the slopes, the slopes should be no greater than 1 in 3. The design of these features should also consider access and maintenance arrangements of these features.

With recent experience on drainage design implementation, we recommend that these features are not considerably deep (greater than 1.5m deep). Whilst this limits the potential amount of storage within the basin, we would advise that geo-cellular tanks are installed beneath the basin to provide any additional storage needed.

Please note: KCC recently updated our Kent Design Guide Making it Happen (Drainage Systems). The document includes our requirements and recommendations for drainage features. This is available to view and download at:

https://www.kent.gov.uk/__data/assets/pdf_file/0010/13006/Making-it-Happen-C2-Drainage-systems.pdf

KCC would like also like to highlight that where drainage features serving multiple properties are proposed, that these features are located within open space/communal areas. This is particularly important where soakaways serving more than one dwelling

are situated within the boundaries of a single property. This arrangement may be problematic in the future as ownership may be uncertain, maintenance obligations not defined and access to the feature not manageable. In addition, any changes to the drainage measure has the potential to impact a number of properties.

Runoff/ Discharge Rates

Should it be identified from ground investigations that infiltration is not possible on site and a off site discharge is required, then we would expect the drainage hierarchy to be followed. The next option for surface water disposal following the hierarchy is to be directed to an existing watercourse. Should this also no be feasible, then it would be accepted for discharge into a sewer.

Please note that KCC would accept either a staged discharge from development areas or for the Qbar value to be used. For the staged discharge from site, it should be demonstrated that the rates for all storm up to and including the 100 year do not exceed the equivalent peak greenfield runoff rate This is to ensure no increase in discharge rates off-site for lower storm return periods. Alternatively, as mentioned above, we would accept the Qbar value to be used should a complex controls not be used.

Climate Change Allowances
The design must accommodate the 1 in 100 year storm with a 20% allowance for climate change in line with EA guidance. The LLFA would also encourage additional analysis for the flooding implications for a greater climate change allowance of 40%.

Please note: The LLFA have recently updated the Drainage and Policy Statement (December 2019) and is available to view at:

https://www.kent.gov.uk/about-the-council/strategies-and-policies/environment-waste-and-planning-policies/flooding-and-drainage-policies/drainage-and-planning-policy-statement

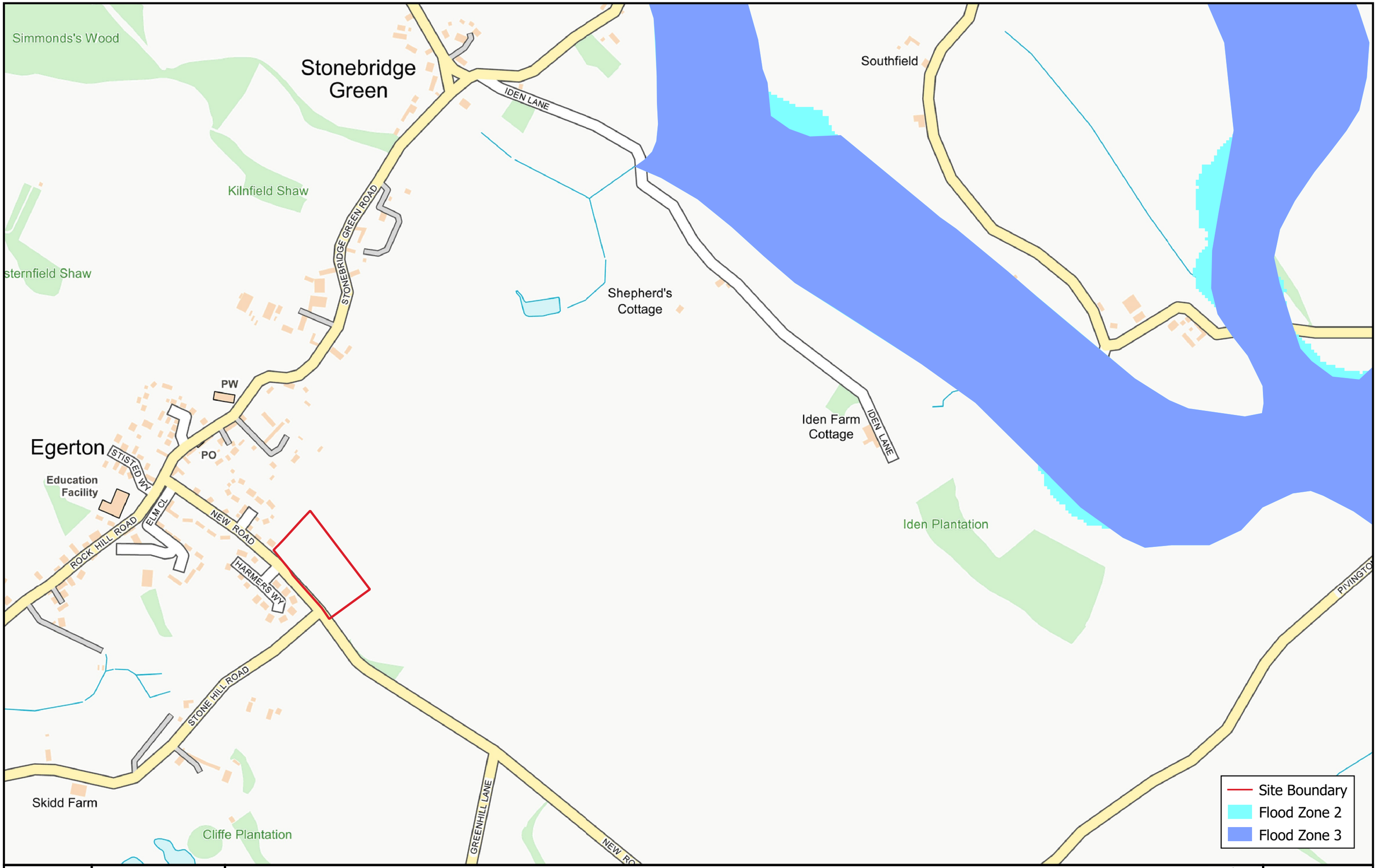
I trust this information assists with your enquiries.

Yours faithfully,

Daniel Hoare
Flood Risk Project Officer
Flood and Water Management

Appendix D Correspondence

Southern Water Correspondence
KCC Pre-application response



Stantec

www.stantec.com/uk

TAUNTON

Tel: 01823 218940

Client:
Jarvis Strategic Land Ltd

Land East of New Road, Egerton
EA Flood Map for Planning

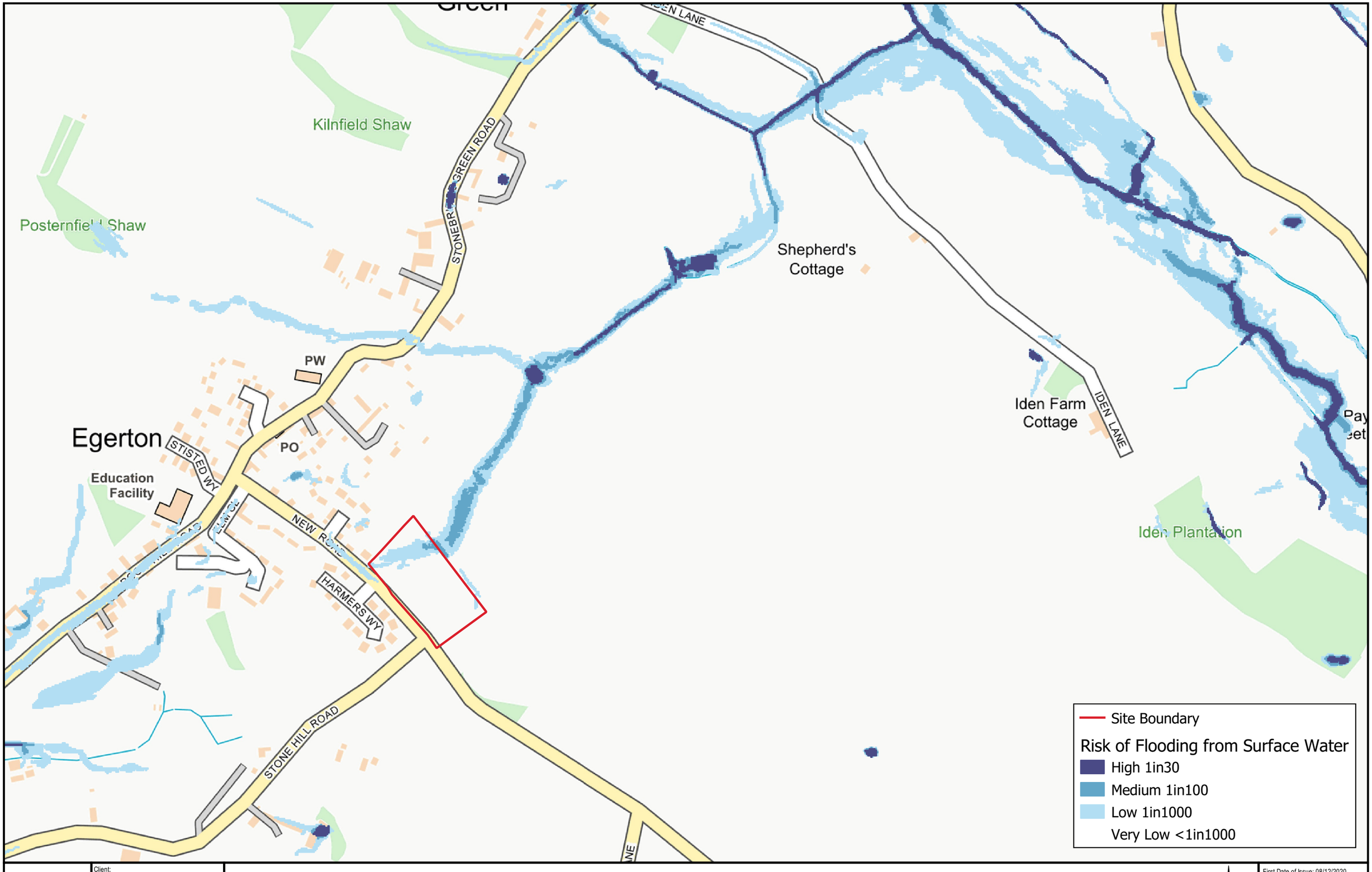
First Date of Issue: 08/12/2020

Scale: NTS

Drawn By: KT Checked By: GN

Drawing Number:
Figure 3

Stantec Office Drive: \\pba.intash\Projects\48386 - JSL - Allotment Field Egerton\BRIEF 0002 - Flood Risk and Drainage\QGIS



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Client:
Jarvis Strategic Land Ltd

Land East of New Road, Egerton

EA Risk of Flooding from Surface Water

First Date of Issue: 08/12/2020
Scale: NTS
Drawn By: KT Checked By: GN
Drawing Number:
Figure 4

Stantec Office Drive: \\pba.intash\Projects\46386 - JSL - Allotment Field Egerton\BRIEF 0002 - Flood Risk and Drainage\QGIS

Appendix E Development Proposal

Masterplan