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# Drainage Impact Assessment and Strategy

In relation to an  
application for development on land known as  
The Footpath Field, Westfield Road, Eppleworth,  
HU16 5YJ

**Client**

Ms Ellen Harrison  
White House Farm  
Westfield Road  
Eppleworth  
HU16 5YJ

**Our Ref**

J5622

**Rev  
Date**

10-Nov-23

**By Engineer**

MH

# DIA and Strategy

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## J5622 – Footpath Field, Eppleworth

Client: Ms Ellen Harrison

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### Introduction

GTCE have been commissioned by Ms Ellen Harrison of White House Farm, Westfield Road, Eppleworth, HU16 5YJ to carry out a drainage impact assessment and strategy in relation to the development of a Riding arena and associated development.

The development will more specifically involve the development of a new riding arena with a permeable black rubber surface, welfare facilities (these are currently on site via a static caravan which is going to be moved northwards to make room for the stables), four isolation and treatment stables and a field shelter/ horse shelter/ storage to replace a previous storage facility that has fallen due to age. A plan of the proposed development can be seen within the appendices to the report.

The site is located to the north of Westfield Road to the east of White House Farm, as shown on the plan in the appendices.

Drainage Impact Assessments are required for all major (10 or more dwellings, 1,000sqm of floor-space or where sites are more than 1ha) or equivalent non-residential or mixed development [as defined in Article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015] which requires surface water to be drained from the site this should be submitted with the first full planning application.

### Surface Water Strategy.

#### The proposed development

The proposed site occupies an area of 1.04 hectares which is currently comprised of a field for equine purposes, a static caravan for welfare facilities, an area for loading and storage, and an area that was a storage facility but has in recent times fallen due to age.

The project under consideration is explained within the introduction to the report and plans can be seen in the appendices.

Surface water is currently managed via the use of 1000 litre RSB storage tanks. One takes water from a storage facility and the other from a welfare facility, the other from a storage facility. They are frequently emptied using the water for use in water troughs for horses on the site, and for any watering of the field if required. Should they ever over fill water runs to surrounding permeable ground. However, they have not been known to over fill in the last 7 years of their use.

The welfare facility will have a footprint of 41m<sup>2</sup> and the field/horse shelter 17m<sup>2</sup>. The new stable facility will have a footprint of 52.5m<sup>2</sup>. The proposed new riding area of 800m<sup>2</sup> is going to be constructed of a permeable rubber material. A permeable material will be used for the 148m<sup>2</sup> area outside the welfare facility.

#### Drainage

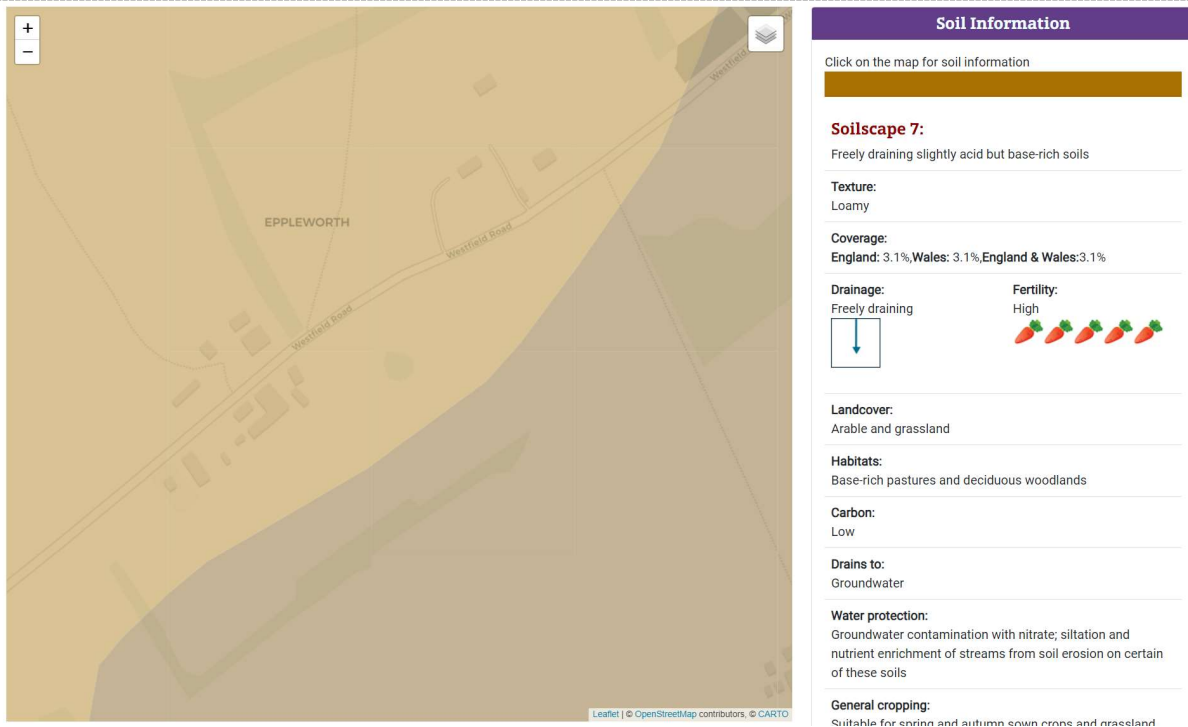
The application of sustainable urban drainage techniques (SUDS) are to be considered in relation to the discharge of surface water runoff generated by the proposed development.

Surface water should be managed for maximum benefit, now and in the future. According to East Riding's Combined Planning Note and Standing Advice at paragraph 7, "the drainage system must be designed so that, unless an area is designated to hold and/or convey water as part of the design, flooding does not occur on any part of the site for a 1 in 30 year rainfall event" and further at paragraph S8, "the drainage system must be designed so that, unless an area is designated to hold and/or convey water as part of the design, flooding does not occur during a 1 in 100 year rainfall event in any part of: a building (including a basement); or in any utility plant susceptible to water (e.g. pumping station or electricity substation) within the development" and finally at S9, "the design of the site must ensure that, so far as is reasonably practicable, flows resulting from rainfall in excess of a 1 in 100 year rainfall event are managed in exceedance [flood flow] routes that minimise the risks to people and property."

#### Soakaway design.

According to information from the National Soil Resource Institute: [www.landis.org.uk/soilscapes](http://www.landis.org.uk/soilscapes) details the development area as being situated on loamy, freely draining, slightly acidic but base rich soils.

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**Figure 1 Soilscape plan.**

An historical local borehole result within the local area showed the following:-

Historical borehole logs details below:

- BGS Reference: TA03SW193
- E:500498; N:431896
- Depth: 69.00m
- Carried out by: Wastewise (UK) Ltd (15.01.2015)
- Fill: 0.00m – 0.60m
- Clay: 0.60m – 0.70m
- Chalk, Broken: 0.70m – 3.50m
- Chalk: 3.50m – 58.50m
- No Returns: 58.50 – 69.00m

Looking at the soilscape map and local borehole result it can be indicated that the lower stratas of soil will be suitable for soakaway.

Tests were carried out on site in August 2023 in the trench as can be seen at Figure 2 below.

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**Figure 2:- testing infiltration of soils.**

Over the space of 4 hours water was poured into the trench and soaked away at a rate of approximately  $6.94 \times 10^{-6}$  m/s.

The developer is proposing to use a drainage soakaway trench to the rear of the 4no. isolation and treatment stables. This will require a soakaway trench filled with rubble with a 30% void ratio measuring 0.6m wide, 1.0m deep and 17.0m in length which will deal with a 1 in 30 year storm event and a 1 in 100 year storm event as can be seen in the calculations at figures 3 and 4 below.

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GTCE. Civil Design Calculations							
Soakaway Design to BRE Digest 365							
31 October 2023							
J5622							
<b>1. Soakaway Design (BRE Digest 365)</b>							
<b>1.1 Design Rainfall Intensity</b>							
Location of Catchment Area	= Eppleworth						
Impermeable Area Drained to System	= 52.50 m <sup>2</sup>						
Rainfall Ratio (r)	= 0.38 <small>(10 min to 2 day rainfall of 5 yr return period)</small>						
Return Period (Period)	= 30 Years						
Return Period Rainfall (M5-60 <sub>min</sub> )	= 20.00 mm						
<b>1.2 Soakaway / Infiltration Trench Details</b>							
Soakaway Type	= Rectangular Cell Crat						
Minimum Depth of Pit (d)	= 1000 mm <small>(B415/1000/1000)</small>						
Width of Pit (w)	= 600 mm						
Length of Pit (L)	= 17000 mm						
Percentage Free Volume (V <sub>free</sub> )	= 30 %						
Wetted area of pit (a <sub>pit</sub> ) 50% Full	= 9.1 m <sup>2</sup> (2dp) <small>area = (L x W) / 2</small>						
<b>1.3 Soil Infiltration Rate (f)</b>							
Effective Storage Volume of Water (V) / Internal Surface Area (A) x Time for Water Level to Fall (t)	= 6.94E-06 m/s <small>f Unknown (0.00000000)</small>						
<b>1.4</b>							
Duration (D)	Growth Factor	M5 Rainfalls (Z1)	Growth Factor (Z2) E&W	10 Year Rainfall (M10)	Inflow (I) (m <sup>3</sup> )	Outflow (O) (m <sup>3</sup> )	Storage Required (S) = I - O (m <sup>3</sup> )
(Min)		(mm)		(mm)	(m <sup>3</sup> )	(m <sup>3</sup> )	(m <sup>3</sup> )
5	0.36	7.20	1.45	10.44	0.55	0.02	0.53
10	0.51	10.20	1.52	15.50	0.81	0.04	0.78
15	0.62	12.40	1.52	18.85	0.99	0.06	0.93
30	0.79	15.80	1.55	24.49	1.29	0.11	1.17
60	1.00	20.00	1.58	31.60	1.66	0.23	1.43
120	1.22	24.40	1.58	38.55	2.02	0.46	1.57
240	1.48	29.60	1.57	46.47	2.44	0.91	1.53
360	1.67	33.40	1.55	51.77	2.72	1.37	1.35
600	1.90	38.00	1.55	58.90	3.09	2.28	0.82
1440	2.42	48.40	1.50	72.60	3.81	5.46	-1.65
<b>1.5 Soakaway Storage Volume</b>							
Required Volume (S <sub>req</sub> )	= 1.57 m <sup>3</sup> (2dp)						

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GTCE. Civil Design Calculations							
Soakaway Design to BRE Digest 365							
31 October 2023							
J5622							
Plus 30% for Climate Change	= 2.04 m <sup>3</sup>						
Design Storage Volume (S <sub>req</sub> )	= 3.06 m <sup>3</sup> (2dp) ∴ Pass						
<b>1.6 Time for Soakaway to Half Volume (t)</b>							
S <sub>req</sub> x 0.5 / (a <sub>pit</sub> x f) < 24 Hrs	= 206.9 minutes ∴ Pass						
<b>2 Percolation test - Calculate Infiltration Rate</b>							
Test Pit Dimensions	L=	0.3 m		Pit invert depth			
	W=	0.3 m		=	0.3 m		
	D=	0.3 m					
			Pit Volume =	0.0270 m <sup>3</sup>			
			Volume between 75% and 25%	0.0135 m <sup>3</sup> (V <sub>75-25</sub> )			
			Area of pit at 50% volume =	0.27 m <sup>2</sup> (A <sub>50</sub> )			
Time taken to empty from 75% to 25%	= 2 Hrs						
	= 0 Mins						
	= 0 Sec						
Time in Seconds =	7200 Seconds (t <sub>75-25</sub> )						
Infiltration Rate =	6.94E-06 m/s						

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Figure 3:- 1 in 30 year soakaway



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Soakaway Design to BRE Digest 365						
31 October 2023						
J5622						
<b>1. Soakaway Design (BRE Digest 365)</b>						
<b>1.1 Design Rainfall Intensity</b>						
Location of Catchment Area	=	Eppleworth				
Impermeable Area Drained to System	=	52.50 m <sup>2</sup>				
Rainfall Ratio (r)	=	0.38	(60 min to 2.4 day rainfall of 5 yr return period)			
Return Period (Period)	=	100 Years				
Return Period Rainfall (M5-60 <sub>mm</sub> )	=	20.00 mm				
<b>1.2 Soakaway / Infiltration Trench Details</b>						
Soakaway Type	=	Rectangular Cell Crat				
Minimum Depth of Pit (d)	=	1000 mm	(Below is coming in next)			
Width of Pit (w)	=	600 mm				
Length of Pit (L)	=	17000 mm				
Percentage Free Volume (V <sub>free</sub> )	=	30 %				
Wetted area of pit (a <sub>so</sub> ) 50% Full	=	9.1 m <sup>2</sup> (2dp)	area = (L x W) * (a x 4)			
<b>1.3 Soil Infiltration Rate (f)</b>						
Effective Storage Volume of Water (V) / Internal Surface Area (a) x Time for Water Level to Fall (t)						
Soil infiltration Rate (f)	=	6.94E-06 m/s				If Unknown (0.0000009)
<b>1.4 Duration</b>						
Duration (D)	Growth Factor	M5 Rainfalls (Z1)	Growth Factor (Z2) E&W	10 Year Rainfall (M10)	Inflow (I) (A x R)	Out flow (O) (S) = I - O
(Min)		(mm)		(mm)	(m <sup>3</sup> )	(m <sup>3</sup> )
5	0.36	7.20	1.79	12.89	0.68	0.02
10	0.51	10.20	1.91	19.48	1.02	0.04
15	0.62	12.40	1.91	23.68	1.24	0.06
30	0.79	15.80	1.99	31.44	1.65	0.11
60	1.00	20.00	2.03	40.60	2.13	0.23
120	1.22	24.40	2.03	49.53	2.60	0.46
240	1.48	29.60	2.01	59.50	3.12	0.91
360	1.67	33.40	1.97	65.80	3.45	1.37
600	1.90	38.00	1.97	74.86	3.93	2.28
1440	2.42	48.40	1.89	91.48	4.80	5.46
<b>1.5 Soakaway Storage Volume</b>						
Required Volume (S <sub>req</sub> )	=	2.21 m <sup>3</sup> (2dp)				

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GTCE. Civil Design Calculations			
Soakaway Design to BRE Digest 365			
31 October 2023			
J5622			
Plus 30% for Climate Change	=	2.88 m <sup>3</sup>	
Design Storage Volume (S <sub>req</sub> )	=	3.06 m <sup>3</sup> (2dp)	∴ Pass
<b>1.6 Time for Soakaway to Half Volume (t)</b>			
S <sub>req</sub> x 0.5 / (a <sub>so</sub> x f)	<	24 Hrs	= 291.9 minutes ∴ Pass
<b>2 Percolation test - Calculate Infiltration Rate</b>			
Test Pit Dimensions	L=	0.3 m	Pit invert depth
	W=	0.3 m	= 0.3 m
	D=	0.3	
Pit Volume	=	0.0270 m <sup>3</sup>	
Volume between 75% and 25%	=	0.0135 m <sup>3</sup>	(V <sub>75-25</sub> )
Area of pit at 50% volume	=	0.27 m <sup>2</sup>	(A <sub>50</sub> )
Time taken to empty from 75% to 25%	=	2 Hrs	
	=	0 Mins	
	=	0 Secs	
Time in Seconds	=	7200 Seconds	(t <sub>75-25</sub> )
Infiltration Rate	=	6.94E-06 m/s	

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Figure 4:- 1 in 100 year soakaway

### Storage of water

It is proposed that surface water from a storm event that falls onto the welfare facilities and the field shelter will run to 1000 litre RSB Storage tanks. One tank at the welfare facility and one at the field shelter. For the welfare facility the 1000 litre tank will be sufficient to deal with a 1 in 30 year and 1 in 100 year storm event with the rate of discharge into the tank being 1.0 l/s. This is shown in the calculation sheet at figure 5 below.



# DIA and Strategy

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<b>Civil Design Calculations</b> Copas Formula 1 in 30yr Return 31 October 2023	1	<b>Civil Design Calculations</b> Copas Formula 1 in 100yr Return 31 October 2023	1
<p><b>1. Copas Formula 1 in 30yr</b></p> <p><b>1.1 Calculate the Required Storage Capacity</b>                      Return Rainfall Event (I) = 30 years                      Restricted Discharge Rate (Q) = 2 litres/ sec                      = 0.002 m<sup>3</sup>/ sec                      Impermeable Area (A<sub>p</sub>) = 41 m<sup>2</sup>                      = 0.004 ha                      Storage Capacity Required (C<sub>req</sub>) = 0.26 m<sup>3</sup> plus40% 0.36 m<sup>3</sup></p> <p><b>1.2 Calculate the Provided Storage Capacity - Option 1: Pipe Network</b>                      Pipe Length (L) = m                      Pipe Diameter (Ø) = mm                      Pipe Capacity (C<sub>prov</sub>) = 0.00 m<sup>3</sup> (Approx. Pipe)</p> <p><b>1.2 Calculate the Provided Storage Capacity - Option 2: Balancing Pond</b>                      Storage Depth (d) = 1000 mm                      Storage Length (L) = 1 m                      Storage Length (W) = 1 m                      Capacity (C<sub>prov</sub>) = 1.00 m<sup>3</sup> (Approx. Pond)</p> <p><b>1.3 Design Check</b>                      Total Capacity = Option 1 + Option 2                      1.00 &gt; 0.36 Design OK                      ∴ Pipe and/or Pond has Sufficient Capacity</p>		<p><b>1. Copas Formula 1 in 100yr</b></p> <p><b>1.1 Calculate the Required Storage Capacity</b>                      Return Rainfall Event (I) = 100 years                      Restricted Discharge Rate (Q) = 2 litres/ sec                      = 0.002 m<sup>3</sup>/ sec                      Impermeable Area (A<sub>p</sub>) = 41 m<sup>2</sup>                      = 0.004 ha                      Storage Capacity Required (C<sub>req</sub>) = 0.47 m<sup>3</sup> plus40% 0.66 m<sup>3</sup></p> <p><b>1.2 Calculate the Provided Storage Capacity - Option 1: Pipe Network</b>                      Pipe Length (L) = m                      Pipe Diameter (Ø) = mm                      Pipe Capacity (C<sub>prov</sub>) = 0.00 m<sup>3</sup> (Approx. Pipe)</p> <p><b>1.2 Calculate the Provided Storage Capacity - Option 2: Balancing Pond</b>                      Storage Depth (d) = 1000 mm                      Storage Length (L) = 1 m                      Storage Length (W) = 1 m                      Capacity (C<sub>prov</sub>) = 1.00 m<sup>3</sup> (Approx. Pond)</p> <p><b>1.3 Design Check</b>                      Total Capacity = Option 1 + Option 2                      1.00 &gt; 0.66 Design OK                      ∴ Pipe and/or Pond has Sufficient Capacity</p>	

**Figure 5: Storage for welfare facilities**

For the field shelter the 1000 litre tank will also be sufficient to deal with a 1 in 30 year and 1 in 100 year storm event with the rate of discharge into the tank being 1.0 l/s. This is shown in the calculation sheet at figure 6 below.

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Civil Design Calculations Copas Formula 1 in 30yr Return 31 October 2023	1 Civil Design Calculations Copas Formula 1 in 100yr Return 31 October 2023	1
<p><b>1. Copas Formula 1 in 30yr</b></p>	<p><b>1. Copas Formula 1 in 100yr</b></p>	
<p><b>1.1 Calculate the Required Storage Capacity</b>                      Return Rainfall Event (I) = 30 years                      Restricted Discharge Rate (Q) = 2 litres/ sec                      = 0.002 m<sup>3</sup>/ sec                      Impermeable Area (A<sub>p</sub>) = 17 m<sup>2</sup>                      = 0.002 ha                      Storage Capacity Required (C<sub>req</sub>) = 0.07 m<sup>3</sup> plus40% 0.10 m<sup>3</sup></p>	<p><b>1.1 Calculate the Required Storage Capacity</b>                      Return Rainfall Event (I) = 100 years                      Restricted Discharge Rate (Q) = 2 litres/ sec                      = 0.002 m<sup>3</sup>/ sec                      Impermeable Area (A<sub>p</sub>) = 17 m<sup>2</sup>                      = 0.002 ha                      Storage Capacity Required (C<sub>req</sub>) = 0.13 m<sup>3</sup> plus40% 0.18 m<sup>3</sup></p>	
<p><b>1.2 Calculate the Provided Storage Capacity - Option 1: Pipe Network</b>                      Pipe Length (L) = m                      Pipe Diameter (Ø) = mm                      Pipe Capacity (C<sub>prov</sub>) = 0.00 m<sup>3</sup> (Approx. Pipe)</p>	<p><b>1.2 Calculate the Provided Storage Capacity - Option 1: Pipe Network</b>                      Pipe Length (L) = m                      Pipe Diameter (Ø) = mm                      Pipe Capacity (C<sub>prov</sub>) = 0.00 m<sup>3</sup> (Approx. Pipe)</p>	
<p><b>1.2 Calculate the Provided Storage Capacity - Option 2: Balancing Pond</b>                      Storage Depth (d) = 1000 mm                      Storage Length (L) = 1 m                      Storage Length (W) = 1 m                      Capacity (C<sub>prov</sub>) = 1.00 m<sup>3</sup> (Approx. Pond)</p>	<p><b>1.2 Calculate the Provided Storage Capacity - Option 2: Balancing Pond</b>                      Storage Depth (d) = 1000 mm                      Storage Length (L) = 1 m                      Storage Length (W) = 1 m                      Capacity (C<sub>prov</sub>) = 1.00 m<sup>3</sup> (Approx. Pond)</p>	
<p><b>1.3 Design Check</b>                      Total Capacity = Option 1 + Option 2                      1.00 &gt; 0.10 Design OK                      ∴ Pipe and/or Pond has Sufficient Capacity</p>	<p><b>1.3 Design Check</b>                      Total Capacity = Option 1 + Option 2                      1.00 &gt; 0.18 Design OK                      ∴ Pipe and/or Pond has Sufficient Capacity</p>	

**Figure 6: Storage for field shelter**

The water from the RSB tanks will be used to fill the troughs for the horses as can be seen at figures 7 and 8 below. Water can also be used for hosing areas down and water parts of the site where there is vegetation that need watering.



**Figure 7:- Water trough on site**

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**Figure 8:- RSB with transporter trailer**

Any overflow from the welfare facility and field shelter should there be any will be falling onto permeable ground and vegetation which should act as a barrier to overflow onto neighbouring land.

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### **Foul Strategy.**

The developer is planning on using a cassette style toilet which will be regularly emptied and foul disposed of at the relevant public foul disposal point. Grey water from sinks is collected and used on site to water vegetation.

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### Appendices



**Notes:**

**DANGER ELECTRICITY** service into existing buildings.  
Care must be taken when any excavation is taking place near these positions. Confirm position of electricity cables with relevant power company before commencing on site. Positions are to be marked on site and also on plans once confirmation has been received.

**DANGER GAS** service into existing buildings.  
Care must be taken when any excavation is taking place near these positions. Confirm position of gas supply pipe with National Grid (0800 111 999) before commencing on site. Positions are to be marked on site and also on plans once confirmation has been received.

**DANGER WATER** supply to be located and isolated prior to removal of any pipework. Water supply pipe to be adequately protected at all times. If advice is required contact relevant water authority.

**DANGER Electrical safety**, all electrical required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Council should be satisfied that Part P has been completed with. This will require an appropriate BS 7671:2008+A3:2015 Requirements for Electrical Installations. IET Wiring Regulations electrical installation certificate to be issued for the work by a person competent to do so.

The drawings are the copyright of CK Architectural. The drawings must not be scaled from. The contractor should take and verify all dimensions on site before proceeding with any works. All dimensions shown on the drawings are for Planning purposes only.

All dimensions must be checked on site prior to works commencing. Variations in squareness, depth of plaster etc., must be checked for.

Where new walls are shown aligned with existing walls, this must be checked by the physical removal of brickwork and/or plaster to establish the actual position of the wall being attached to.

Site to be used only for demolition / construction of the proposed works, which is to be protected at all times along with adjacent properties, not forming part of the works.

Care must be taken at all times to ensure that any works on the supply of all services into / from the property (i.e. electricity, gas, water, KCOM, BT, foulwater and surfacewater drainage) does not at any time interfere with the supply of services into / from adjacent properties, is not affected. If this proves to be the case, then the contractor is to fully advise properties to be affected as soon as possible and is to negotiate with adjacent properties regarding any appropriate action that may be required.

Prevent smoke, dust, fumes, spillage and other harmful activities where possible. No fires to be allowed on site at any time and noise levels to be kept to a minimum and complying with BS 5228-1:2009+A1:2014 & BS 5228-2:2009+A1:2014 Codes of practice for noise and vibration control on construction and open sites. Remember that adjacent properties are occupied and comply with all reasonable requests from the general public / neighbors regarding the use of power tools etc.

All positions of drainage runs and types of drainage indicated on drawings are provisional only. Contractor to check invert and position of all drainage systems to ensure adequate fall & to ensure Building Control Officer is satisfied with site inverts before excavation of drainage runs.

All works are to be carried out with the relevant current British Standard Codes of Practice and Building Research Digest Papers, and to be to the approval of the local Authority and all Statutory Undertakings. All materials shall be suitable for the purpose intended and shall be used strictly in accordance with the manufacturer's recommendations. All necessary calculations are to be submitted to the Local Authority for approval prior to the commencement of work on site.

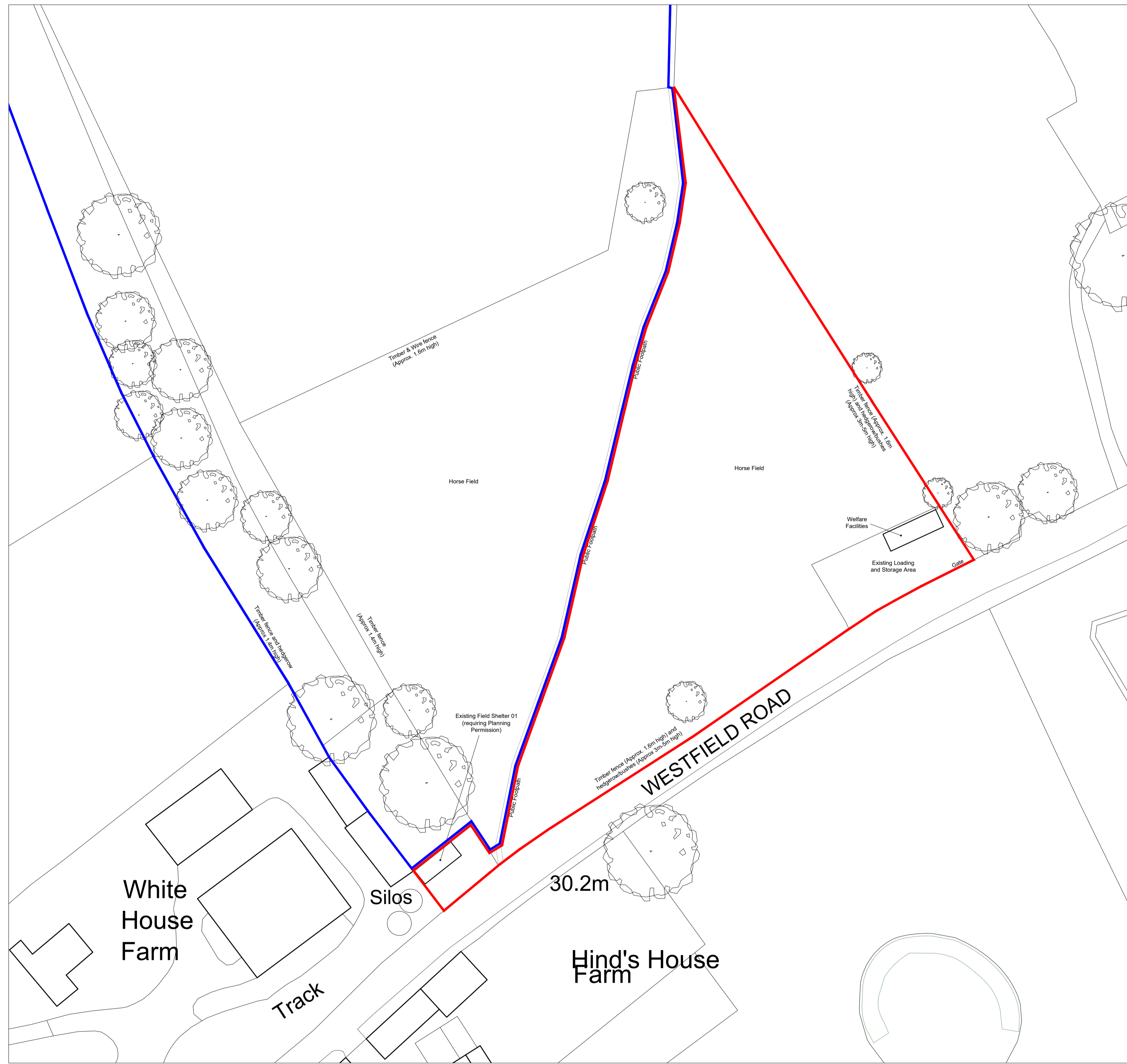
Robust details shall be adopted to prevent cold bridging, air leakage etc. continuity of insulation shall be provided at lintels, floors and all roof and wall junctions by the provision of ventilation trays. All joints are to be fixed galvanized steel trapezoids. All wall and roof insulation shall be continuous. It is the owners responsibility to ensure that the property and site is free from any onerous or unusual restrictions, covenants or easements.

Attention is drawn to the Party Wall Act 1996. The client or owner must give notice in writing to neighbours of the intended building operation and excavations and receive approval of same.

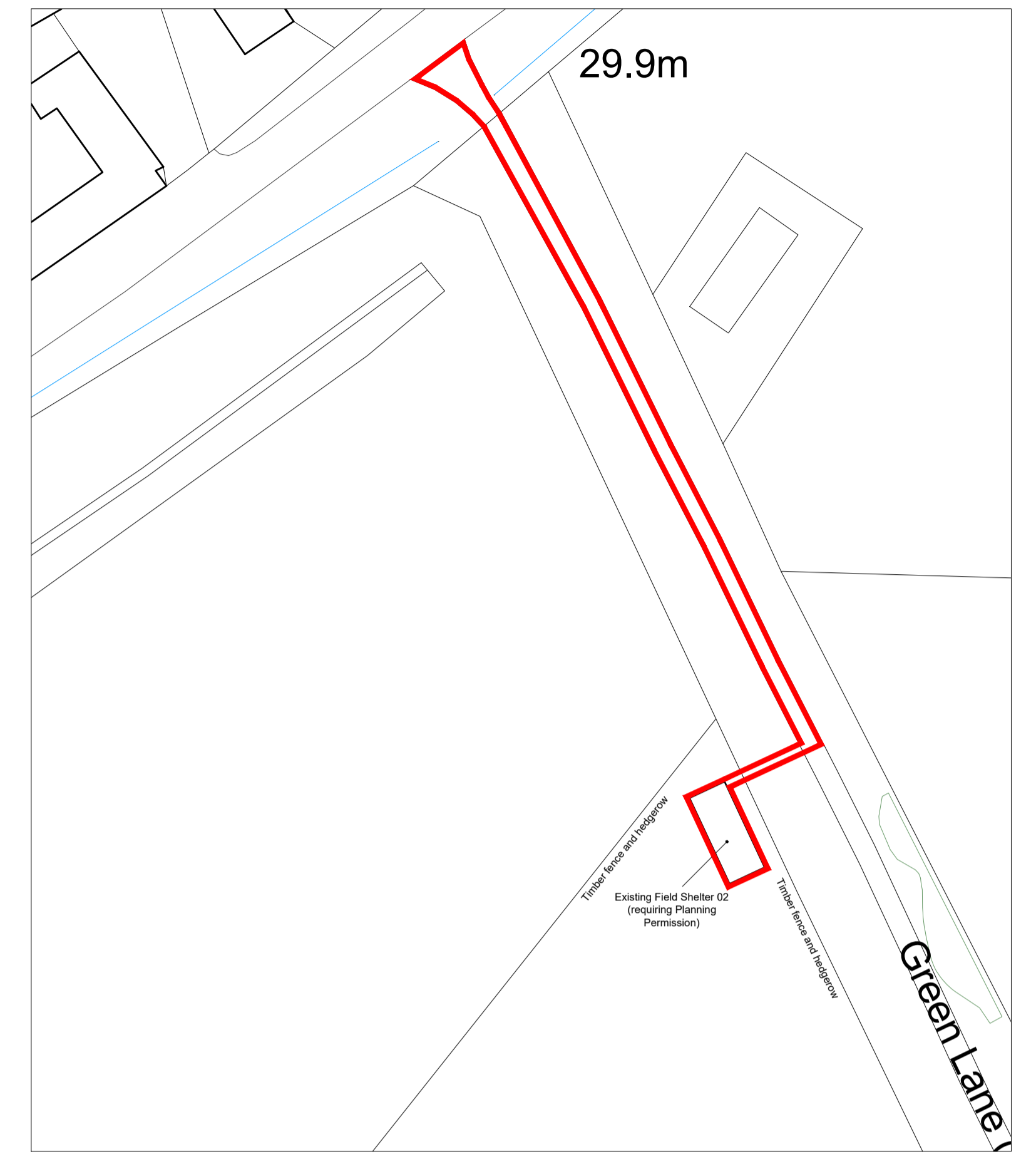
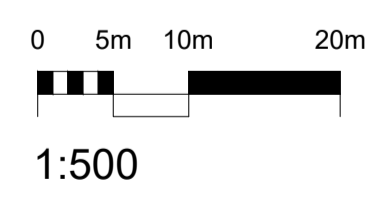
Attention is drawn to the client with regard to the CDM 2015 regulations. These drawings and specification are intended for Planning & Building Regulation purposes only. The scope of this does not go any further. It is the duty of the client under the regulations to appoint a 'Principal Contractor'. There is no obligation for the client to appoint a 'Principal Designer'. The 'Principal Contractor' will then take on the role of 'Principal Designer' for purposes of the 'pre construction' and 'construction' phases of the project under the CDM 2015 regulations when it gets under way, in order that a Health & Safety File and construction plan, is provided for the HSE, in order to reduce risks through the design processes of construction etc.

**SYMBOLS, HATCH & LINETYPE KEY**

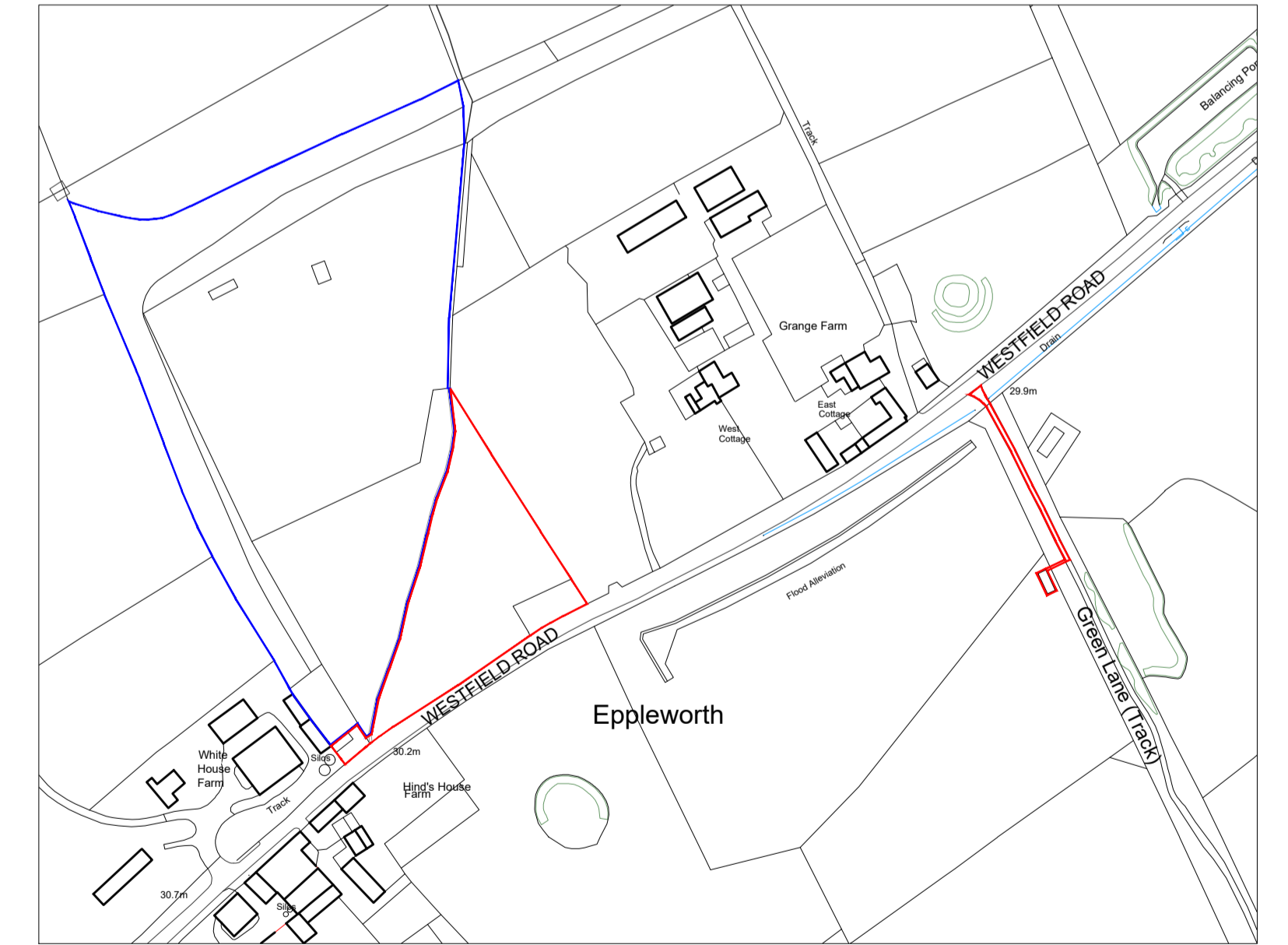
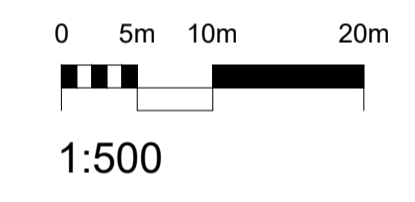
- WARNING SIGNIFICANT HAZARD OR INFORMATION WHICH IS USEFUL
- ACTION (DO)
- AVOID OR REFRAIN FROM (DON'T)
- ON-SITE MEASUREMENTS REQUIRED
- RELEVANT INFORMATION
- STRUCTURAL ENGINEER ITEM
- BUILDING CONTROL ITEM
- BRICK
- CONCRETE
- BLOCK
- SAND
- HARDCORE
- PROPOSED
- GLAZING
- OBSCURE GLASS
- BOUNDARY
- FOUL DRAINAGE
- SW DRAINAGE
- INSULATION
- DPM, DPC, VCL, FLASHING
- STRUCTURAL BEAMS
- DEMOLITION AREAS



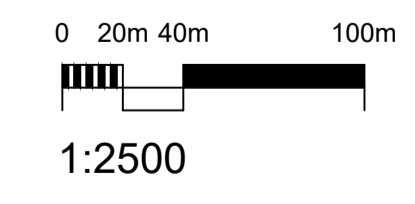
Site Plan as Existing



Site Plan as Existing



Site Location Plan



Application Site  
Land under client ownership

DATE	NOTES	BY	REV
16/06/23	Planning Issue	JDA	A
27/10/23	Validation Amendments	JDA	B
08/11/23	Amendments	JDA	D



Phone: 01482 441948 Email: info@cka.design www.ckarchitectural.co.uk

<b>PROJECT TITLE</b> Proposed Menage, Welfare Facility, Erection of 3no. stores incl. Hardstanding (incl. 2 existing), Erection of 4no. Stables and Change of Use from Agricultural Land to Equestrian/Keeping of Horses		<b>CLIENT</b> Ms Ellen HARRISON The Footpath Field, Westfield Road, Epplworth, HU16 5YJ		
<b>DRAWING STAGE</b> Planning	<b>SCALE</b> Varies @ A1	<b>CHK</b> SGA	<b>DRAWN BY</b> JDA	
<b>SHEET TITLE</b> Plans as Existing & Site Location Plan	<b>PROJECT NUMBER</b> HU16-3645	<b>STAGE</b> PLN	<b>REV</b> D	<b>SHT</b> 001



**Notes:**

**DANGER ELECTRICITY** service into existing buildings.  
Care must be taken when any excavation is taking place near these positions. Confirm position of electricity cables with relevant power company before commencing on site, positions are to be marked on site and also on plans once confirmation has been received.

**DANGER GAS** service into existing buildings.  
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**DANGER WATER** supply to be located and isolated prior to removal of any pipework, water supply pipe to be adequately protected at all time. If advice is required contact relevant water authority.

**DANGER** Electrical safety, all electrical required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Council should be satisfied that Part P has been completed with. This will require an appropriate BS 7671:2008+A3:2015 Requirements for Electrical Installations. IET Wiring Regulations electrical installation certificate to be issued for the work by a person competent to do so.

The drawings are the copyright of CK Architectural  
The drawings must not be scaled from. The contractor should take and verify all dimensions on site before proceeding with any works. All dimensions shown on the drawings are for Planning purposes only.

All dimensions must be checked onsite prior to works commencing, variations in squariness, depth of plaster etc., must be checked for.

Where new walls are shown aligned with existing walls, this must be checked by the physical removal of brickwork and/or plaster to establish the actual position of the wall being attached to.

Site to be used only for demolition / construction of the proposed works, which is to be protected at all times along with adjacent properties, not forming part of the works.

Care must be taken at all times to ensure that any works on the supply of all services into / from the property (i.e. electricity, gas, water, KCOM, BT, foulwater and surfacewater drainage) does not at any time interfere with the supply of services into / from adjacent properties, is not affected, if this proves to be the case, then the contractor is to fully advise properties to be affected as soon as possible and is to negotiate with adjacent properties regarding any appropriate action that may be required.

Prevent smoke, dust, fumes, spillage and other harmful activities where possible. No fires to be allowed on site at any time and noise levels to be kept to a minimum and complying with BS 5228-1:2009-A1:2014 & BS 5228-2:2009-A1:2014 Code of practice for noise and vibration control on construction and open sites. Remember that adjacent properties are occupied and comply with all reasonable requests from the general public / neighbors regarding the use of power tools etc.

All positions of drainage runs and types of drainage indicated on drawings are provisional only, contractor to check invert and position of all drainage systems to ensure adequate fall & to ensure Building Control Officer is satisfied with site inverts before excavation of drainage runs.

All works are to be carried out with the relevant current British Standard Codes of Practice and Building Research Digest Papers, and to be to the approval of the local Authority and all Statutory Undertakers. All materials shall be suitable for the purpose intended and shall be used strictly in accordance with the manufacturer's recommendations. All necessary calculations are to be submitted to the Local Authority for approval prior to the commencement of work on site.

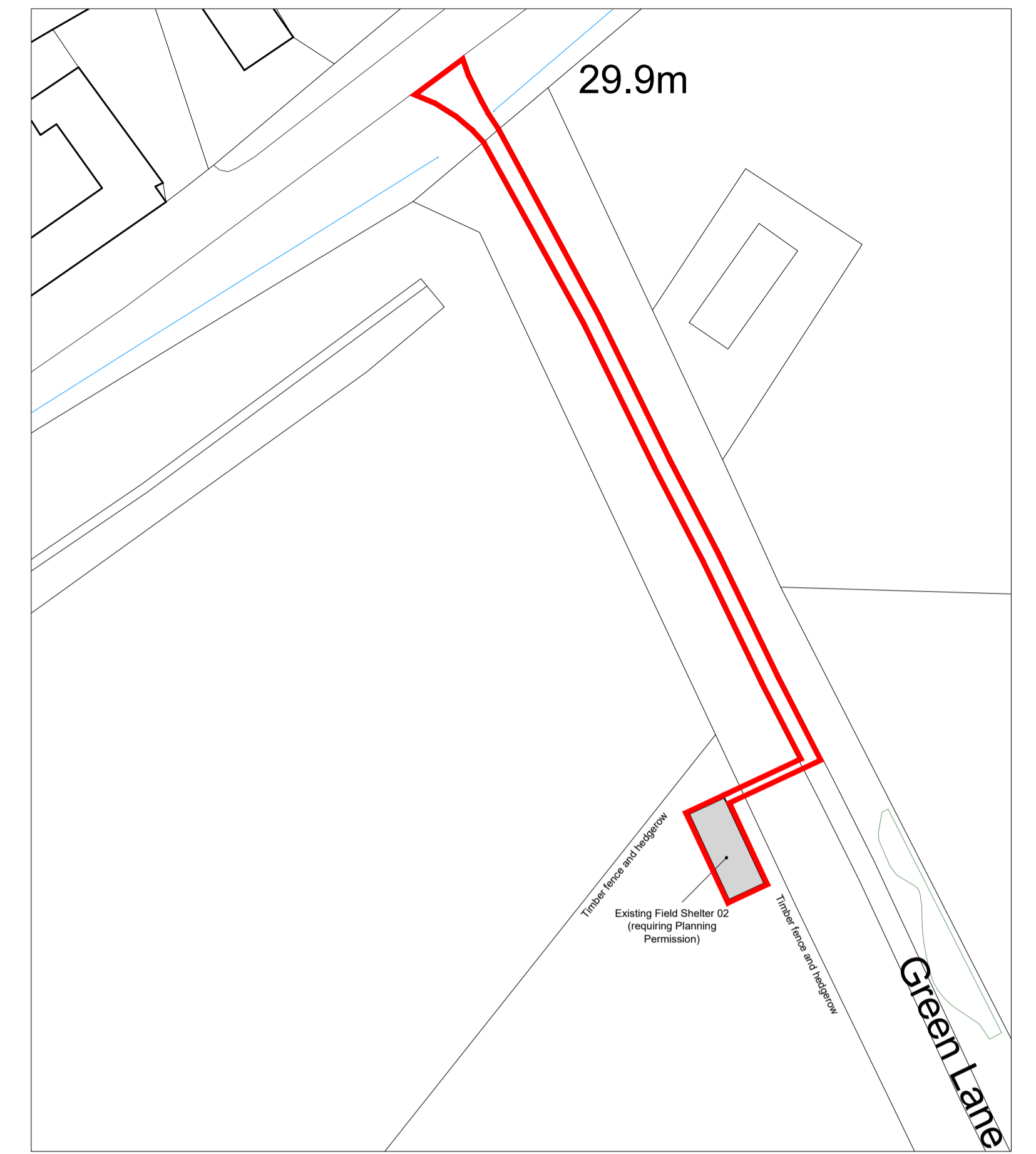
Robust details shall be adopted to prevent cold bridging, air leakage etc., continuity of insulation shall be provided at lintels, floors and all roof and wall junctions by the provision of ventilation trays. All joints are to be fixed galvanneal post fixings. All wall and roof insulation shall be continuous. It is the owners responsibility to ensure that the property and site is free from any onerous or unusual restrictions, covenants or easements.

Attention is drawn to the Party Wall Act 1996. The client or owner must give notice in writing to neighbours of the intended building operation and excavations and receive approval of same.

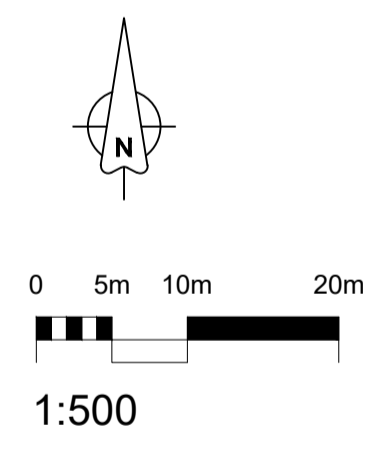
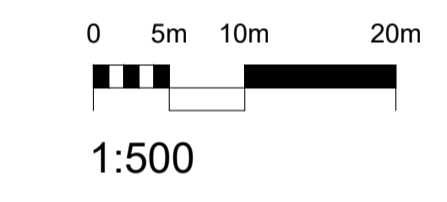
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**SYMBOLS, HATCH & LINETYPE KEY**

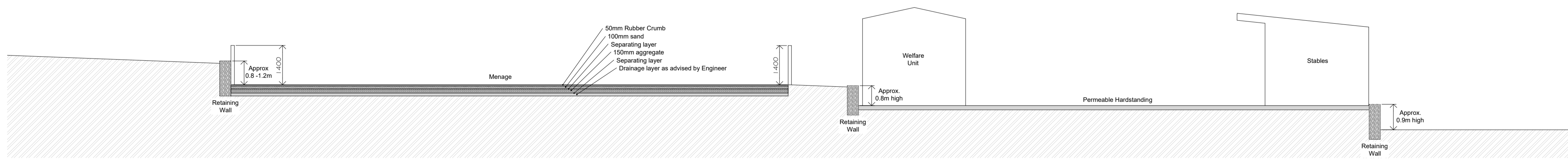
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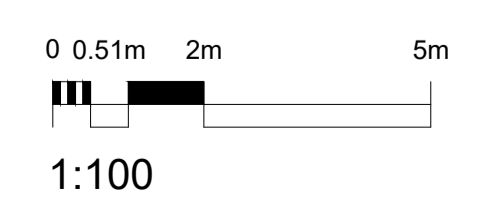
Site Plan as Proposed



Site Plan as Proposed



Section through Site as Proposed



DATE	NOTES	BY	REV
16/06/23	Planning Issue	JDA	A
27/10/23	Validation Amendments	JDA	B
08/11/23	Validation Amendments	JDA	C
10/11/23	Amendments	JDA	D



<b>PROJECT TITLE</b> Proposed Menage, Welfare Facility, Erection of 3no. stores incl. Handstanding (incl. 2 existing), Erection of 4no. Stables and Change of Use from Agricultural Land to Equestrian/Keeping of Horses		<b>CLIENT</b> Ms Ellen HARRISON The Footpath Field, Westfield Road, Eppleworth, HU16 5YJ	
<b>DRAWING STAGE</b> Planning	<b>SCALE</b> Varies @ A1	<b>CHK</b> SGA	<b>DRAWN BY</b> JDA
<b>SHEET TITLE</b> Plans as Proposed; Section Through Site	<b>PROJECT NUMBER</b> HU16-3645	<b>STAGE</b> PLN	<b>REV</b> D
		<b>SHT</b> 002	



Notes:

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- SURFACE DRAINAGE
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- STRUCTURAL BEAM
- DEMOLITION AREAS



Photo 1  
Existing Field Shelter 01



Photo 2  
Existing Field Shelter 01

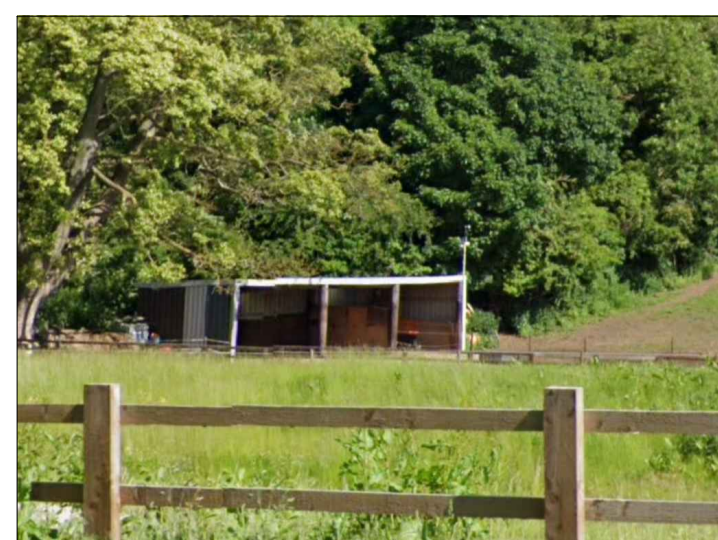


Photo 3  
Existing Field Shelter 02



Photo 4  
General Site



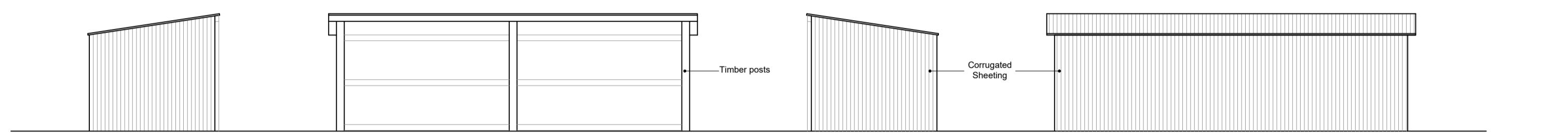
Photo 5  
General Site



Photo 6  
General Site



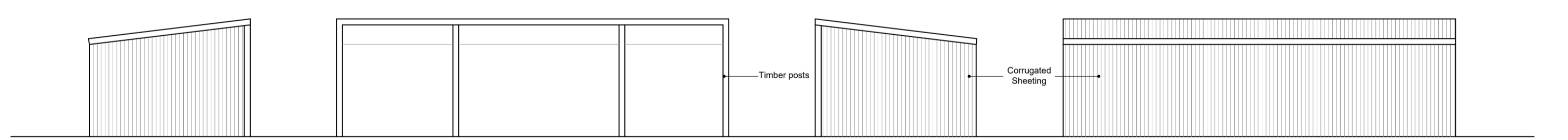
Photo 7  
Site from Road



Field Shelter 01  
Side Elevation As Existing/Proposed  
Field Shelter 01  
Front Elevation As Existing/Proposed  
Field Shelter 01  
Side Elevation As Existing/Proposed  
Field Shelter 01  
Rear Elevation As Existing/Proposed



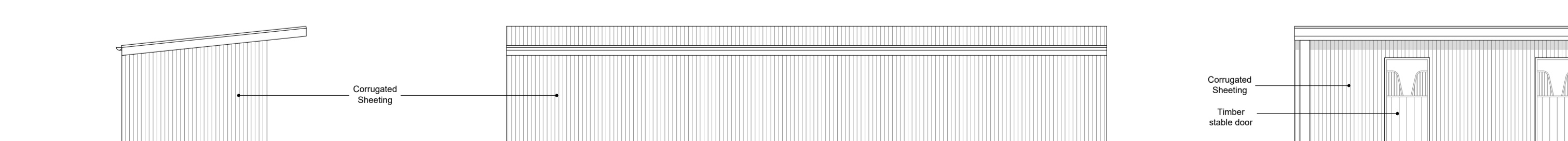
Welfare Unit  
Side Elevation As Existing/Proposed  
Welfare Unit  
Front Elevation As Existing/Proposed  
Welfare Unit  
Side Elevation As Existing/Proposed  
Welfare Unit  
Rear Elevation As Existing/Proposed



Field Shelter 02  
Side Elevation As Existing/Proposed  
Field Shelter 02  
Front Elevation As Existing/Proposed  
Field Shelter 02  
Side Elevation As Existing/Proposed  
Field Shelter 02  
Rear Elevation As Existing/Proposed



Field Shelter 03/Storage  
L. Side Elevation As Proposed  
Field Shelter 03/Storage  
Front Elevation As Proposed  
Field Shelter 01/Storage  
L. Side Elevation As Proposed  
Field Shelter 03/Storage  
Front Elevation As Proposed



Isolation & Treatment Stables  
L. Side Elevation As Proposed  
Isolation & Treatment Stables  
Rear Elevation As Proposed  
Isolation & Treatment Stables  
Front Elevation As Proposed  
Isolation & Treatment Stables  
R. Side Elevation As Proposed



Photo 8  
Site from Road



Photo 9  
Site from Road



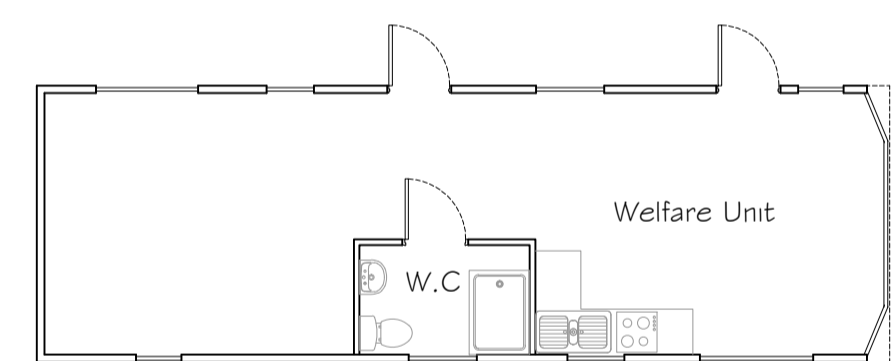
Photo 10  
Welfare Facility



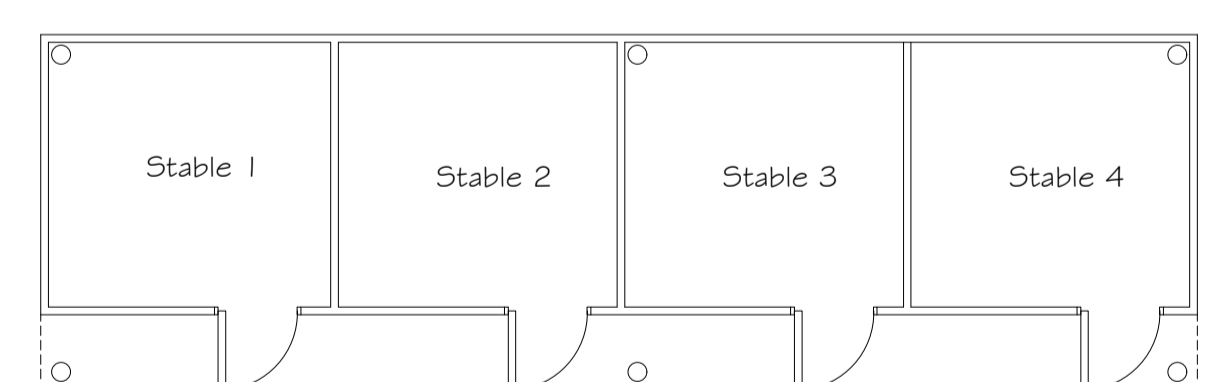
Field Shelter 01  
Plan As Existing/Proposed



Field Shelter 03/Storage  
Plan As Proposed



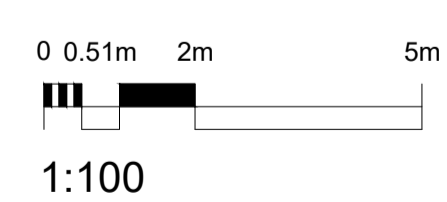
Welfare Unit  
Plan As Existing/Proposed



Isolation and Treatment Stables  
Plan as Proposed



Field Shelter 02  
Plan As Existing/Proposed



PROJECT TITLE Proposed Manage, Welfare Facility, Erection of 3no. stores incl. Hardstanding (incl. 2 existing), Erection of 4no. Stables and Change of Use from Agricultural Land to Equestrian/Keeping of Horses		CLIENT Ms Ellen HARRISON The Footpath Field, Westfield Road, Eppleworth, HU16 5YJ	
DRAWING STAGE Planning	SCALE 1:100 @ A1	CHK SGA	DRAWN BY JDA
SHEET TITLE Plans & Elevations as Existing & Proposed; Site Images	PROJECT NUMBER HU16-3645	STAGE PLN	REV D
			SHT 003

DATE	NOTES	BY	REV
16/06/23	Planning Issue	JDA	A
27/10/23	Validation Amendments	JDA	B
27/10/23	Amendments	JDA	C



## Flood map showing the flood zone your site is in

The map shows the flood risk to your site and the surrounding area.



► [What the flood map shows](#)