

FLOOD RISK ASSESSMENT

Proposed Change of Use
From Care Home to Residential Flats
Farrington Care Home,
Field House,
Old Main Road,
Fleet Hargate,
Holbeach,
PE12 8LL



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FLOOD RISK ASSESSMENT FOR CHANGE OF USE, FROM CARE HOME TO RESIDENTIAL FLATS, FARRINGTON CARE HOME, FIELD HOUSE, OLD MAIN ROAD, FLEET HARGATE, HOLBEACH, PE12 8LL

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 July 2021, (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 located at Field House, Old Main Road, Fleet Hargate, Holbeach, PE12 8LL within the administrative area of South Holland District Council. The National Grid Reference is TF 38009 24889. **Plan 1**

This flood risk assessment has been prepared for a full planning application for the change of use of an existing 2 storey 29 bed care home for the over 65's with 12 bedrooms on the ground floor (Class C2) to 9 No self-contained residential flats with 5 flats on the ground floor. (Class C3). **Plans 2 - 7**

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 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.

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, the existing care home use for the site is classified as “More Vulnerable,” and the proposed residential use is also classed as “More Vulnerable” therefore there is no change..

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 shows that the site is generally a flat, with a general site level of 3.21mODN. the existing ground floor level for the building is 3.51mODN. **Plan 8**

DRAINAGE AUTHORITIES

Environment Agency

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

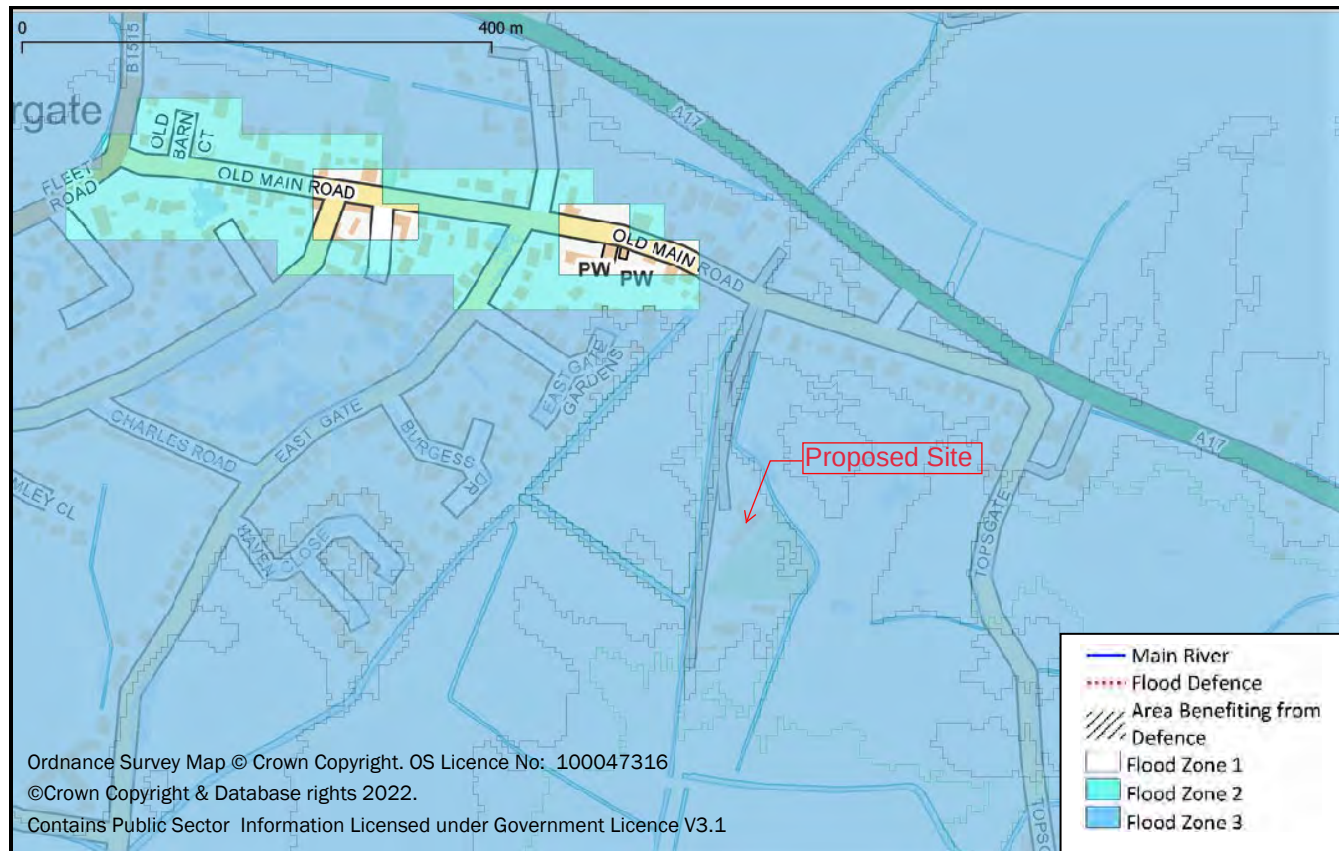
The following potential sources of flooding affecting the development site have been identified as:

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

- The Wash (Tidal)
- River Nene (Tidal)
- South Holland IDB Drains (Fluvial)

The flood zone maps indicate that the area would be flooded without flood defences.). The Flood Map indicates the area at risk of flooding, **assuming no flood defences exist**, for a flood event with a 0.5% chance of occurring in any year for flooding from the sea, or a 1% chance of occurring for fluvial (river) flooding. It also shows the extent of the Extreme Flood Outline which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater. In some locations, such as around the fens and the large coastal floodplains 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.

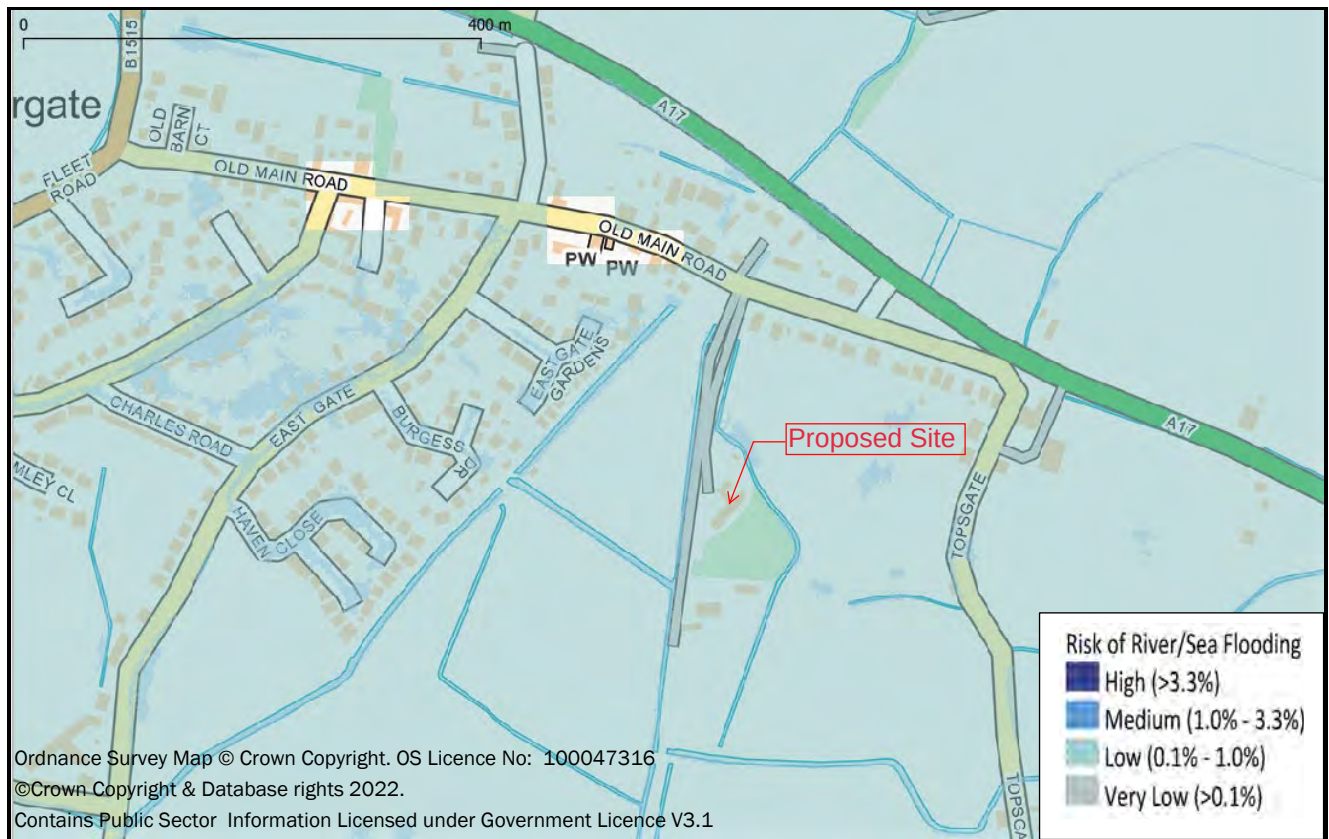
Flood Zones



Flood Map for Planning (Source EA)

These maps show that the site is considered at risk from tidal/fluviat flooding as it is all located within an area zoned as Flood Zone 3a. The maps indicate that the area would be flooded without flood defences, which are in place, (with an annual probability of more than 0.5% i.e., return frequency of less than 1 in 200 years for tidal flooding or more than 1.33% return frequency of less than 1 in 100 years for fluviat flooding).

Risk of Flooding from Rivers & Sea



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

The Risk of flooding from Rivers and Sea map shows the site to be at Low Risk. Low means that each year, this area has a chance of flooding between 0.1% and 1.0%. 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.

Fluvial Flood Risk

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

Tidal Flood Risk

The main risk of flooding at the site is therefore from a breach to the tidal defences.

The Wash Defences

The Wash is located some 9.8km east of the site, and 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 0.1% (1 in 1000year) is 6.14mODN. With climate change from Table 3 (2017 – 2123) 1089mm = 7.13mODN **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.

$$HR = d \times (v + 0.5) + DF$$

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 Breach Tidal Hazard Maps Scenario year 2006, for the 1 in 1000-year event, shows that the site is not within a hazard rating area..

With climate change up to year 2115 the maps show that for Scenario annual chance 1 in 1000-year that a small part of the building is within a Hazard rating area less than 0.75 (Low Hazard), depth of flow 0 – 0.25m and velocity 0 – 0.3m/sec. **Map 2**

The Environment Agency has also produced maps based on computer modelling of simulated overtopping of defences along the coastline for specific tidal scenarios. The maps only consider the consequences of overtopping of defences and do not show the possible consequences of breaches of the tidal defences. For future climate

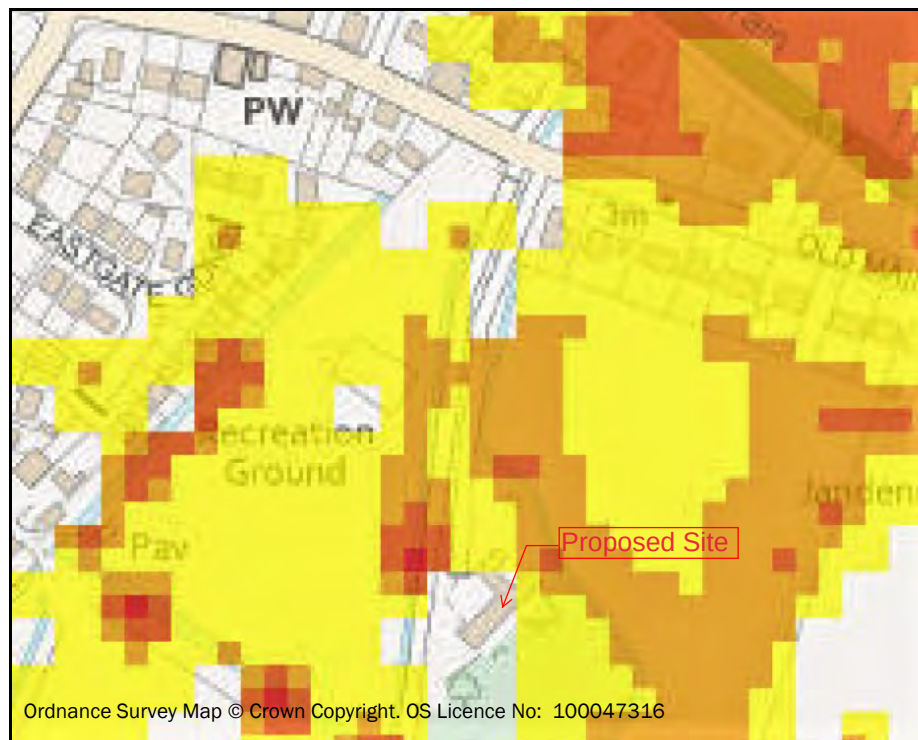
change scenarios, it is assumed that the defences remain at 2006 heights.

For the scenario years 2006 & 2115 site is not affected by overtopping of the defences.

Finished Floor Levels

The proposed development is classified as “More Vulnerable” development and therefore it can be considered in accordance with details contained in the Standard Advice Matrix in the South East Lincolnshire Local Plan.

The maximum hazard for a small part of the site is less than 0.75 (Danger for Most) and therefore the site can be considered to be in cell F7.



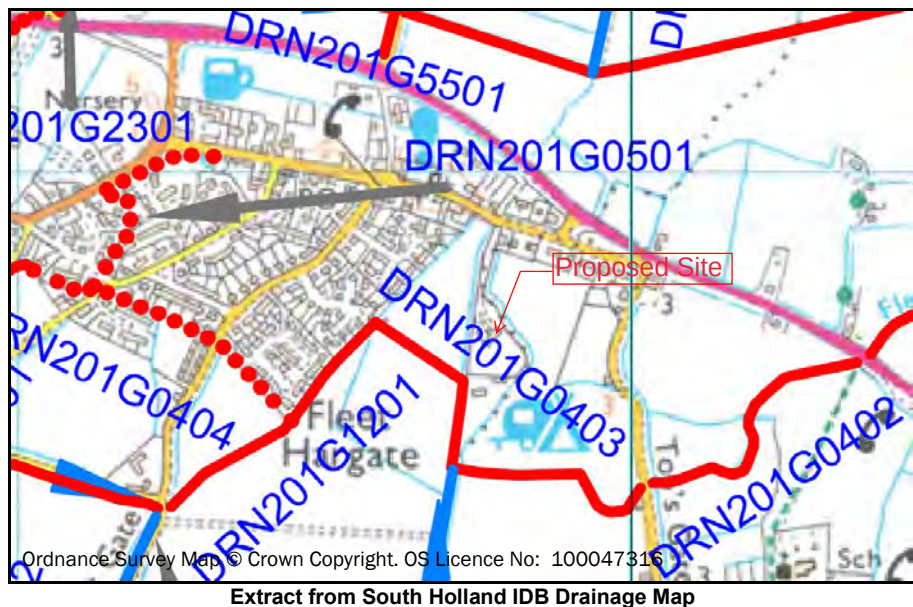
Extract from Breach Depth Map 1 in 1000year 2115

The FFL for the change of use will remain as existing (3.51mODN) which is 300mm above the existing ground level in front of the building and above the predicted climate change breach flood level year 2115.

South Holland Internal Drainage Board

The proposed development site is located within the catchment area Lutton Leam (W)) of South Holland Internal Drainage Board.

The Board are therefore responsible to operate and maintain the arterial fluvial system. The Board's nearest maintained drain is Drain No DRN201G0403 (K04 Devils Hill) to the south of the site.



Extract from South Holland IDB Drainage Map

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 this will not cause any rapid inundation of the site and is likely only lead to local ponding of shallow depth and low velocity. The existing ground floor level for the building is already raised 300mm above the existing general ground level. 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.
- 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. However, with the natural topographic nature of the ground being flat, with no high ground around the site this will not cause any rapid inundation of the site and is likely only lead to local ponding of shallow depth and low velocity. The existing ground floor level for the building is already raised 300mm above the existing general ground level 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.
- 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.

RESIDUAL RISKS

There is always a possibility of a flood more than that allowed for which might conceivably cause some flooding

to the property. However, such an event would have a very low probability and the risk of flooding to the property would be extremely small. It is therefore considered that the residual risks associated with flooding are not significant.

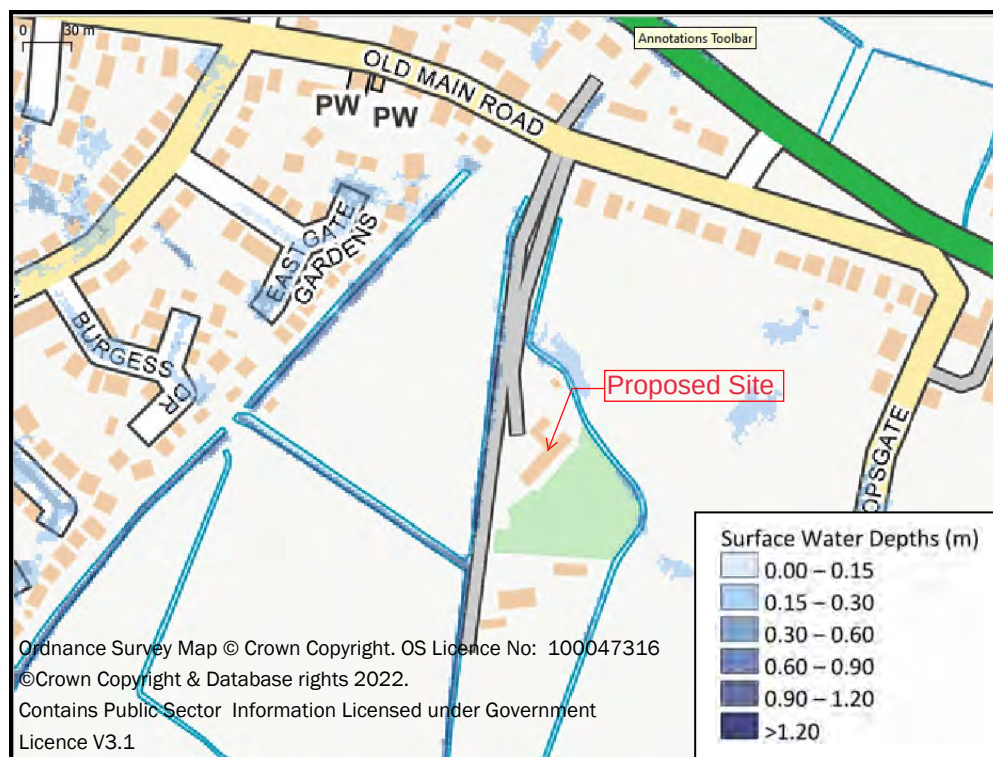
SURFACE WATER FLOODING

The site 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.

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.



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.

The Environment Agency and the Lead Local Flood Authority (custodians of the surface water flood risk dataset) have subsequently confirmed that the published high-level data should not be used on a site-specific basis and that mapping is only suitable for National to County Scale use.

SEQUENTIAL APPROACH

When applying the sequential approach for flood risk in accordance NPPF the site of the development would fall into Flood Zone 3 (High Probability) as the site is shown to be within the tidal flood plain 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 outside the 0.1% floodplain (with a chance of flooding of less than 0.1% chance in any given year) (Shown as 'clear' on the Flood Map – all land outside Zones 2 and 3).
- Flood Zone 2 is land that falls between the 1 in 100-year extent and the 1 in 1000-year extent (a chance of flooding between 1% and 0.1% in any given year). (Land shown in light blue on the Flood Map).
- Flood Zone 3a is land which falls within the 1 in 100-year flood extent (has a 1% chance of a flood occurring in any given year). (Land shown in dark blue on the Flood Map).

Applying the Flood Risk Vulnerability Classification in Table 2 of NPPG, the proposed development for industrial use is classified as, "Less Vulnerable" with Table 1 of NPPG stating that such uses are appropriate in this zone (as summarised in Table 3 NPPG).

Table 3: Flood risk Vulnerability and Flood Zone '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 Test

NPPF Guidance Paragraphs 159 – 173 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.168), applications for householder development, small non-residential extensions (with a footprint of less than 250m²) and changes of use; except for changes of use to a caravan, camping or chalet site, or to a mobile home or park home site, where the sequential and exception tests should be applied as appropriate, should not be subject to the sequential or exception tests but should still meet the requirements for site-specific flood risk assessments.

CLIMATE CHANGE

Global warming is now recognised that it is likely to affect the frequency and severity of extreme events as 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 within 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.

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/ Nene	Upper End	18%	13%	36%
	Higher Central	4%	0%	17%
	Central	-2%	-7%	4%

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 to 1990 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 1981 to 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

DRAINAGE STATEMENT

With the application being for a change of use of an existing building with no increase in the footprint the surface water disposal and the foul drainage will continue to utilise the existing system which serves the care home..

FLOOD RESILIENCE CONSTRUCTION

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

- o As this site is in an area that is capable of receiving flood warnings from the Environment Agency Floodline Warning Direct system. It is recommended that the property Owner contact the Environment Agency’s Floodline on 0845 988 1188 to register the property to receive advance

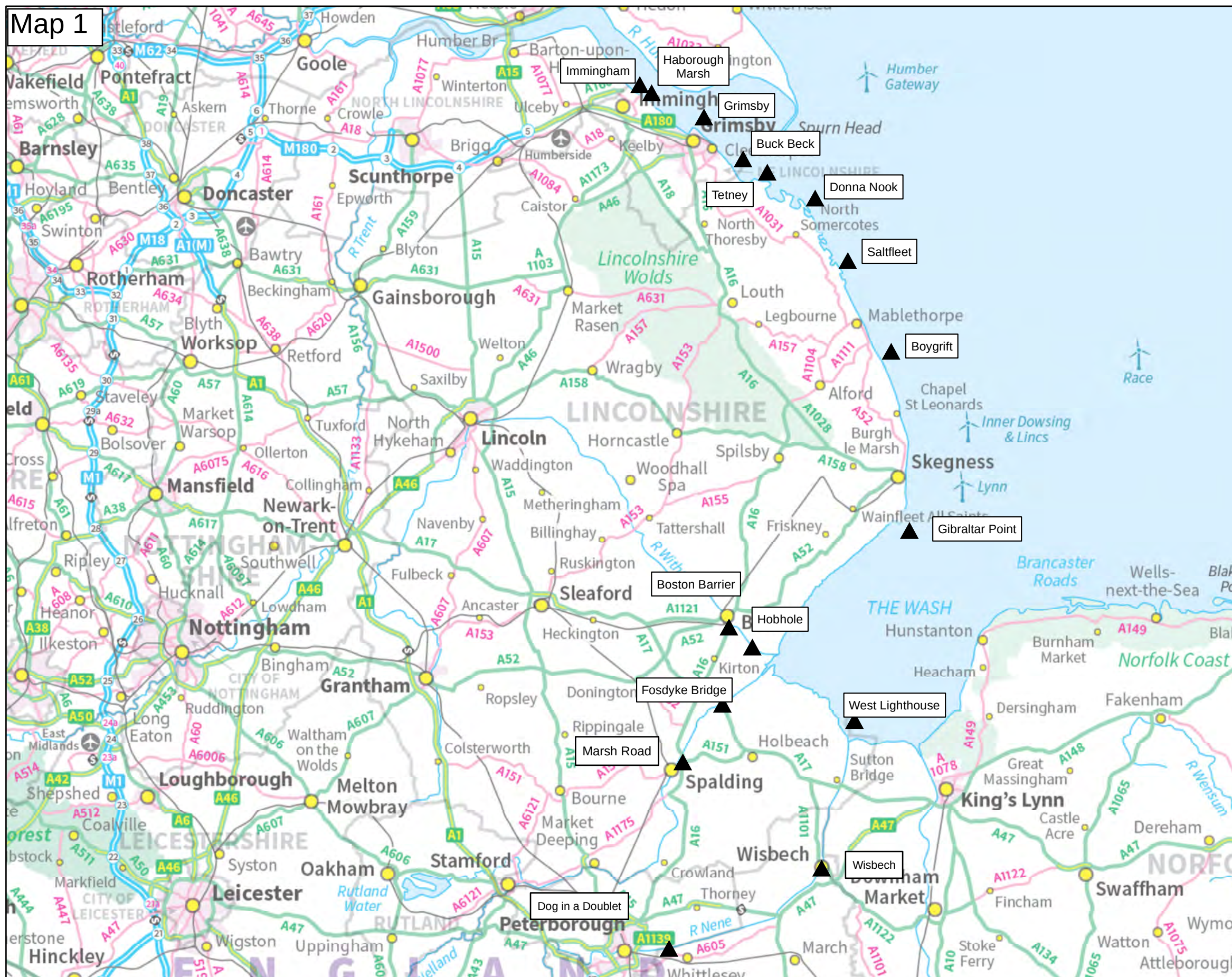
warning of flooding by telephone, mobile, fax, SMS text, email or pager. The Environment Agency aim to issue a 'severe flood warning' approximately 2 hours before existing defences are overtopped.

CONCLUSION

- o The site does have the protection of tidal flood defences which are well maintained by the Environment Agency.
- o The proposed site for the proposed units is shown to be within Flood Zone 3 'High Probability' as detailed on the Environment Agency's Flood Zone Maps without defences.
- o Following a breach to the tidal defences, the Lincolnshire & Northampton shire Area Breach Tidal Hazard Maps Scenario year 2006, for the 1 in 1000-year event, shows that the site is not within a hazard rating area.. With climate change up to year 2115 the maps show that for Scenario annual chance 1 in 1000-year that a small part of the building is within a Hazard rating area less than 0.75 (Low Hazard), depth of flow 0 – 0.25m and velocity 0 – 0.3m/sec
- o The Flood Risk Vulnerability Classification in Table 2 of NPPG the proposed residential development is classified as "More Vulnerable", with Table 1 of NPPG stating that such uses are appropriate in this zone.
- o The ground floor for the flats is to remain at the existing level of 3.51mODN which is 300mm above the general site level.
- o 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.
- o Flooding from other sources is unlikely to affect the site.
- o 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.
- o It is therefore concluded that the proposed development can be constructed, safely and sustainably, to meet the requirements of the South Holland District Council Development Plan Policies, and the National Planning Policy Framework.

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

Key Node Points



Scale 1:550,000

▲ East Coast and Wash

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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%	2.5%	50%
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

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://deframetadadata.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

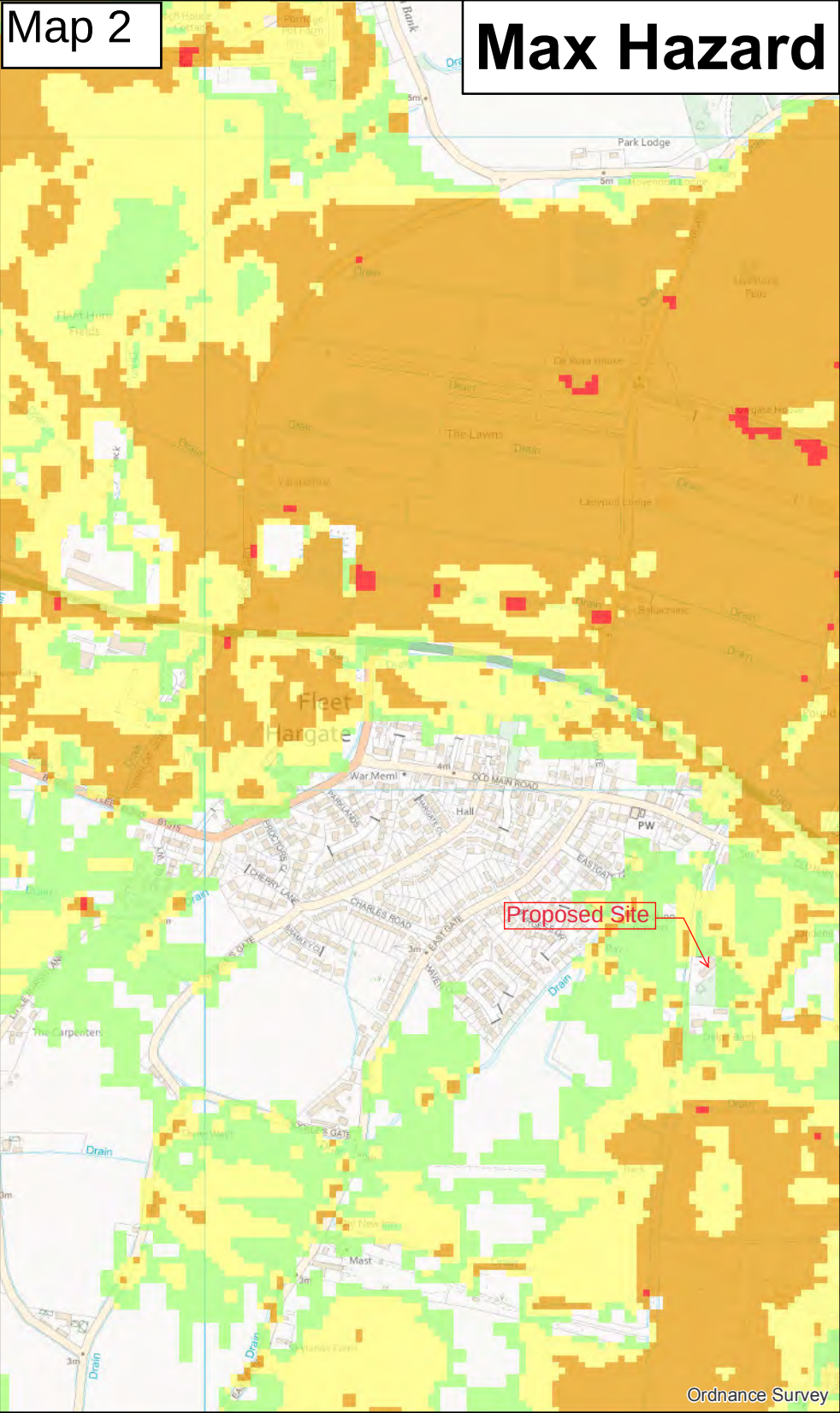
- The base date for the data is 2006
- The levels are still water levels. Depending on the use of the data it may be necessary to consider wave heights and / or joint probability analysis of water level and other variables.
- Levels for other annual chance probabilities are available if required.
- These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

The following notes apply to Grand Sluice

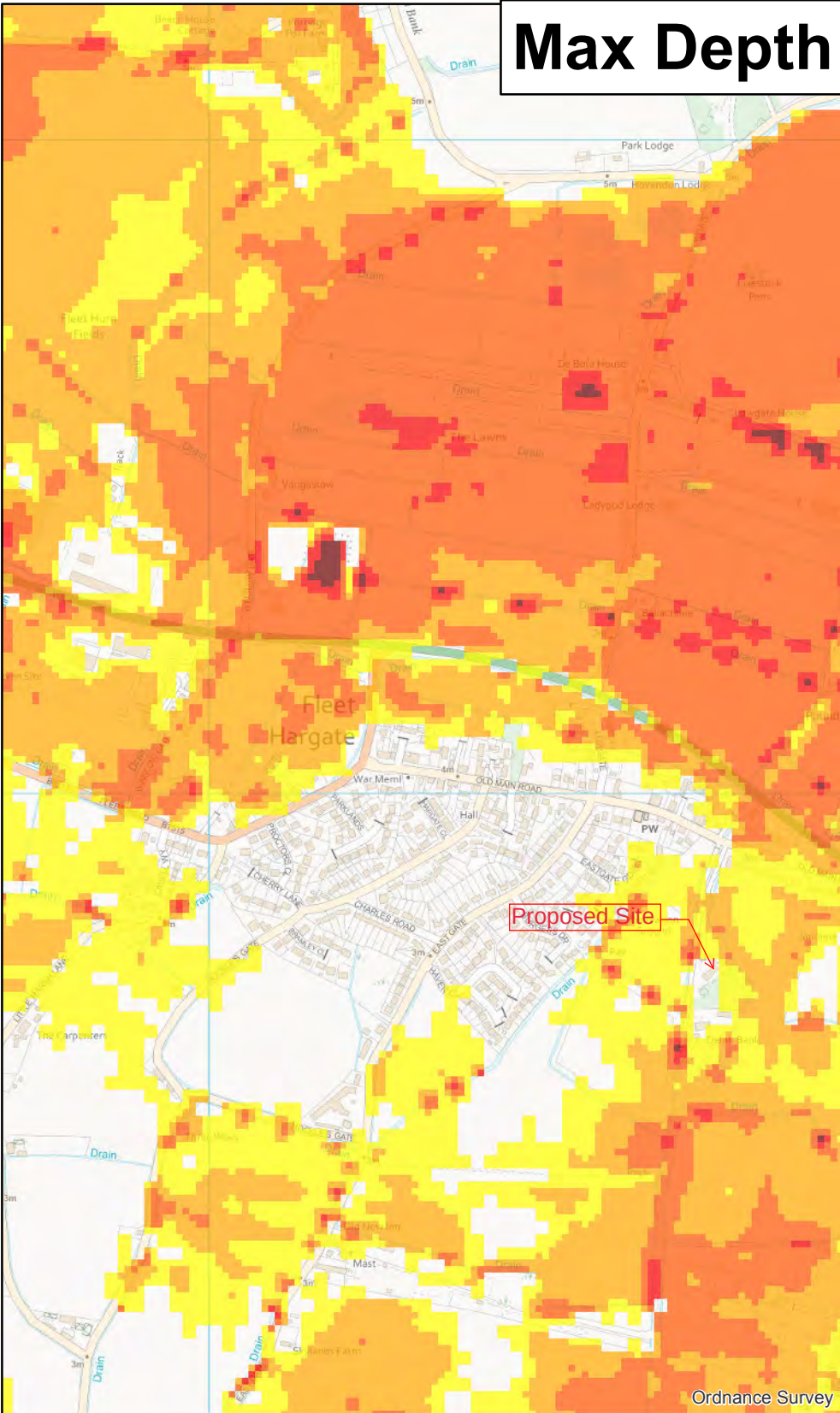
- The data is based on CFB 2018 data for Boston Barrier site, capped at 5.3mAOD to reflect use of the barrier.
- The base date for the data is 2017
- The levels are still water levels. Depending on the use of the data it may be necessary to consider wave heights and / or joint probability analysis of 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://deframetadadata.com/geonetwork/srv/eng/catalog.search#/metadata/84a5c7c0-d465-11e4-b0bd-f0def148f590>

Map 2

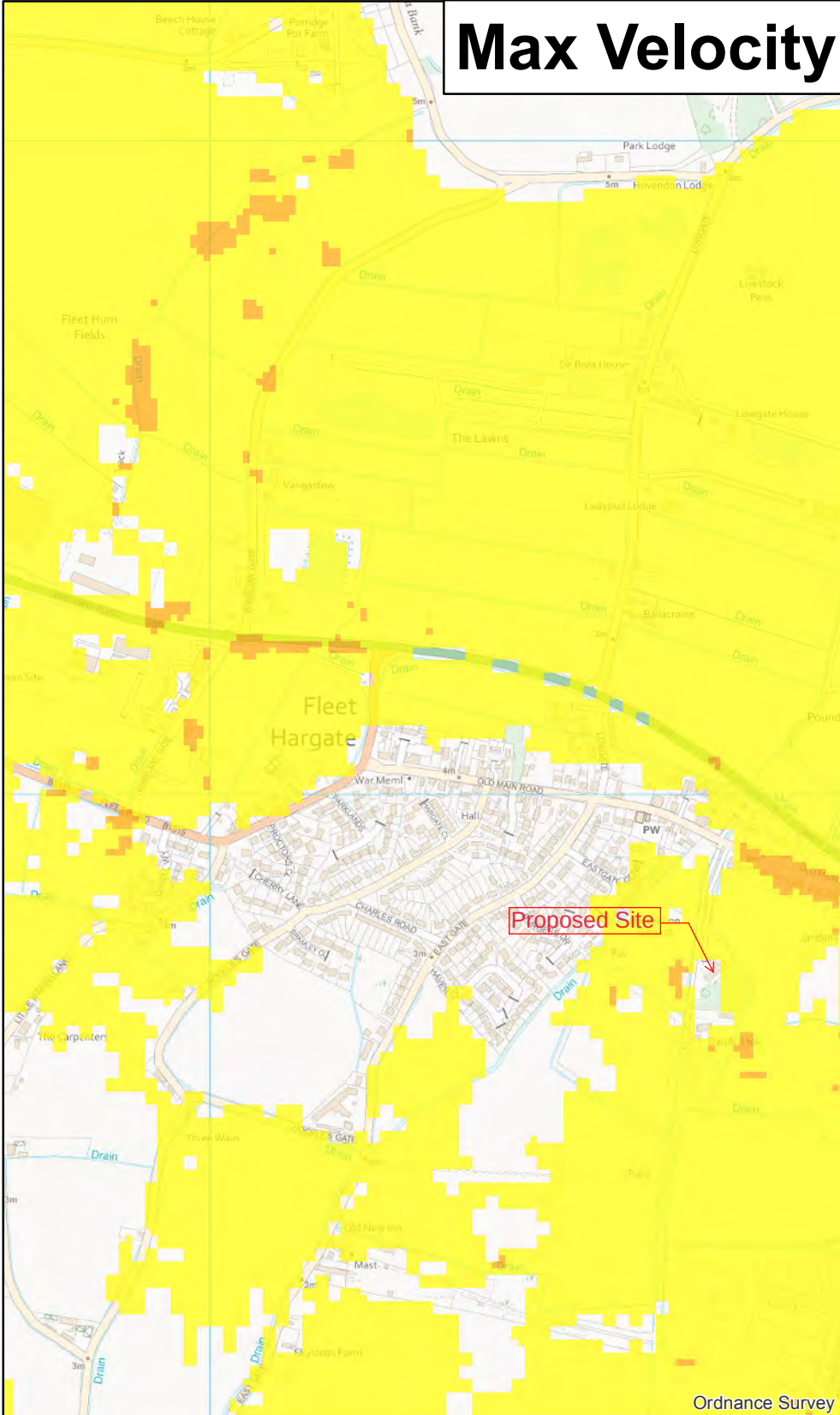
Max Hazard



Max Depth



Max Velocity



★ Modelled Breach Locations - see also the accompanying plan "Location of Modelled Breaches"								This map shows the level of flood hazard to people (called a hazard rating) if our flood defences are breached at certain locations, for a range of scenarios. The hazard rating depends on the depth and velocity of floodwater, and maximum values of these are also mapped. 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, different sized tidal surges or flood flows may all give different results. The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring. The likelihood of a breach occurring will depend on a number of different factors, including the construction and condition of the defences in the area. A breach is less likely where defences are of a good standard, but a risk of breaching remains. General Enquiries No: 03708 506 506. Weekday Daytime calls cost 5p plus up to 6p per minute from BT Weekend Unlimited. Mobile and other providers' charges may vary	Max Hazard (Flood Risk to People : FD2320)		Max Depth (m)		Max Velocity (m/s)	
Less than 0.75 (Low Hazard) Between 0.75 and 1.25 (Danger for Some) Between 1.25 and 2.0 (Danger for Most) Greater than 2.0 (Danger for All)		0 - 0.25 0.25 - 0.50 0.50 - 1.0 1.0 - 1.6 1.6 +		0 - 0.3 0.3 - 1.0 1.0 - 1.5 1.5 - 2.5 2.5 +										
Date Printed	March 2022	Scenario year	2115	Scenario Annual Chance	0.1% (1 in 1000)	CCN Number	CCN-2022-251270							
Lincolnshire and Northamptonshire Tidal Breaching Hazard Mapping Map Centred on TF 39329 25128 This map is reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office. Crown copyright. All rights reserved. Environment Agency 100024198, 2022. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.														



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Rev	Description	Date
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rdc
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Consultancy

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

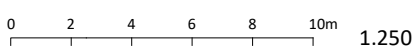
Tel: 01529 421646
Email: admin@rdc-landplan.co.uk
Web: www.rdc-landplan.co.uk

Client Farrington Care Homes Ltd		
Project Field House Fleet Hargate		
Drawing Location Plan		
Scale @ A3 1:1250		Date 05/01/23
Drawn By WW		Checked By LMS
Job Number 1541-1	Status PL	Purpose of Issue Planning
Drawing No. 1541-1_PL_LP01		Rev -

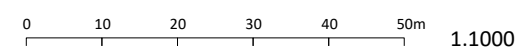
Plan 2



Proposed Site Plan



Proposed Site Plan



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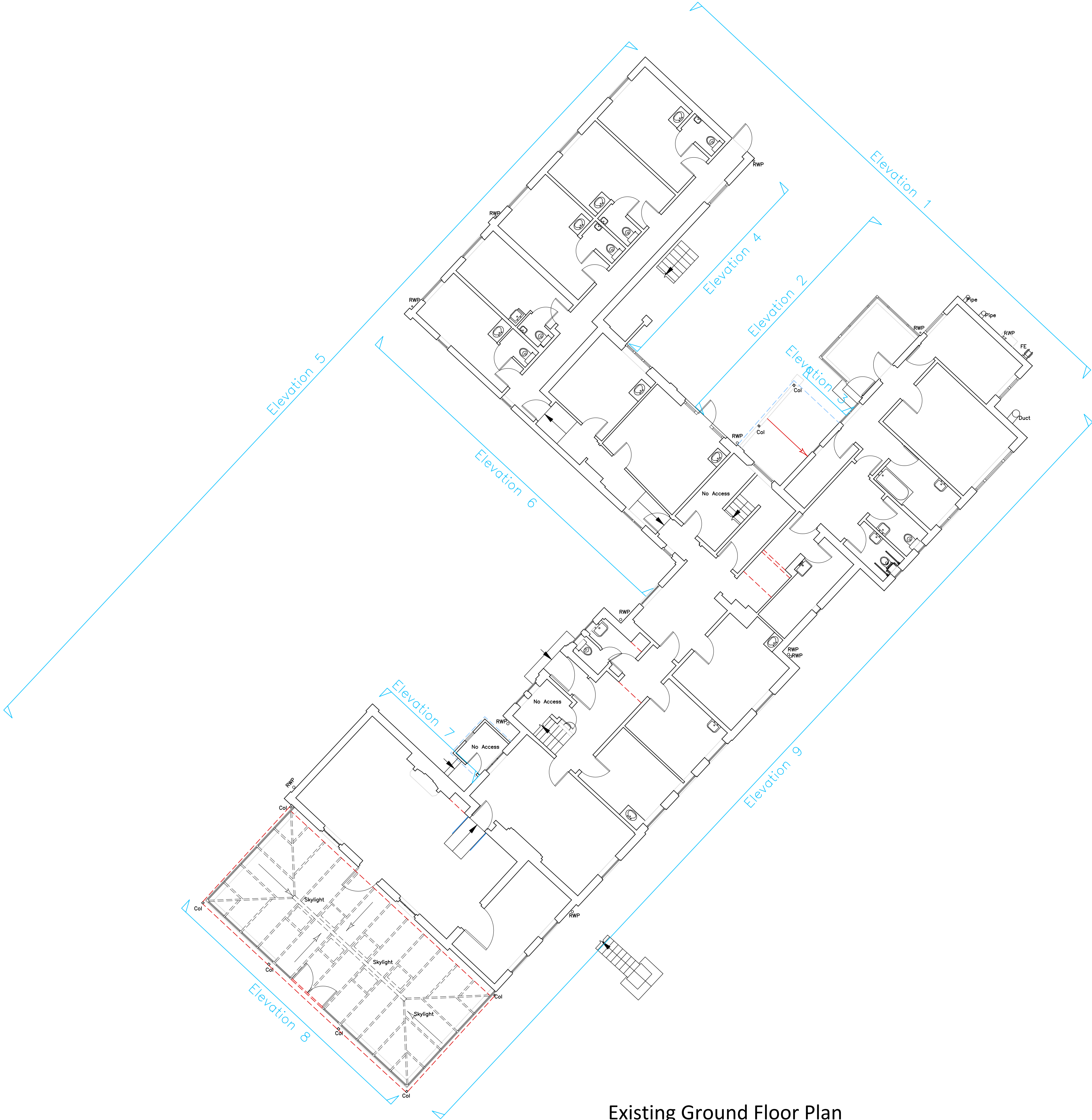
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Client		
Farrington Care Homes Ltd		
Project		
Field House Fleet Hargate		
Drawing		
Proposed Site Plan		
Scale @ A2		Date
As Shown		15/12/22
Drawn By		Checked By
WW		LMS
Job Number	Status	Purpose of Issue
1541-1	PL	Planning
Drawing No.		Rev
1541-1_PL_SP02		-



Existing Ground Floor Plan

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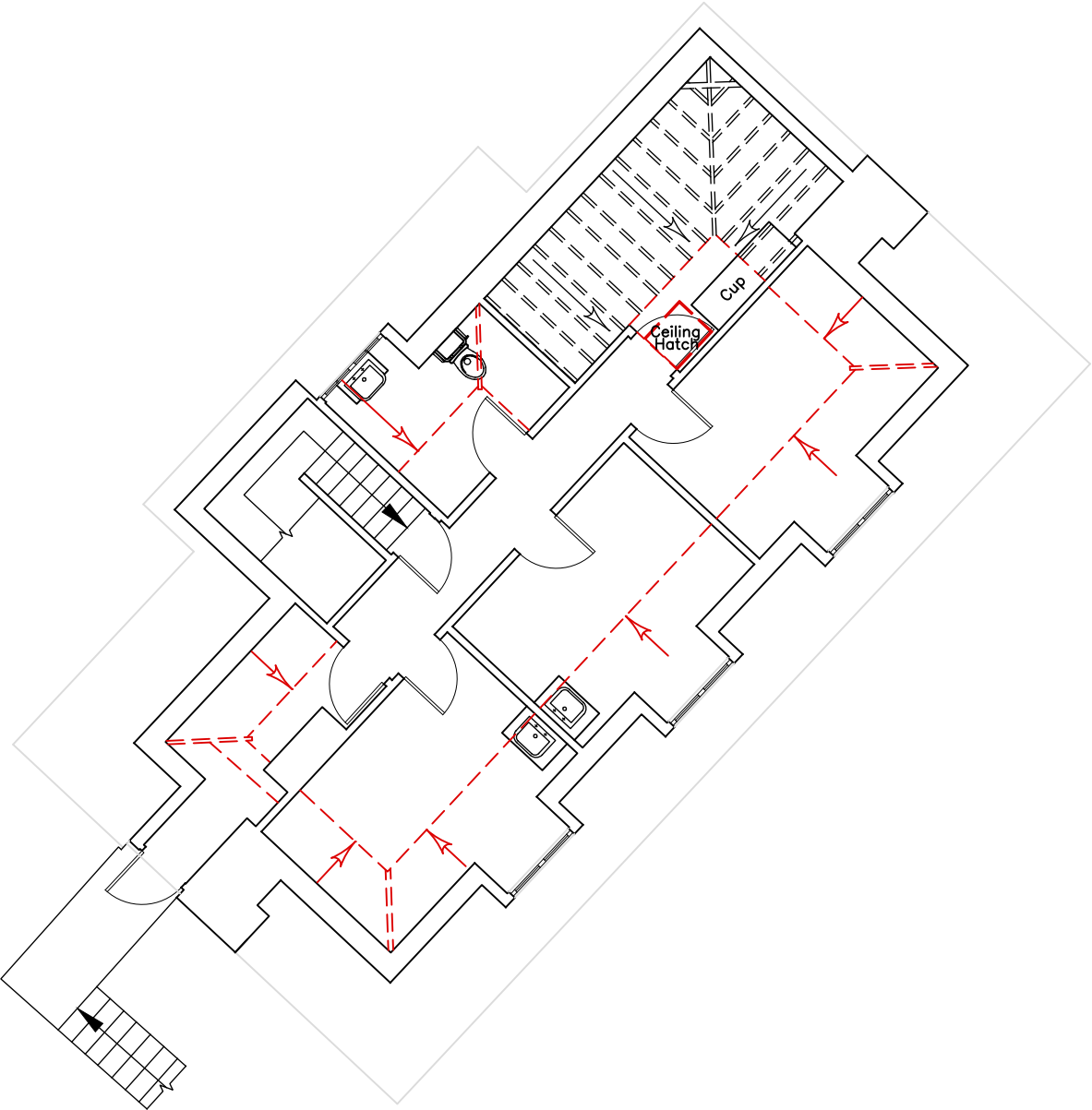
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Client Farrington Care Homes Ltd		
Project Field House Fleet Hargate, Holbeach, Lincolnshire		
Drawing Existing Ground Floor Plan		
Scale @ A1 1: 100		Date 30/11/22
Drawn By PSS		Checked By -
Job Number 1541-1	Status PL	Purpose of Issue Planning
Drawing No. 1441-1_PL_PL01		Rev -



Existing First Floor Plan



Existing Second Floor Plan

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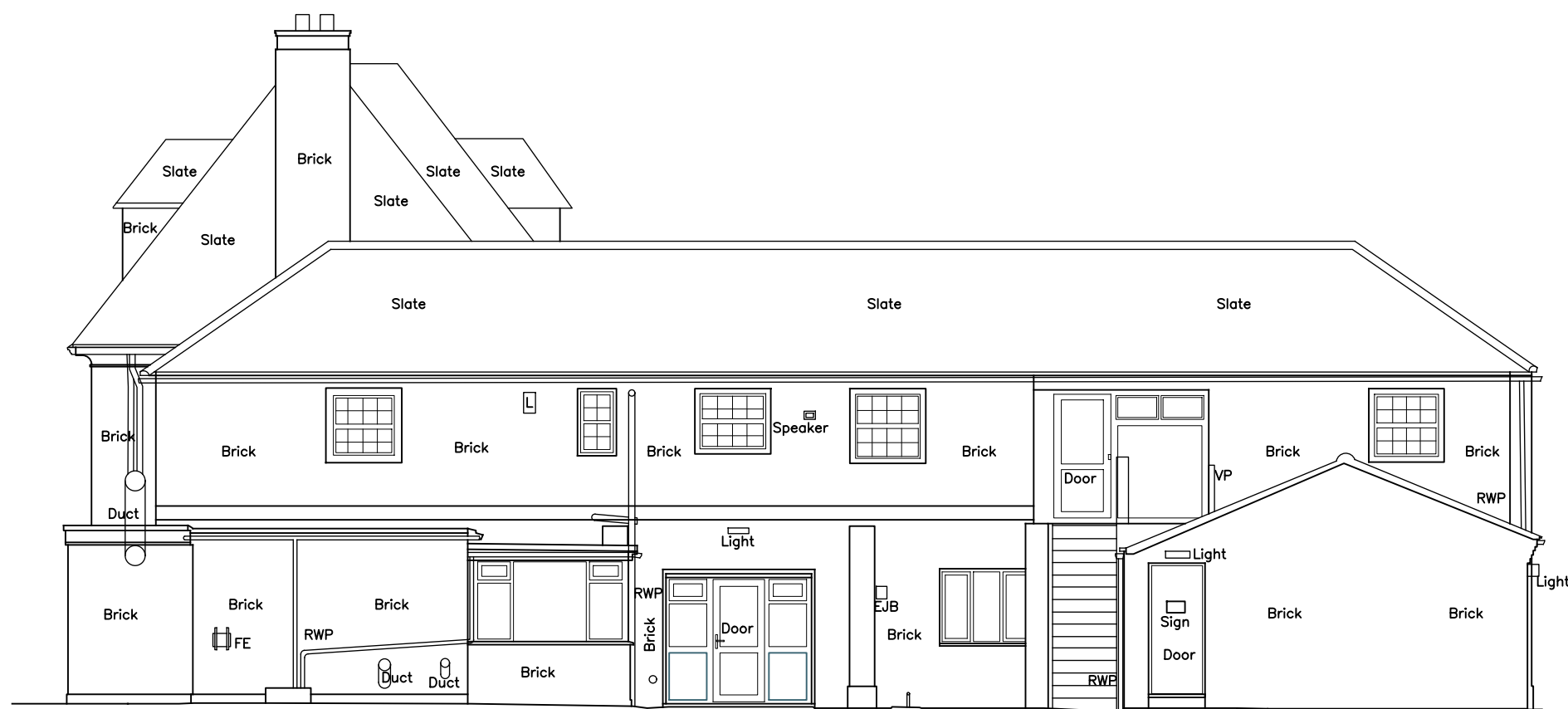
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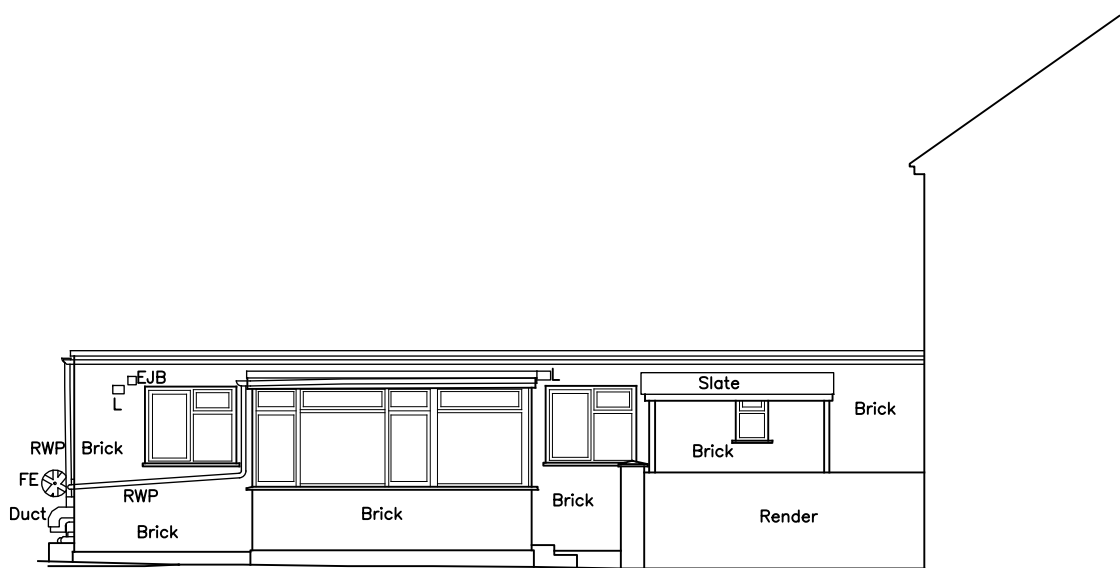
Use figured dimensions only. All dimensions should be checked against on site conditions and any discrepancies should be brought to the attention of Robert Doughty Consultancy Limited.

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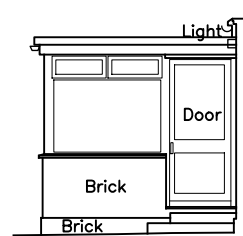
Rev	Description	Date
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Client Farrington Care Homes Ltd		
Project Field House Fleet Hargate, Holbeach, Lincolnshire		
Drawing Existing First & Second Floor Plans		
Scale @ A1 1: 100		Date 30/11/22
Drawn By PSS		Checked By -
Job Number 1541-1	Status PL	Purpose of Issue Planning
Drawing No. 1441-1_PL_PL02		Rev -



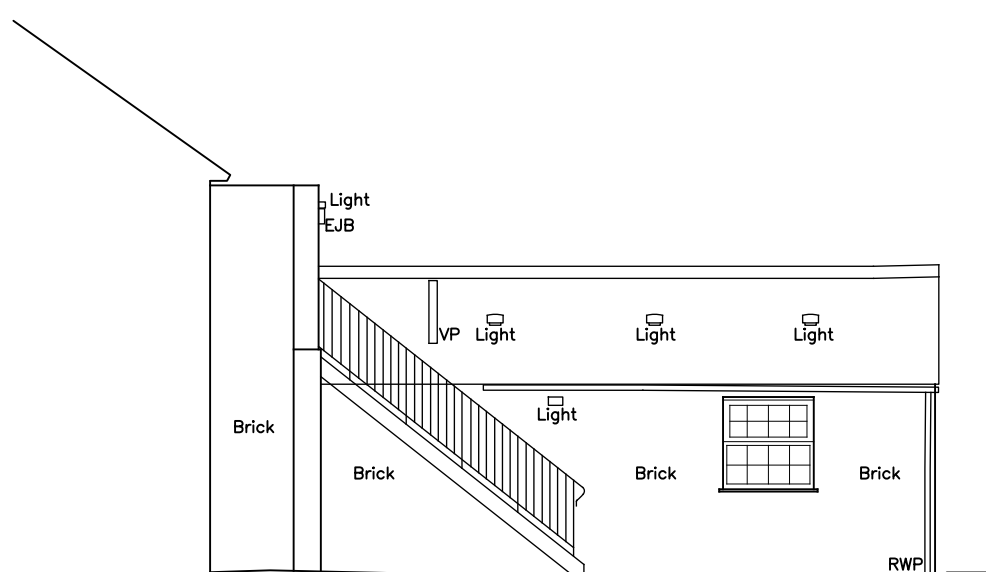
Existing North East Elevation (*Elevation 1*)



Existing North West Elevation (*Elevation 2*)



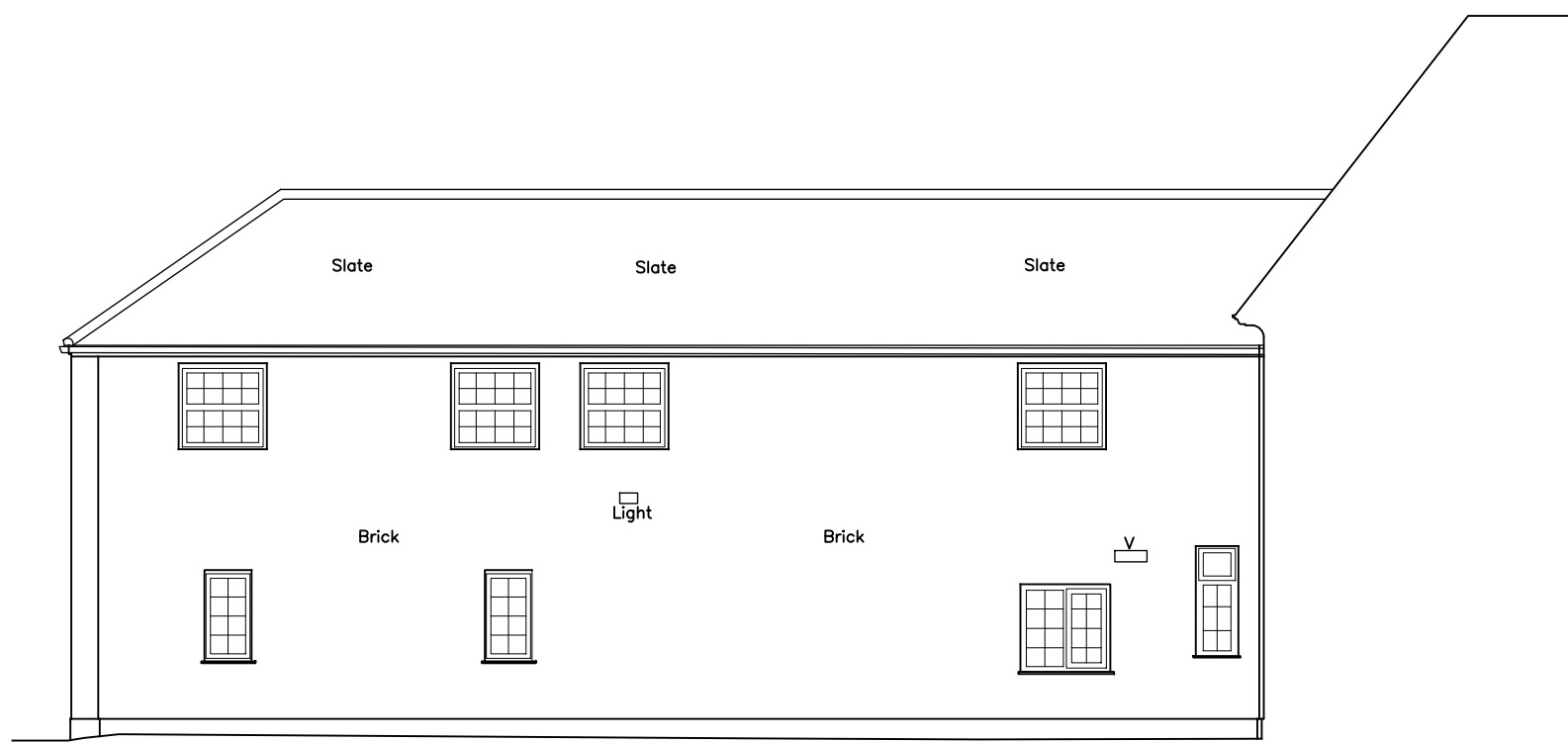
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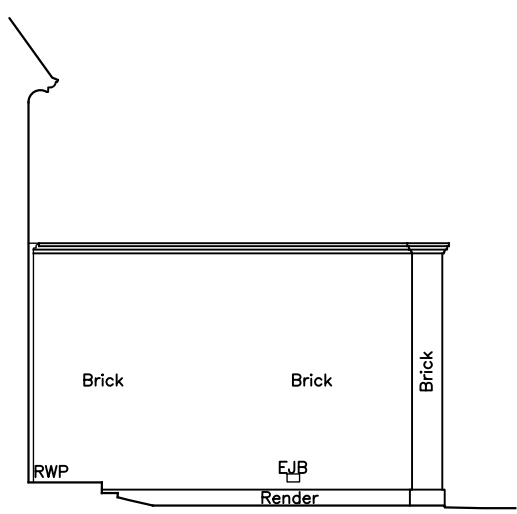
Existing South East Elevation (*Elevation 4*)



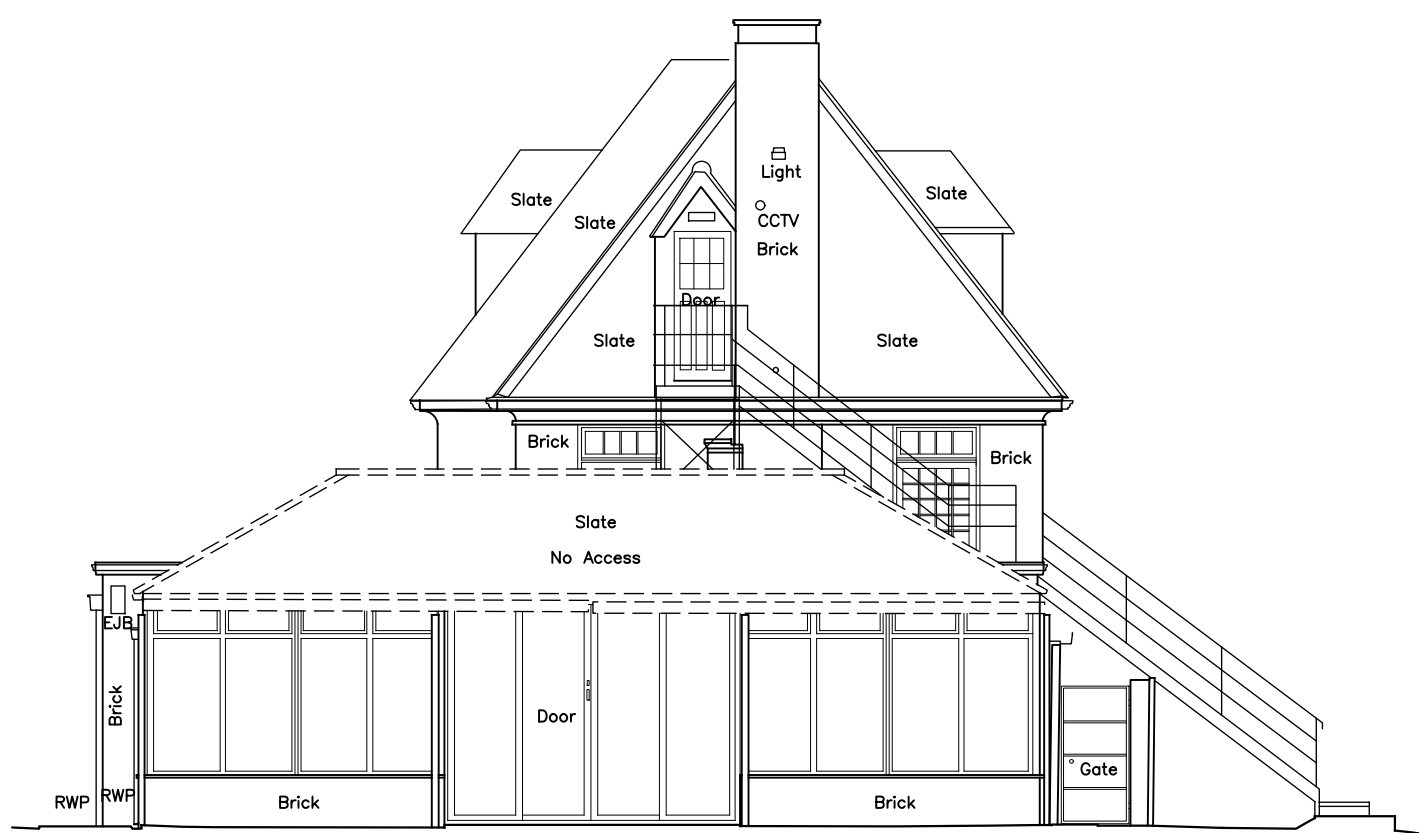
Existing North West Elevation (*Elevation 5*)



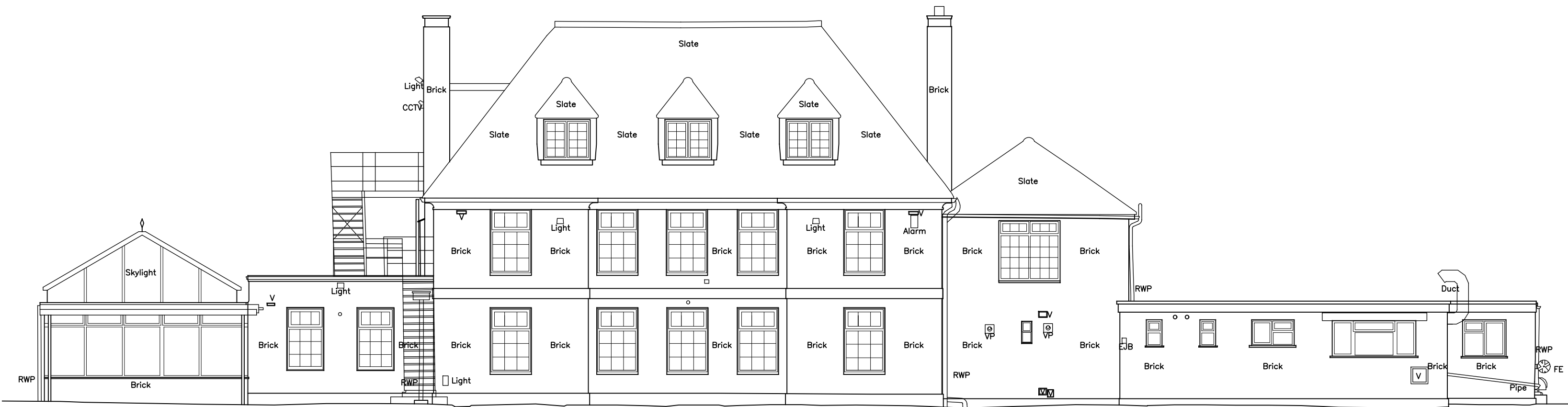
Existing South East Elevation (*Elevation 6*)



Existing North East Elevation (*Elevation 7*)



Existing South West Elevation (*Elevation 8*)



Existing South East Elevation (*Elevation 9*)

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Client Farrington Care Homes Ltd		
Project Field House Fleet Hargate, Holbeach, Lincolnshire		
Drawing Existing Elevations		
Scale @ A1 1: 100		Date 01/12/22
Drawn By PSS		Checked By -
Job Number 1541	Status PL	Purpose of Issue Planning
Drawing No. 1541-1_PL_EL01		Rev -



Proposed Ground Floor Plan

Schedule of Accommodation

- Flat One - 2 Bed - 81 sq.m - 871 sq.ft
- Flat Two - 1 Bed - 48 sq.m - 516 sq.ft
- Flat Three - 2 Bed - 58 sq.m - 624 sq.ft
- Flat Four - 1 Bed - 33 sq.m - 355 sq.ft
- Flat Five - 2 Bed - 83 sq.m - 893 sq.ft

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Rev	Description	Date

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Email: admin@rdc-landplan.co.uk

Web: www.rdc-landplan.co.uk

Client

Farrington Care Homes Ltd

Project

Field House

Fleet Hargate, Holbeach, Lincolnshire

Drawing

Proposed Ground Floor Plan

Scale @ A1

1: 100

Date

01/12/22

Drawn By

PSS

Checked By

-

Job Number

1541-1

Status

SK

Purpose of Issue

Discussion

Drawing No.

1441-1_SK_PL03

Rev

-



Proposed First Floor Plan



Proposed Second Floor Plan

Schedule of Accommodation

- Flat Six - 2 Bed - 59 sq.m - 635 sq.ft
- Flat Seven - 1 Bed - 40 sq.m - 430 sq.ft
- Flat Eight - 2 Bed - 74 sq.m - 796 sq.ft
- Flat Nine - 1 Bed - 48 sq.m - 516 sq.ft

Notes

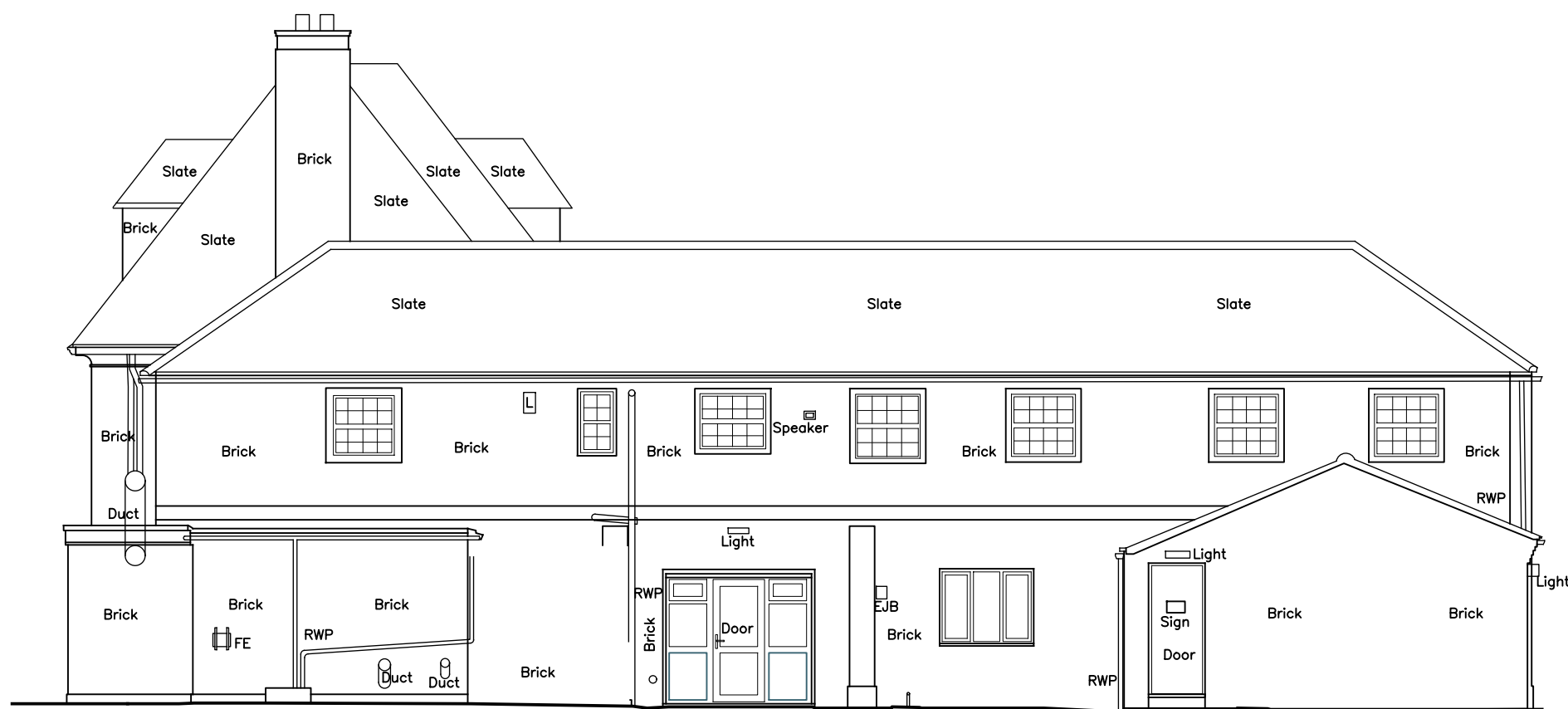
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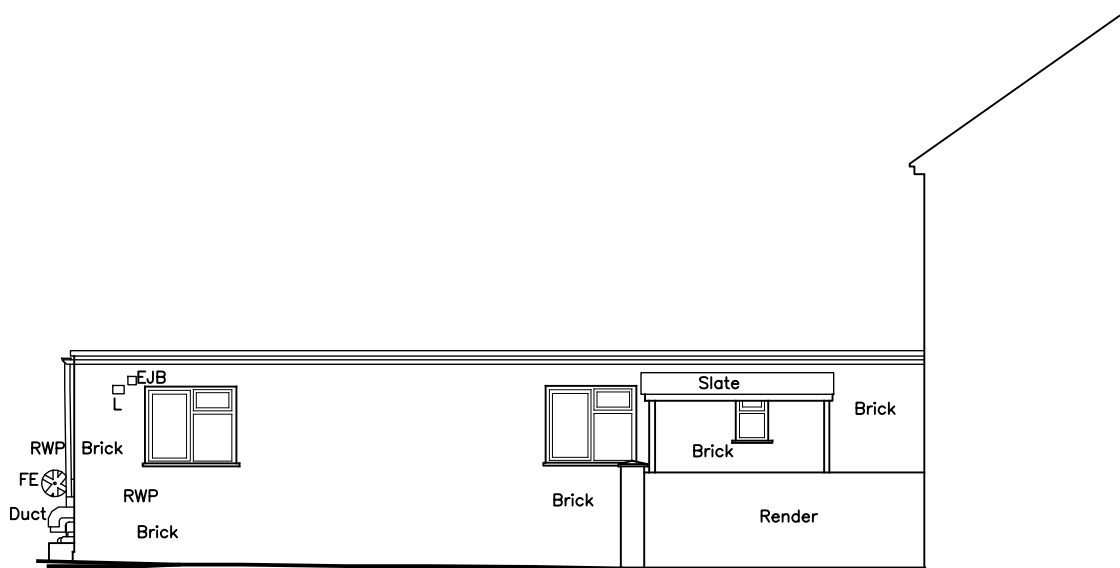
Dimensions
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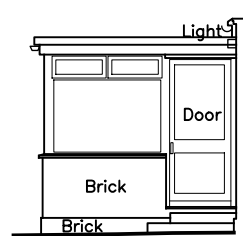
Rev	Description	Date
rdc Robert Doughty Consultancy 32 High Street, Helpington Sleaford, Lincolnshire, NG34 0RA Tel: 01529 421646 Email: admin@rdc-landplan.co.uk Web: www.rdc-landplan.co.uk Client Farrington Care Homes Ltd Project Field House Fleet Hargate, Holbeach, Lincolnshire Drawing Proposed First and Second Floor Plan Scale @ A1 1: 100 Date 01/12/22 Drawn By PSS Checked By - Job Number 1541-1 Status SK Purpose of Issue Discussion Drawing No. 1441-1_SK_PL04 Rev -		



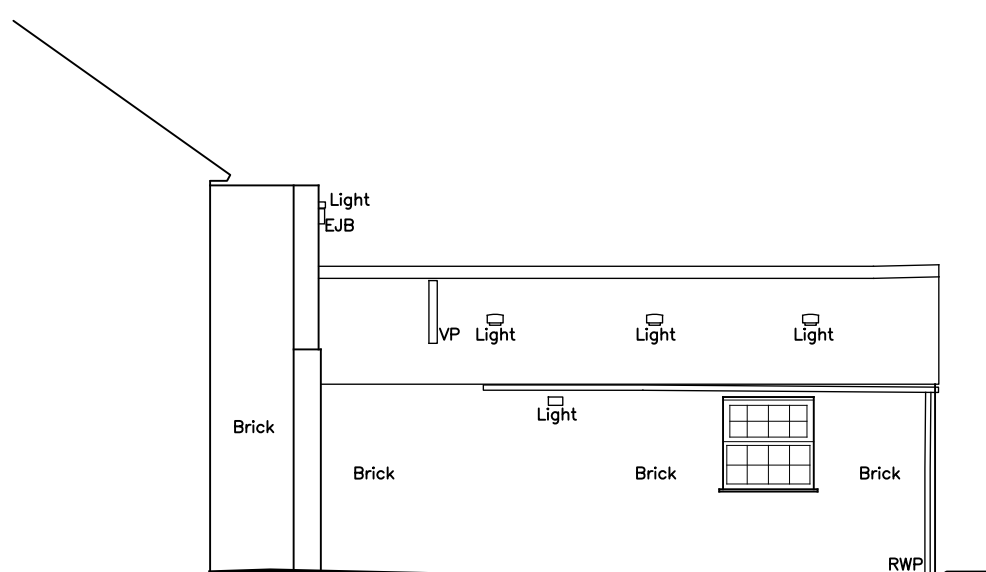
Proposed North East Elevation (*Elevation 1*)



Proposed North West Elevation (*Elevation 2*)



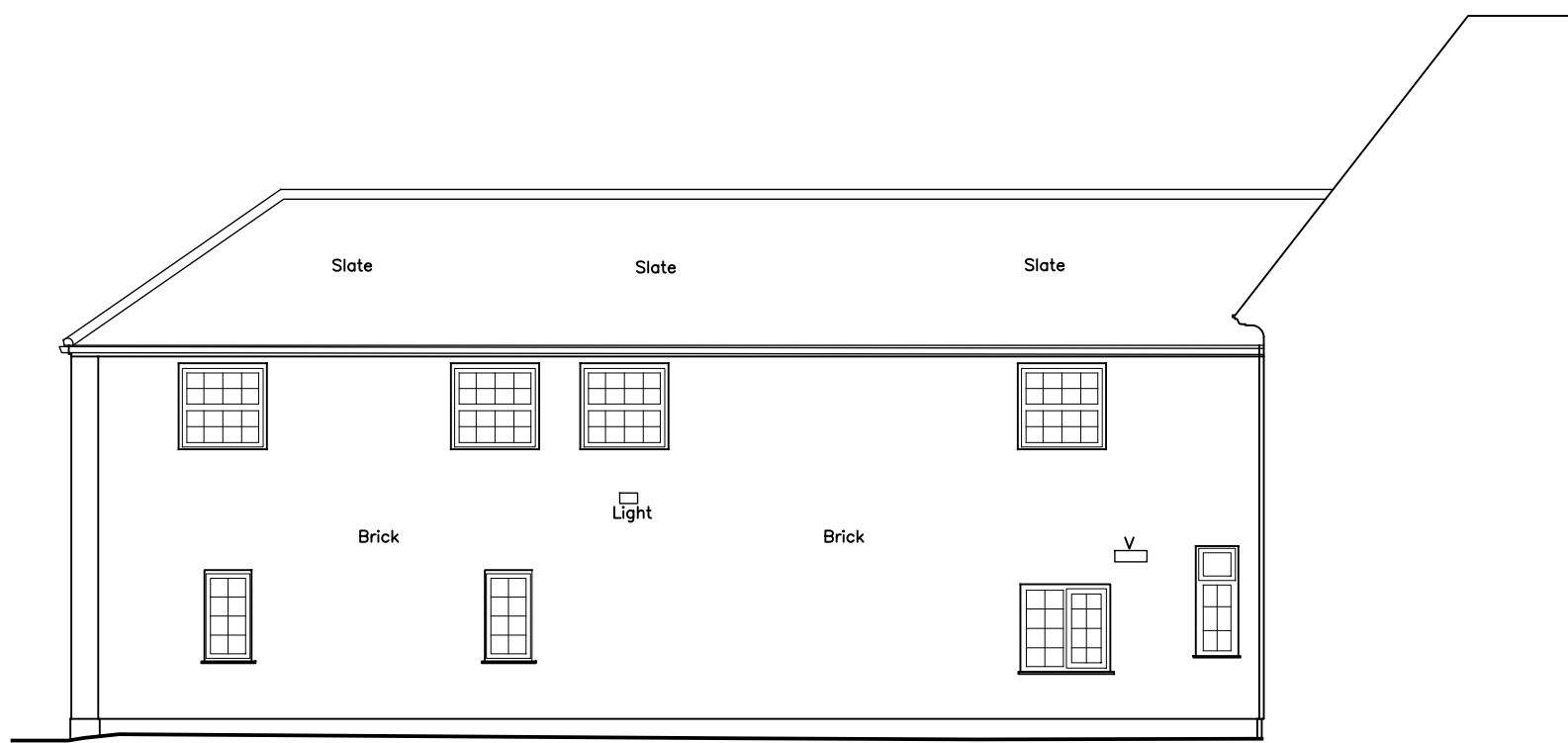
Proposed South West Elevation (*Elevation 3*)



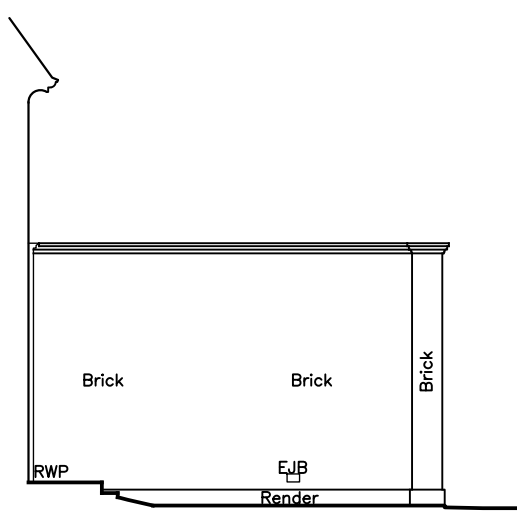
Proposed South East Elevation (*Elevation 4*)



Proposed North West Elevation (*Elevation 5*)



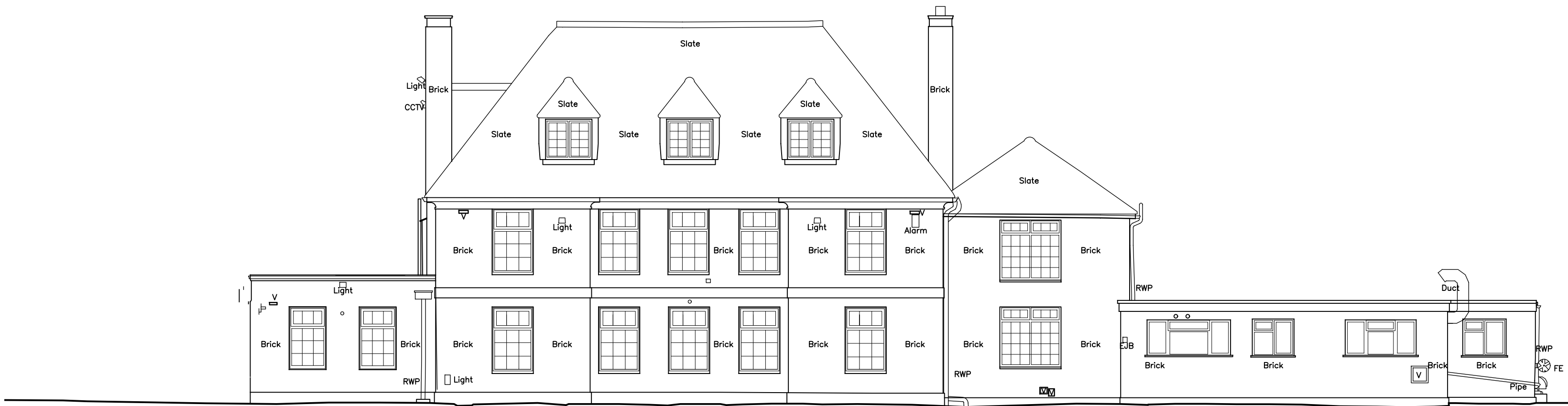
Proposed South East Elevation (*Elevation 6*)



Proposed North East Elevation (*Elevation 7*)



Proposed South West Elevation (*Elevation 8*)



Proposed South East Elevation (*Elevation 9*)

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rdc		
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Tel: 01529 421646 Email: admin@rdc-landplan.co.uk Web: www.rdc-landplan.co.uk		
Client Farrington Care Homes Ltd		
Project Field House Fleet Hargate, Holbeach, Lincolnshire		
Drawing Proposed Elevations		
Scale @ A1 1 : 100		Date 01/12/22
Drawn By PSS		Checked By -
Job Number 1541	Status PL	Purpose of Issue Planning
Drawing No. 1541-1_PL_EL02		Rev -



ABBREVIATIONS & SYMBOLS

AV	AIR VALVE	OHC	OVERHEAD CABLE
BH	BORER HOLE	PS	POST SIGN
BOL	BOLLARD	PNV	PIPE INVERT LEVEL
CATV	CABLE TV HOLE	PM	PARKING METER
CL	COVER LEVEL	PO	POST
CH	CHANNEL	PT	POST TOP LEVEL
COL	COLUMN	PR	POST & RAIL FENCE
DC	CABLE TV LID	PSW	POST & WIRE FENCE
DP	DOWN PIPE	RE	EDGE OF ROAD/KERB
DR	DRAIN	RL	RIDGE LEVEL
EL	EARTH LEVEL	RP	REFLECTIVE POST
EP	ELECTRIC POLE	RS	ROAD SIGN
ES	EARTH ROD	SLS	STONE LEVEL
FB	FLOWER BED	SOFF	SOFFIT LEVEL
FI	FIRE HYDRANT	SV	VALVE
FIL	FINISHED FLOOR LEVEL	SW	SURFACE WATER
FP	FLAG POLE	TAC	TACTILE PAVING
FW	FOWL WATER	TH	TRIAL HOLE
GV	GAS VALVE	TL	TRAFFIC LIGHTS
HW	HEADWALL	TLM	TELEGRAPH POLE
IC	INSPECTION COVER	TOW	TOW TOP OF WALL LEVEL
IL	INVERT LEVEL	TP	TRUCK TRACK
KO	KERB ORLET	UTL	UTILITY LIFT
KB	KERB BOTTOM	VP	VENT PIPE
KT	KERB TOP	WL	WATER LEVEL
LP	LAMP POST	WLV	WATER LEVEL
LC	LIGHT COLUMN	WM	WATER METER
MH	MANHOLE	WO	WASH OUT POINT
MP	MARKER POST		

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 OBSERVED 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
s1	539753.289	324742.716	3.306
s2	539751.895	324776.138	3.292
s3	539751.729	324758.120	3.295
s4	539762.788	324734.593	3.203

SURVEY DATE	INITIALS	SRW
NOVEMBER 2022		

REV	AMENDMENTS	DRN	DATE

Client:

ROBERT DOUGHTY CONSULTANCY

Project Title:

FARRINGTON CARE HOMES LIMITED
FIELD HOUSE CARE HOME
FLEET HARGATE
HOLBEACH LINCOLNSHIRE

Drawing Title:

BUILDING PERIMETER SURVEY

Scale @ A1:

1 : 100

Date:

10 / 11 / 2022

Drawing No:

CHS 22-238-01

C.A.D. Title:

rdc:fleet hargate/lopo (chs 22-238-01).mjo

Drawn By:

SRW

Checked By:

CT

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