

FLOOD RISK ASSESSMENT

Proposed Agricultural Machinery Assembly Facility
Research and Training Facility,
Ground Mounted Solar Array and Associated Infrastructure,
Land off Holbeach Drove Gate,
Holbeach Drove,
Spalding.



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FLOOD RISK ASSESSMENT FOR PROPOSED AGRICULTURAL MACHINERY ASSEMBLY FACILITY, RESEARCH AND TRAINING FACILITY, GROUND MOUNTED SOLAR ARRAY AND ASSOCIATED INFRASTRUCTURE, LAND OFF HOLBEACH DROVE GATE, HOLBEACH DROVE, SPALDING.

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 on land off Holbeach Drove Gate, Holbeach Drove, Spalding, within the South Holland District Council's administrative area. The National Grid Reference is TF 33382 13646. The site area is 4.97 Hectares or thereabouts. **Plan 1**

The flood risk assessment has been prepared to accompany a full planning application, for an Agricultural Machinery Assembly Facility, Research and Training Facility, Ground Mounted Solar Array and associated Infrastructure. **Plan 2**

The Site would be classed as Major Development applying the National Planning Policy Guidance (NPPG) as the site is to be developed for more than 1 Hectare.

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 NPP

Table 1: Flood Zones Definition (Ignoring the presence of defences)

Flood Zone 3- High Probability
<p>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.</p> <p>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.</p> <p>Flood Risk Assessments requirements All proposals in this zone should be accompanied by a Flood Risk Assessment.</p> <p>Policy aims. Developers and local authorities should seek opportunities to:</p> <ul style="list-style-type: none"> • 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 proposed agricultural development is classified as “Less Vulnerable”, with Table 1 of NPPG stating that such uses are appropriate in this zone.

Table 2: Flood Risk Vulnerability Classification

Less Vulnerable
<ul style="list-style-type: none"> • Police ambulance and fire stations that are not required to be operational during flooding • Buildings used for shops, financial, professional, and other services, restaurants and cafes, hot food takeaways, offices, general industry, storage and distribution, non-residential institutions not included in “more vulnerable” and assembly and leisure. • Land and buildings used for agricultural and forestry. • Waste treatment (except land fill and hazardous waste facilities). • Minerals working and processing (except for sand and gravel working). • Water treatment works that do not need to remain operational during times of flood. • Sewage treatment works (if adequate measures to control pollution and manage sewage during flood events are in place).

Site Levels

From the topographical survey to OS datum, the site is reasonably level, the levels vary from 0.80mODN adjacent on the eastern boundary to 1.50mODN on the western boundary the site averaging 1.40m ODN. The ground level for the manufacturing building is circa 1.40mODN and the ground level for the Research Building is circa 1.20mODN. The Holbeach Drove Gate road level at the site entrance, is 2.03mODN and the average ground level for the area of the solar panel array area is circa 1.0mODN.

DRAINAGE AUTHORITIES

Environment Agency

The Environment Agency is responsible for reducing the risk of flooding from designated main rivers and from the sea.

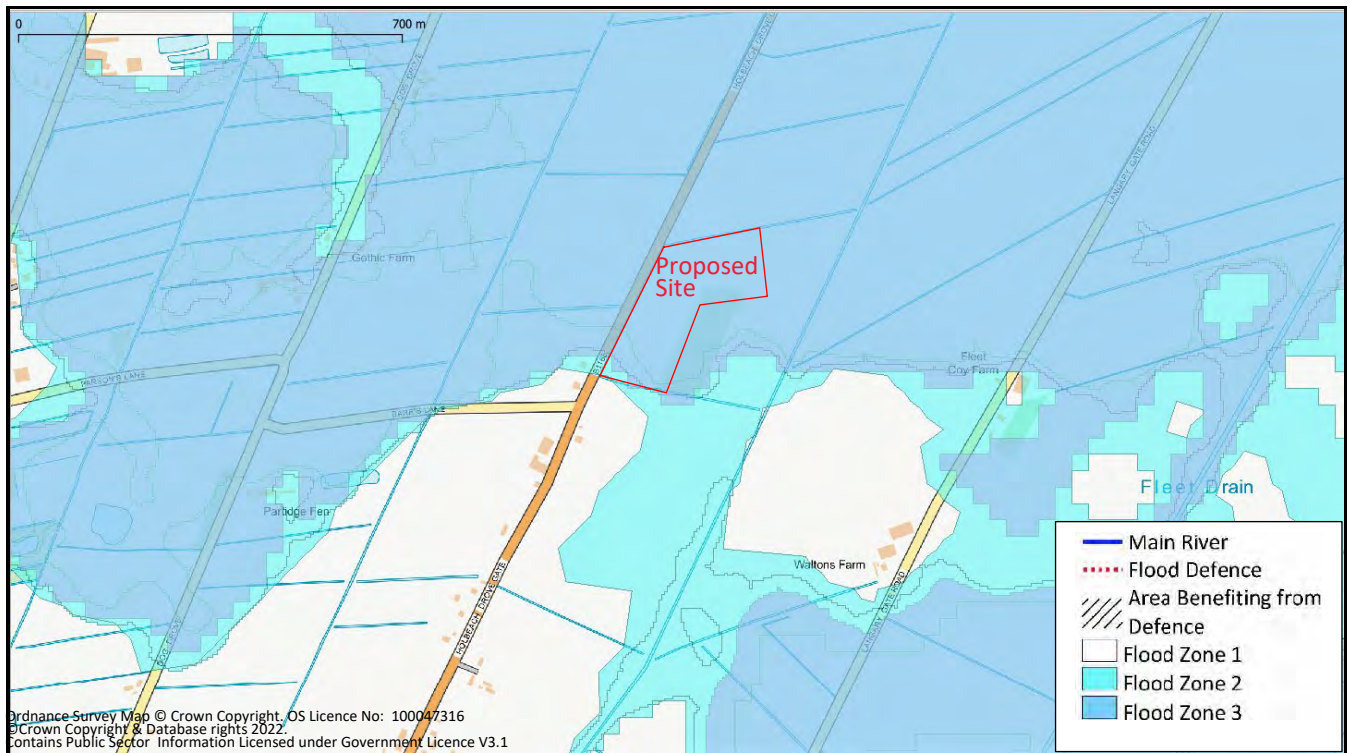
The following potential sources of flooding affecting the development site have been identified as:

- From the River Nene
- The River Welland
- The Wash
- South Holland Internal Drainage Board system

The Flood Zone Maps identify river catchments over 3 sq. km. These maps are a theoretical estimate of areas that could be inundated should no defence exist. In practice, current standards of protection would result in flood envelopes substantially less than shown by these maps. The maps make no allowance for local, site-specific features.

Flood Zones

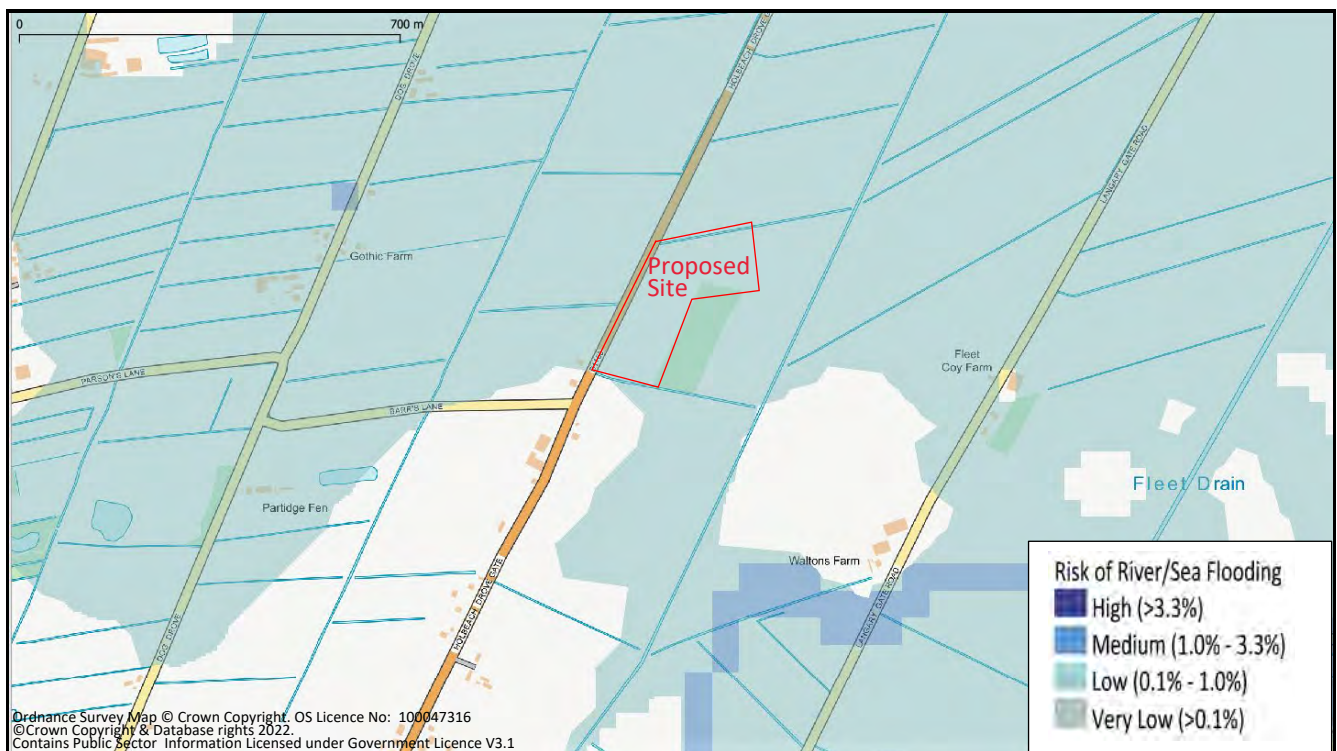
These maps show that the site is considered at no risk from tidal/fluvial flooding as it is all located within an area zoned as Flood Zone 3. The maps indicate that the area would be flooded without flood defences, which are in place, (with an annual probability of more than 0.5% i.e., return frequency 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 fluvial flooding).



Flood Map for Planning Map (Source EA)

Risk of Flooding from Rivers & Sea

The Risk of flooding from Rivers and Sea shows that the site is at very low risk of flooding. Very Low means that each year, this area has a chance of flooding of less 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)

River Nene, The Wash & River Welland.

With the River Nene lying some 12.6Km to the south-east of the site, the Wash being some 20Km to the north-east and the River Welland some 8.0Km to the west, these flooding sources have been discounted as they are too distant to affect the site.

In locations such as this, within the fens and the large coastal floodplains, showing the area at risk of flooding assuming no defences may give a slightly misleading picture in that if there were no flood defences, water would spread out across these large floodplains. This flooding could cover large areas of land but to relatively shallow depths and could leave pockets of locally slightly higher land as isolated dry islands. However, the site is protected by defences to the three major sources of flooding and the site would only be affected by these defences failing.

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.

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

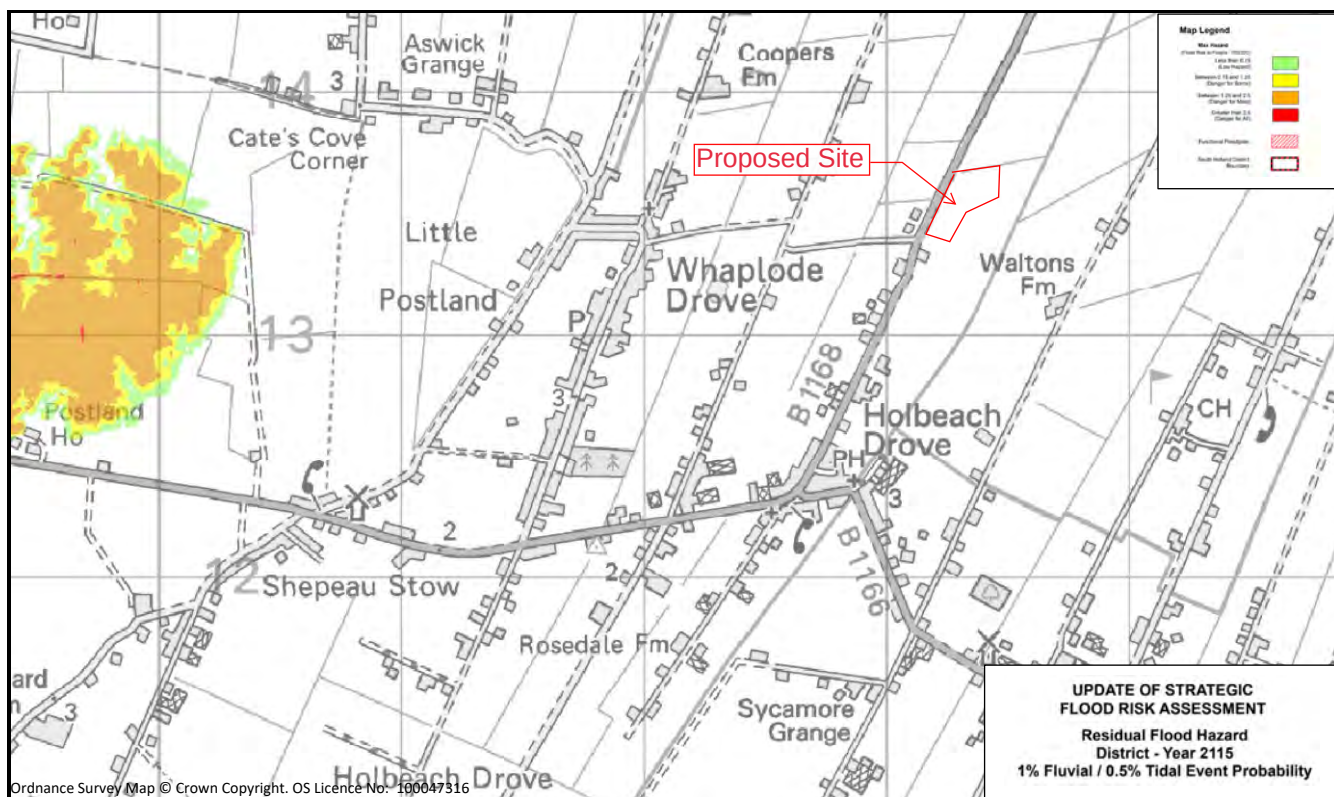
Where V = Flood flow velocity (m/sec) D = Flood depth (m)

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

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.

The 2017 Update to SHDC, SFRA provided Tidal & Fluvial Hazard Mapping, for the district, following a breach to the defences. The present-day and the climate change maps for the Residual Flood Hazard, Depth and Velocity District –1% fluvial and 0.5% Tidal Event Probability show that the site where the proposed development is to be located is within an area of no hazard.



SHDC Residual Flood Hazard District 2115 Map

Finished Floor Levels

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

With the site being within Flood Zone 3 with no defences but within a no hazard zone following a breach to the defences, the site can be considered to be in cell G4.

The Environment Agency advice shown for cell G4 is as follows:

“Single storey buildings should be built with FFL’s above the predicted flood depth (refer to the relevant 2115 1% fluvial or 0.5% tidal Max Depth Map). If this is not practicable an area of safe refuge will need to be provided or an appropriate flood warning and evacuation plan will need to demonstrate how this risk will be managed. It is the responsibility of the Local Planning authority to determine the adequacy of the plan.”

It is proposed that the minimum ground floor level for the proposed two-storey buildings be raised 300mm above the surrounding ground level. A safe refuge is provided at first floor level.

South Holland District Council

In order to inform the process of risk assessment and site selection the District Council commissioned Haskoning UK Ltd Consultants to prepare a Strategic Flood Risk Assessment in December 2002. They have carried out an

update of this report and this report was published in January 2010 and this was further updated in February 2017.

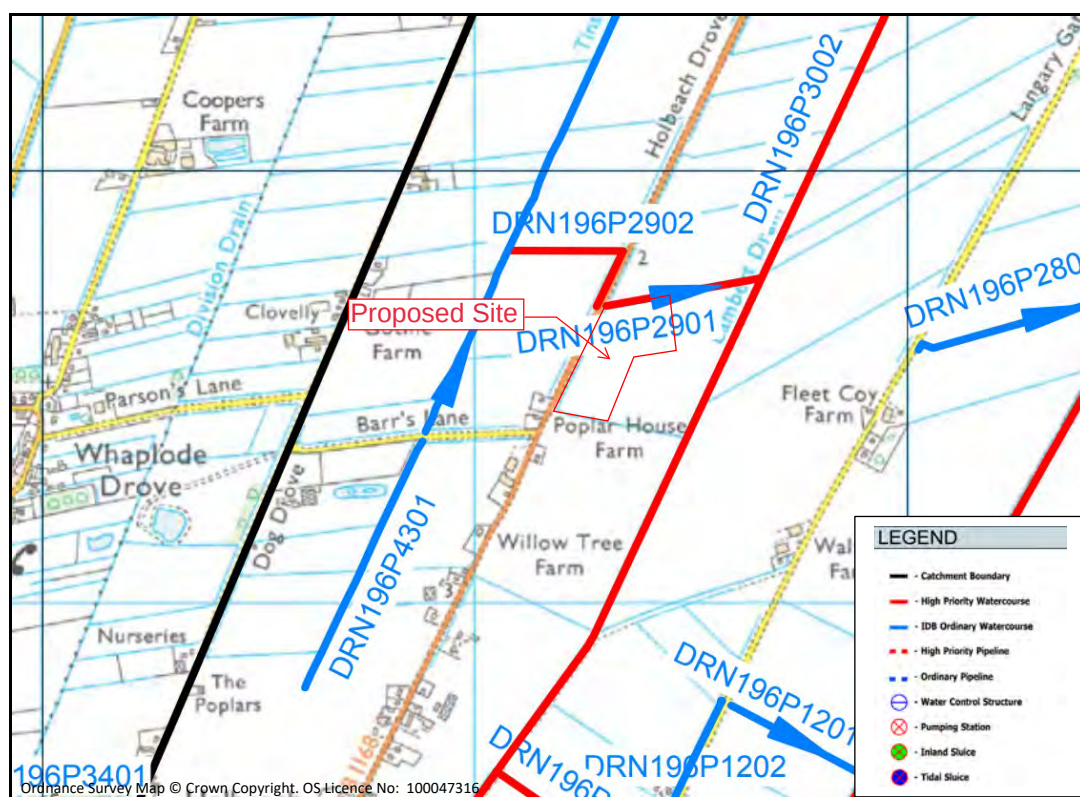
This Flood Risk Assessment has taken the results of the (2017) updated South Holland Strategic Flood Risk Assessment (SHSFRA) into account in its findings.

The whole of the tidal flooding information has been replaced by the mapping from the latest Environment Agency Tidal Hazard mapping. Where the mapping for an area contains both fluvial and tidal components, the more severe of the two has been presented.

South Holland Internal Drainage Board

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

The site is within Board's catchment Fleet Fen (N) and the nearest watercourse to the site is Drain No DRN196P2901 located on the northern boundary of the site of the site.



South Holland IDB 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.
- When planning approval has been obtained an application to discharge, the attenuated surface water and the treated foul effluent into drain Ref DRN196P2901, will be submitted to the Board for consent.

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 ground floor level for the development is to be raised 300mm above the existing 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. There are no public sewers in the vicinity of the site.
- 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.

When planning approval has been obtained an application to discharge, the attenuated surface water and the treated foul effluent into the riparian drain will be submitted to the Board for consent.

RESIDUAL RISKS

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

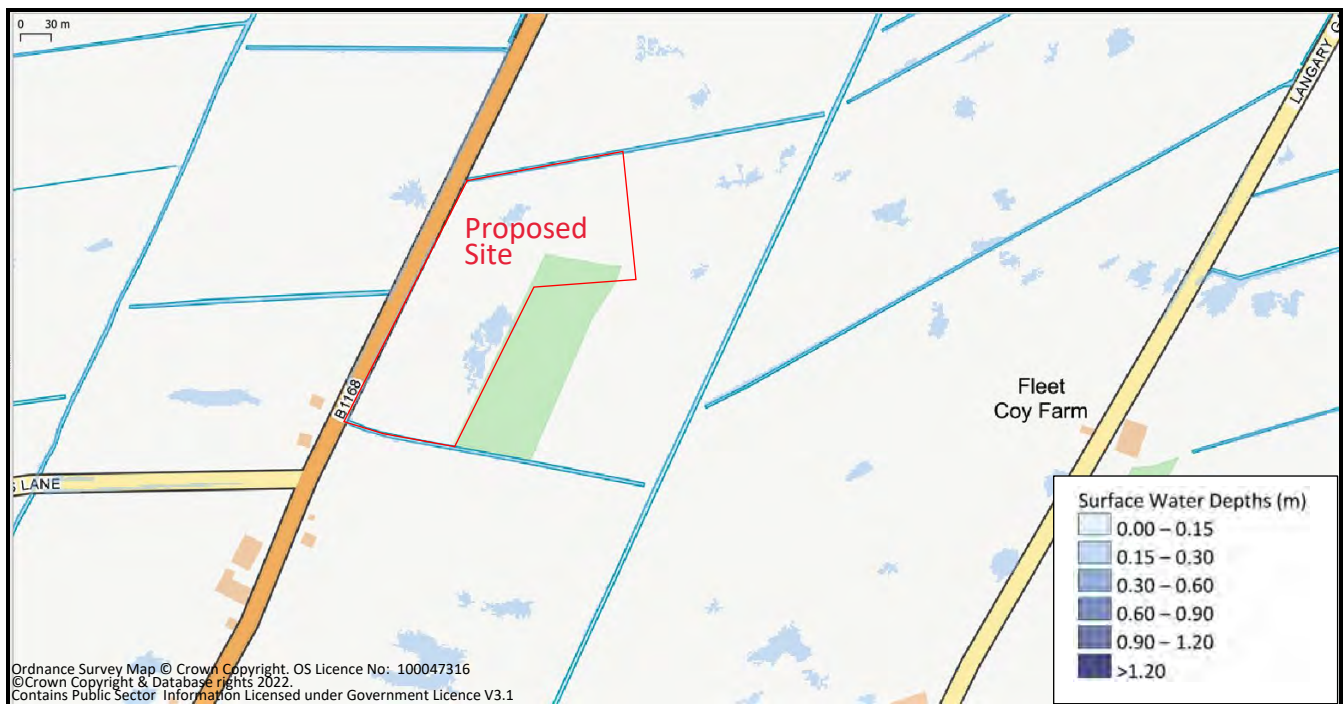
The majority of proposed development site is shown on the Low-Risk scenario Surface Water flood maps, for the 1 in 1000-year event, not to be affected from surface water flooding. A small area is shown to be affected with a depth up to 150mm deep. This small depression be removed by the redevelopment of the site.

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 with low depressions shown to be affected.

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.



Risk of Flooding from Surface Water Map (Source EA)

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 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)
- 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)
- 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).

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 and Exceptions Test

NPPF Guidance Paragraphs 155 - 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.

With the development being constructed within the area shown on the Environment Agency Flood Map (without defences) to be in Flood Zone 3, the site is however, protected by flood defences maintained by the Environment Agency. It is shown on the SHDC Residual Flood Hazard, Depth and Velocity District –1% fluvial and 0.5% Tidal Event Probability not to be within a hazard area following a breach to the defences.

The proposal needs a dedicated base and cannot operate on a disaggregated basis, which would result in multiple trips across the district to access various elements of the project. There will be positive economic impacts for the area by creation and retention of jobs. The proposal requires a rural location and one where there is ready access to dedicated areas for agricultural field trials.

The solar panels will generate electricity to power the proposed development and any surplus will be imported into the national grid. Renewable energy technologies contribute to the Government's target for reducing greenhouse gas emissions. This will also reduce the company's carbon footprint.

It is therefore considered that the Sequential Test has been satisfied. With the application being for a Less Vulnerable use, the Exception Test is not required.

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 "Less 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%	17%	36%
	Higher Central	4%	0%	13%
	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

From The British Geology Survey Maps show that the Superficial deposits for the site consist of Tidal Flats – Clay & Silt and the Bedrock to be Oxford Clay Formation.

Surface Water Drainage

The Development Site

This drainage statement, for the site, proposes to utilise infiltration techniques to reduce the storm water discharge from the proposed development and to minimise the impact of the development on the surrounding area and to comply with guidelines, which require at least one workable solution for managing surface water.

In accordance with recognised guidance, National Planning Policy Framework 2012, 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

The principles of design, which are considered to be suitable for this remote location, will be as follows.

Due to the BGS maps showing that the site lies over clay for both the superficial deposits and the bedrock formation. It is considered that this media will not be suitable for infiltration methods to be utilised for the disposal

of large quantities of surface water. Therefore, it will be proposed that attenuation methods will be utilised consisting of a wet pond and the attenuated flows discharged to the IDB drain on the northern and eastern boundary, at greenfield rate of run-off.

Solar Photovoltaic Panels Site

The existing site is not currently served with any surface water drainage system therefore it is very likely that rainfall will infiltrate into the ground, even with the low permeability of geological conditions, and if very heavy prolonged rainfall will exceed the infiltration rate it is likely to pond and then run off to the surrounding ditches.

It is accepted that surface water volumes from solar photovoltaic panel arrays are unlikely to be exacerbated by the development since the overall impermeable area will not be significantly altered and the topography of the site is flat..

A study on the hydraulic implications of solar farms (L.M. Cook,, and R.H. McCuen. (2013) concluded that solar photovoltaic panels themselves do not have a significant effect on the surface water run-off rate, volume or time to peak from a site.

It is proposed that the area of the solar panels will be put down to grass which will be well maintained by either mechanically means or by a grazing regime as suggested by the report.

The run-off from the panels will discharge on to the ground beneath the panels and infiltrate into the ground mimicking the existing predevelopment scenario.

Foul Drainage

There are no public foul sewers close to the development site (as confirmed by Anglian water records) therefore foul drainage from the building will be collected in underground pipes and to discharge to a package treatment unit.

A detailed foul water and surface water design will be prepared by others once planning approval has been granted.

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 The ground floor for the proposed buildings are to be set 300mm above the existing ground level.
- o Water, electricity, and gas meters: should be located above the predicted flood level. 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 Electric ring mains should be installed at high level with drops to ground floor sockets and switches.
- o The ground floor to be constructed with a solid concrete floor with no voids beneath and no low-level wall vents.
- o Avoid the use of mineral fibre insulation to the ground floor level (walls & floor) and use a rigid closed cell material as these retain integrity and have low moisture take-up.
- o 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 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 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

- o The site does have the protection of tidal flood defences which are well maintained by the Environment Agency.
- o The Flood Risk Vulnerability Classification in Table 2 of NPPG the proposed industrial development is classified as “Less Vulnerable”, with Table 1 of NPPG stating that such uses are appropriate in this zone.
- 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. However, the site is protected by adequate flood defences which are maintained by the Environment Agency and the site is shown on the SHDC Residual Flood Hazard, Depth and Velocity District –1% fluvial and 0.5% Tidal Event Probability not to be within a hazard area following a breach to the defences.
- o The ground floor for the buildings are to be raised 300mm above the existing ground level..

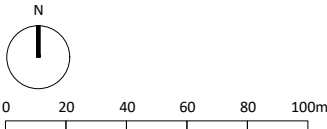
- o Any impact of damage to the property can be foreseen and mitigated against by relatively simple design and construction techniques. They will be constructed using materials which are flood resilient construction as outlined in the report.
- o Flooding from other sources is unlikely to affect the 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. Following the guidelines contained within the NPPF, the proposed development is considered to be suitable assuming appropriate mitigation is maintained for the lifetime of the development.
- 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.



Notes

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Rev	Description	Date
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Client
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Project
Land east of Holbeach Drove Gate
Holbeach Drove, Holbeach

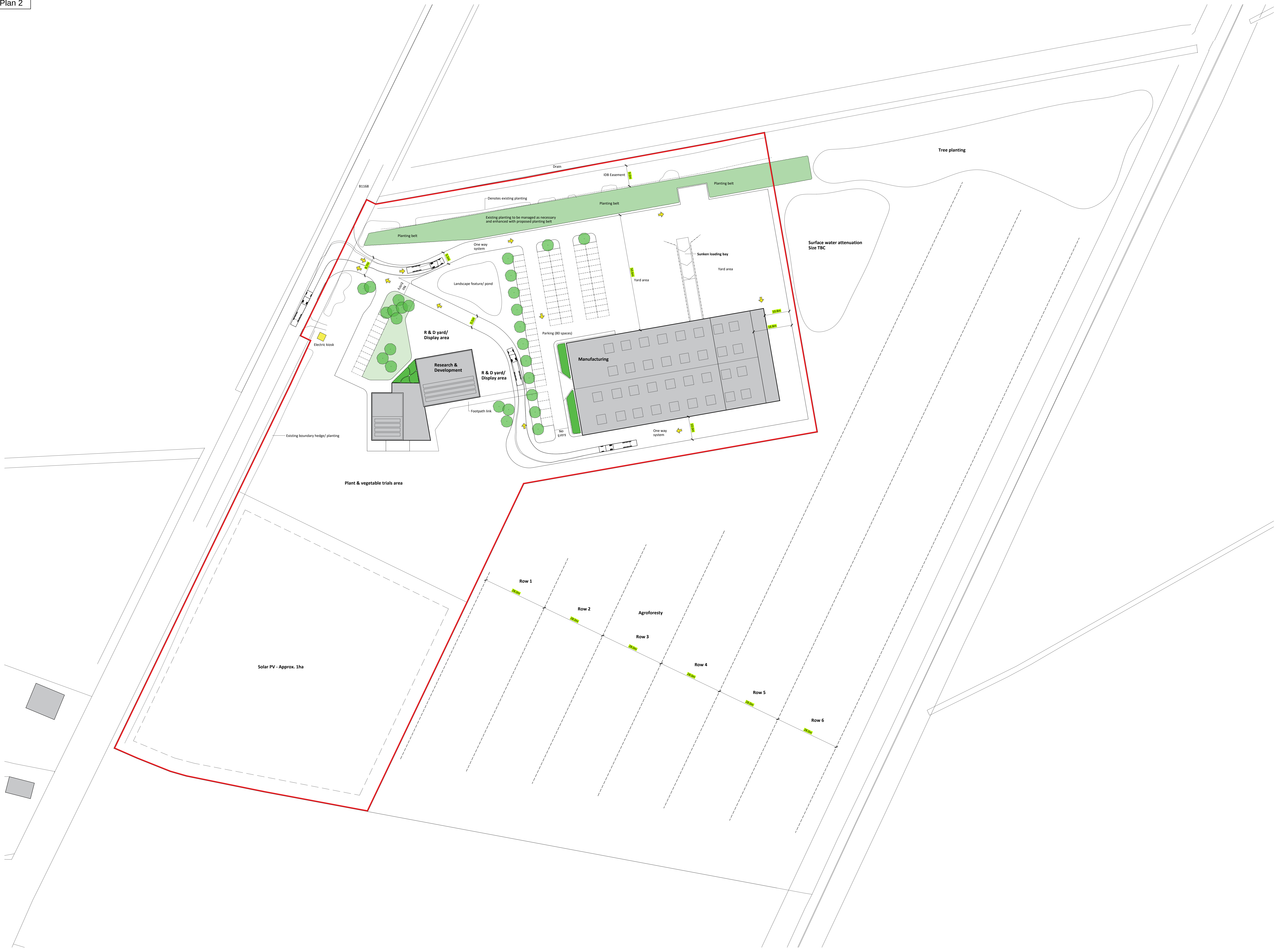
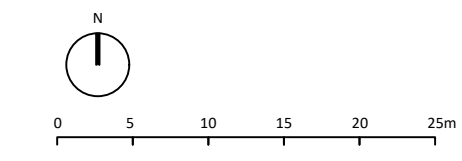
Drawing
Location Plan

Scale @ A3 1: 2500	Date 25/05/23
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Drawn By WW	Checked By LMS
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Job Number 1411-3	Status PL	Purpose of Issue Planning
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Drawing No. 1411-3_PL_LP01	Rev -
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Rev	Description	Date
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rdc
Robert Doughty
Consultancy
32 High Street, Helpingsham
Sleaford, Lincolnshire, NG34 0RA
Tel: 01529 422640
Email: admin@rdc-landon.co.uk
Web: www.rdc-landon.co.uk

Client
G. Sly Holdings Ltd

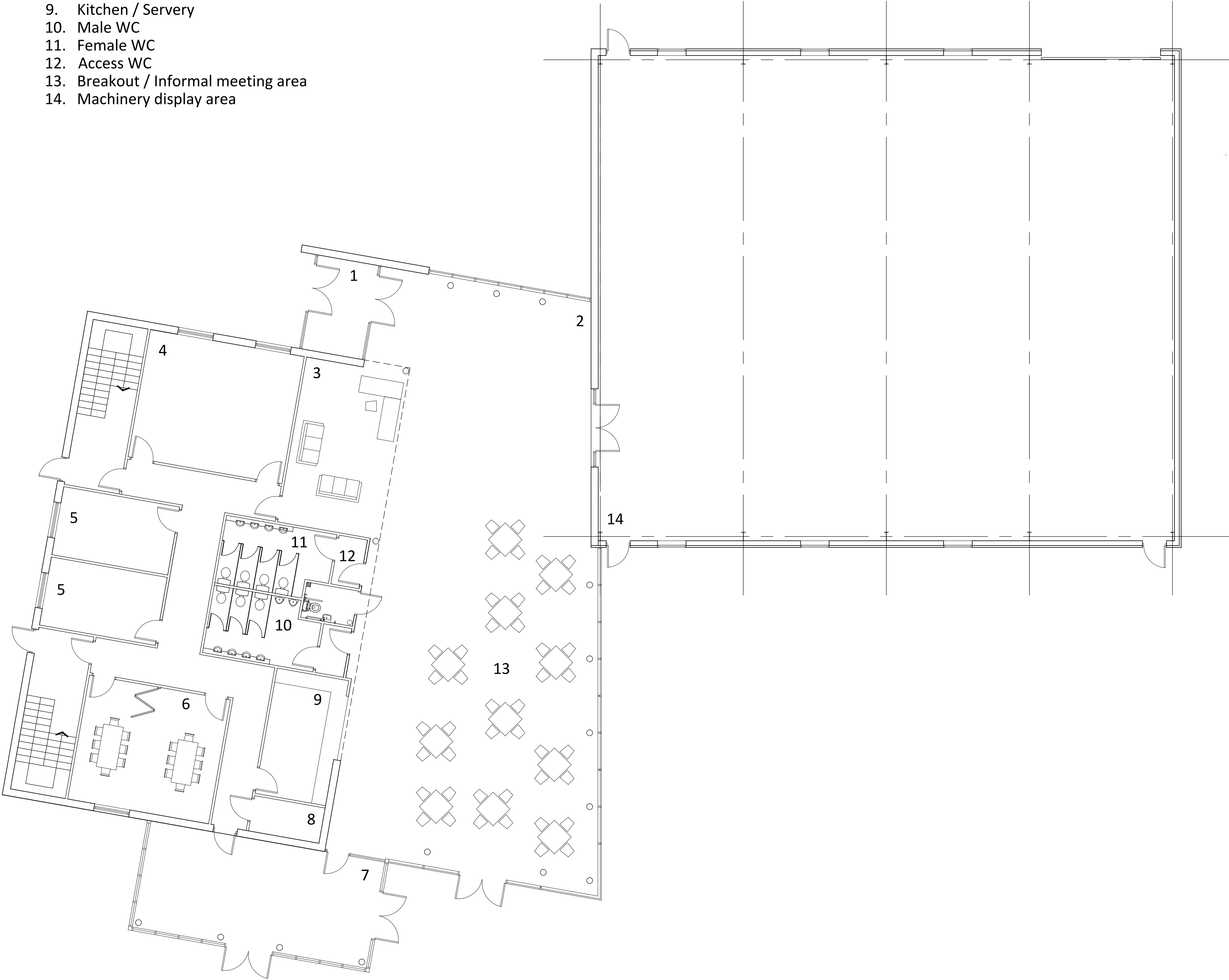
Project
Land east of Holbeach Drove Gate
Holbeach Drove, Holbeach

Drawing
Proposed Site Plan

Scale @ A0 1: 500	Date 25/05/23	
Drawn By LWS	Checked By LWS	
Job Number 1411-3	Status PL	Purpose of Issue Planning
Drawing No. 1411-3_PL_SP02	Rev -	

Key

- 1. Entrance Lobby
- 2. Foyer / Display
- 3. Visitor waiting area
- 4. Multi-purpose office
- 5. Office
- 6. Meeting room with flexible partition
- 7. Crop R&D/ Viewing area
- 8. Store
- 9. Kitchen / Servery
- 10. Male WC
- 11. Female WC
- 12. Access WC
- 13. Breakout / Informal meeting area
- 14. Machinery display area



Proposed Ground Floor Plan

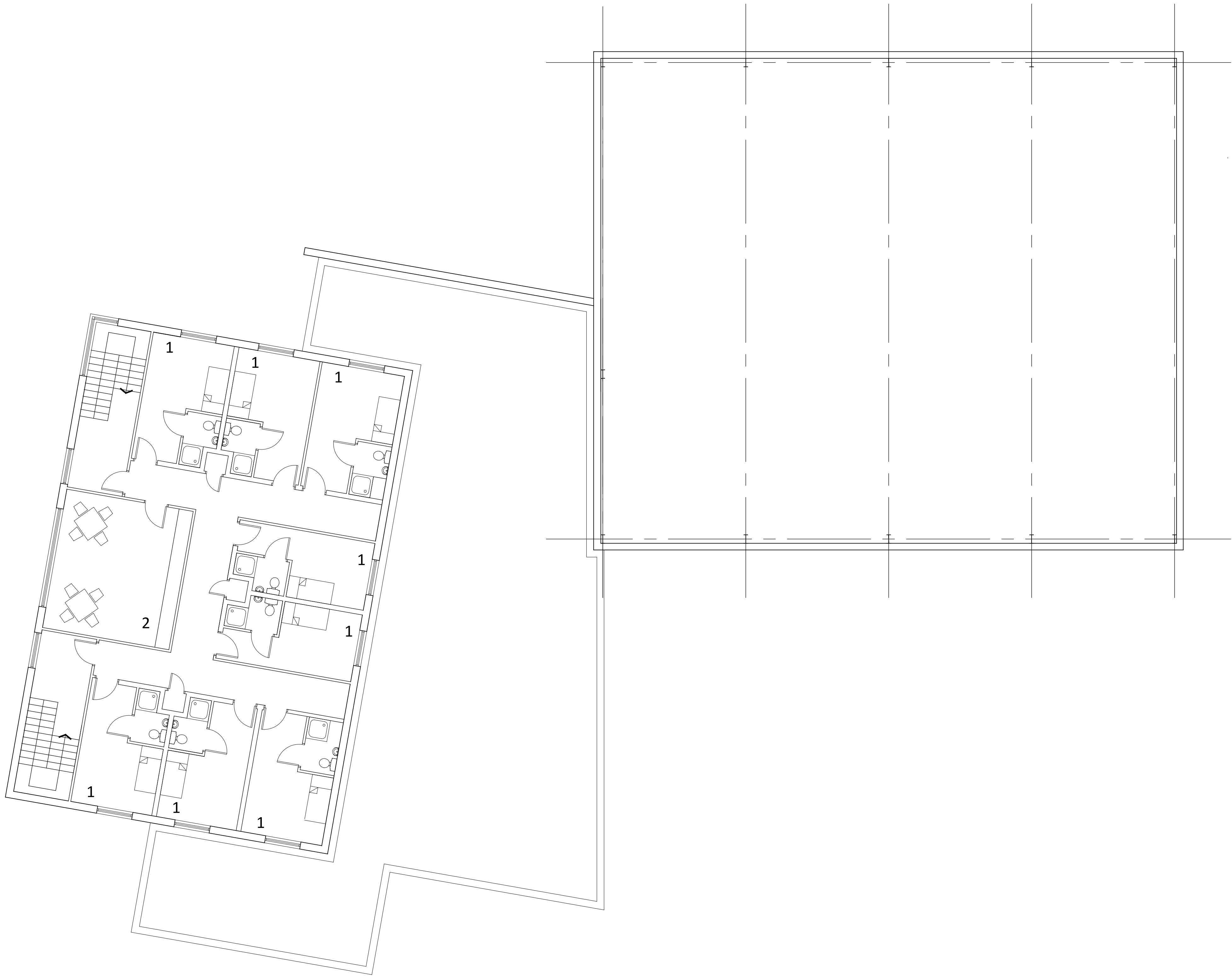


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Rev	Description	Date
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Key

- 1. Visitor accommodation
- 2. Communal kitchen area



Proposed First Floor Plan

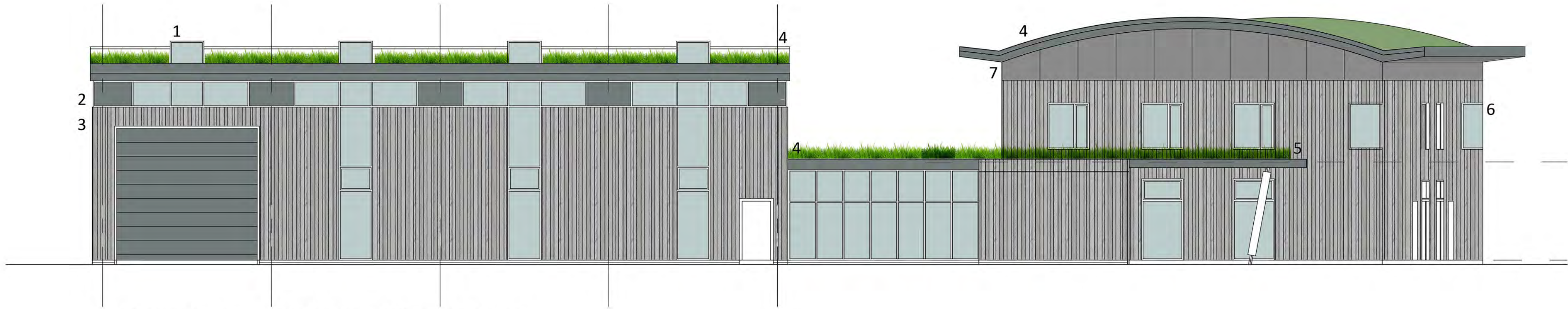
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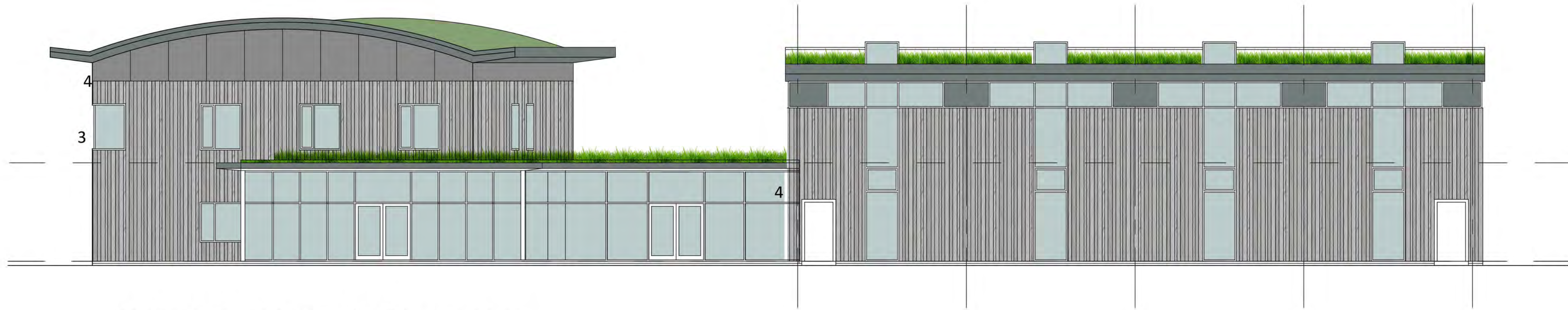
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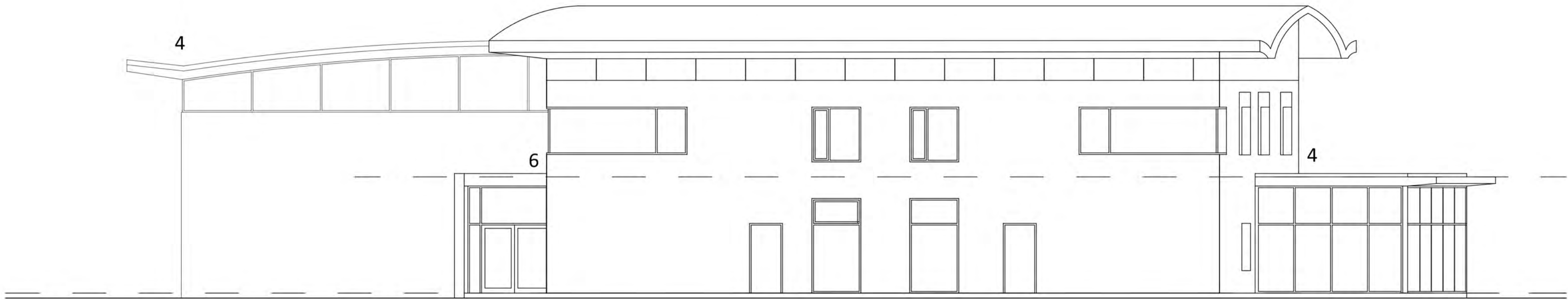
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Client G. Sly Holdings Ltd		
Project Land east of Holbeach Drove Gate Holbeach Drove, Holbeach		
Drawing Research & Development Building Proposed First Floor Plan		
Scale @ A1 1: 100		Date 25/05/23
Drawn By PSS		Checked By LMS
Job Number 1411-3	Status PL	Purpose of Issue Planning
Drawing No. 1411-3_PL_PL04		Rev -



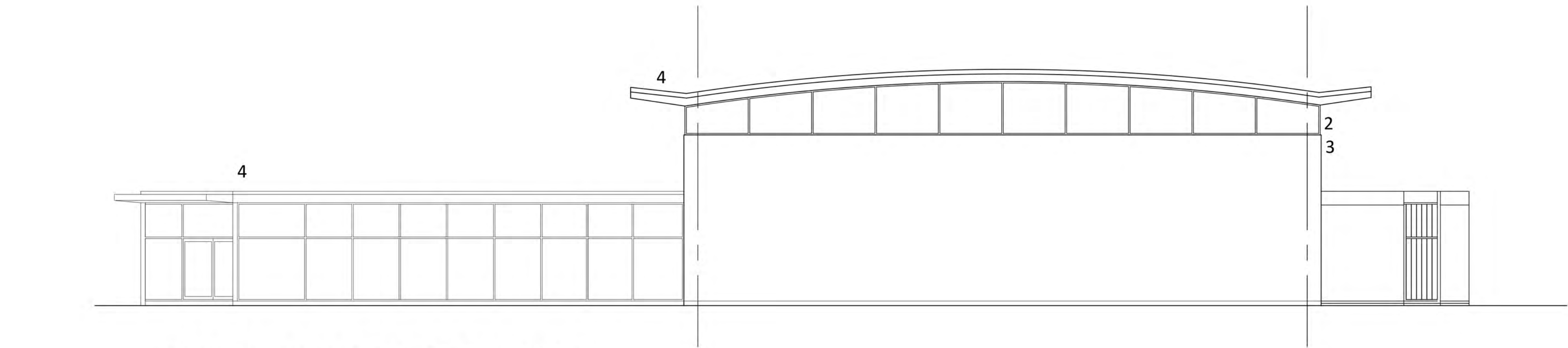
Proposed North Elevation



Proposed South Elevation



Proposed West Elevation



Proposed East Elevation

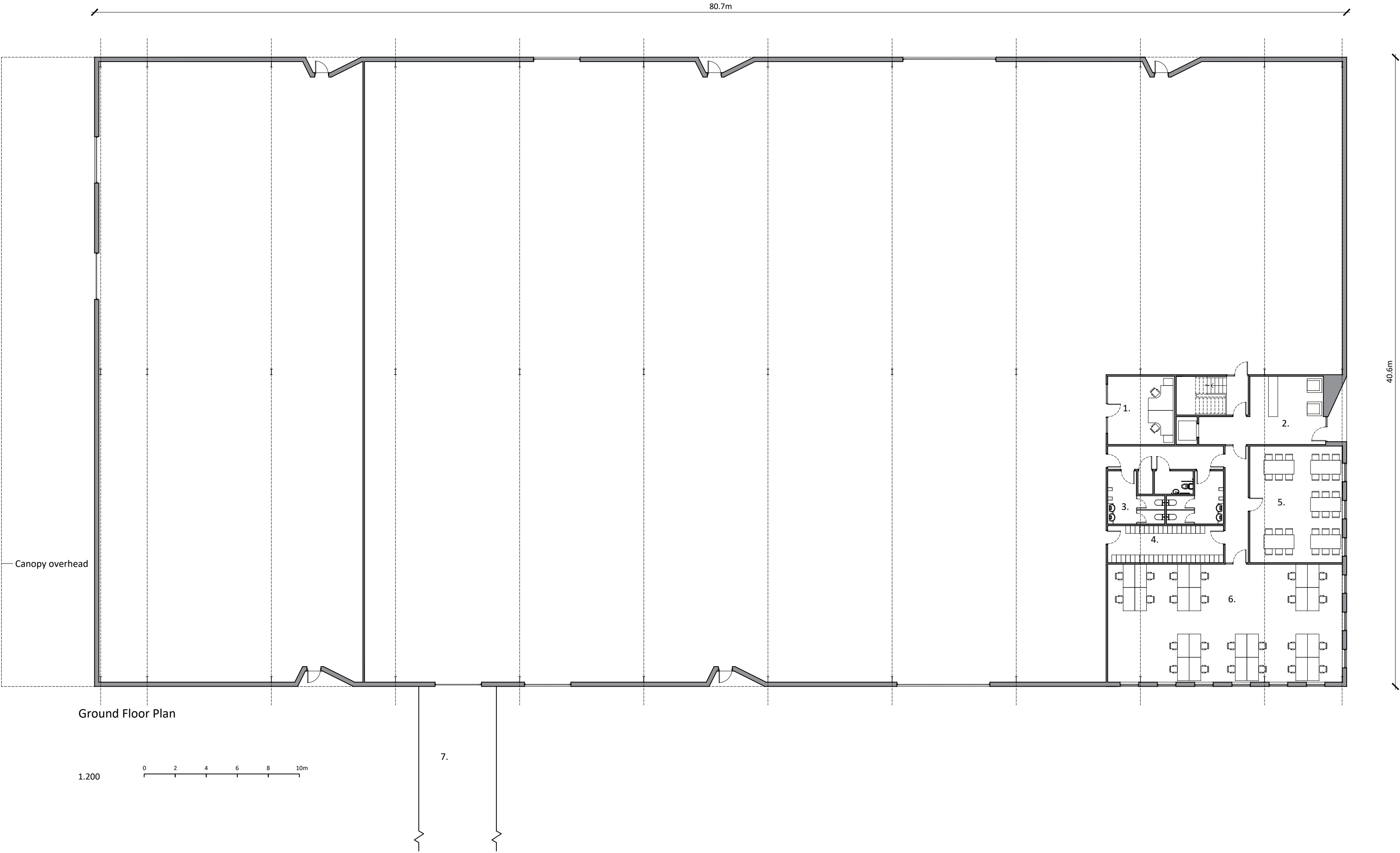
Materials

- 1. Polycarbonate rooflights
- 2. Clerestorey glazing with opaque spandrel panels local to structural steelwork
- 3. Vertical treated timber cladding
- 4. Sedum planted roofs
- 5. Projecting canopy
- 6. Aluminium double glazed windows / curtain walling
- 7. Fibre cement cladding panels

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Client G. Sly Holdings Ltd		
Project Land east of Holbeach Drove Gate Holbeach Drove, Holbeach		
Drawing Research & Development Building Proposed Elevations		
Scale @ A1 1: 100		Date 25/05/23
Drawn By PSS		Checked By LMS
Job Number 1411-3	Status PL	Purpose of Issue Planning
Drawing No. 1411-3_PL_EL02		Rev -

- Key
- 1. Production Manager Office
 - 2. Reception
 - 3. W.C.'s and Storage
 - 4. Locker Room
 - 5. Canteen
 - 6. Open Plan Office
 - 7. Sunken loading bay



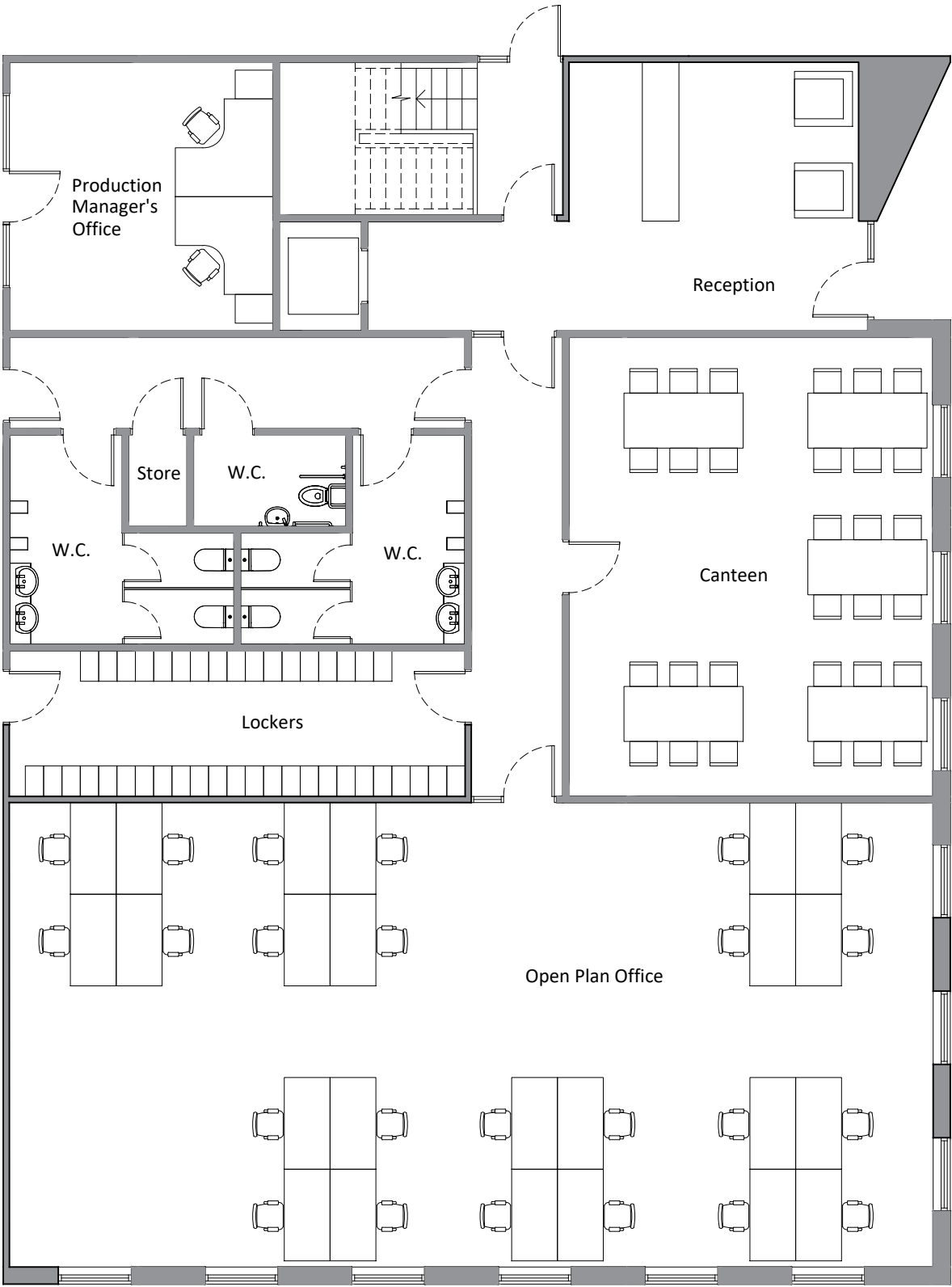
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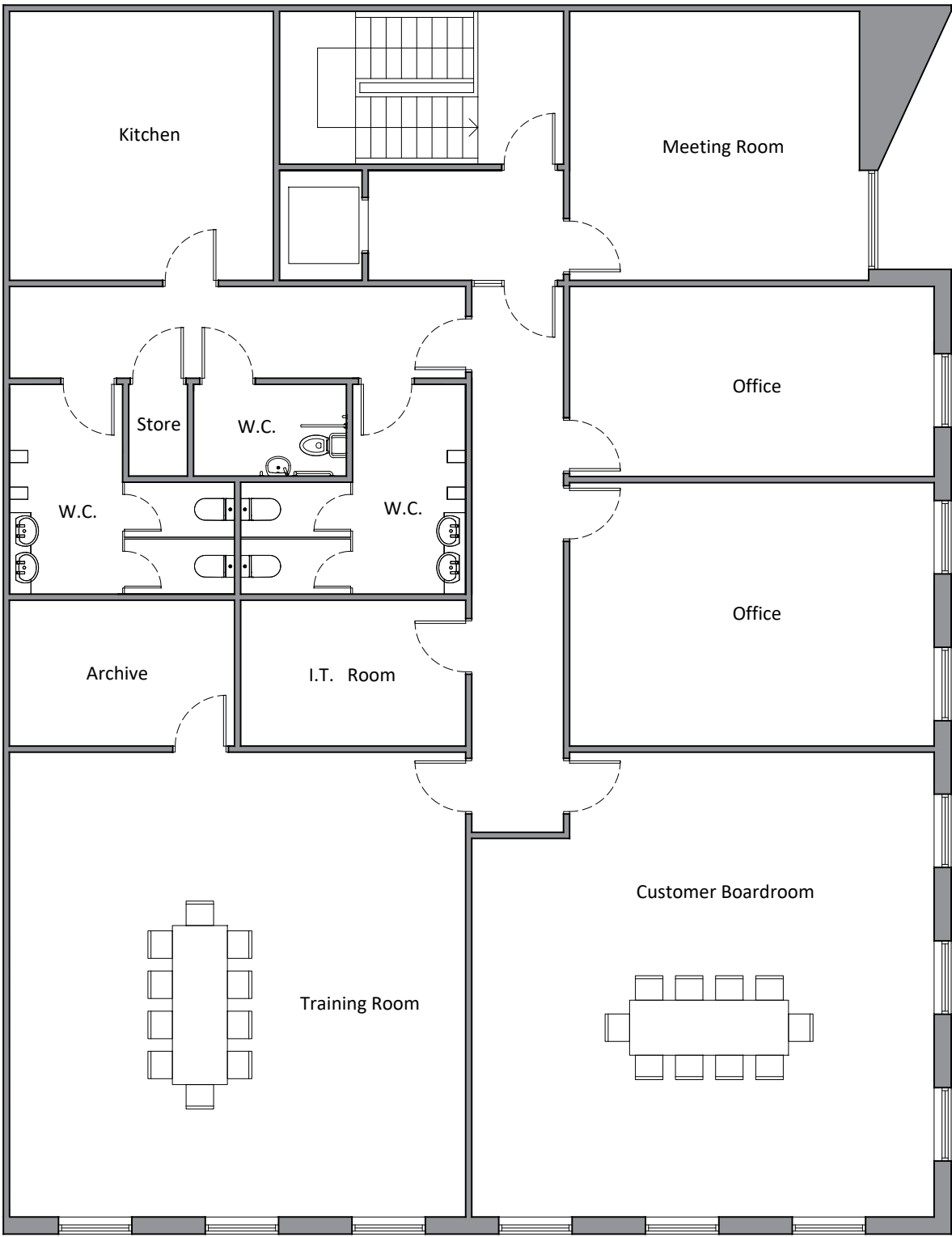
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Client G. Sly Holdings Ltd		
Project Land east of Holbeach Drove Gate Holbeach Drove, Holbeach		
Drawing Manufacturing Building - Ground Floor Plan		
Scale @ A2 1: 200		Date 25/05/23
Drawn By NG		Checked By PSS
Job Number 1411-3	Status PL	Purpose of Issue Planning
Drawing No. 1411-3_PL_PL01		Rev —



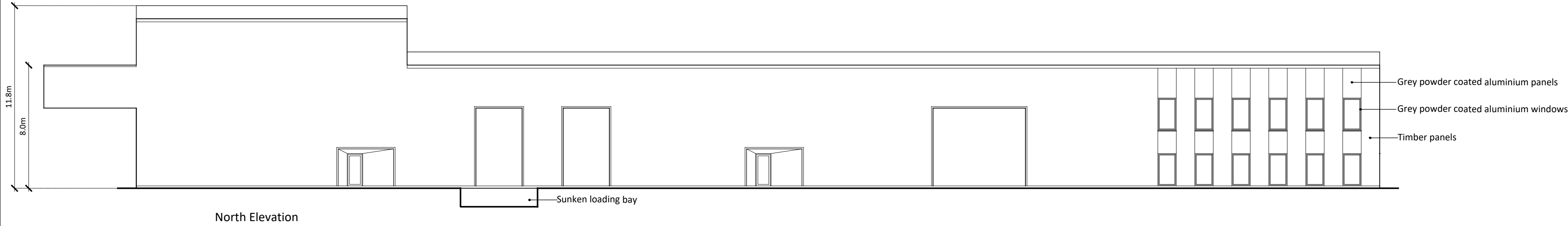
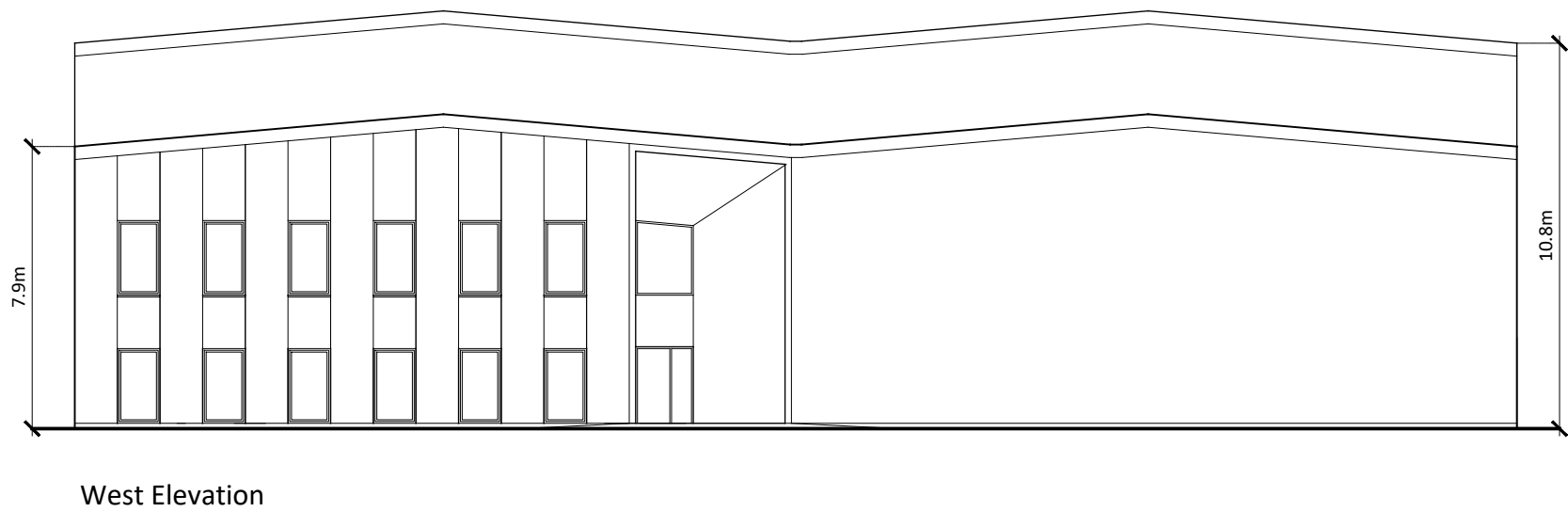
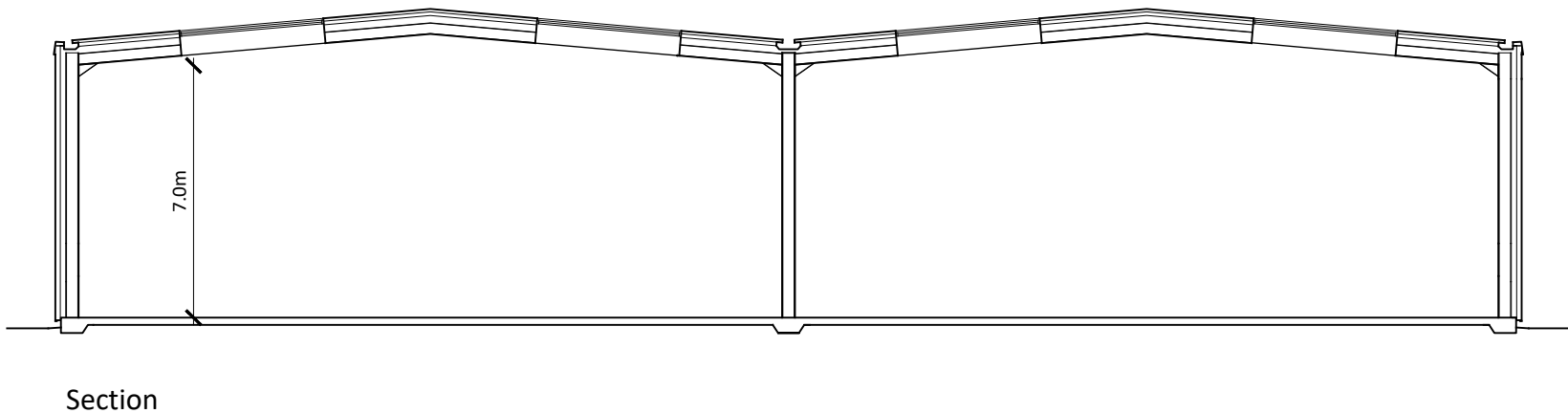
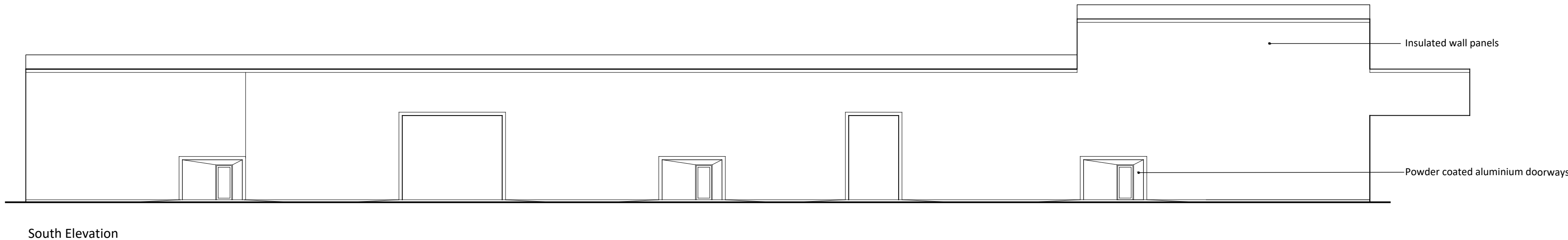
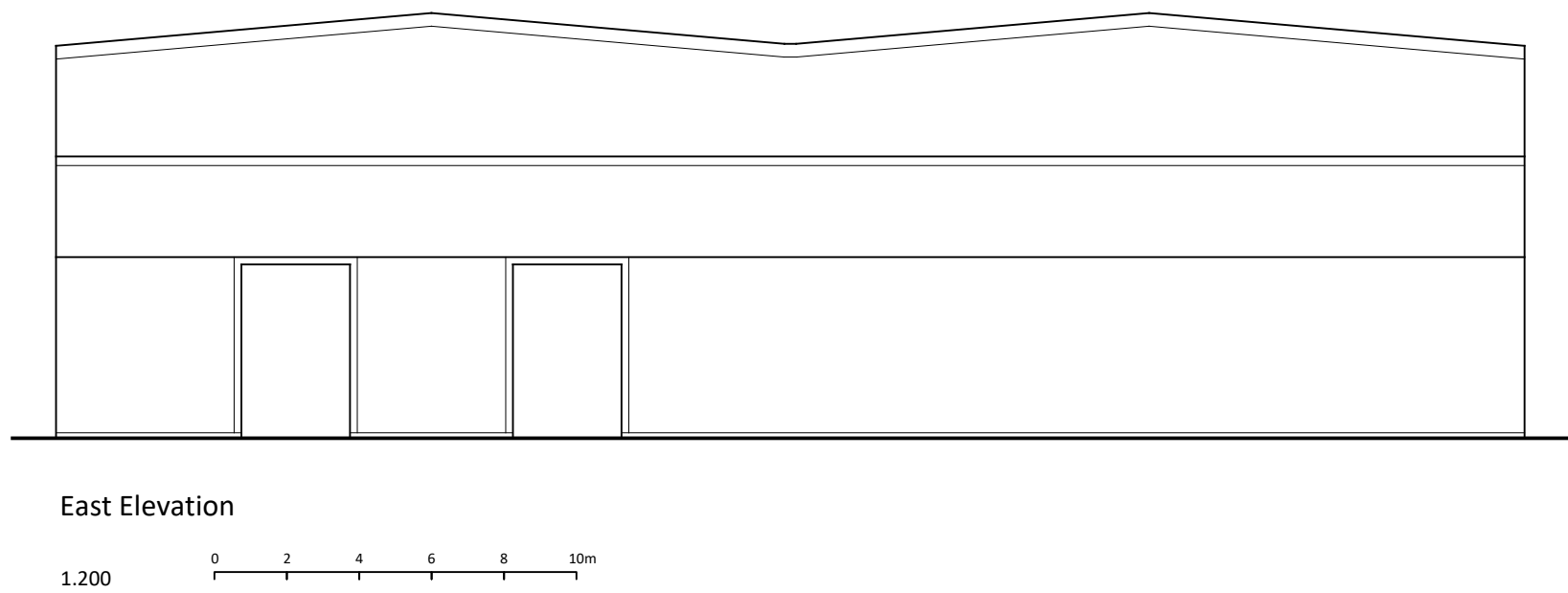
Ground Floor Plan



First Floor Plan

1.100 0 1 2 3 4 5m

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Client G. Sly Holdings Ltd		
Project Land east of Holbeach Drove Gate Holbeach Drove, Holbeach		
Drawing Manufacturing Building Proposed floor plans		
Scale @ A2 1: 100		Date 25/05/23
Drawn By NG		Checked By PSS
Job Number 1411-3	Status PL	Purpose of Issue Planning
Drawing No. 1411-3_PL_PL02		Rev -



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Drawing No.		Rev						
1411-3_PL_EL01		—						

