FLOOD RISK ASSESSMENT

PROPOSED CHANGE OF USE
OF THE CHEQUERS, TO A SINGLE DWELLING
3 MAIN STREET,
GEDNEY DYKE,
SPALDING.
PE12 0AJ.

RM ASSOCIATES

10 Main Street
Thorpe on the Hill
Lincoln
LN6 9BG
Mobile 07967 304737
Email: ray.rmassociates@gmail.com
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RMA

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Flood Risk Assessment Proposed Change of Use of The Chequers, to Residential 3 Main Street, Gedney Dyke, Spalding. PE12 0AJ

INTRODUCTION

The Government has placed increasing priority on the need to take full account of the risk associated with flooding at all stages of the planning and development process. This seeks to reduce the future damage to property and the risk to life from incidents of flooding. Their expectations relating to flooding are contained in the National Planning Policy Framework December 2023, (NPPF), which identifies how the issue of flooding is dealt with in the drafting of planning policy and the consideration of planning applications by avoiding inappropriate development in areas at risk from flooding and to direct development away from areas at highest risk.

The NPPF provides that development in areas at risk of flooding should be avoided and seeks to direct development away from areas at highest risk. There is a sequential, risk-based approach to the location of development avoiding where possible, flood risk to people and property managing any residual risk and taking account of the impacts of climate change.

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APPLICATION SITE

The site is the former public house (The Chequers) 3 Main Street, Gedney Dyke, Spalding PE12 0AJ and lies within the administrative area of South Holland District Council. The National Grid Reference for the centre of the site is TF34055 45181. **Plan 1**

This flood risk assessment has been prepared for a planning permission, for the change of use of the public house to a single dwelling. **Plans 2, 3, 4, & 5**

The site does have an extant planning permission for a change of use of the public house into two dwellings,

The National Planning Policy Framework Guidance NPPG defines three levels of flood risk depending upon the annual probability of fluvial flooding occurring.

Zone 1 – Low Probability (<0.1%)

Zone 2 – Medium Probability (0.1 – 1.0%)

Zone 3 – High Probability (>1.0%)

The proposed development site is shown to be within an area of Flood Zone 3a 'High Probability' as detailed on the Environment Agency's Flood Zone Maps without defences, and as defined in Table 1 of NPPG.. The maps indicate that the area would be flooded without flood defences.

Table 1: Flood Zones Definition

Flood Zone 3- High Probability
Definition. Land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%) or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year. The water-compatible and less vulnerable uses of land are appropriate in this zone. The highly vulnerable uses should not be permitted in this zone. The more vulnerable and essential infrastructure uses should only be permitted in this zone if the Exception Test is passed. Essential Infrastructure permitted in this zone should be designed and constructed to remain operational and safe for uses in times of flood. **Flood Risk Assessments requirements.** All proposals in this zone should be accompanied by a Flood Risk Assessment. **Policy aims.** Developers and local authorities should seek opportunities to: • reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage techniques. • relocate existing development to land with a lower probability of flooding. • create space for flooding to occur by allocating and safeguarding open space for flood storage.

Applying the Flood Risk Vulnerability Classification in Table 2 of NPPG, both the existing use as a public house and the proposed residential use for the building is classified as "More Vulnerable," Table 1 of NPPG states that such uses are permitted in Flood Zone 3, subject to the exceptions test.

Table 2: Flood Risk Vulnerability Classification

More Vulnerable
• Hospitals • Residential institutions such as residential care homes, children's homes, social services homes, prisons, and hostels. • Buildings used for: dwelling houses; student halls of residence; drinking establishments; nightclubs; and hotels. • Non-residential uses for health services, nurseries, and educational establishments • Landfill and sites used for waste management facilities for hazardous waste. • Sites used for holiday or short-let caravan and camping, subject to a specific warning and Evacuation Plan.

Site Levels

The topographical survey to OS datum, reveals that the site is generally flat with a slight fall east to west the average ground level around the public house varies from 4.20mODN at the front of the building to

4.00mODN at the rear. The existing ground floor level is circa 4.27mODN and Main Street in front of the building is 4.00mODN. **Plan 6**

DRAINAGE AUTHORITIES

Environment Agency

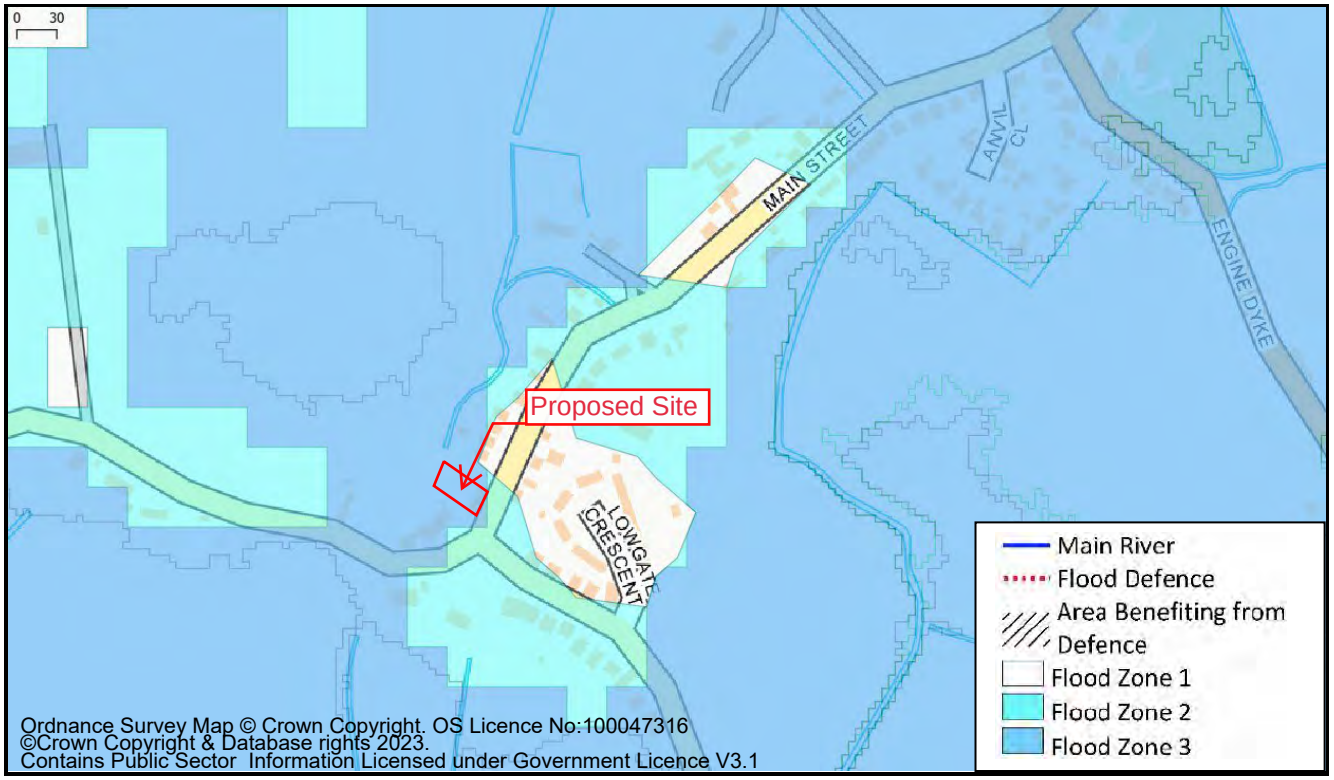
The Environment Agency has permissive powers for reducing the risk of flooding from designated main rivers and from the sea.

The following potential sources of flooding affecting the development site have been identified as:

- The Wash(Tidal)

The Flood Zone 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. In some locations, there are many kilometres of raised flood defences. To meet the requirements of the National Planning Policy Framework, these defences are removed in their entirety to produce the Flood Map for Planning (Rivers and Sea). The map therefore shows the full extent of areas that would be at risk of flooding if no defences existed, and water could spread out across the floodplain.

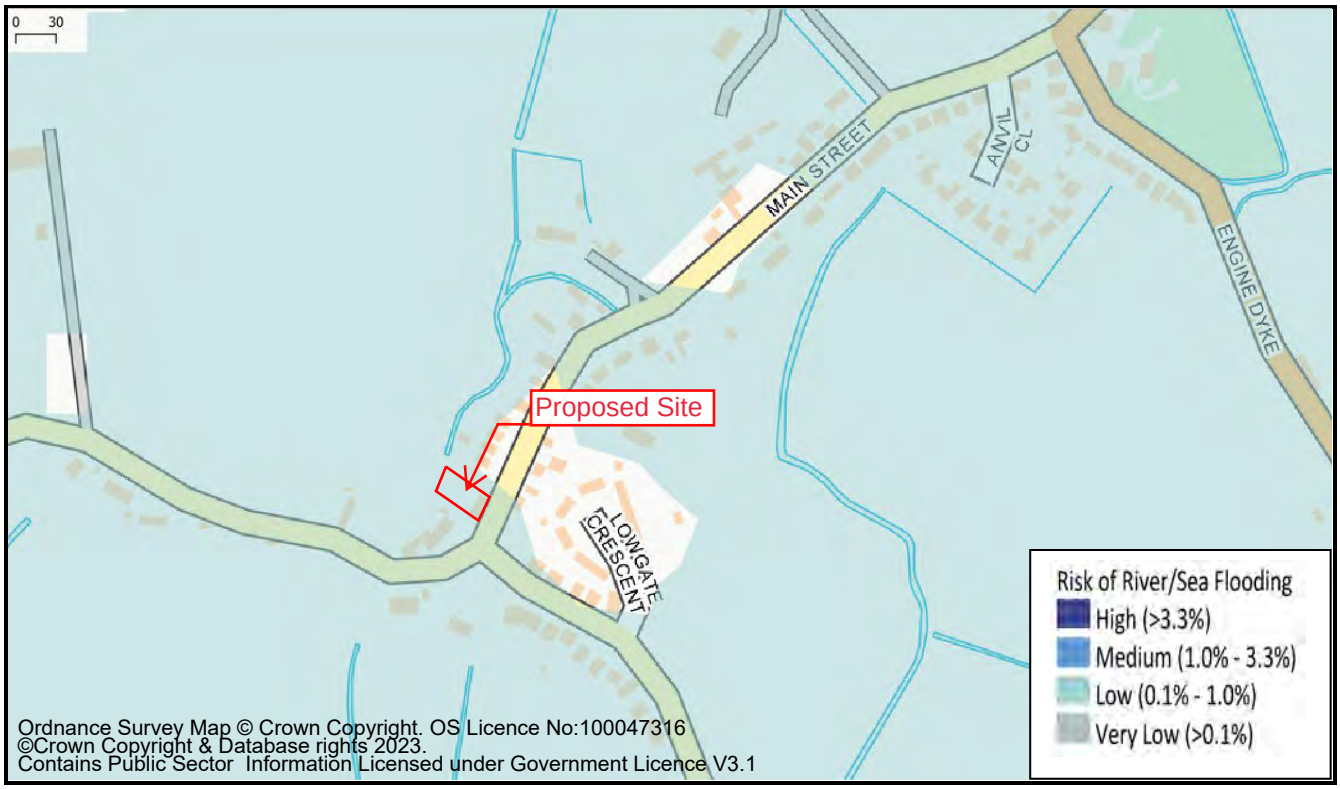
Flood Zones



Flood Map for Planning (Source EA)

Risk of Flooding from Rivers & Sea

The Risk of Flooding from Rivers and Sea Map shows that the site is at a Very Low risk of flooding. Very Low means that each year, this area has a chance of flooding of greater than 1 in 1000 (0.1%) This takes into account the effect of any flood defences that may be in this area. Flood defences reduce, but do not completely stop the chance of flooding as they can be overtopped or fail.



Risk of Flooding from Rivers & Sea Map (Source EA)

Fluvial Flood Risk

The site is not considered to be at risk from any Main River.

Tidal Flood Risk

The tidal Wash is therefore the main risk for flooding of the site, this source lies some 7.8Km east of the site.

Schemes in the Area

There are no ongoing capital projects to reduce or sustain the current flood risk to this site.

The Wash Defences

The flood defences along the edge of the Wash, protecting this site, consist of earth embankments which are supplemented by saltmarsh. They are in good to fair condition and reduce the risk of flooding (at the defence) to a

0.67% (1 in 150) chance of occurring in any year. The Environment Agency inspect these defences routinely to ensure potential defects are identified.

Breach Analysis to Wash Tidal Defences

The base date for the data is 2017 for the East Coast and Wash: Immingham to the West Lighthouse Peak tide levels. The base date for the data is 2017 for the still water levels, the Peak tide levels Present Day (2017) at West lighthouse for the 50% confidence bound 0.5% (1 in 200year) is 5.82mODN. With climate change from Table 3 (2017 – 2124) 1.09m = 6.91mODN **Map 1**

Taking the precautionary approach, the Hazard Rating following a breach which in Flood Risk Assessment (FD 2320) Guidance for New Development Phase 2 R& D Technical Report these are classified as low <0.75, moderate 0.75-1.25, significant 1.25-2.50 and extreme >2.50 based upon an empirical measure of velocity and depth.

Flood Hazard			Description
	<0.75	Low	**Caution –** Flood Zone with shallow flowing water or deep standing water.
	0.75 – 1.25	Moderate	**Danger for Some -** (i.e. children) Danger Flood Zone with deep or fast flowing water.
	1.25 – 2.0	Significant	**Danger for Most –** Danger Flood Zone with deep fast flowing water.
	>2.0	Extreme	**Danger for All** – Extreme Danger Flood Zone with deep fast flowing water.

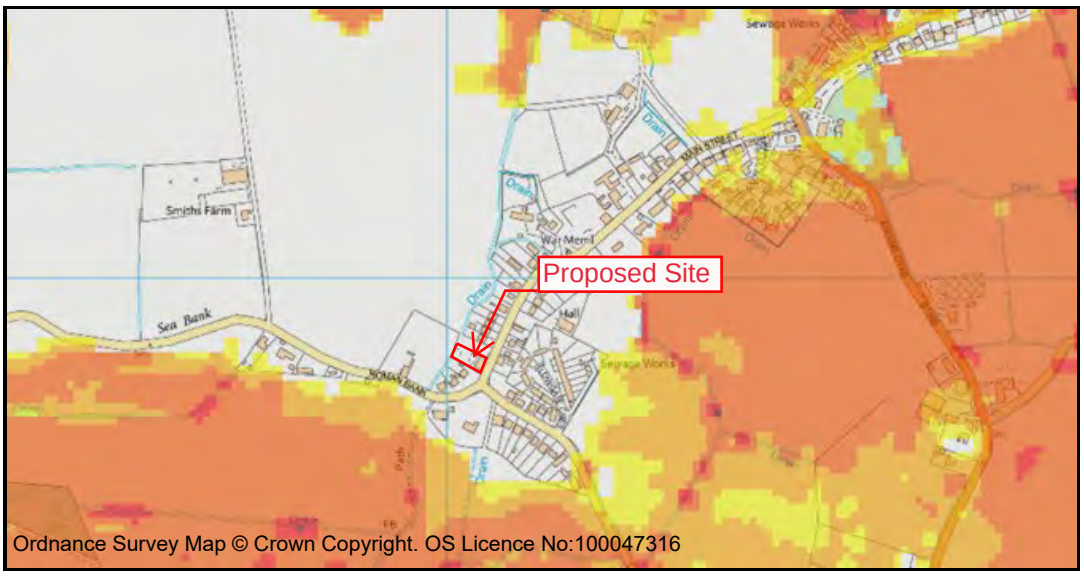
HR = d x (v + 0.5) +DF

Where V = Flood flow velocity (m/sec) D = Flood depth (m)

DF = A debris factor included to represent the greater damage, or risk of injury to people, that can occur if debris is swept along with the water. = 0.5 for depths <0.25 or 1.0 for depths

For the degree of Flood Hazard to be classified as low HR must be <0.75.

The Environment Agency has carried out a Tidal Hazard Mapping for the East Coast following a breach to the defences. Following a breach to the defences, the Lincolnshire & Northampton shire Area the Environment Agency has confirmed that for scenario year 2006 and with climate change up to year 2115 annual chance 1 in 1000-year the site is not affected by any event.



Environment Agency 2115 0.1% Breach Depth Map

Floor Levels

Requirements for FFL for More Vulnerable uses: The minimum mitigation measures required for developments that do have ground floor sleeping shall be determined by the flood depths arising from the 2115 0.1% breach scenario. The finished floor Level FFL of any new dwellings shall be informed by the flood depths.

The site is shown on the Environment Agency tidal breach flood maps with climate change for the 0.1% event not to be affected by flooding.

As this application is for a change of use of an existing building it is therefore proposed that the ground floor for the change of use remains at the same level as existing, namely 4.27mODN

FLOODING FROM OTHER SOURCES

Flooding is a natural process and can happen at any time from sources other than watercourses and the sea.

- Flooding from land can occur from intense rainfall, often over short duration of time that is unable to soak into the ground or enter the drainage system. However, with the natural topographic nature of the ground being flat, with no high ground around the site and the floor level being raised above the existing ground level, this will not cause any rapid inundation of the site and is likely only lead to local ponding of shallow depth and low velocity. It is concluded that flooding from this source is limited to minor isolated cases and is not of strategic significance as regards to flood risk.

- Groundwater flooding occurs when groundwater levels increase sufficiently for the water table to intersect the ground surface. Groundwater flooding can occur in a variety of geological settings including valleys, in areas underlain by chalk, and in river valleys with thick deposits of alluvium and river gravels. The area is not known to suffer from any groundwater problems.

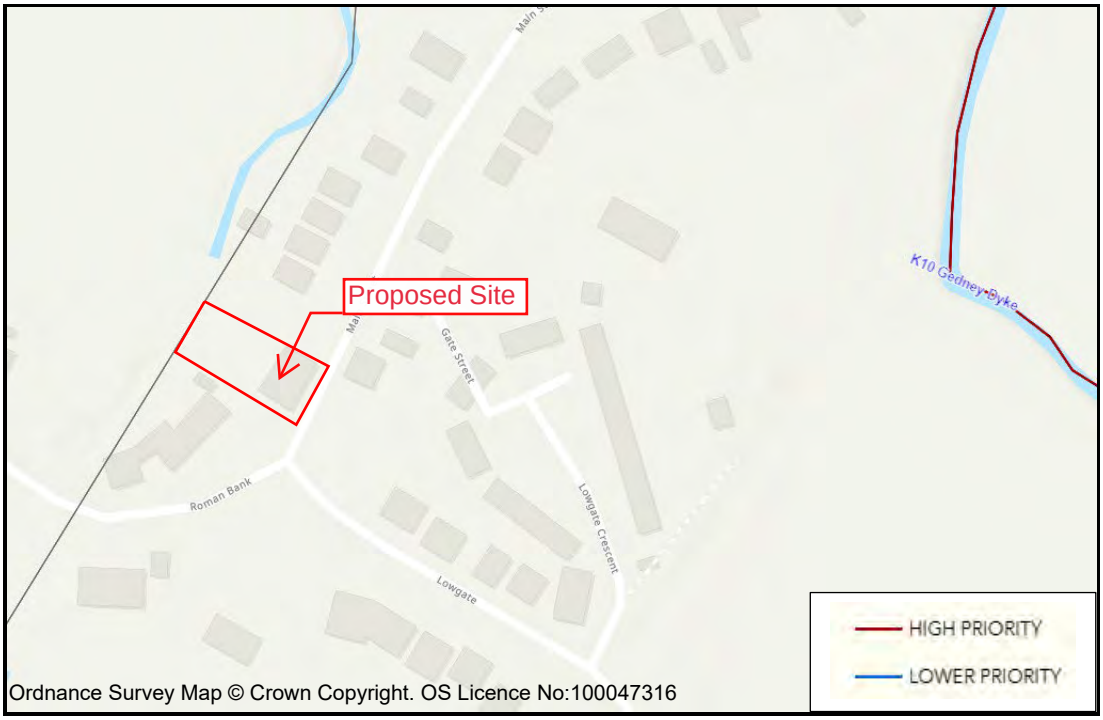
- Flooding from sewers can occur from overloading from heavy rainfall caused by blockages or having inadequate capacity. There are no public sewers serving the village.

- Non-natural or artificial sources of flooding such as reservoirs, lakes, or canals where water is stored above natural ground level could cause flooding if the structure fails or is over topped. There are no known sources within the vicinity of the site.

South Holland Internal Drainage Board

The proposed development site is located within the Fleet Haven catchment area of South Holland Internal Drainage Board. The Board are therefore responsible to operate and maintain the arterial fluvial system.

The Board do not have any maintained watercourses to close to the site.



South Holland Internal Drainage Board Drainage Map

The Board's prior written consent will be required for any of the following works:

- No person without the previous consent of the Board shall erect any building or structure, whether temporary or permanent, or plant any tree, shrub, willow or other similar growth within 9 metres of the landward toe of the bank where there is an embankment or wall or within 9 metres of the top of the batter where there is no embankment or wall, or where the watercourse is enclosed within 9 metres of the enclosing structure.

- No person shall, without the previous consent of the Board, for any purpose, by means of any channel, siphon, pipeline or sluice or by any other means whatsoever, introduce any water into the District or,

whether directly or indirectly, increase the flow or volume of water in any watercourse in the District.

- The erection or alteration of any mill dam, weir or other like obstruction to the flow, or erection or alteration of any culvert within the channel of a riparian watercourse.

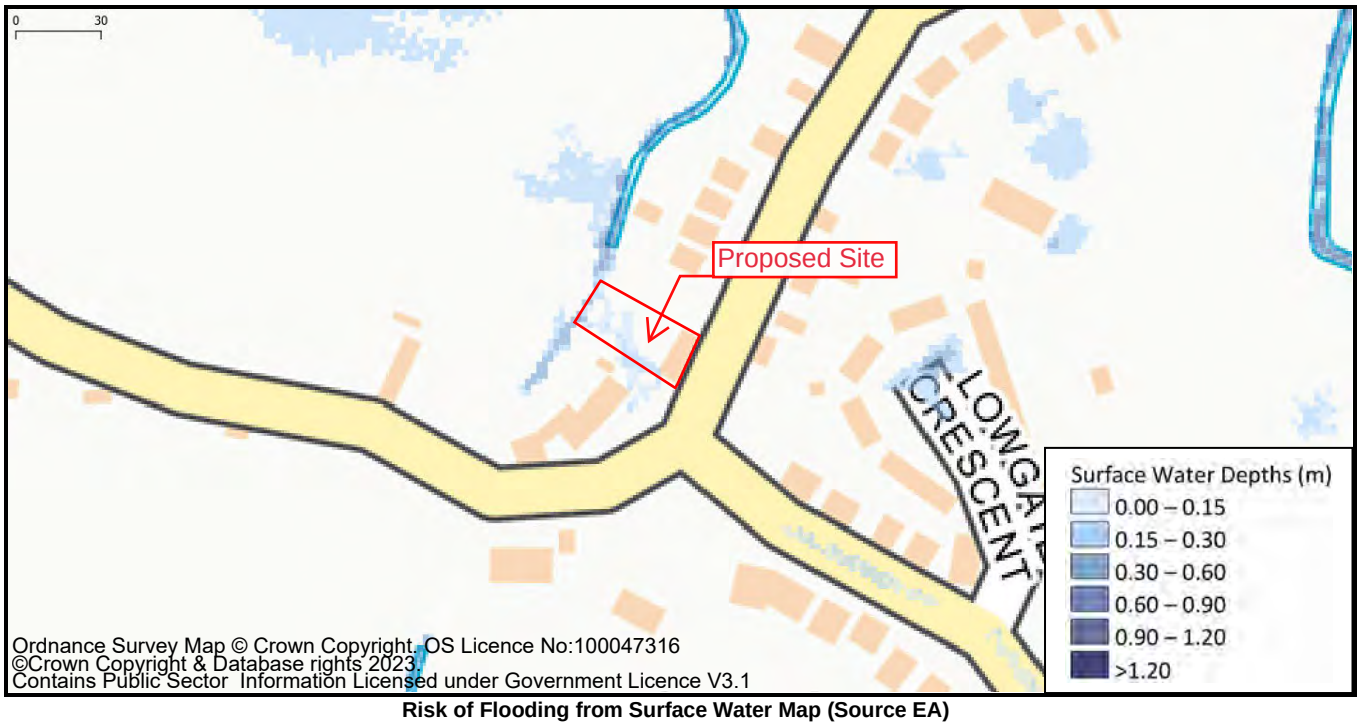
SURFACE WATER FLOODING

The site for the proposed change of use building is shown on the Low-Risk scenario Surface Water flood maps, for the 1 in 1000-year event, not to be affected from surface water flooding. However they do show that part of the land to the rear may have surface water flooding to a depth up to 300mm.

The maps for surface water and revised maps for river and sea flooding define the risk as High, Medium, Low and Very Low. The chance of flooding for the area defined in any given year is shown below:

- **High:** greater than 1 in 30 (3.3%).
- **Medium:** between 1 in 100 (1%) and 1 in 30 (3.3%).
- **Low:** between 1 in 1000 (0.1%) and 1 in 100 (1%).
- **Very Low:** less than 1 in 1000 (0.1%)

Unlike the fluvial mapping, which is based on a detailed hydraulic model, this mapping is based purely on applying rainfall to a digital terrain model. As such this mapping serves to represent a worst-case scenario which may well overstate the actual probability of flooding in this area.



Risk of Flooding from Surface Water Map (Source EA)

There is a caveat on the Defra Data website, as to the use of these maps and that they are not to be used to identify that an individual property will flood. Because of the way they have been produced and the fact that they

are indicative, these maps are not appropriate to act as the sole evidence for any specific planning or regulatory decision or assessment of risk in relation to flooding at any scale without further supporting studies or evidence.

Also, para 5.2.10 of the updated SHDC SFRA states "*The Flood Map for Surface Water shows predictions of flooded areas but does not show whether individual properties will be affected by surface water flooding or have been affected in the past. The Flood Map for Surface Water should not be used to predict if individual properties will flood.*"

SEQUENTIAL APPROACH

When applying the sequential approach for flood risk in accordance NPPF the site would fall into Zone 3 (High Probability) as shown on the Environment Agency's Flood Map without defences in place.

The Environment Agency categorise land into one of three Flood Zones.

- Flood Zone 1 is Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map – all land outside Zones 2 and 3).

- Flood Zone 2 is Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding: or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. (Land shown in light blue on the Flood Map).

- Flood Zone 3a is Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding. (Land shown in dark blue on the Flood Map).

Applying the Flood Risk Vulnerability Classification in Table 2 of NPPG, the proposed residential use is classified as "More Vulnerable" use. Table 1 of NPPG states that such uses are appropriate in this zone (as summarised in Table 3 NPPG) subject to the exception test.

TABLE 3: Flood Risk Vulnerability and Flood Zones 'Compatibility'

Flood Risk Vulnerability Classification		Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Flood Zone	Flood Zone 1	✓	✓	✓	✓	✓
	Flood Zone 2	✓	✓	Exception Test Required	✓	✓
	Flood Zone 3a	Exception Test Required	✓	×	Exception Test Required	✓
	Flood Zone 3b Functional Floodplain	Exception Test Required	✓	×	×	×

Sequential & Exception Test

NPPF Guidance Paragraphs 157 - 179 requires development within high areas of flood risk be determined using a sequential risk-based approach to the location of development to avoid where possible flood risk to people and property and manage any residual risk, taking account the impacts of climate change.

The aim of the Sequential Test is to steer new development to areas with the lowest probability of flooding. The NPPF states that development should not be permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding. It is important to note that the Sequential Test does not specifically mean that sites such as this cannot be developed, rather that sites at less risk should be developed first.

As set out in the National Planning Policy Framework Technical Guidance (para.174), change of use should not be subject to the sequential and exception tests but will still need to meet the requirements of a site-specific flood risk assessment.

The flood risk assessment demonstrates that the development will be safe for its lifetime and it will not increase flood risk elsewhere, therefore, satisfies the second part of the test.

The development passes the Sequential Test and Exception Test and is therefore suitable for the proposed location.

DRAINAGE STATEMENT

Surface Water Drainage

Applications for developments where the proposals will result in the increase the amount of surface water run-off require that an appropriate drainage strategy to be undertaken to ensure that the surface water discharge mimics the existing pre-development regime.

Any proposed surface water drainage system will need to be designed to account for the effects of climate change over the lifetime of the development. Based on the recommendations the proposed drainage systems should be sized for the critical 1 in 100-year storm event and to allow for a 40% increase in rainfall intensity for climate change.

In accordance with recognised guidance, Part H of the Building Regulations 2010 and National Planning Policy Framework, there is a hierarchy of where surface water should discharge. This hierarchy should be followed where practicable, and is as follows:

1) Infiltration
2) Watercourse
3) Public sewer

With the application being a change of use of an existing building, the roof water will continue to be discharged to the existing drainage system which will be cleaned out and repaired as necessary. With the removal of some parts

of the existing building, there will be a reduction in surface water run-off from the site, as this area is to form a landscaped pervious area.

The access and parking areas are existing, constructed using permeable materials such as hardcore with gravel topping.

These arrangements are the same as those which have served the existing building without causing any problems.

Foul Drainage

There are no public foul sewers serving the village therefore foul drainage from the proposed dwelling will be connected in underground pipes in accordance with Doc. H of the Building Regulations and connected into the existing treatment facility serving the former public house.

As there is a positive drainage system capable of receiving flows from the development there is no likely impact on neighbouring property.

CLIMATE CHANGE

Global warming is now recognised that it is likely to affect the frequency and severity of extreme events for both tidal and fluvial flooding. The Climate change allowances in the NPPF Guidance was updated on the 20th of July 2021.

Peak River Flow Allowances

For flood risk assessments use the Management Catchment Climate Changes for the peak river flow map. Management catchments are sub-catchments of River Basin Districts.

The site is located on the boundary of the Welland Management catchment area and the Nene Management Catchment within the Anglian River Basin District, for sites within Flood Zone 2 or 3a and for “More Vulnerable” land uses, the Central allowances figures, in the Table below, should be used. In some locations the dominant source of flooding will be from a neighbouring management catchment. The dominant source in this case is the Welland Catchment.

Peak River flow allowances within the Management Catchment Allowances				
River Basin District /Management Catchment	Allowance category	Total potential change anticipated for ‘2020s’. (2015 to2039)	Total potential change anticipated for ‘2050s’. (2040 to2069)	Total potential change anticipated for ‘2080s’. (2070 to2115)
Anglian/ Welland	Upper End	22%	26%	52%
	Higher Central	10%	10%	28%
	Central	5%	4%	17%

The effect of global warming on peak rainfall allowances is given in Table 1.

Table 1 Peak Rainfall Intensity

Table 1 Peak rainfall intensity allowance in small and urban catchments (1961 to1990 baseline)			
Applies across all of England	Total potential change anticipated for 2010 to 2039	Total potential change anticipated for 2040 to 2059	Total potential change anticipated for 2060 to 2115
Upper End	10%	20%	40%
Central	5%	10%	20%

The annual sea rise due to climate change is given in NPPF and the recommended contingency allowances are stated in Table 2.

Table 2 Peak Sea Level Rise

Table 2 Peak Sea level allowance for each epoch in (mm) per year with cumulative sea level rise for each epoch in brackets (use 1981to 2000 baseline)						
Area of England) (Use River Basin	Allowance	2000 to 2035	2036 to 2065	2066 to 2095	2096 to 2125	Cumulative Rise 2000 to 2125 (m)
Anglian	Higher Central	5.8 (203mm)	8.7 (261mm)	11.6 (348mm)	13 (390mm)	1.20m
Anglian	Upper End	7 (245mm)	11.3 (339mm)	15.8 (474mm)	18.1 (543mm)	1.6m

FLOOD PROTECTION

Any impact of damage to the properties can be foreseen and mitigated against by relatively simple design and construction techniques. There are two forms of flood protection works: -

- **Flood-resistance or proofing works**: - these try to reduce the amount of water entering a building.
- **Flood-resilient works: -** these reduce the amount of damage caused by water entering the building.

The proposed amenity building will have the following resilient measures incorporated in the construction in accordance with “Improving the flood performance of new buildings” CLG (2007).

- New electrical services: electrical sockets, heating systems: boiler units and ancillary devices should be installed at least 500mm above the ground floor level to minimise damage to electrical services New electric ring mains should be installed at high level with drops to ground floor sockets and switches.

- The ground floor for the building is to remain at the existing level, set at 4.27mODN.

- Avoid the use of mineral fibre insulation for any new ground floor (walls & floor) and use a rigid closed cell material as these retain integrity and have low moisture take-up.

- Where possible, all service entries should be sealed (e.g., with expanding foam or similar closed cell material). Closed cell insulation should be used for pipes which are below the predicted flood level.

- As this site is in area197 that is capable of receiving flood alert warnings from the Environment Agency Floodline Warning Direct system for the "Far extent of tidal flooding from the Wash between Gibraltar point and Admiralty Point and the Tidal River Witham, the Tidal River Welland and the Tidal River Nene." It is recommended that the property Owner contact the Environment Agency's Floodline on 0345 988 1188 to register the property to receive advance warning of flooding by telephone, mobile, fax, SMS text, email or pager. The Environment Agency aim to issue a 'severe flood warning' approximately 2 hours before existing defences are overtopped.

CONCLUSION

- The site does have the protection of flood defences which are well maintained by the Environment Agency.

- The site is shown to be within Flood Zone 3 'High Probability' as detailed on the Environment Agency's Flood Zone Maps without defences.

- The ground floor for the building is to remain at the existing level set at 4.27mODN.

- The maps from the Lincolnshire & Northamptonshire Area Tidal Breach Hazard Maps, for scenario year present day and for 2115, for the 1 in 1000-year event, shows that the site is not affected by a breach to the flood defences.

- Any impact of damage to the property can be foreseen and mitigated against by relatively simple design and construction techniques. They will be constructed using materials which are flood resilient construction as outlined in the report.

- Flooding from other sources is unlikely to affect the site.

- No obvious constraints have been identified that may impact the proposed development and the type of mitigation measures that can be used to reduce the flood risk, there is no increase in the flood risk to others.

- It is therefore concluded that the proposed development can be constructed, safely and sustainably, to meet the requirements of NPPF and the polices of South Holland District Council.

East Coast and Wash - 2018 Coastal Flood Boundary [CFB] Dataset
Key Node Points

Map 1



Environment Agency

Scale 1:550,000

N
W E
S

▲ East Coast and Wash

See separate data sheet for predicted flood levels

Created by the Partnerships and Strategic Overview Team, Lincoln

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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

East Coast and Wash: Immingham to the West Lighthouse

2018 Coastal Flood Boundary Extreme Sea Levels

CFB Ref	Location	Easting	Northing	Annual Chance (1 in x) of Tide Level in metres ODN																	
				1			10			50			100			200			300			1000		
				Confidence Bound			Confidence Bound			Confidence Bound			Confidence Bound			Confidence Bound			Confidence Bound			Confidence Bound		
				2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%
3888	**Immingham**	520440	417625	4.16	4.17	4.19	4.50	4.53	4.62	4.73	4.80	5.00	4.83	4.93	5.19	4.93	5.06	5.41	4.98	5.14	5.55	5.15	5.38	6.01
3890	**Haborough Marsh**	522100	416512	4.14	4.15	4.17	4.48	4.51	4.60	4.70	4.77	4.97	4.80	4.90	5.16	4.90	5.03	5.38	4.94	5.10	5.51	5.11	5.34	5.97
3898	**Grimsby**	529295	413162	3.98	3.99	4.01	4.31	4.34	4.43	4.53	4.60	4.80	4.61	4.71	4.97	4.71	4.84	5.19	4.74	4.90	5.31	4.88	5.11	5.74
3906	**Buck Beck**	534709	407369	3.87	3.88	3.90	4.19	4.23	4.31	4.41	4.50	4.68	4.50	4.61	4.86	4.61	4.75	5.10	4.64	4.82	5.22	4.80	5.05	5.66
3910	**Tetney**	538035	405537	3.85	3.86	3.89	4.17	4.22	4.30	4.40	4.50	4.67	4.49	4.61	4.86	4.60	4.75	5.10	4.63	4.82	5.21	4.80	5.06	5.66
3918	**Donna Nook**	544641	401997	3.82	3.83	3.86	4.14	4.19	4.27	4.38	4.48	4.65	4.47	4.60	4.85	4.58	4.74	5.10	4.63	4.82	5.22	4.81	5.08	5.68
3928	**Saltfleet**	549131	393360	3.78	3.79	3.82	4.11	4.16	4.26	4.36	4.46	4.64	4.47	4.59	4.86	4.57	4.74	5.11	4.63	4.83	5.25	4.83	5.11	5.74
3942	**Boygrift**	555131	380860	3.72	3.74	3.77	4.06	4.11	4.22	4.33	4.43	4.65	4.43	4.57	4.87	4.56	4.73	5.13	4.62	4.83	5.28	4.85	5.15	5.82
3968	**Gibraltar Point**	557652	356181	4.16	4.17	4.20	4.51	4.56	4.67	4.76	4.85	5.08	4.85	4.97	5.27	4.94	5.10	5.49	4.99	5.18	5.63	5.14	5.41	6.09
3992_14	**Hobhole**	535990	340116	4.96	4.97	5.01	5.40	5.44	5.56	5.66	5.76	5.98	5.78	5.90	6.20	5.88	6.04	6.44	5.92	6.11	6.57	6.03	6.31	6.99
	Grand Sluice*	532366	344510	4.93	4.94	4.98	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
3992_9	**Boston Barrier**	532754	342852	4.93	4.94	4.98	5.41	5.45	5.57	5.73	5.83	6.05	5.85	5.97	6.27	5.93	6.09	6.49	5.94	6.13	6.59	5.98	6.26	6.94
3992_5	**Fosdyke Bridge**	531886	332234	4.87	4.88	4.92	5.31	5.35	5.47	5.58	5.68	5.90	5.71	5.83	6.13	5.82	5.98	6.38	5.87	6.06	6.52	6.01	6.29	6.97
4008	**West Lighthouse**	550094	329971	4.87	4.88	4.91	5.21	5.26	5.37	5.46	5.56	5.78	5.56	5.68	5.98	5.66	5.82	6.21	5.71	5.90	6.35	5.86	6.14	6.81
-	**Marsh Road**	525988	324065	-	5.04	-	-	5.44	-	-	5.73	-	-	5.85	-	-	5.98	-	-	-	-	-	-	-
-	**Wisbech**	546110	309940	-	4.83	-	-	5.25	-	-	5.53	-	-	5.66	-	-	5.78	-	-	-	-	-	-	-
-	**Dog-in-a-Doublet**	527200	299287	-	3.67	-	-	4.00	-	-	4.22	-	-	4.32	-	-	4.42	-	-	-	-	-	-	-

See next page for notes

Customer services line: 03708 506 506
Calls to 03 numbers cost the same as calls to standard geographic numbers
(i.e. numbers beginning with 01 or 02)

Email: enquiries@environment-agency.gov.uk
www.gov.uk/environment-agency

East Coast and Wash: Immingham to the West Lighthouse

2018 Coastal Flood Boundary Extreme Sea Levels

NOTES:

The following notes apply to all CFB sites (ie all on table excluding Marsh Road, Wisbech, Dog-in-a-Doublet)

- The base date for the data is 2017.
- The levels are still water levels. Depending on the use of the data it may be necessary to consider wave heights and / or joint probability analysis of water level and other variables.
- Levels for other annual chance probabilities are available if required.
- For additional information relating to the 2018 Coastal Flood Boundary Extreme Sea Levels or to access the full dataset for the above sites or intermediate locations refer to the Defra Metadata Catalogue at https://deframetadata.com/geonetwork/srv/eng/catalog.search#/metadata/84a5c7c0-d465-11e4-b0bd-f0def148f590

The following notes apply to all Marsh Road, Wisbech, Dog-in-a-Doublet

- The base date for the data is 2006
- The levels are still water levels. Depending on the use of the data it may be necessary to consider wave heights and / or joint probability analysis of water level and other variables.
- Levels for other annual chance probabilities are available if required.
- These levels will be updated as their respective tidal river models are updated.

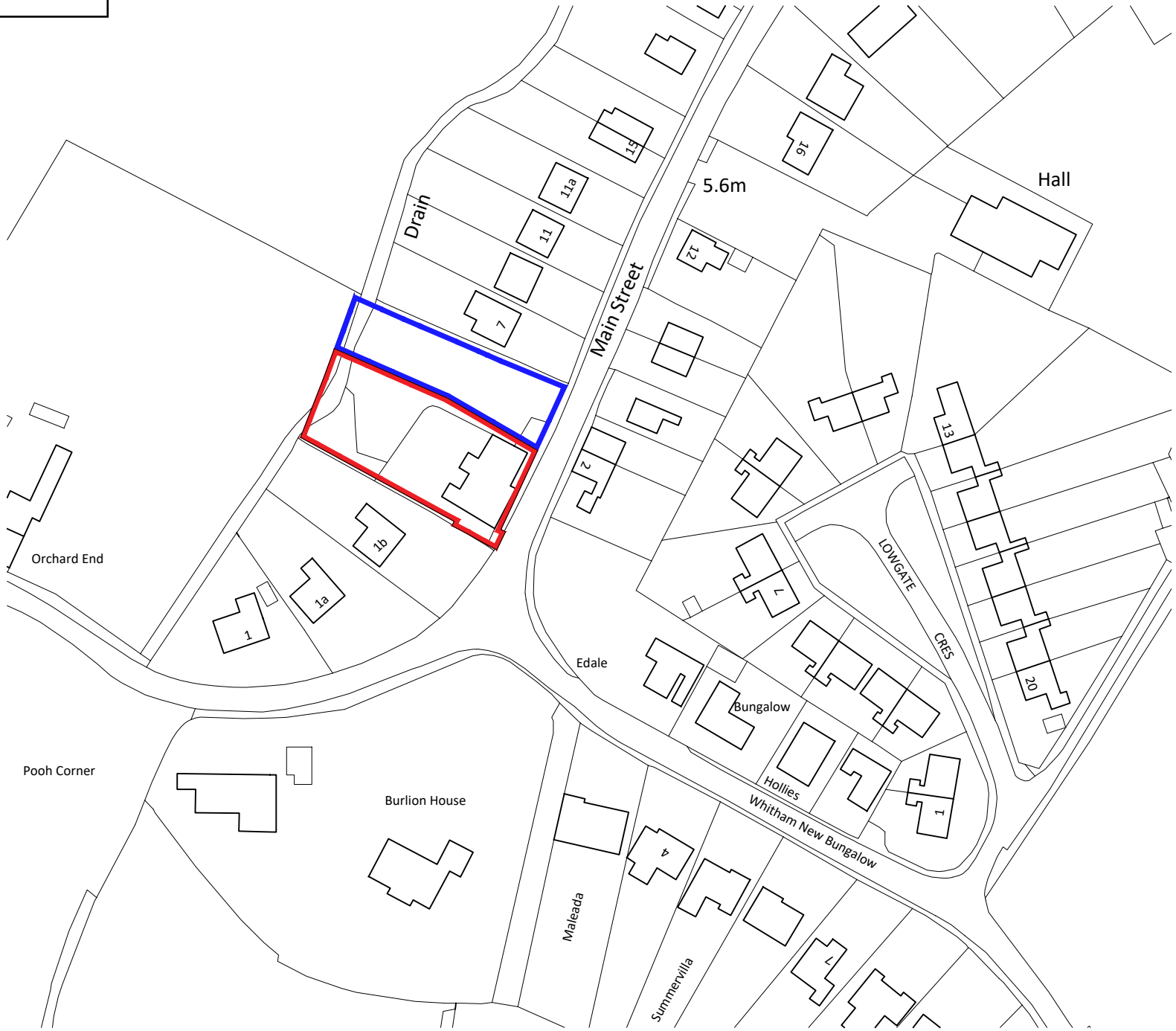
The following notes apply to Grand Sluice

- Grand Sluice remains the tidal limit for the River Witham.
- The data is based on CFB 2018 data for Boston Barrier site, capped at 5.3mAOD to reflect use of the barrier which raises for tides above this level.
- The base date for the data is 2017
- The levels are still water levels. Depending on the use of the data it may be necessary to consider wave heights and / or joint probability analysis of water level and other variables.
- For additional information relating to the 2018 Coastal Flood Boundary Extreme Sea Levels or to access the full dataset for the above sites or intermediate locations refer to the Defra Metadata Catalogue at https://deframetadata.com/geonetwork/srv/eng/catalog.search#/metadata/84a5c7c0-d465-11e4-b0bd-f0def148f590

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Plan 1



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N

0 10 20 30 40 50m

Rev	Description	Date
-	-	-

rdc
Robert Doughty Consultancy

32 High Street, Helpringham
Sleaford, Lincolnshire, NG34 0RA

Tel: 01529 421646
Email: admin@rdc-landplan.co.uk
Web: www.rdc-landplan.co.uk

Client
Nene Transport (Lincs) Ltd

Project
Residential Development
The Chequers, Gedney Dyke

Drawing
Location Plan

Scale @ A4	Date
1: 1250	09/04/24

Drawn By	Checked By
WW	-

Job Number	Status	Purpose of Issue
1185-10	FP	Full Planning

Drawing No.	Rev
1185-10_FP_LP01	-

Plan 2



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N

0 2 4 6 8 10m

Rev	By	Description	Date
-	-		-

rdc
Robert Doughty Consultancy

32 High Street, Helpringham
Sleaford, Lincolnshire, NG34 0RA

Tel: 01529 421646
Email: admin@rdc-landplan.co.uk
Web: www.rdc-landplan.co.uk

Client
Nene Transport (Lincs) Ltd

Project
Residential Development
The Chequers, Gedney Dyke

Drawing
Proposed Site Plan

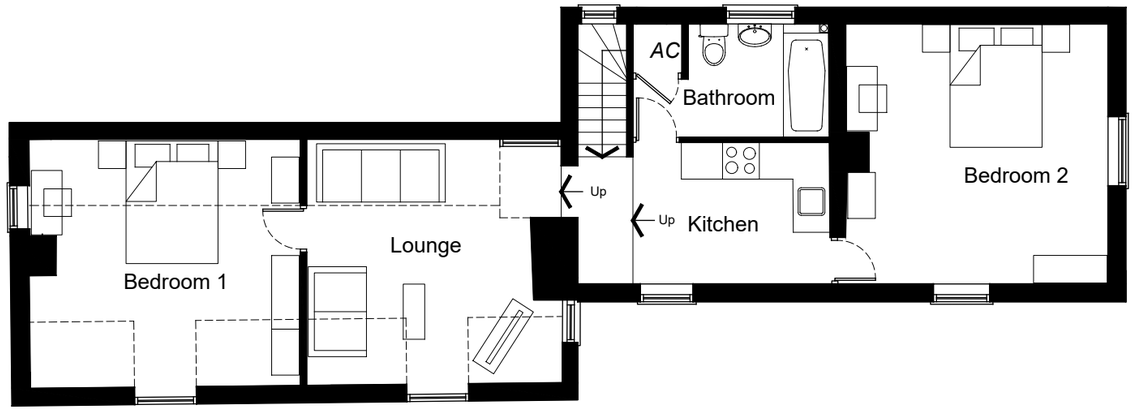
Scale @ A3	Date
1: 250	08/04/24

Drawn By	Checked By
Author	-

Job Number	Status	Purpose of Issue
1185-10	FP	Full Planning

Drawing No.	Rev
1185-10_FP_SP02	-

Plan 3



Existing First Floor Plan



Existing Ground Floor Plan

0 1 2 3 4 5m

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Rev	By	Description	Date
-	-	-	-

Revision checked by: -

rdc Robert Doughty Consultancy

32 High Street, Helpringham
Sleaford, Lincolnshire, NG34 0RA

Tel: 01529 421646
Email: admin@rdc-landplan.co.uk
Web: www.rdc-landplan.co.uk

Client
Nene Transport (Lincs) Ltd

Project
Change of Use
The Chequers, Gedney Dyke

Drawing
Existing Floor Plans

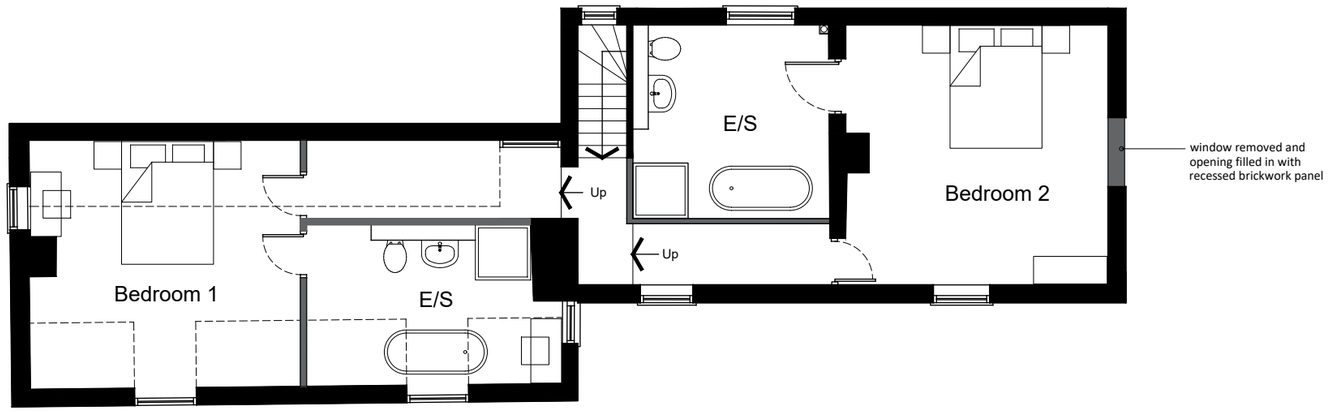
Scale @ A3	Date
1: 100	03/04/24

Drawn By	Checked By
PSS	-

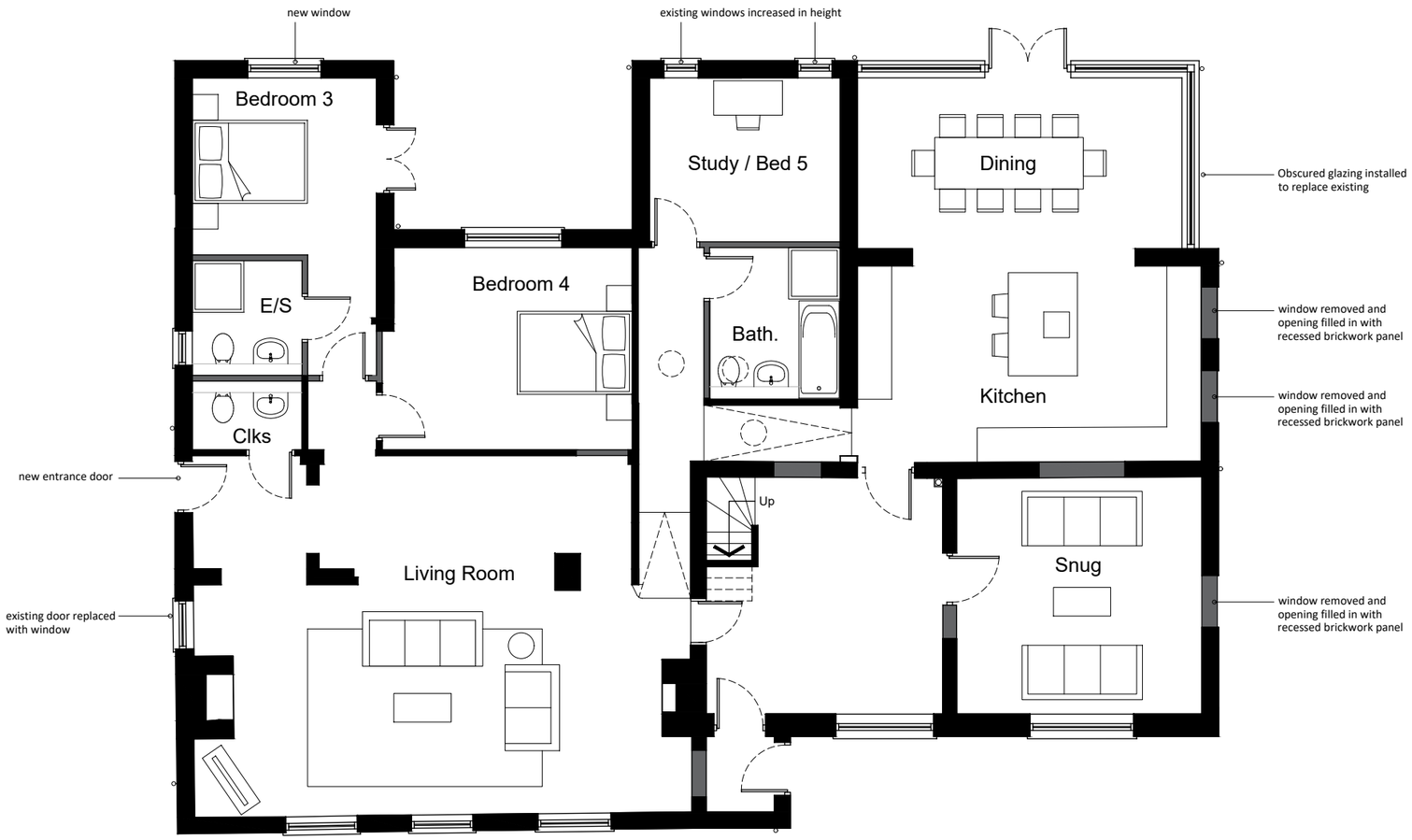
Job Number	Status	Purpose of Issue
1185-10	FP	Planning

Drawing No. 1185-10_FP_PL01 **Rev** -

Plan 4



Proposed First Floor Plan



Proposed Ground Floor Plan

Existing walls retained

Proposed New walls / openings infilled

0 1 2 3 4 5m

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Rev	By	Description	Date
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Robert Doughty Consultancy

32 High Street, Helpringham
Sleaford, Lincolnshire, NG34 0RA

Tel: 01529 421646
Email: admin@rdc-landplan.co.uk
Web: www.rdc-landplan.co.uk

Client
Nene Transport (Lincs) Ltd

Project
Change of Use
The Chequers, Gedney Dyke

Drawing
Proposed Floor Plans

Scale @ A3	Date
1: 100	03/04/24

Drawn By	Checked By
PSS	-

Job Number	Status	Purpose of Issue
1185-10	FP	Planning

Drawing No.	Rev
1185-10_FP_PL02	-

Plan 5



Proposed South East Elevation



Proposed North East Elevation



Proposed North West Elevation



Proposed South West Elevation

0 1 2 3 4 5m

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rdc
Robert Doughty Consultancy

32 High Street, Helpringham
Sleaford, Lincolnshire, NG34 0RA

Tel: 01529 421646
Email: admin@rdc-landplan.co.uk
Web: www.rdc-landplan.co.uk

Client
Nene Transport (Lincs) Ltd

Project
Change of Use
The Chequers, Gedney Dyke

Drawing
Proposed Elevations

Scale @ A2	Date
1: 100	03/04/24

Drawn By	Checked By
PSS	-

Job Number	Status	Purpose of Issue
1185-10	FP	Planning

Drawing No.	Rev
1185-10_FP_EL01	-

Plan 6



NOTES

FENCE, HEDGE, ELECTRIC, BANK EDGE, STORM LINE, FOUL LINE, TELECOM LINE, GAS LINE, LARSON PILES, CHANNELS, WATER MAIN

TREE, BOREHOLE, STATION, TBM, MANHOLE, GULLY, BATTER, WATER LVL, GATE

1. THE POSITION OF THIS SURVEY IS BASED ON GPS OSTN15 GRID
2. ALL LEVELS RELATE TO HGTS TAKEN USING TRIMBLE VRS NOW
3. TREES SPREADS ARE DRAWN TO SCALE AND SHOW THE GENERAL/AVERAGE CANOPY SPREAD.
4. ALL BELOW GROUND LEVEL INFORMATION INCLUDING VOIDS, DRAINAGE & SERVICES HAVE BEEN IDENTIFIED FROM THE SURFACE LEVEL ONLY, THEREFORE PIPE SIZES ETC ARE ESTIMATIONS ONLY. ALL CRITICAL DIMENSIONS SHOULD BE CHECKED PRIOR TO THE COMMENCEMENT OF ANY SITE WORKS
5. EVERY EFFORT HAS BEEN MADE TO LOCATE AND SURVEY ALL VISIBLE FEATURES. IT SHOULD BE NOTED THAT SOME ITEMS MAY HAVE BEEN OBSCURED AT THE TIME OF THE SURVEY AND THEREFORE NOT SHOWN ON THIS DRAWING.
6. PHYSICAL BOUNDARY FEATURES SHOWN ON THIS DRAWING DO NOT NECESSARILY REPRESENT THE ACTUAL LEGAL BOUNDARIES. THIS INFORMATION SHOULD BE CONFIRMED WITH THE RELEVANT DOCUMENTATION.
7. THE CONTRACTOR MUST CHECK AND VERIFY ALL SITE LEVELS, DIMENSIONS, UTILITIES AND DRAINAGE DETAILS PRIOR TO THE COMMENCEMENT OF ANY SITE WORKS. ANY DISCREPANCIES MUST BE NOTIFIED TO CASTLE HILL SURVEYS LTD.
8. ALL SURVEY STATION CONTROL POINTS MUST BE CHECKED BY THE CONTRACTOR PRIOR TO STARTING ANY SITE WORKS.

Point	Easting	Northing	Elevation
J3	541066.721	325900.587	4.954
J4	541057.473	325880.640	4.172
J5	541048.349	325861.647	4.022

SURVEY DATE	01 / 03 / 2024	INITIALS	JT

REV	AMENDMENTS	DRN	DATE

Client:
ROBERT DOUGHTY CONSULTANCY

Project Title:
THE CHEQUERS
GEDNEY DYKE

Drawing Title:
TOPOGRAPHICAL SURVEY

Scale @ A2:	Date:
1 : 200	01 / 03 / 2024

Drawing No: C H S 2 4 - 4 2 - 0 1 | Rev:

C.A.D.Title: rdc the chequers gedney dyke\topo (chs 24-42-01).mjo

Drawn By:	Checked By:
JT	SRW

CASTLE HILL SURVEYS LTD
Land Surveying & Site Setting Out Services
Commerce House, Carlton Boulevard,
Lincoln, LN2 4WJ Tel : 07710649549
E-mail : castlehillsurveys@outlook.com
Website : www.castlehillsurveys.co.uk