



MEC
Consulting Group

FLOOD RISK & DRAINAGE



**Horncastle House Nursing Home, Plawhatch
Lane, Sharpthorne**
Flood Risk Assessment
July 2025

Horncastle House Nursing Home, Plawhatch Lane, Sharpthorne

Flood Risk Assessment

July 2025

REPORT REF: 29528-FLD-0102

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REGISTRATION OF AMENDMENTS

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EXECUTIVE SUMMARY

Site Address	Horncastle House Nursing Home, Plawhatch Lane, Sharpthorne, RH19 4JH (E: 539169, N: 132292)
Site Description and Setting	The site area covers approximately 5.61ha, and currently comprises Horncastle House, Horncastle Care Centre, and surrounding green space.
Proposed Development	The erection of an 80-bedroom care home with associated road infrastructure, green space, and SuDS systems.
Fluvial and Coastal and Tidal Flooding	The site is mapped to be wholly within Flood Zone 1 (Low Probability), which is defined as land having an annual probability of river or sea flooding of less than 0.1%. The site is far removed from the coast to be affected by coastal and tidal related flood events
Surface Water Flooding	The site is at low risk from surface water flooding, with small isolated areas of high risk associated with localised topographical depressions and existing buildings blocking surface water flow routes, which would be resolved through initial groundworks. To the east of the site is an area of higher risk associated with a ditch network. These isolated areas of risk have been mapped to have a low probability of surface water flooding to depths of 0.3m.
Other Sources of Flooding	Local documentation and borehole records suggest the risk of groundwater flooding is low. The risk of flooding from sewers is considered low. The site is far removed from any canals. Due to the distance and intervening topography, the risk of flooding from this source is negligible. The site falls outside of any modelled extents of reservoir or large waterbody flooding should the relevant impounding structure fail, as mapped by the EA
Sequential Test	As per Chapter 14 Paragraph 176 of the NPPF, due to the nature of the proposals, the site is not required to undertake a Sequential or Exception Test.
Conclusions	The proposed development is unlikely to increase flood risk to third parties, as the changes to the land use is minimal.
This summary should be read in conjunction with the full report and reflects an assessment of the site based on information received by MEC at the time of production.	

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1.0 INTRODUCTION

- 1.1 MEC Consulting Group Ltd (MEC), has been commissioned by Splendid Projects Limited (hereafter referred to as 'the Client') to undertake a Flood Risk Assessment for a proposed care home at Horncastle House Nursing Home, Plawhatch Lane, Sharpthorne (hereafter referred to as 'the Site'). A site location plan is provided in **Appendix A** and a site layout is contained within **Appendix B**.
- 1.2 The development proposals comprise an 80-bedroom care home with associated road infrastructure, green space and SuDS systems, following the demolition of the current Horncastle House building.
- 1.3 The purpose of this FRA is to review available information and assess the flood risk posed to the Site from surface water, now and in the future. The FRA has been carried out in accordance with the requirements of the National Planning Policy Framework (NPPF) and associated Planning Practice Guidance (PPG), in respect to flood risk and climate change.
- 1.4 A review of relevant information and guidance from a range of sources has been undertaken and includes
- National Planning Policy Framework (NPPF), December 2024
 - Planning Practice Guidance (PPG), August 2022
 - Environment Agency Flood Map for Planning and Risk of Flooding from Surface Water datasets from the DEFRA Spatial Data Catalogue
 - DEFRA MagicMap, 2025
 - British Geological Survey Geology of Britain Viewer & GeoIndex, 2025
 - Mid Sussex District Plan 2014-2031, March 2018
 - Mid Sussex District Council Strategic Flood Risk Assessment Level 1, June 2015.
 - West Sussex County Council Preliminary Flood Risk Assessment, May 2011
 - West Sussex County Council Preliminary Flood Risk Assessment addendum, December 2017
 - West Sussex County Council Local Flood Risk Management Strategy, 2013
 - South East England Authorities 'Water. People. Places. A guide for master planning sustainable drainage into developments', September 2013
 - Mid Sussex District Council provided the Mid Sussex Design Guide Supplementary Planning Document SPD, November 2020
- 1.5 The Local Planning Authority is Mid Sussex District Council and Lead Local Flood Authority is West Sussex County Council. The site falls within the Southern Water (SW) Catchment.

Disclaimer

- 1.6 MEC has completed this report for the benefit of the individuals referred to in paragraph 1.1 and any relevant statutory authority which may require reference in relation to approvals for the proposed development. Other third parties should not use or rely upon the contents of this report unless explicit written approval has been gained from MEC.

1.7 MEC accepts no responsibility or liability for:

- a) The consequence of this documentation being used for any purpose or project other than that for which it was commissioned;
- b) The issue of this document to any third party with whom approval for use has not been agreed.

2.0 POLICY CONTEXT

National Planning Policy Framework

- 2.1 The National Planning Policy Framework (NPPF) was published and updated most recently in December 2024 by the Ministry of Housing, Communities and Local Government.
- 2.2 The NPPF is the primary source of national planning guidance in England, setting out the Government's planning policies for England, and how they are expected to be applied by local councils.
- 2.3 'Chapter 14: Meeting the challenge of climate change, flooding and coastal change' outlines the guiding principles for managing flood risk as part of the planning process, notably paragraphs 162-182.
- 2.4 The Planning Practice Guidance (PPG) sets out the vulnerability to flooding of different land uses. It encourages development to be in areas of lower flood risk where possible and stresses the importance of preventing increases in flood risk off site to the wider catchment.
- 2.5 The PPG also states that alternative sources of flooding, other than fluvial (river flooding), should be considered when preparing an FRA. The document also includes a series of tables that define Flood Zones, the flood risk vulnerability classification of development land use, and 'compatibility' of development within the defined Flood Zones.
- 2.6 Therefore, this FRA has been completed in line with the guidance and requirements of the NPPF and PPG.

Local Plan

- 2.7 The Mid Sussex District Plan 2014-2031 was adopted in March 2018. The Local Plan sets out how land within the authority's boundaries can be used and developed, providing policies which Mid Sussex District Council uses to determine planning applications. The plan aims to ensure future growth and changes to the district are appropriate to local need now and in the future.
- 2.8 More generally, the Local Plan also lists policies that guide the design and principles of all development within the authority's land. Those relevant to this FRA are summarised as follows;
- DP41: Flood Risk and Drainage
 - DP42: Water Infrastructure and Water Environment

Local SFRA

- 2.9 The Mid Sussex District Council Strategic Flood Risk Assessment Level 1 (SFRA) was published in June 2015. The SFRA was produced to provide an appropriate evidence base for the Local Plan and provides a summary of flood risk across Mid Sussex District.
- 2.10 Appropriate background information has been used to inform this FRA and will be referenced accordingly.
- lancing

Local PFRA

- 2.11 The West Sussex County Council Preliminary Flood Risk Assessment (PFRA) was published in May 2011, with an addendum published in December 2017, and was prepared to assist West Sussex County Council meet its duties to manage local flood risk, and the delivery of any legal requirements placed in it as Lead Local Flood Authority (LLFA) under the Flood Risk Regulations 2009.
- 2.12 Appropriate background information has been used to inform this FRA and will be referenced accordingly.

Local Flood Risk Management Strategy

- 2.13 The West Sussex County Council Local Flood Risk Management Strategy (LFRMS) was adopted in 2013 to comply with Section 9 of the Flood and Water Management Act 2010 and aims to provide a framework for meeting its requirements to develop, maintain, apply and monitor a local strategy for flood risk management and how West Sussex County Council aims to achieve this.
- 2.14 The LFRMS provides further information regarding surface water runoff, groundwater and sewer flooding and flood risk around the County and the introduction of flood risk alleviation schemes at various scales, including SuDS.
- 2.15 An updated LFRMS 2025-2030 is currently being drafted.

Supplementary Planning Documents

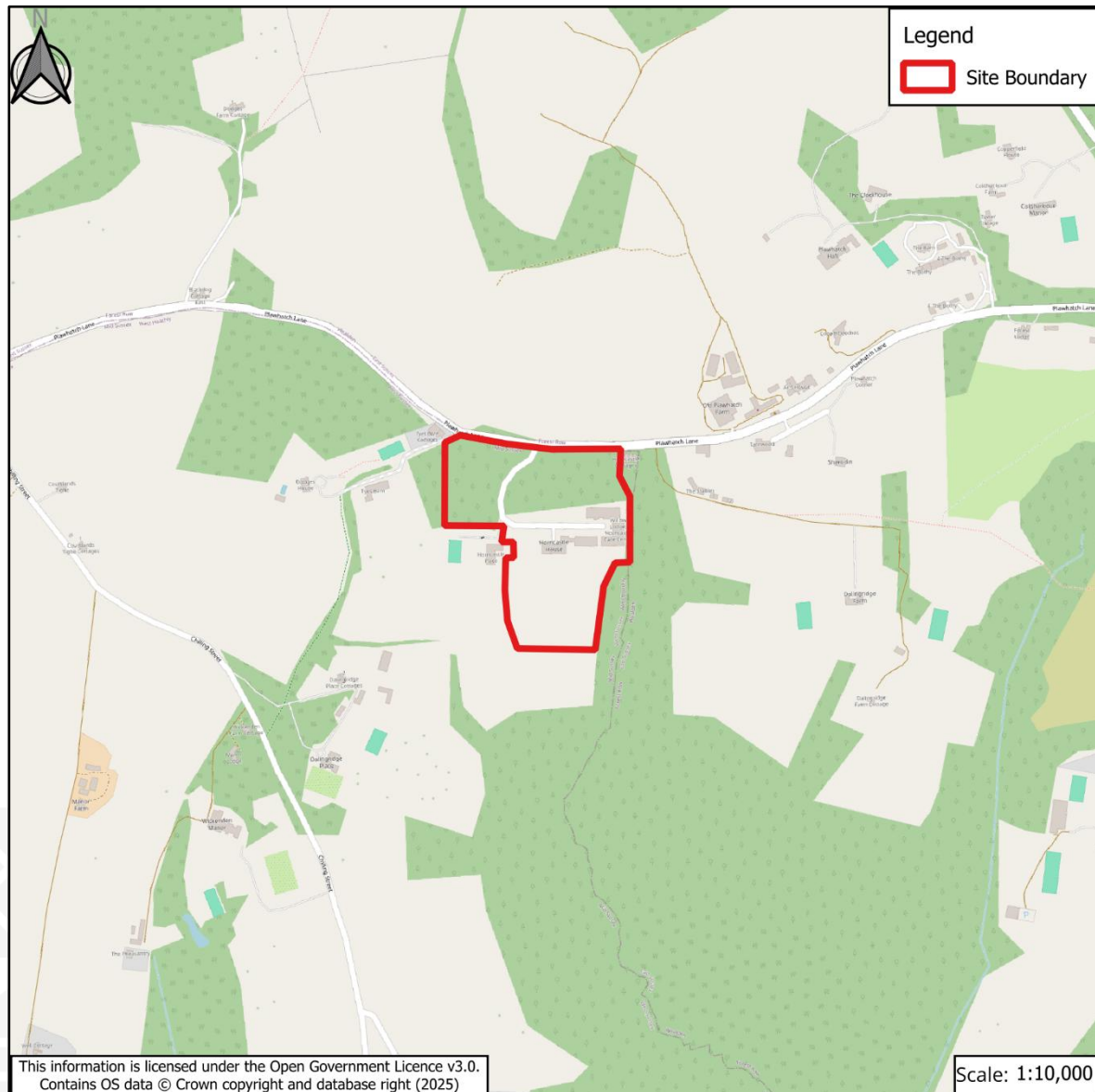
- 2.16 In September 2013, South East England Authorities provided 'Water. People. Places. A guide for master planning sustainable drainage into developments'. This Supplementary Planning Document (SPD) was published to provide guidance for the integration of SuDS into the master planning of large and small developments, and intends to provide a consistent approach to best practice design of SuDS at the master planning stage.
- 2.17 In November 2020, Mid Sussex District Council provided the Mid Sussex Design Guide SPD. This SPD was published to provide clear design principles that aim to deliver high quality new development across Mid Sussex that is inclusive and responds appropriately to its context while prioritising sustainability in the design process.

3.0 SITE LOCATION AND SITE CONTEXT

Site Location

- 3.1 The site is located at Horncastle House Nursing Home, Plawhatch Lane, Sharpthorne and comprises Horncastle House, Horncastle Care Centre, and surrounding open green space (Ordnance Survey National Grid Reference; E: 539169 , N: 132292). In total, the site covers approximately 5.61ha. A site location plan is included for reference as Figure 3.1.

Figure 3.1: Site Location Plan



- 3.2 The northern boundary is formed by Plawhatch Lane, and the eastern boundary by forested land. The southern and western boundaries are formed by agricultural land.
- 3.3 Mapping shows the site to be currently mostly undeveloped and therefore is assumed to be subject to a natural regime of runoff and infiltration where ground conditions permit.

- 3.4 However, the areas of proposed development falls within brownfield land and is therefore assumed to be subject to an engineered regime of runoff where these drainage systems allow.

Topography

- 3.5 A topographical survey, included as **Appendix C**, shows the site to fall from north to south, with elevations from 170.5m AOD to 155.1m AOD.

Geology

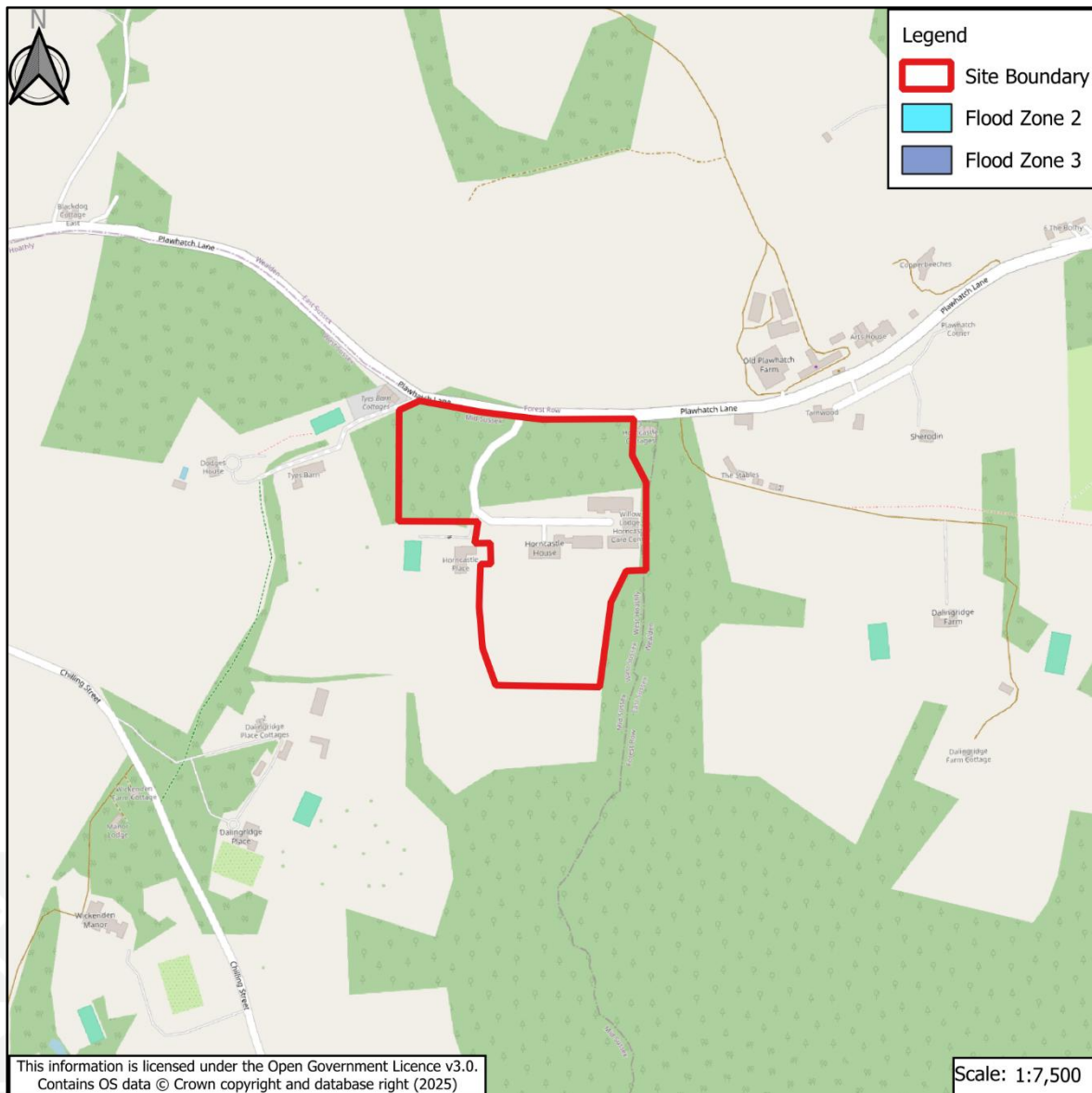
- 3.6 British Geological Survey (BGS) mapping suggests the site has no recorded superficial geology, with the site being wholly underlain by a bedrock geology comprising Ashdown Formation – sandstone and siltstone.
- 3.7 A review of boreholes TQ33SE11 and TQ33SE30, to the southwest and northeast respectively, reported superficial geology comprising areas of head and clayey deposits, with deeper strata comprising clay layers and hard sandstone. These areas of clays and hard sandstone were recorded to occur within 2m bgl.
- 3.8 This suggests a generally permeable bedrock and impermeable superficial geology.
- 3.9 Aquifer designations, by DEFRA, show the superficial drift classification to be Unproductive. This is defined as rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.
- 3.10 The bedrock is classified as Secondary A. This is defined as permeable layers capable of supporting water supplied at a local rather than strategic scale.
- 3.11 The site is not within a Source Protection Zone (SPZ).

4.0 ASSESSMENT OF FLOOD RISK

Fluvial Flood Risk

- 4.1 The Environment Agency Flood Map for Planning shows that the site is wholly in Flood Zone 1 (Low Probability), defined as land having less than a 0.1% annual probability of river or sea flooding. An extract of this mapping is included for reference in Figure 4.1.

Figure 4.1: Flood Map for Planning



- 4.2 As such, the site is at low risk from fluvial sources.

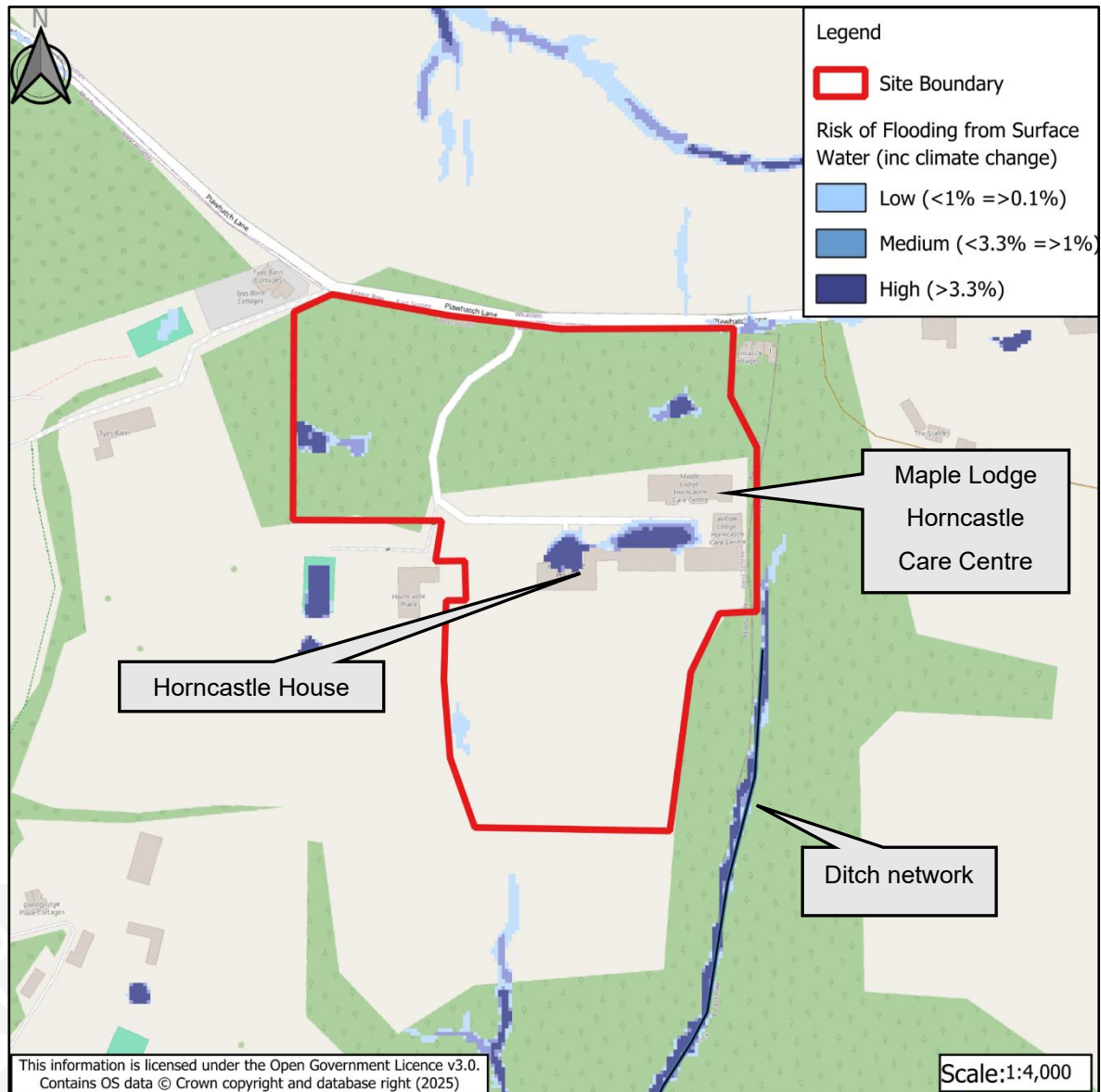
Coastal and Tidal

- 4.3 The site is far removed from the coast, and the intervening topography place the site outside of a boundary where sea level, tidal influences, and coastal flooding will impact the site.
- 4.4 Therefore, the risk of flooding from coastal or tidal related events is negligible.

Surface Water (Pluvial)

- 4.5 The risk of flooding from surface water has been mapped by the Environment Agency on a strategic scale to understand areas that may be susceptible to ponding or routing of surface water during periods of extreme rainfall. An extract of this mapping including a 2050s epoch climate change uplift is included for reference as Figure 4.2.

Figure 4.2: Risk of Flooding from Surface Water



- 4.6 The mapping shows the site to have areas of low to high risk of flooding from surface water around the northern boundary of Horncastle House, north of Maple Lodge Horncastle Care Centre, and the west of the site. These isolated areas of high risk are likely associated with topographical depressions, and the blocking of surface water flows by Horncastle House. To the east of the site is an area of higher risk, however this is associated with a ditch network which will be the outfall for the site.

- 4.7 Surface water depth mapping produced by the EA suggests that the areas identified at risk from surface water flooding have between a 0.1% and 3.3% (Low and Medium) probability of flooding occurring up to depths of 0.2m around Horncastle House, with a <0.1% of flooding up to depths of 0.3m. See Figure 4.3 for the modelled flood depths.

Figure 4.3: Surface Water Depth Mapping, 0.2m to 0.3m



- 4.8 It should be noted, the mapping used by the EA to provide the risk of flooding from surface water does not consider continual losses to the ground through infiltration or the impact of drainage features. Underlying geology suggests infiltration rates may provide a slight reduction in flows.
- 4.9 As such, the site is at low risk of flooding from surface water.

Groundwater

- 4.10 British Geological Survey (BGS) mapping suggests the site is underlain by a bedrock geology comprising Ashdown Formation – sandstone and siltstone, with no recorded superficial geology.

4.11 Boreholes TQ33SE11 and TQ33SE30, to the southwest and northeast respectively, reported superficial geology comprising areas of head and clayey deposits, with deeper strata comprising clay layers and hard sandstone. These areas of clays and hard sandstone were recorded to occur within 2m bgl. This information, combined with a review of local documentation, suggests that the risk of groundwater flooding in the area is low.

4.12 As such, the risk of groundwater flooding is low.

Sewers

4.13 Sewer asset plans from Southern Water show that there are no public sewers within the site, however are unable to rule out private sewer networks.

4.14 As such, the risk of flooding from sewers is low.

Canals

4.15 The site is far removed from any canals. Due to the distance and intervening topography, the risk of flooding from this source is negligible.

Reservoirs

4.16 The Environment Agency has produced strategic scale mapping showing the potential risk of flooding from the failure of large waterbodies and reservoirs, if the relevant impounding structure were to fail.

4.17 The mapping shows the site to be unaffected by flooding from this source.

4.18 As such, the risk of flooding from this source is considered low.

Desk-Based Information

4.19 The NPPF states that all potential sources of flood risk must be identified and appraised. Flooding can occur from a variety of sources individually, or in combination and can result from both natural and artificial processes.

4.20 Table 4.1 provides a desk-based overview of the level of flood risk from all sources

Table 4.1: Desk-Based Assessment of Flood Risk

Source	Risk		
	High	Medium	Low
Fluvial			X
Coastal and Tidal			X
Surface Water			X
Groundwater			X
Sewer			X
Canal			X
Reservoirs and Waterbodies			X

5.0 FLOOD RISK MITIGATION

Vulnerability Classification of Proposed Development

- 5.1 The National Planning Practice Guidance: Flood Zone and Flood Risk Tables provide information on the vulnerability classification of various developments. The proposed developments fall within the 'more vulnerable' classification. A comparison of the 'more vulnerable' use within the development proposals in Flood Zone 1 suggests development proposals are acceptable and in accordance with the NPPF, as shown in Table 5.1.

Table 5.1: Flood Risk Vulnerability and Flood Zone 'Compatibility' from Flood Risk and Coastal Change – Planning Practice Guidance.

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

Key: ✓ Development is appropriate ✗ Development should not be permitted

Mitigation

- 5.2 It is vital that the correct mitigation is put in place to minimise flood risk to the development. In accordance with the NPPF, this includes preventing harm from occurring to the users of the site, ensuring the development itself and the wider area is protected.

Fluvial Flood Risk Mitigation

- 5.3 All types of development are considered acceptable uses within Flood Zone 1 (Low Probability) in line with the Sequential Test guidance included within the NPPF and PPG. All proposed development has been situated in areas of Flood Zone 1.

Surface Water Flood Risk Mitigation

- 5.4 The EA Risk of Flooding from Surface Water mapping indicates the site is generally at low risk from surface water flooding up to 0.3m depth.
- 5.5 As the site has a 'more vulnerable' classification, it is recommended that flood resilience construction measures are put in place to further protect the properties, with finished floor levels being set no lower than 300mm above existing ground level in line with best practice.

- 5.6 Areas of high risk, such as those around Horncastle House, are likely to be resolved through initial groundworks.
- 5.7 Overall, the site is at low risk of flooding from surface water, with resilience secured through appropriate consideration of external levels.

Other Sources of Mitigation

- 5.8 As the site has been conducted to be at a low risk of flooding from all other sources, no formal mitigation measures are required to address the low and residual risk posed from these sources.

Sequential Arrangement

- 5.9 The site is mapped to be wholly in Flood Zone 1, with all types of development being considered acceptable uses within Flood Zone 1 (Low Probability) in line with the Sequential Test guidance included within the NPPF and PPG.
- 5.10 All built development is to be situated wholly within Flood Zone 1, and the site has been conducted to be at low risk from other sources and therefore passes the requirements of the Sequential Test.
- 5.11 The risk of surface water flooding is likely to be resolved as part of the initial groundworks, with surface water from the site being attenuated within the site, reducing risk to the wider area.

6.0 CONCLUSIONS

- 6.1 MEC Consulting Group Ltd, has been commissioned by Splendid Projects Limited to undertake a Flood Risk Assessment for a proposed care home at Horncastle House Nursing Home, Plawhatch Lane, Sharpthorne.
- 6.2 The Flood Risk Assessment has been written in support of a planning application for the site and is considered 'more vulnerable' due to its proposed land use, and is considered a suitable development within Flood Zone 1.
- 6.3 To summarise the findings of the FRA;
- The site is wholly within Flood Zone 1 (Low Probability).
 - The site is at low risk from surface water flooding, with small, isolated areas of high risk likely associated with topographical depressions and existing buildings blocking surface water flow routes.
 - Areas of higher risk of surface water flooding are likely to be resolved through initial ground works.
 - Local documentation and borehole records suggest the risk of flooding from groundwater is low.
 - The site is considered at low risk from sewers.
 - The site is far removed from any canals.
 - Mapping provided by the EA suggests the site is far removed from the extents of flooding if the impounding structures of reservoirs or large water bodies were to fail.
 - As residential dwellings are considered 'more vulnerable' it is recommended that flood resilience measures are put in place to further protect the properties, with finished floor levels being no lower than 300mm above existing ground level in line with best practice.
 - In accordance with Chapter 14 Paragraph 176 of the NPPF, the development is not required to undertake a sequential or exception test due to all built developments occurring in Flood Zone 1.
- 6.4 In accordance with the requirements of the NPPF, this FRA has demonstrated that the development could proceed without being subject to significant flood risk and has complied within relevant national and local policies.
- 6.5 Furthermore, the proposed residential development is unlikely to increase flood risk to third parties, however, would provide an additional community and amenity benefit for the area.



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APPENDICES



APPENDIX A



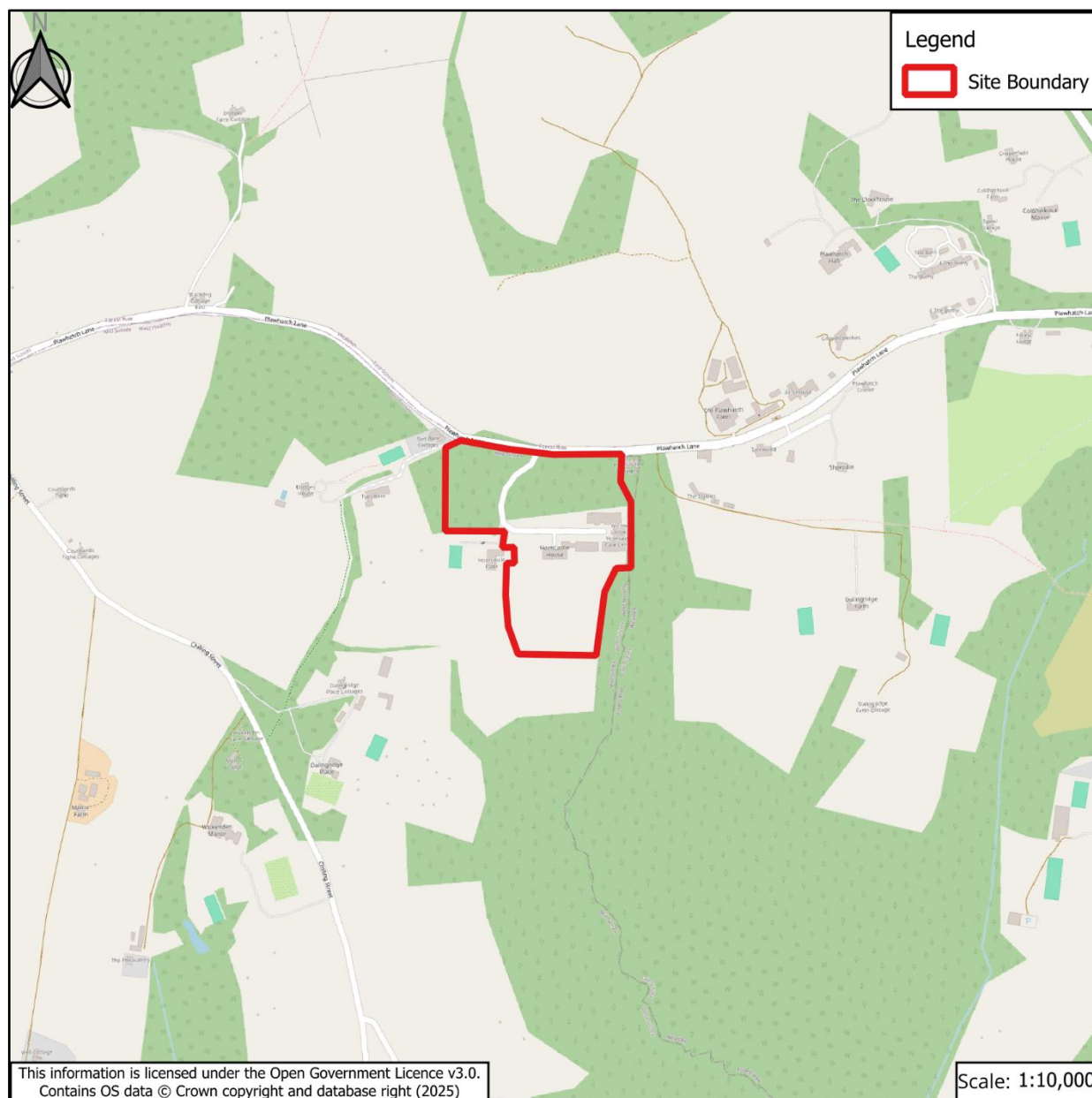
SITE LOCATION PLAN

Project: Horncastle House Nursing Home, Plawhatch Lane, Sharpthorne

File Ref: 29528

O.S. Grid Ref: (E: 539169, N: 132292)

Postcode: RH19 4JH



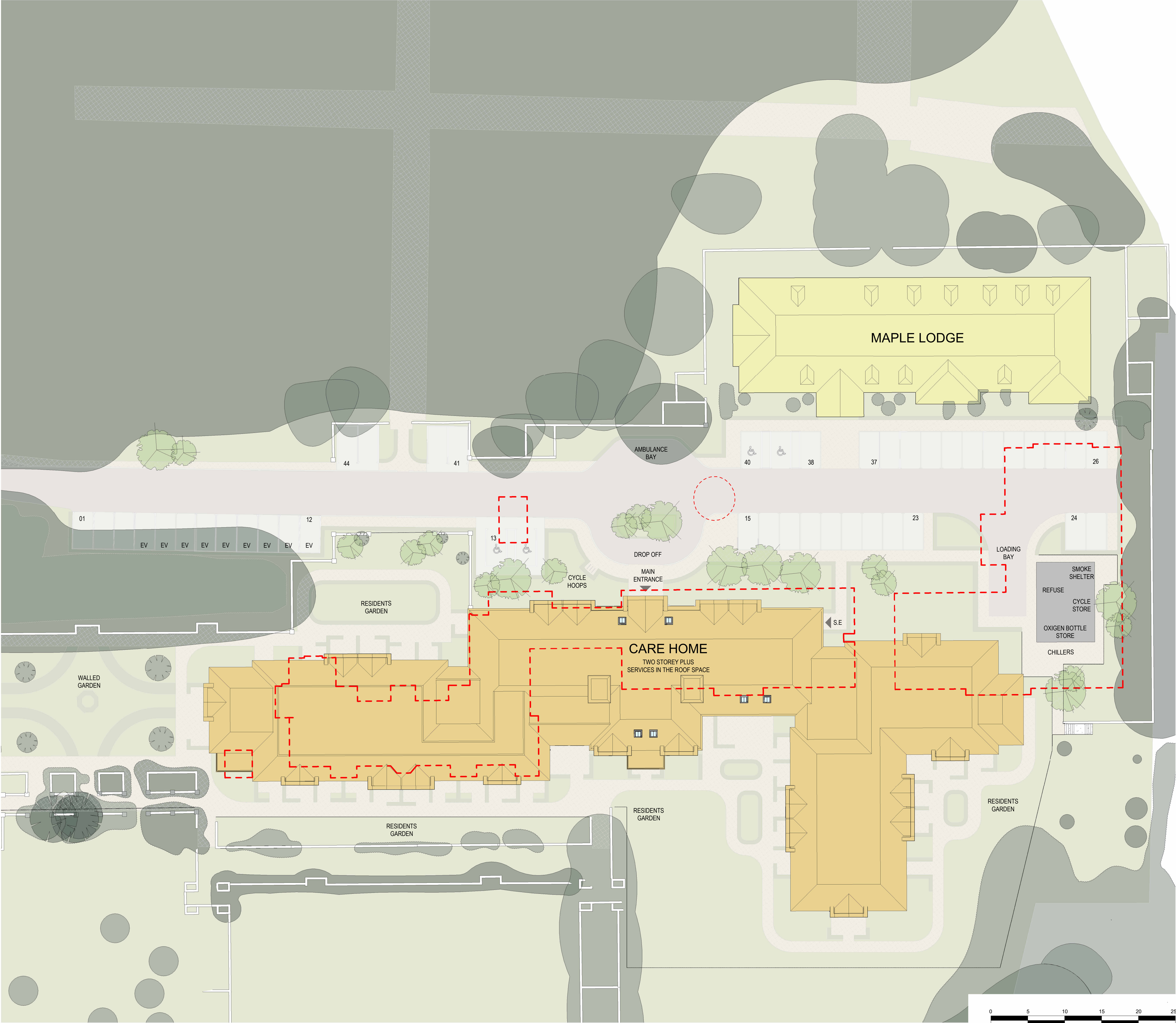


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APPENDICES



APPENDIX B

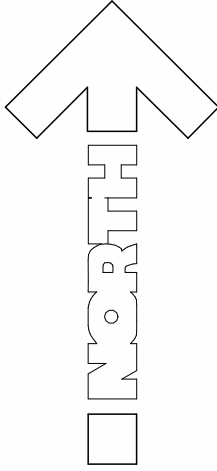


SCHEDULE OF ACCOMMODATION	
SITE AREA BOUNDARY	5.61 Ha / 13.86 acres
CARE HOME	
GROUND FLOOR	40 BEDROOMS
FIRST FLOOR	40 BEDROOMS
TOTAL	80
GROSS INTERNAL FLOOR AREA	
GROUND	2,050 m ²
FIRST	2,035 m ²
SECOND	405 m ²
TOTAL	4,495 m ²
SPACE PER RESIDENT	56.2 m ²
PARKING (INCL. 4 DISABLED BAYS)	44

--- OUTLINE OF EXISTING BUILDINGS TO BE DEMOLISHED

KEY:

- PROPOSED TREES
- EXISTING TREES
- REMOVED TREES



P8	ISSUED FOR COORDINATION	MD	PK	20/02/2025
P7	DESIGN REVIEW PANEL	MD	PK	12/12/2024
P6	ISSUED FOR COMMENTS	MD	PK	28/06/2024
P5	ISSUED FOR COMMENTS	MD	PK	30/05/2024
P4	ISSUED FOR COMMENTS	SR	MD	21/02/2024

Rev.	Description	Author	Checked	Date
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Design the best,
to live the best

Client	SPLENDID HEALTHCARE
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Project	HORNCastle EAST GRINSTEAD
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Title	SITE LAYOUT	CAP no.	A
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For construction purposes dimensions shall not be scaled & figured dimensions must be verified on site before work commences.
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APPENDICES



APPENDIX C



CIVIL ENGINEERING



TRANSPORT



FLOOD RISK & DRAINAGE



STRUCTURES



GEO-ENVIRONMENTAL



ACOUSTIC AIR



UTILITIES



GEOMATICS



LIGHTING



EXPERT WITNESS



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