



GeoShield Verification Plan



PROJECT DESCRIPTION

GEO104923
GE Civil Engineering Ltd
Land off Sapcote Road,
Sapcote Road,
Burbage,
Hinckley,
LE10 2AU

The proposed development for which gas protection measures are required involves the construction of a residential Development.

In accordance with BS8485:2015 + A1 2019, the Type A building must conform to a Characteristic Specification (CS) rating of 2, so mitigation will need to be 3.5 points.

Geoshield have adopted the highest design and verification principles associated with BS8485:2015 + A1 2019, BR 211, Public Health England, NHBC Technical Extra April 2016 and CIRIA 735.

This pre-verification plan reviews the design to ensure it is compliant with the developer and planning authority requirements and in conjunction with the relevant investigation report in accordance with BS8485:2015 +A1 2019.

In summary, the design does achieve a required level of attention to detail with its robust specific gas membrane design (2 points), the structural barrier of a beam and block floor with sub floor ventilation (1.5 points)

The pre-verification plan confirms how the installation will be tested in accordance with CIRIA735. The verification visits will be documented in verification reports during the project that are suitable for submission to the local planning authority in order to satisfy and discharge planning consent.

All faults identified during inspection and the verification site visit of the ground gas system will be itemised as remediations which will need to be signed off in the remediation log for the proposed building.



GeoShield Verification Plan



PROJECT DESCRIPTION

Pre-Verification Plan

GeoShield are appointed by the Client to carry out independent validation, verification and integrity testing of the ground gas protection system on site. The Pre-Verification plan sets out the requirements and procedures that GeoShield will adopt to ensure that the installation is in line with the proposed design, relevant UK standards and guidance.

GeoShield take no responsibility for any warranties to third parties for the design of the system or the installation.

Limitations

The Pre-Verification plan prepared by GeoShield Limited is limited to the proposed ground gas protection measures installed. The Pre-Verification plan has been prepared in line with the relevance UK Standards and Guidance (BS8485:2015+A1:2019 & CIRIA 735) alongside the information made available to GeoShield by the Client. The conclusions made in the report are considered to be correct at the time of writing, but additional information provided/discovered may require amendments to the Plan. GeoShield recognises that changes to relevant standard and guidance may occur at any time which may cause the conclusions made to be incorrect - GeoShield do not accept any responsibility or liability for the implications of such changes.

The Pre-Verification plan does not in itself constitute verification that the membrane has been installed in accordance with this document. Validation and verification of the installed membrane will be covered in separate verification reports following physical inspection of the gas barrier and will include photographic evidence of the installation.

Waterproofing elements (where applicable) do not fall into the remit of this Pre-Verification plan or future inspections. GeoShield will provide the opinion on membrane's suitability for ground gas protection purposes – no liability is offered or implied for the waterproofing element which should be checked by others.



GeoShield Verification Plan



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GeoShield Verification Plan



PROJECT REFERENCE: GEO104923

PROJECT: Land off Sapcote Road

PROJECT ADDRESS: Sapcote Road,

Burbage, Hinckley,

LE10 2AU

SPECIFICATION: Verified in accordance CIRIA 735.

Design in accordance with BS8485 2015 + 2019 for Methane and Carbon Dioxide.

Substrate prepared in accordance with manufacturers instructions.

Visqueen gas barrier

Visqueen pro Detailing strip

VisqueenPro Double Sided Jointing Tape

Visqueen Gas Resistant Foil Lap Tape



GeoShield Verification Plan



NAME OF SURVEYOR:

Paul Colbeck

VERIFICATION COMPANY:

GeoShield Limited

Icon Business Centre

4100 Park Approach

Thorpe Park

Leeds

CONTACT NUMBER:

EMAIL ADDRESS:

ORDER NUMBER:

To be confirmed

PER VISIT:

YES:

☐

NO:

☐

PROJECT:

YES:

☐

NO:

☐



GeoShield Verification Plan



INFORMATION INCLUDED

Geo-Environmental investigation

Engineers drawings

Material Specification Technical Data Sheets

Information presented to at the pre-verification stage assumed correct

Any change client will let GeoShield know or this Pre-verification Plan will be void.

BGA
British Geomembrane Association

GeoShield Verification Plan



SPECIFICATION



LAND OFF SAPCOTE ROAD, BURBAGE

PHASE II
GEO-ENVIRONMENTAL INVESTIGATION
FOR
MORRO PARTNERSHIPS LTD & EMH HOUSING &
REGENERATION LTD

Project No:
GML23150/2/1

Date:
Nov 2023

Prepared for:
Jessup House
2 Station Court
Girton Road
Cannock
Staffordshire
WS11 0EJ

EMH
Memorial House
Stenson Road
Coalville
Leicestershire
LE67 4JP

Prepared by:
Geo-Matters Ltd
104 Bondgate
Castle Donington
Derby
DE74 2NR

info@geo-matters.com
<http://www.geo-matters.com>

Revision - 1

Registered in England No. 08353425

Title Reference & Description:

Geo-Environmental investigation

Front page.

SPECIFICATION

GML23150 – Land off Sapcote Road, Burbage



The monitoring data comprises 6no. return visits (Oct - November 2023) from the available monitoring standpipes during varying atmospheric pressures.

Ground gas monitoring sheets are included in Appendix VIII.

4.4.1 Ground Gas Assessment Methodology

Interpretation of gas monitoring data is specified in CIRIA C665 (2007) 'Assessing risks posed by hazardous ground gases to buildings', BS 8485:2015+A1:2019 'Code of Practice for the Design or Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings' and other related guidance (as appropriate C735). This guidance includes the calculation of volumetric flow rates of ground based on maximum recorded gas concentrations and maximum recorded gas flow rates. Limiting factors are applied to the gas monitoring results and characteristic situation is then applied to the site. This provides a worst-case scenario in relation to the ingress of gas to future structures.

4.4.2 Ground Gas Assessment and Volumetric Flow Rate Calculations

Summary gas data and volumetric flow rate calculations are shown in Table 4.7 below.

Table 4.7 Calculation of Volumetric Flow Rates

Monitoring Point	Maximum Steady CH ₄ %v/v	Maximum Steady CO ₂ % v/v	Maximum Steady Flow Rate (l/hr)	Max Volumetric Flow Rate (l/hr) CH ₄	Max Volumetric Flow Rate (l/hr) CO ₂
WS1	0.2	8.1	0.1	0.0002	0.008
WS3	0.0	8.0	0.2	0.0	0.016
WS6	0.0	3.8	0.2	0.0	0.008

*Maximum steady state ground gas concentration multiplied by maximum steady state flow rate to provide a worst-case & conservative risk assessment.

As summarised in Table 10.1 above, the monitoring recorded near **ZERO** steady state volumetric flow rate for methane (CH₄) and **0.016 l/hr** for Carbon Dioxide (CO₂).

4.4.3 Ground Gas Classification and Selection of Protection Measures

Based on the above, and the fact that elevated methane or carbon dioxide concentrations have been detected, an overall site classified in accordance with BS8485:2015+A1:2019 is **CS2** (equivalent NHBC **Amber 1** ie LOW/MEDIUM RISK) requiring ground gas precautions to be installed. Based upon the categorisation of the proposed development (private residential dwellings, as described in Table 3 of BS8485:2015), a 'Type A' building type has been established. Based upon Table 4 of BS8485:2015, this would require a 'gas protection score' of 3.5 points

Title Reference & Description:

Geo-Environmental investigation

Site classified as CS2.

SPECIFICATION

GML23150 – Land off Sapcote Road, Burbage



4.5 Radon

The property is in low probability radon area (<1% of homes are estimated to be at or above the Action Level). The Environmental Data Report; presented within the 3rd Party Phase I Report; states that **NO** radon protective measures are necessary in the construction of new dwellings at the site.

4.6 Geotechnical Hazards for the Proposed Development

It is understood that the proposed redevelopment at the site is to comprise a residential end use. Table 4.8; below; summarises the main geotechnical hazards identified during intrusive works associated with the proposed development.

Table 4.8: Summary of Geotechnical Hazards

Hazard	Comment
Services	Underground and above ground services are known to cross the site which may need taking into account during redevelopment and / or diverting.
Variable Ground Conditions	Should foundations straddle variable natural soil types (i.e. cohesive / granular) although not expected to be significant at this stage, then suitable mesh reinforcement should be provided within foundations to prevent the potential for differential settlement.
Slopes	Gentle elevation changes are present in some areas of the site. Pending final layout proposals, minor cut and fill works may be required. Geo-Matters Ltd should be contacted for further advice if such works are proposed.
Trees	Onsite soils have been proved to exhibit non-plastic volume change potential; therefore, foundation should not need deepening within the influencing distance of trees. There are trees on the south western boundary therefore if significant cohesive soils are noted during demolition in that area then additional P1 sampling would be recommended.
Granular Soils & Groundwater	If significant water is found during construction, then further assessment may need to be considered as groundwater within sand will reduce the bearing capacity of these materials. Inconsistent damp soils have been located at four locations at depths of 1.40m begl, 1.8m begl, 3.1m begl and 3.5m begl.
Deep Made Ground	Made Ground has been recorded on site up to 1.80m begl which will require foundations deepening across these areas.
Soft Ground	Low SPT's in natural soils at standard founding depth has been recorded in the natural soils at WS5, delineation works may be required in this area depending on the proposed layout in the area. Higher SPT's were recorded at deeper depths.
Combination of issues	Due to deep made ground, water and soft ground it may be necessary to undertake an alternative foundation solution i.e. piled / raft etc.

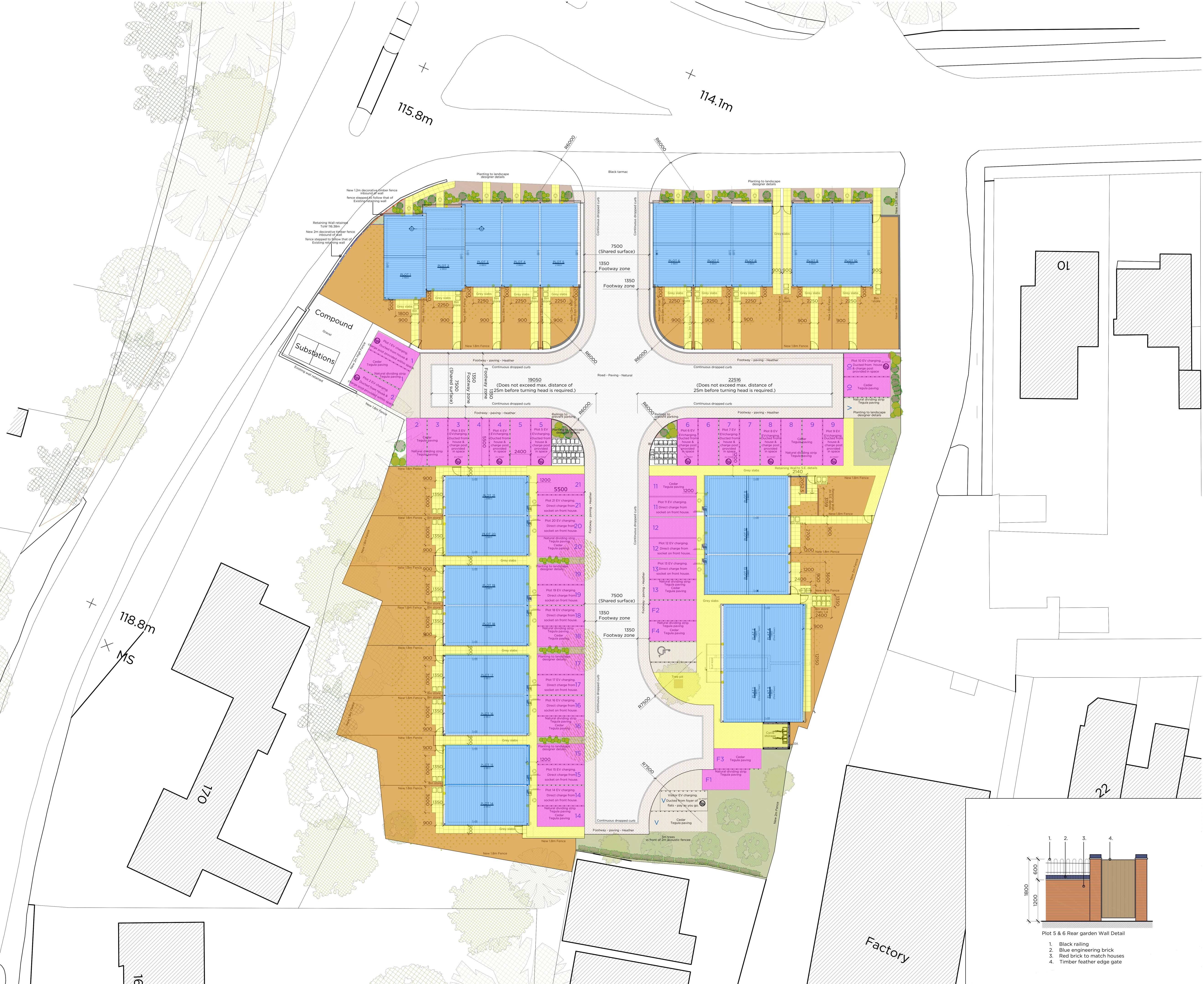
At this stage, it is considered that all foundations should terminate through the made ground into the underlying natural granular soils across the site at a minimum depth of 0.60m begl.

Due to ground variability we've attempted to provide different scenarios (water / soft ground / stratum) of the allowable bearing capacity as outlined overleaf:

Title Reference & Description:

Geo-Environmental investigation

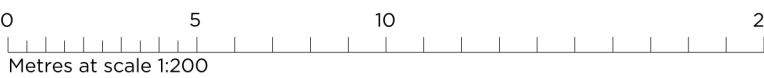
No radon protection measures required.



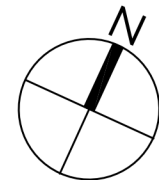
Sketch proposals are for illustrative purposes only & as such are subject to detailed site investigation including ground conditions / contaminants, drainage, design & planning/density negotiations. Sketch proposals may be based upon enlargements of OS sheets & visual estimations of existing site features, accuracy will therefore need to be verified by survey. Sketch proposals have not been considered in respect of CDM Regulations.

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PRELIMINARY



Revision	Date	Notes
A	15.05.24	Retaining wall added to plot 11 rear garden.



- Key**
- External wall light with PIR sensor.
 - Electric vehicle charging. (Box or post as noted)
 - Bin storage/collection. (as noted)
 - Grey slabs (600 x 450) to paths and patios.
 - Block paved inner road - Natural, stretcher bond.
 - Block paved footway - Heather, stretcher bond.
 - Block paved parking bay - Cedar, stretcher bond.
 - Metal stud bay markings.
 - Continuous dropped curb edging - grey.
 - 1.8m high garden fencing - closed boarded.
 - 2m high decorative fence.
 - 1.2m high decorative fence.
 - Planting to landscape designers details.
 - 3m Green screen - in front of 2m acoustic fence. Image below:



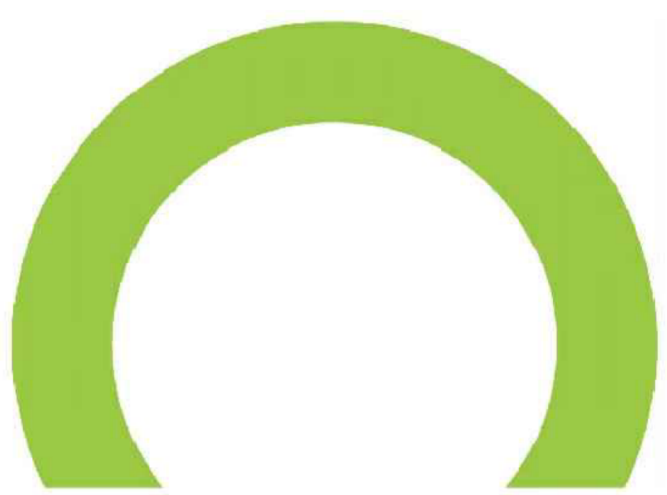
Note:
EV charging provision - Rollec EV Wallpod on external wall to plots fronted by vehicle parking. channel and cover provided in walkway for cable to be housed whilst vehicle is charging and to eliminate trip hazard.

Rollec EV Basic charge Pedestal and safety barrier, with secure key/app in parking bay of plots where parking is not in close proximity to house.

External lighting - to front and rear doors of all plots - Low energy wall light controlled by a PIR detector and with internal switching.

Street lighting layout and type to specialist design.

Garden gates - All rear gates to be vertical timber feather edge.



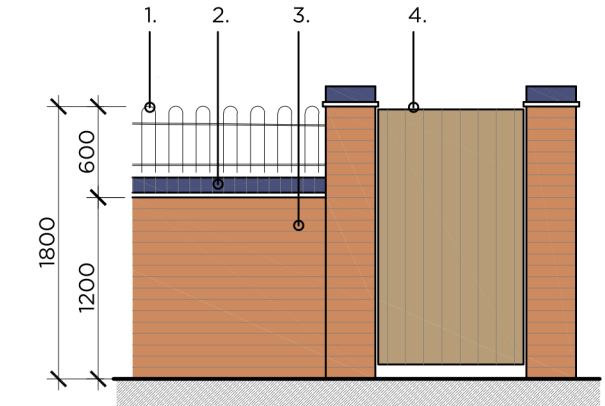
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STANIFORTH ARCHITECTS

Proposed Site Plan

The Warehouse 1A Stamford Street Leicester, LE1 6NL	Drawing Status: Cad Reference: Drawn: Checked: Date: Scale:	FOR COMMENT 1624-X101 DB VB 05.04.2024 1:100@A1
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Project No.	Drawing No.	Revision
Sapcote Road Burbage	1525	120 A



- Plot 5 & 6 Rear garden Wall Detail
- Black railing
 - Blue engineering brick
 - Red brick to match houses
 - Timber feather edge gate

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	Plot datum - all dimensions from this point.
	Water connection in.
	Gas meter.
	Water meter.
	Soil vent pipe.
	Drainage pop up - Kitchen sink.
	Drainage pop up - WC Toilet.
	Drainage pop up - WC Basin

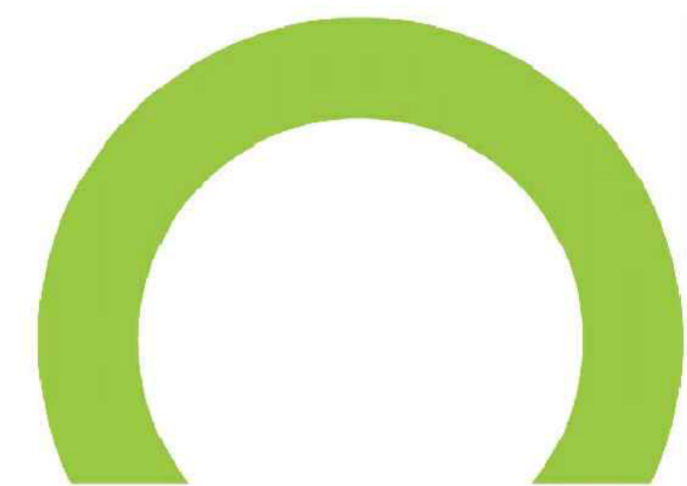
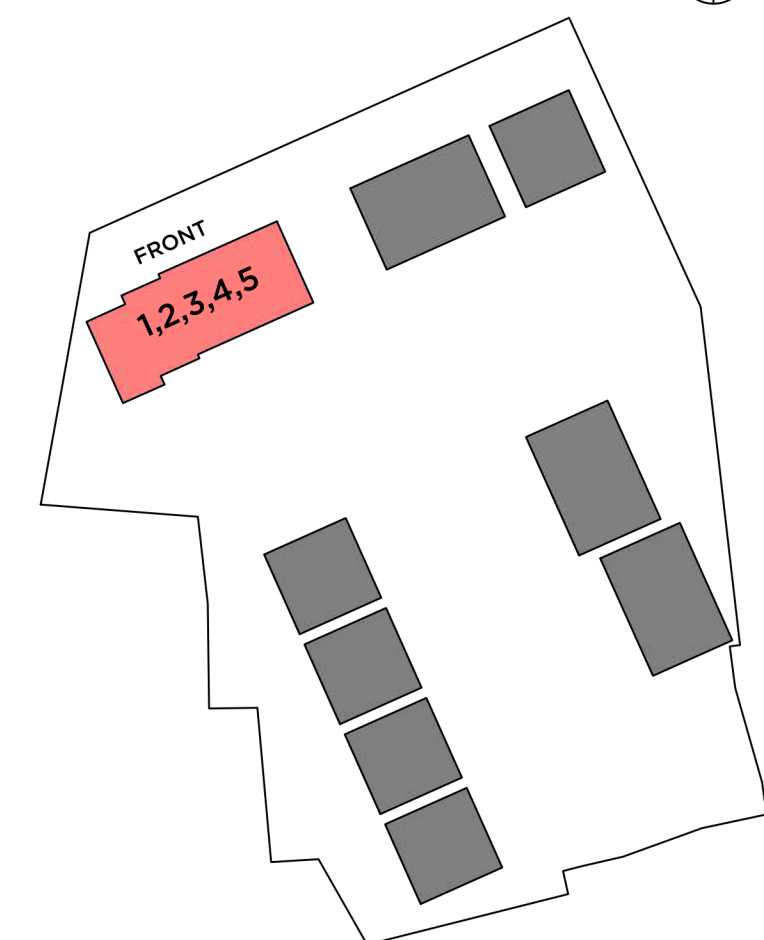
External wall blockwork -outer leaf to be 100mm thick, inner leaf to be 140mm thick.

Partition walls to be 2x 100mm thick blockwork leaves with cavity as specified.

All structure to final specification from Structural Engineer.

All penetrations through structure to Structural Engineer details.

All subject to final approval by the Approved Inspector.



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Plot 1-5 Proposed Sub Ground Floor Plan

Project No. Drawing No. Revision

Sapcote Road	1525	270	-
Burbage			

Sub Ground Floor Plan 1:50

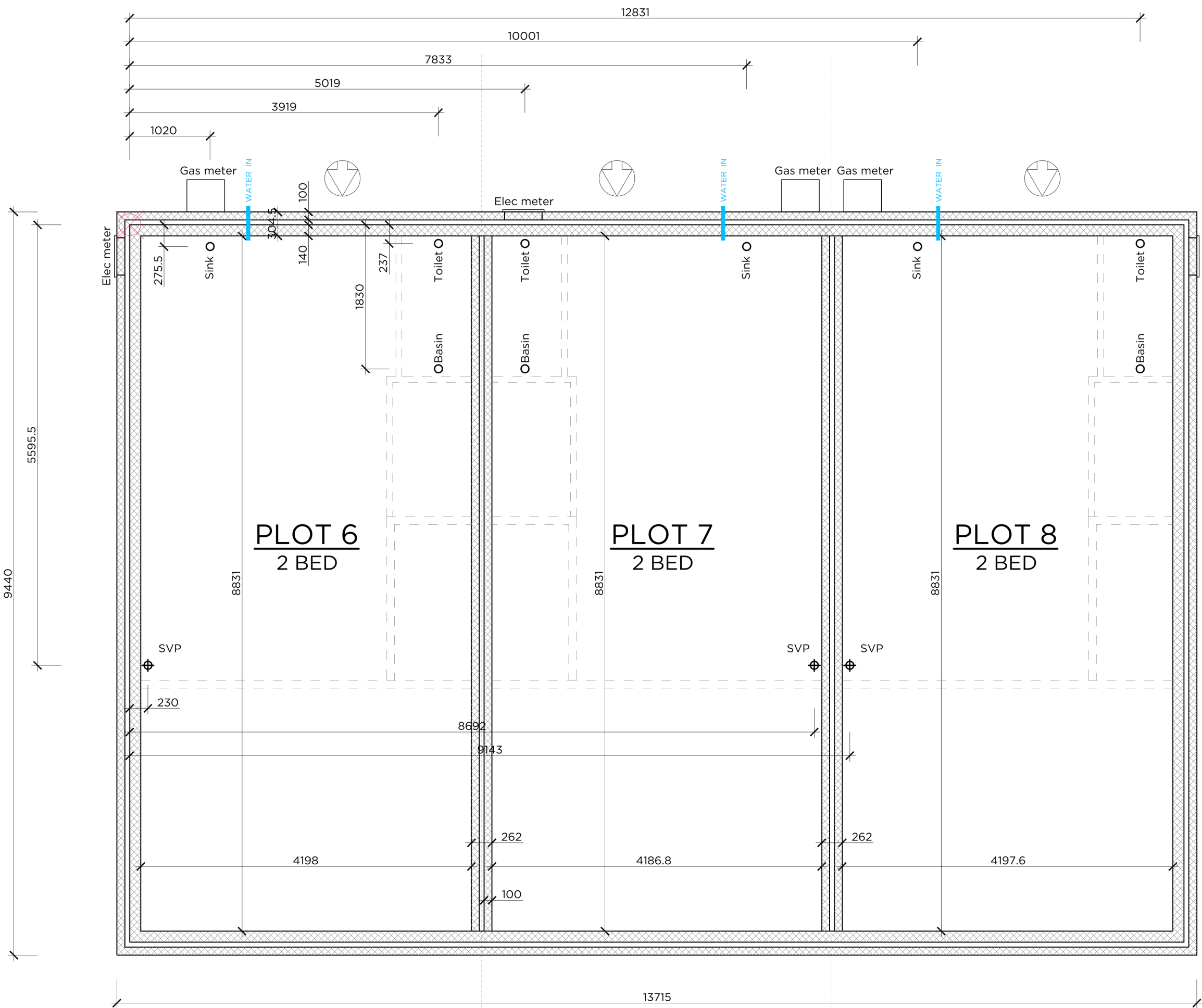
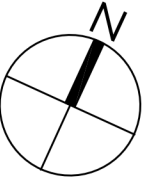
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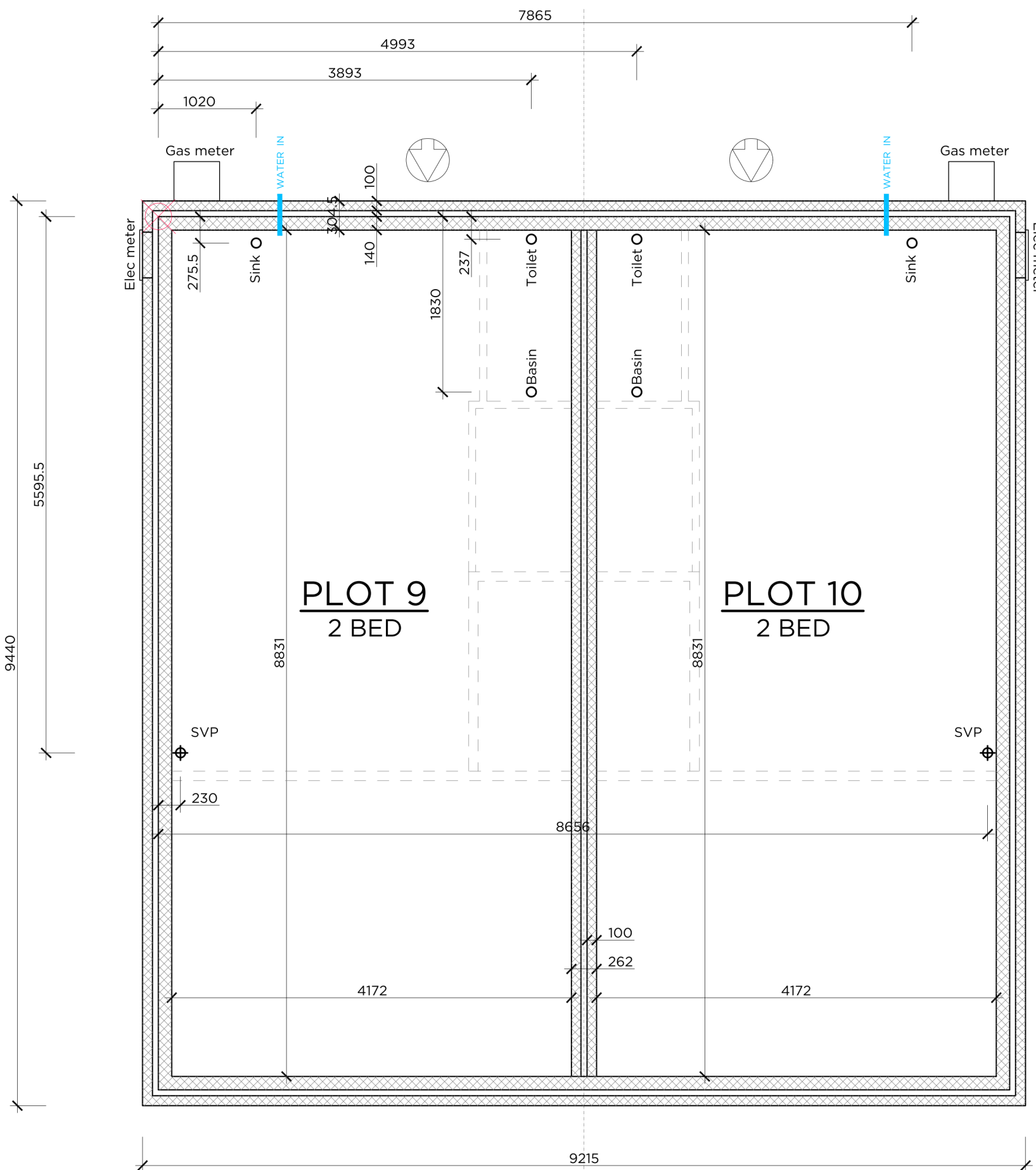
BUILDING REGS



Revision	Date	Notes
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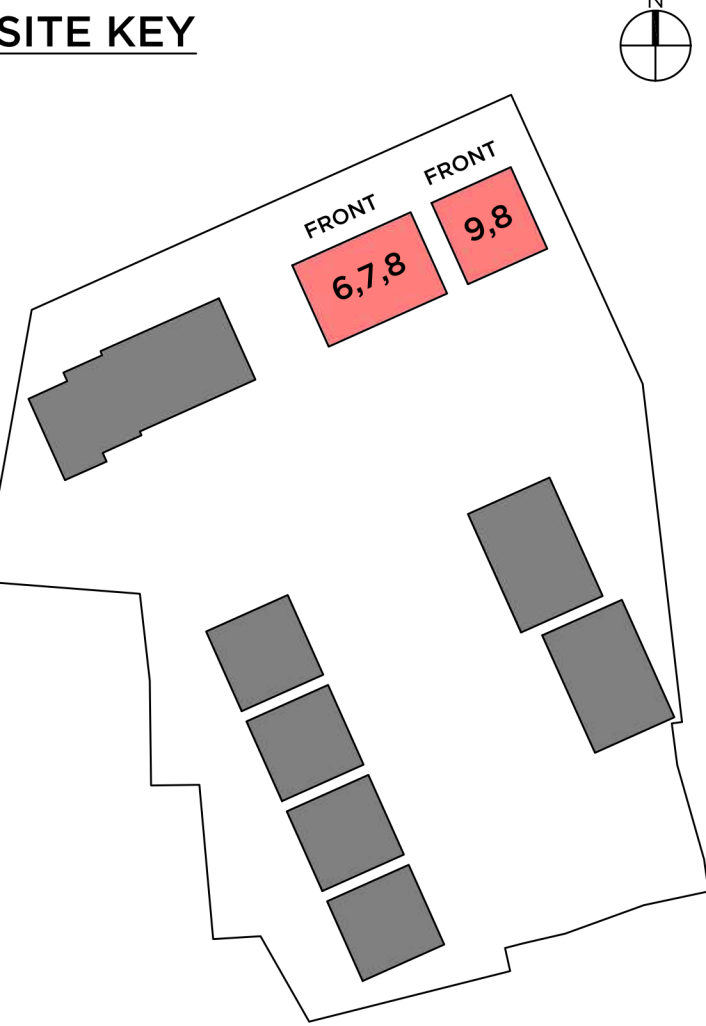
Plot 6, 7 & 8 Sub Ground Floor Plan 1:50



Plot 9 & 10 Sub Ground Floor Plan 1:50

- Key**
- Plot datum - all dimensions from this point.
 - Water connection in.
 - Gas meter.
 - Water meter.
 - Soil vent pipe.
 - Drainage pop up - Kitchen sink.
 - Drainage pop up - WC Toilet.
 - Drainage pop up - WC Basin

Note:
External wall blockwork - outer leaf to be 100mm thick, inner leaf to be 140mm thick.
Partition walls to be 2x 100mm thick blockwork leaves with cavity as specified.
All structure to final specification from Structural Engineer.
All penetrations through structure to Structural Engineer details.
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STANIFORTH ARCHITECTS

Plot 6-8 & 9-10 Proposed Sub Ground Floor Plans

The Warehouse 1A Staniforth Street Leicester, LE1 6NL 0116 2853775 www.staniforth.co.uk	Drawing Status: BUILDING REGS Cad Reference: 1624-X210 Drawn: DB Checked: VB Date: 05.04.2024 Scale: 1:50@A1
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Project No.	Drawing No.	Revision
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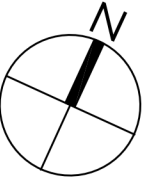
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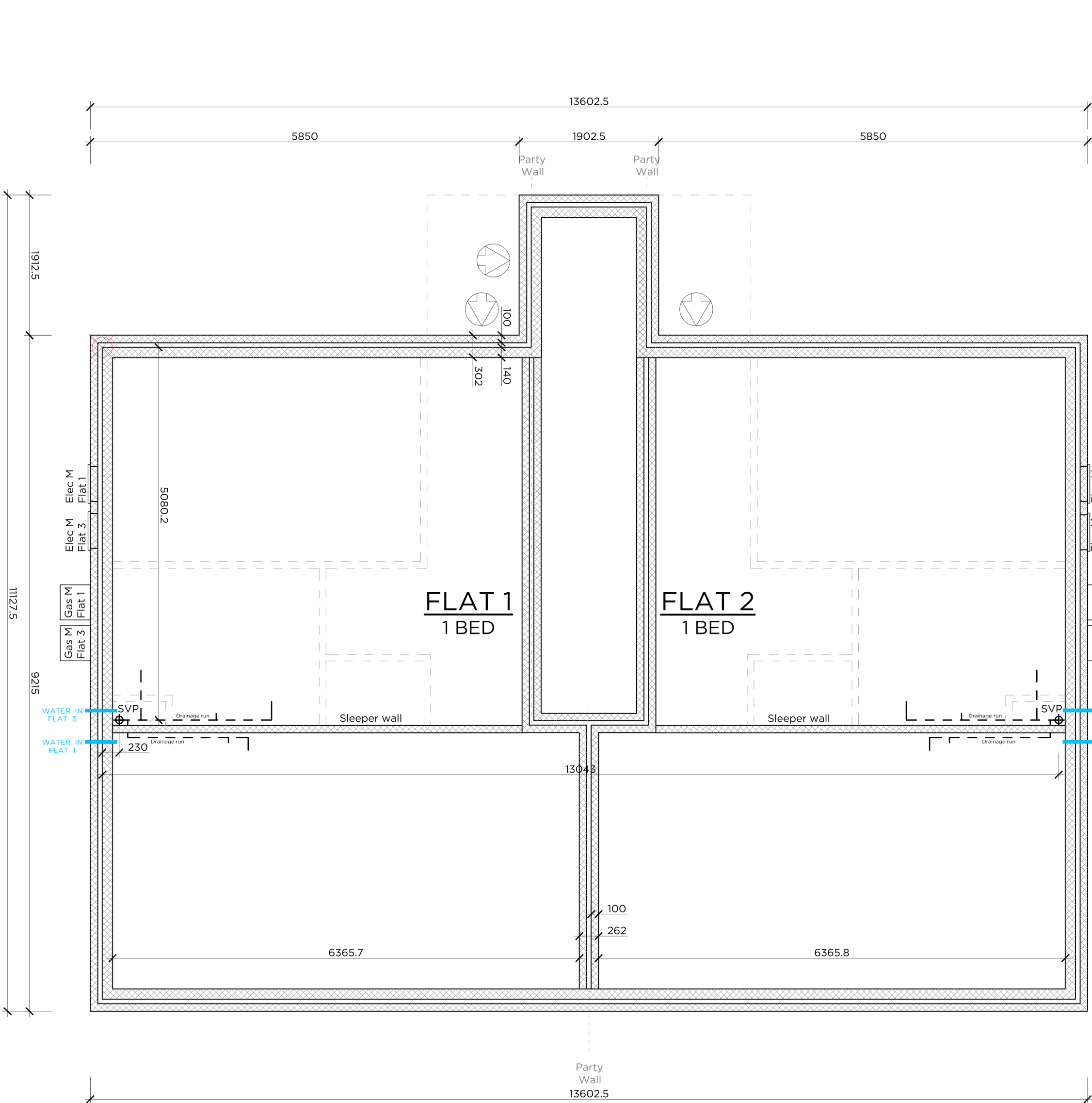
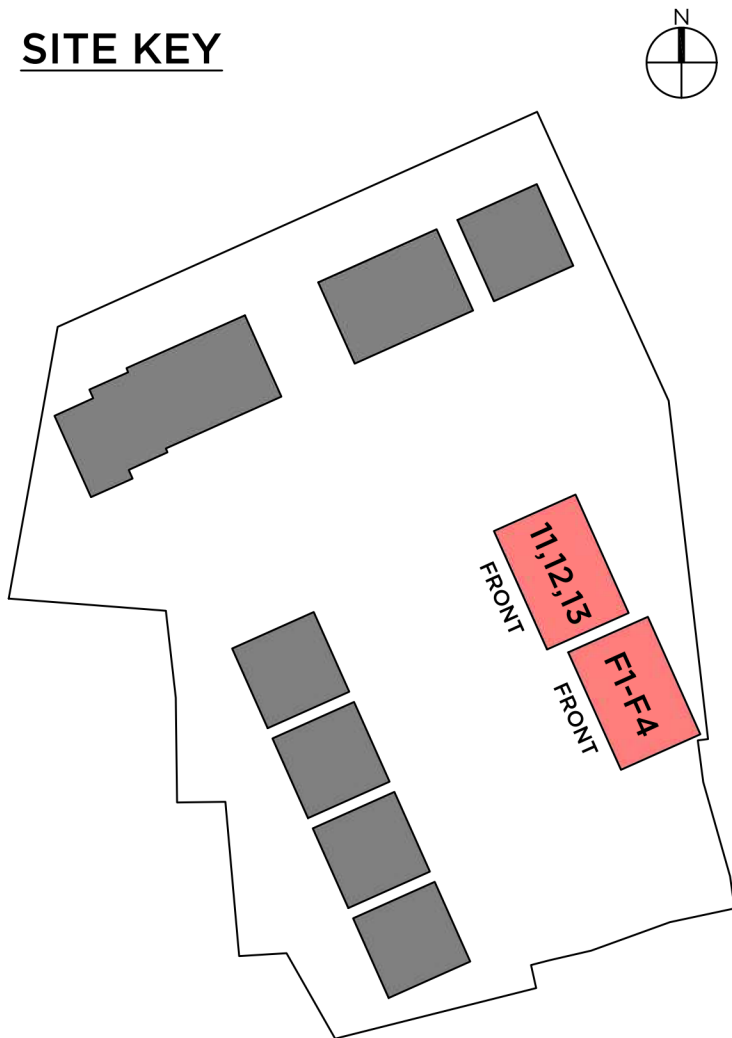
Revision	Date	Notes
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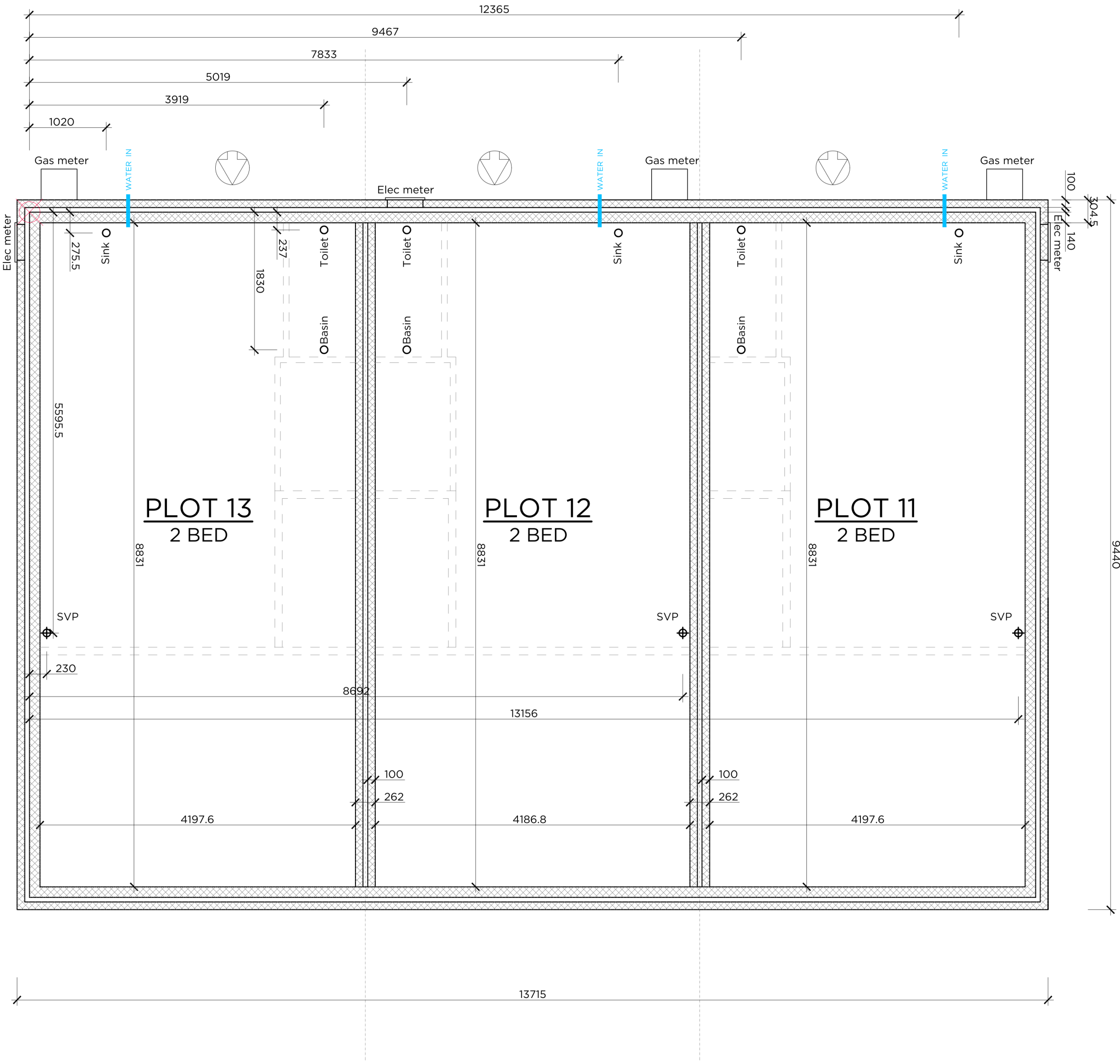
- Key**
- Plot datum - all dimensions from this point.
 - Water connection in.
 - Gas meter.
 - Water meter.
 - Soil vent pipe.
 - Drainage pop up - Kitchen sink.
 - Drainage pop up - WC Toilet.
 - Drainage pop up - WC Basin

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All penetrations through structure to Structural Engineer details.
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SITE KEY



Flat 1-4 Sub Ground Plan 1:50



Plot 11-13 Sub Ground Plan 1:50



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STANIFORTH ARCHITECTS

Plot 11-13 & Flat 1-4 Proposed Sub Ground Plans

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Project No.	Drawing No.	Revision
Sapcote Road Burbage	1525	272 -

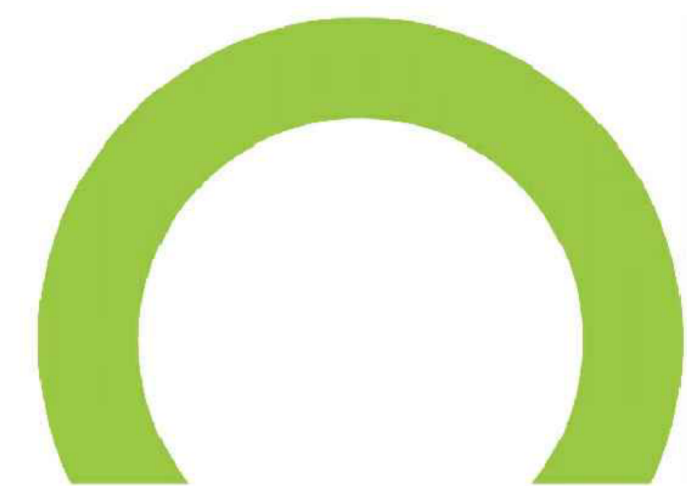
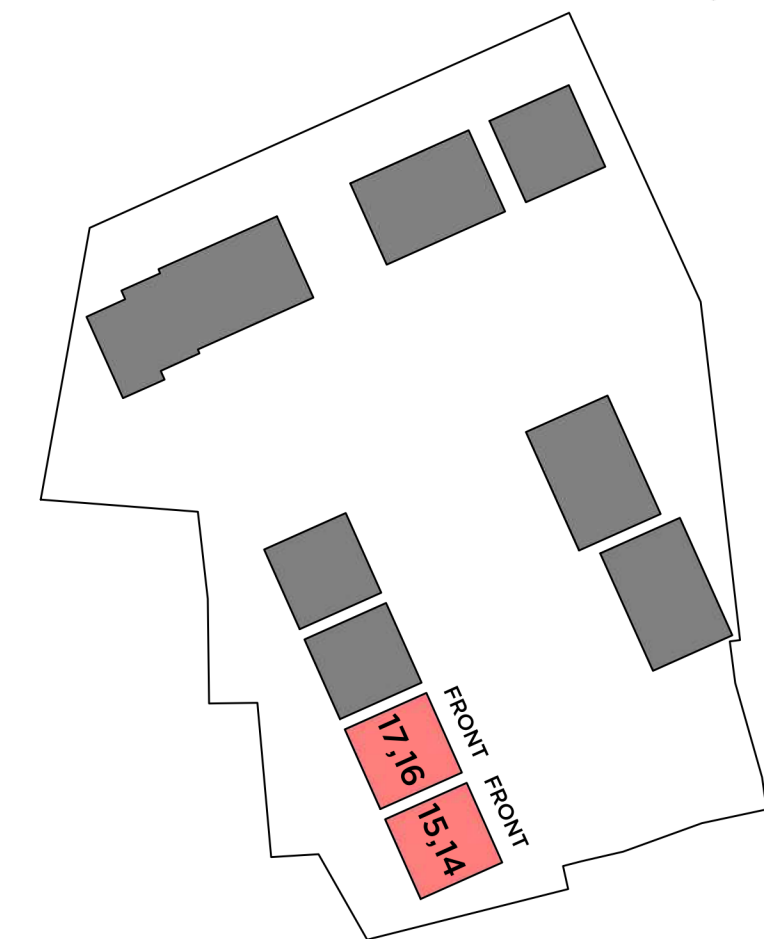
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0 0.5 1 2 3 4 5
Metres at scale 1:50

	Plot datum - all dimensions from this point.
	Water connection in.
	Gas meter.
	Water meter.
SVP	Soil vent pipe.
Sink	Drainage pop up - Kitchen sink.
Toilet	Drainage pop up - WC Toilet.
Basin	Drainage pop up - WC Basin

Partition walls to be 2x 100mm thick blockwork leafs with cavity as specified.

All subject to final approval by the Approved Inspector.

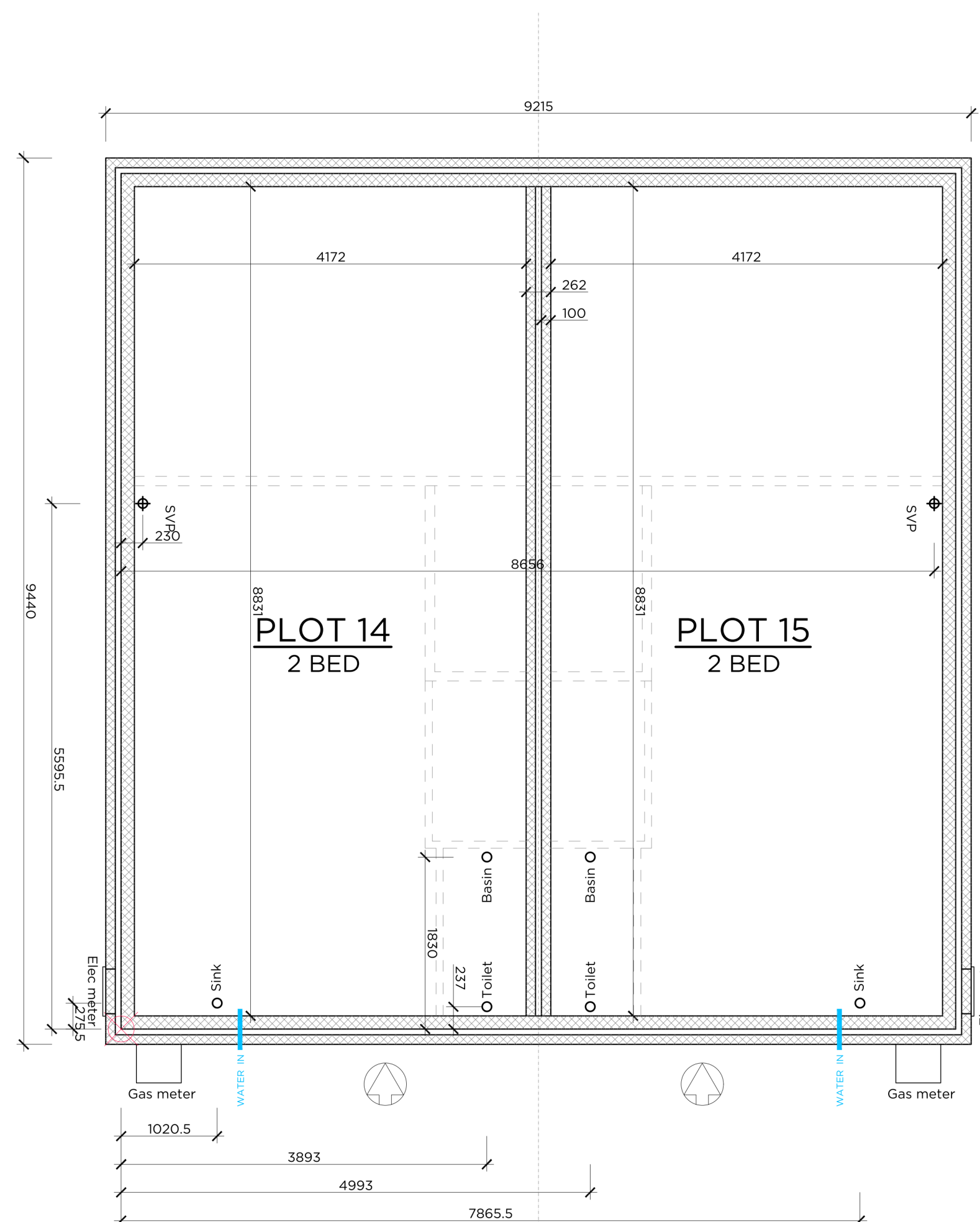


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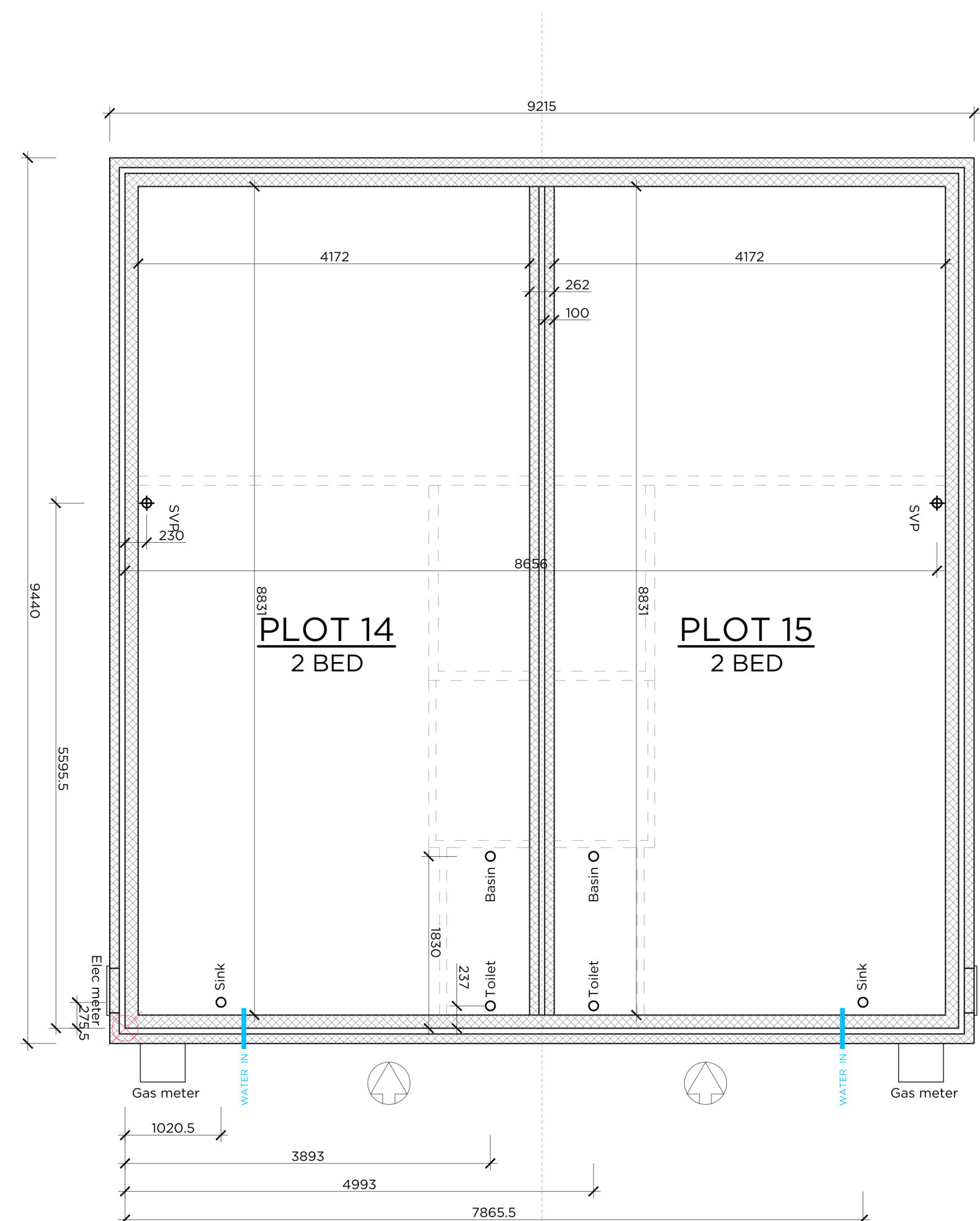
Plot 14-15 & 16-17 Sub Ground Floor Plans

Project No. Drawing No. Revision

Sapcote Road	1525	273	-
Burbage			



Plot 14-15 Sub Ground Plan



Plot 16-17 Sub Ground Plan

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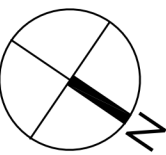
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BUILDING REGS



Revision Date Notes

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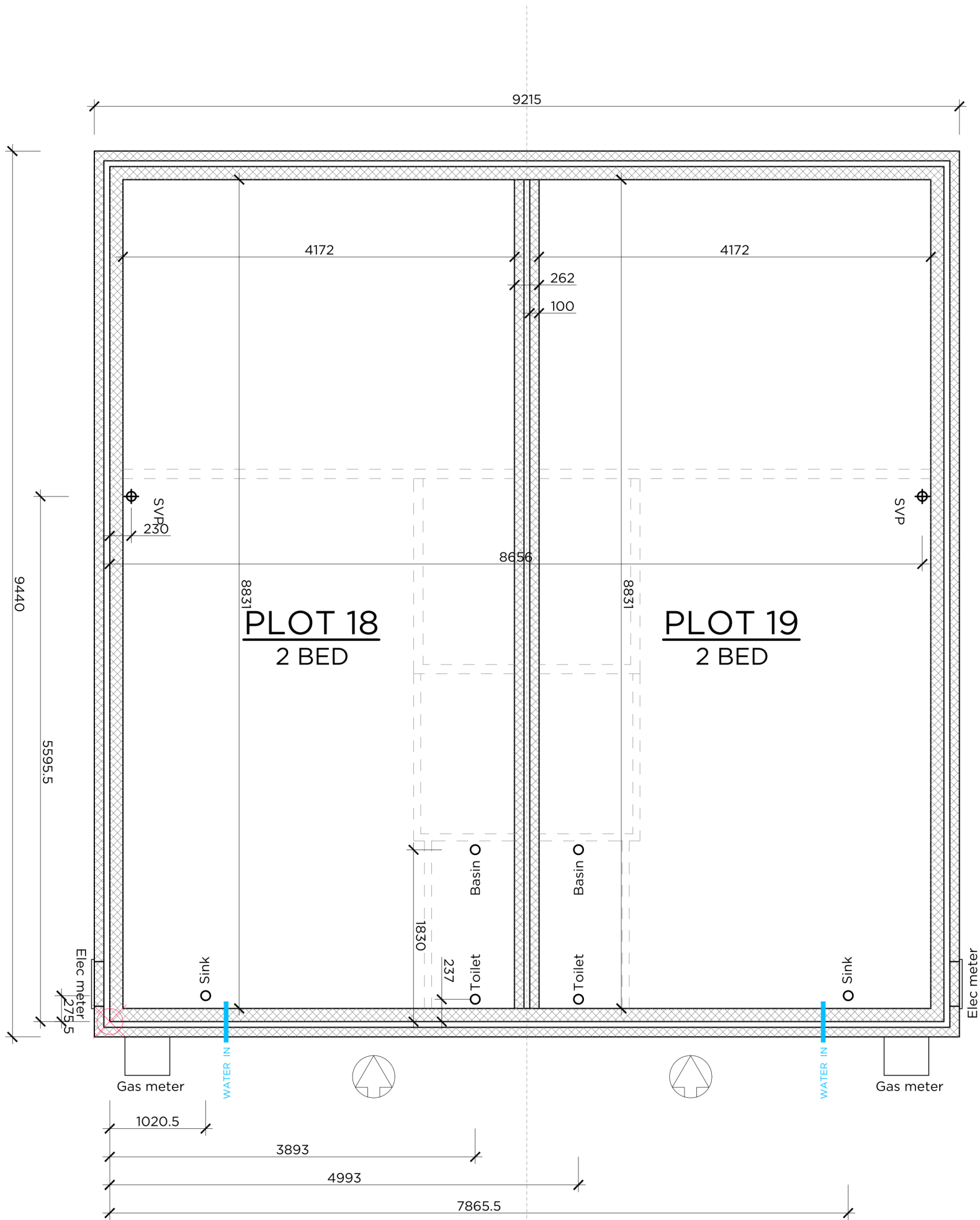
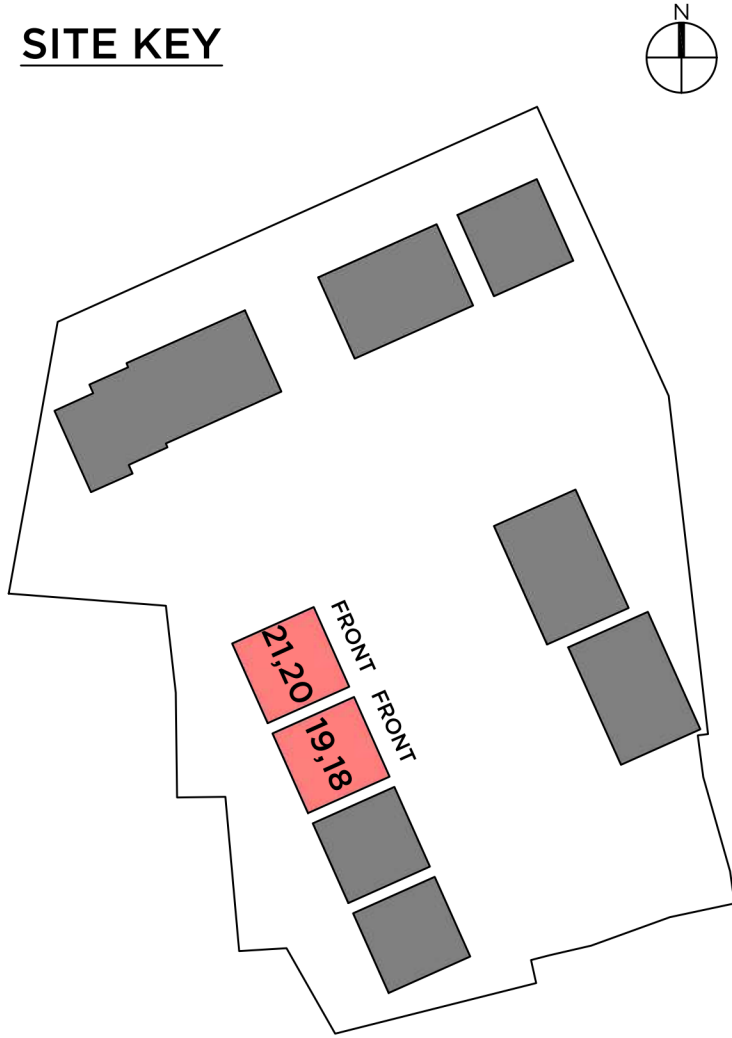


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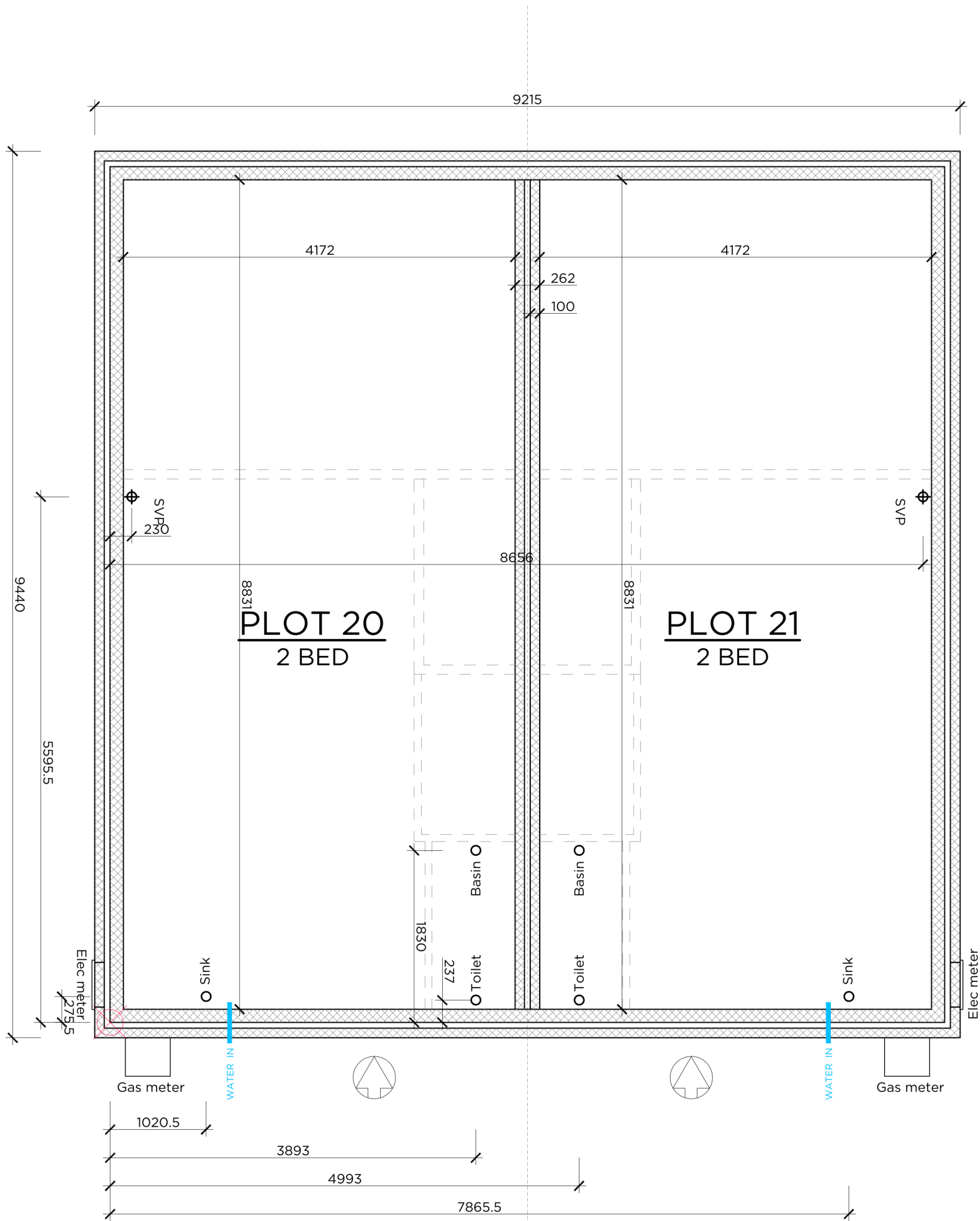
- Plot datum - all dimensions from this point.
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- Sink Drainage pop up - Kitchen sink.
- Toilet Drainage pop up - WC Toilet.
- Basin Drainage pop up - WC Basin

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SITE KEY



Plot 14-15 Sub Ground Plan 1:50



Plot 16-17 Sub Ground Plan 1:50



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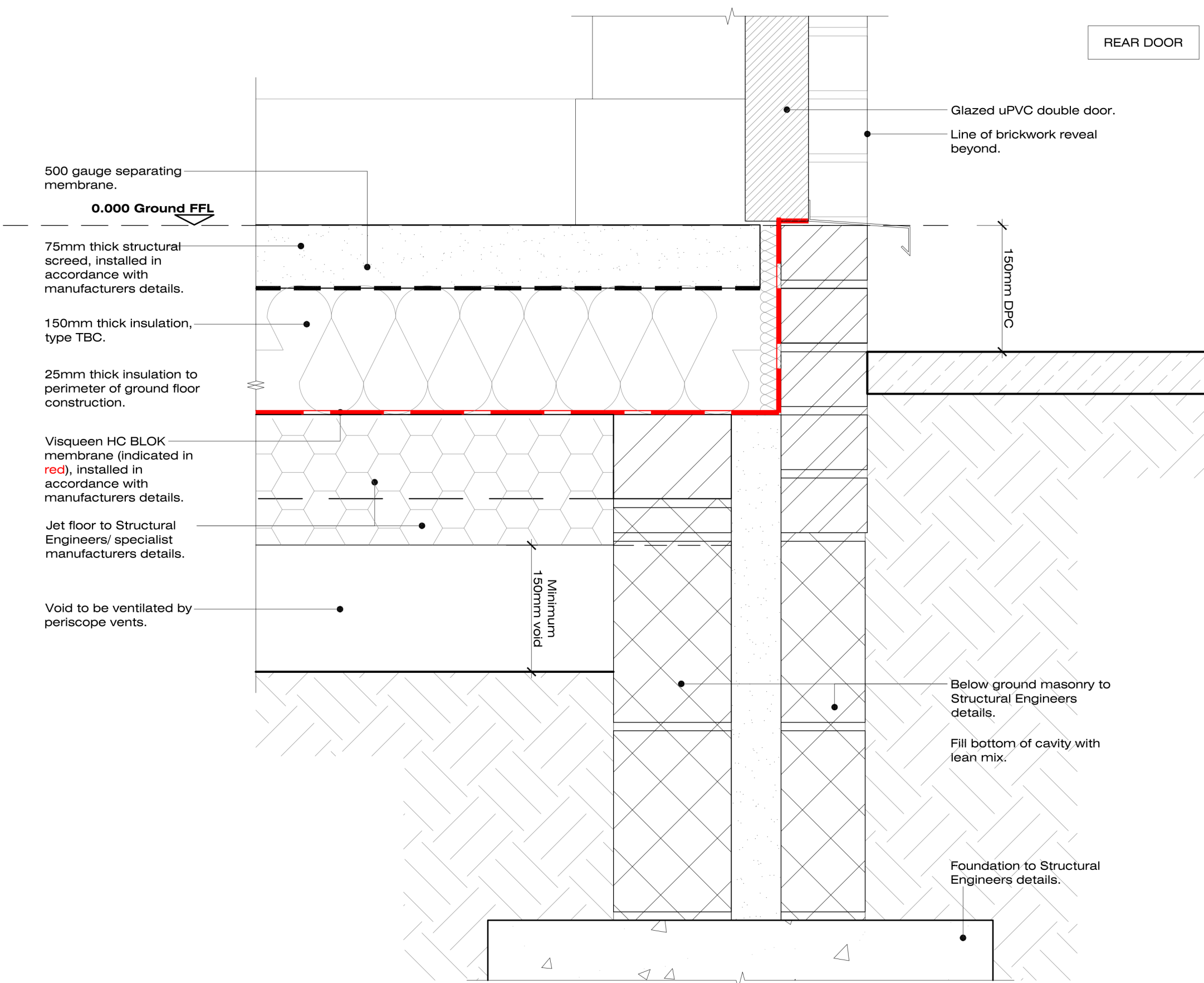
STANIFORTH ARCHITECTS

Plot 18-19 & 20-21 Sub Ground Floor Plans

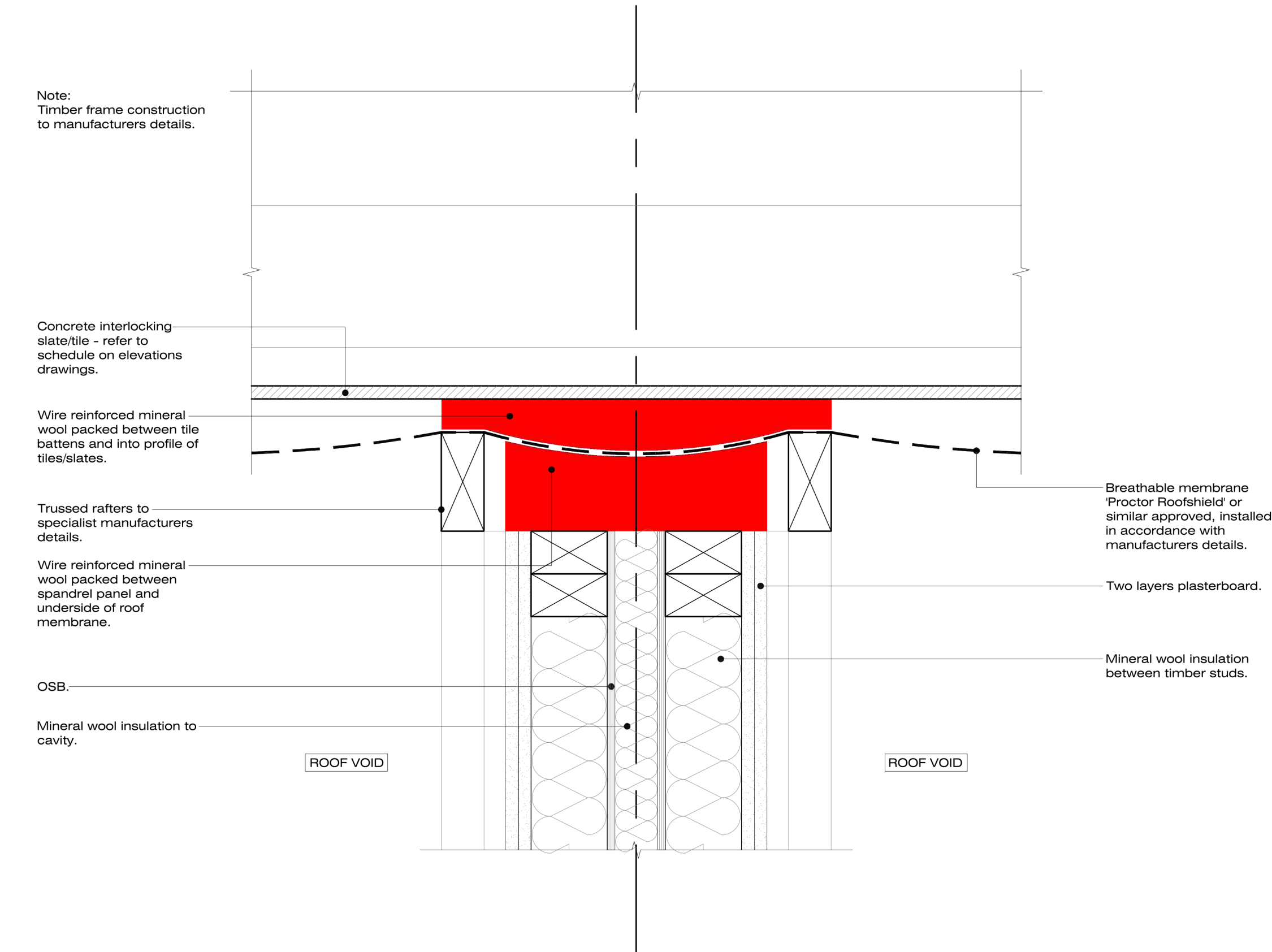
The Warehouse
1A Stamford Street
Leicester, LE1 6NL
0116 2853775
www.staniforth.co.uk

Drawing Status: BUILDING REGS
Cad Reference: 1624-X210
Drawn: DB
Checked: VB
Date: 05.04.2024
Scale: 1:50@A1

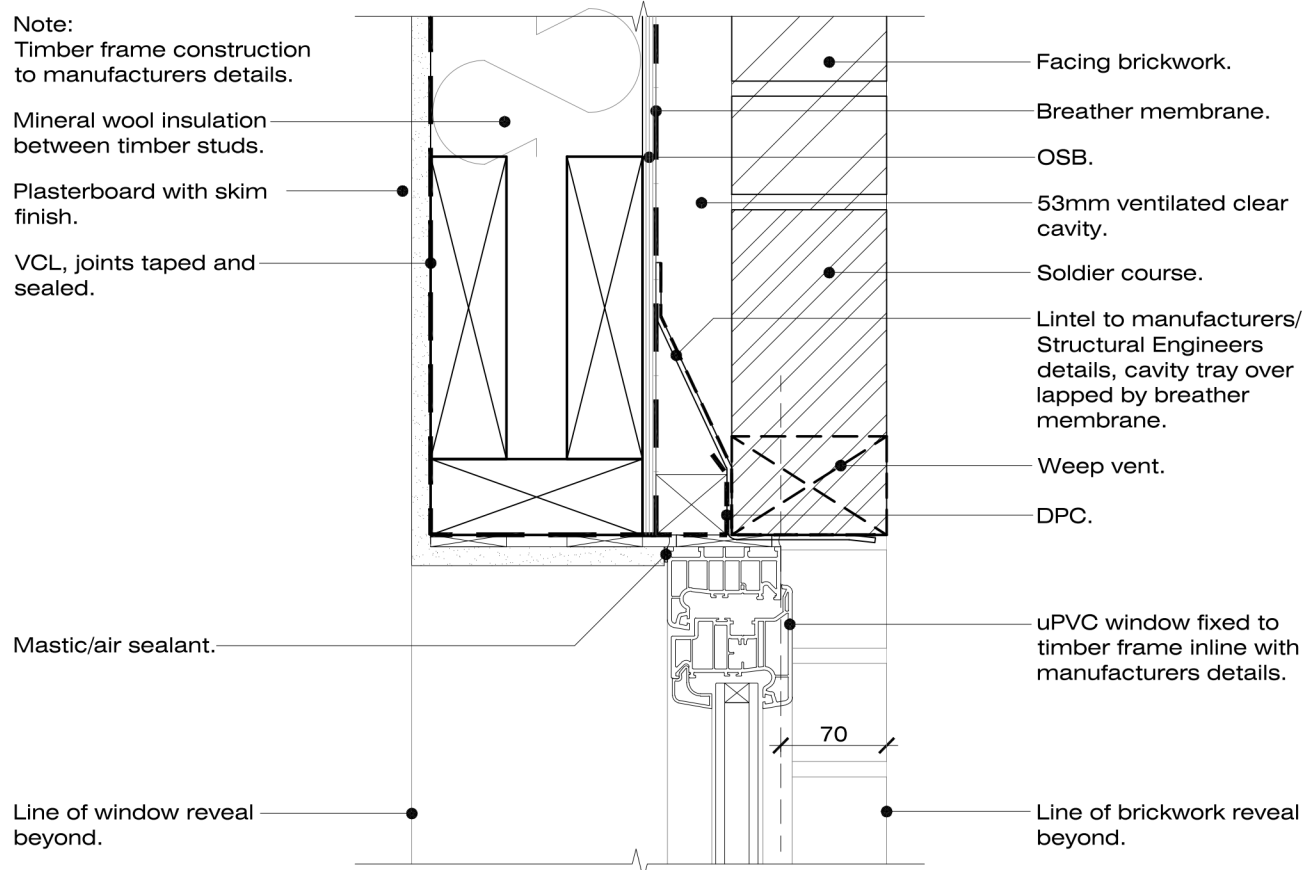
Project No. Drawing No. Revision
Sapcote Road 1525 274 -
Burbage



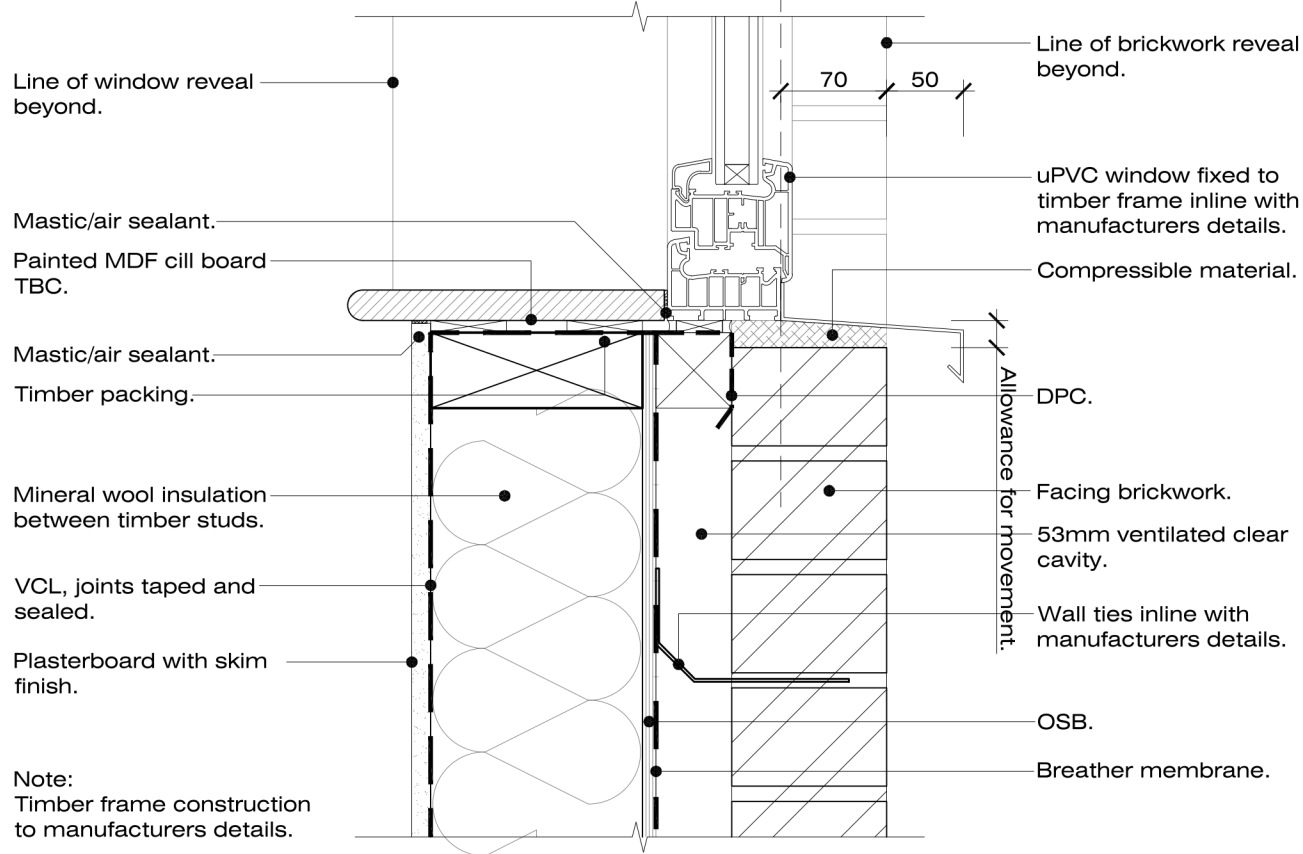
Detail 5 1:5



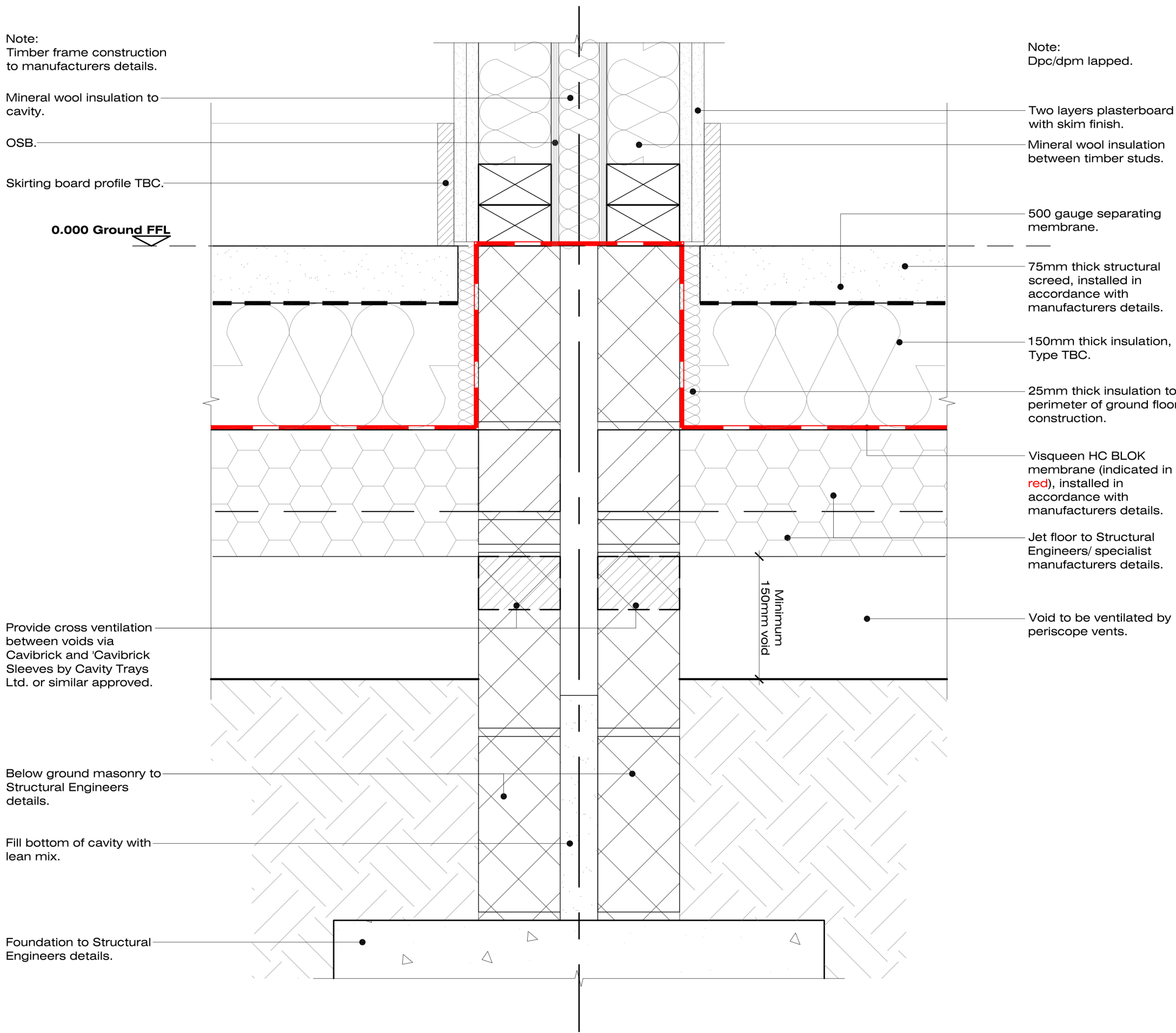
Detail 8 1:5



Detail 7 1:5



Detail 6 1:5



Detail 9 1:5

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BUILDING REGS

0 50 100 200 300 400 500
Millimetres at scale 1:5

Revision	Date	Notes
-	-	-

Note:
Robust details are to be used at all relevant party walls, floors and roofs. These should be installed by a competent contractor as per the specific requirements listed to satisfy the detail upon inspection.



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STANIFORTH
ARCHITECTS

Construction Details - Sheet 2

The Warehouse 1A Staniforth Street Leicester, LE1 6NL 0116 2853775 www.staniforth.co.uk	Drawing Status: Cad Reference: Drawn: Checked: Date: Scale:	BUILDING REGS 1624-X300 DB VB 10.04.2024 1:5@A1
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Project No.	Drawing No.	Revision
Sapcote Road Burbage	1525	601 -

Visqueen Gas Barrier

Features and benefits

- BBA certified - third party accreditation
- Complies with BS 8485:2015 + A1:2019 - industry standard for methane and carbon dioxide protection
- Flexible - easy to detail and install on site
- Multi functional - also acts as a radon and damp proof membrane
- Dual jointing methods - lap joints can be taped or heat welded

Product description

Visqueen Gas Barrier is a multi-layer reinforced polyethylene gas barrier with a 20 micron aluminium foil. The barrier is coloured blue on the upper surface and silver on the reverse. The product is supplied in single wound rolls (not folded), 2m x 50m.

Approvals and standards

- Third party accreditation (BBA 13/5069)
- Conforms to the specification requirements of BS 8485:2015 + A1:2019
- Suitable for all Characteristic Gas Situation (CS) ground gas regimes
- Conforms to the specification requirements of NHBC Amber 1 and Amber 2 applications
- Conforms to the specification requirements of BR 211:2015
- CE Mark EN 13967:2017
- Quality Management System ISO 9001:2015
- Occupational Health and Safety System ISO 18001:2007
- Environmental Management System ISO 14001:2015

Usage

Visqueen Gas Barrier is suitable for use in all types of buildings to prevent the ingress of harmful levels of ground gases e.g. methane, carbon dioxide and radon.

The barrier can be positioned above or below a solid concrete ground floor slab or above a precast suspended segmental ground floor system, e.g. beam and block floor.

The barrier can also be used as a high performance radon membrane and/or damp proof membrane.

The product is not intended for use where there is a risk of hydrostatic pressure.

System components

- VisqueenPro Double Sided Jointing Tape, 50mm x 10m
- Visqueen Gas Resistant Foil Lap Tape, 75mm x 50m
- Visqueen GR Lap Tape, 150mm x 10m
- Visqueen Ultimate Top Hat Units
- Visqueen Preformed Units
- VisqueenPro Detailing Strip, 300mm x 10m, 500mm x 10m
- Visqueen TreadGUARD 300, 2m x 75m
- Visqueen TreadGUARD 1500, 1m x 2m

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Visqueen Gas Barrier

Storage and handling

Visqueen Gas Barrier should be stored horizontally, under cover in its original packaging.

Care should be taken when handling the product in line with current manual handling regulations.

Preparation

Visqueen Gas Barrier should be installed on a smooth continuous surface e.g. grouted beam and block floor, a compacted blinding layer e.g. 50mm thick sand blinding, or smooth concrete blinding. The substrate should be free from irregularities such as voids or protrusions.

The barrier can be cut with a sharp retractable safety knife or robust scissors.

When installing the membrane in demanding site conditions, use Visqueen GR Lap Tape in place of Visqueen Gas Resistant Foil Lap Tape.

Installation

Visqueen Gas Barrier should be loose laid on the substrate with the blue side up so as to avoid sunlight glare.

The barrier should be clean and dry at the time of jointing. It should be overlapped by at least 150mm, bonded with Visqueen Pro Double Sided Jointing Tape and sealed with Visqueen Gas Resistant Foil Lap Tape.

Alternatively lap joints can be heat welded to achieve an effective seal. Welded lap joints can be less than 150mm provided the joint integrity is not compromised.

Airtight seals should be formed around all service entry points. Visqueen Preformed Top Hat Units should be used for sealing service entry pipes. The base of the top hat and the upstand should be bonded using Visqueen Pro Double Sided Jointing Tape and sealed with Visqueen Gas Resistant Foil Lap Tape. The upstand should be secured with the supplied jubilee clip.

Forming an effective barrier to gases may give rise to complex three-dimensional detailing where, it is recommended Visqueen Preformed Units are used e.g. corners. Alternatively Visqueen Pro Detailing Strip can be used to seal awkward junctions.

If the barrier is punctured or perforated a patch of the same material should be lapped at least 150mm beyond the limits of the puncture and bonded with Visqueen Pro Double Sided Jointing Tape and sealed with Visqueen Gas Resistant Foil Lap Tape. Alternatively a patch can be formed using Visqueen Pro Detailing Strip and lapped at least 150mm beyond the extents of the puncture.

The barrier should be covered by a protective layer as soon as possible after installation to prevent damage e.g. from following trades. Care should be taken to ensure that the membrane is not punctured, stretched or displaced when applying a screed or final floor covering. A minimum thickness of 50mm screed is recommended. When reinforced concrete is to be laid over the barrier the wire reinforcements and spacers must be prevented from puncturing the barrier. Where there is a high risk of potential damage, the barrier should be covered with Visqueen TreadGuard protection, screed, or other approved protection material before positioning the reinforcement.

Usable temperature range

It is recommended that Visqueen Gas Barrier and all associated system components should not be installed below 5°C.

Additional information

When used in accordance BS8485:2015 + A1:2019 a subfloor ventilation system or pressure relief maybe required
Where hydrocarbon or VOC contamination is present use Visqueen Ultimate VOC or HC Blok gas protection systems
To assist build sequencing, Visqueen GR DPC is available for gas protection through the wall constructions
For suspended beam and block floor detailing see GB-01
Visqueen Preformed Top Hat Units should be used at service pipe penetrations see GB-51
For internal and external corners Visqueen Ultimate Preformed Units should be used see PFU-553
To seal around steel columns use Visqueen Pro Detailing Strip see GB-52
For additional detailing information, contact Visqueen Technical Services +44 (0) 333 202 6800

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Visqueen Gas Barrier

Property	Test method	Units	Compliance criteria	Result
Dimensions	EN 1848-2	m		2 x 50
Overall thickness including scrim mesh	EN 1849-2	mm	+/-10%	0.52
Mass	EN 1849-2	g/m ²	-0%/+5%	400
Tensile strength - MD	EN 12311	N	MLV	350
Tensile strength - CD	EN 12311	N	MLV	350
Tensile elongation - MD	EN 12311	%	MLV	20
Tensile elongation - CD	EN 12311	%	MLV	21
Joint strength	EN 12317-2	N	MLV	332
Watertightness 2kPa	EN 1928	-	Pass/Fail	Pass
Resistance to impact	EN 12691	mm	MDV	150
Dart impact	BS 2782	g	MDV	731
Low temperature flexibility	EN 495-5	°C	MDV	-40
Durability against ageing	EN 1296 and EN 1928	-	Pass/Fail	Pass
Durability chemical resistance	EN 1847	-	Pass/Fail	Pass
Resistance to tearing (nail shank) CD	EN 12310-1	N	MDV	358
Resistance to tearing (nail shank) MD	EN 12310-1	N	MDV	368
Resistance to static loading	EN 12730	kg	MLV	20
Water vapour transmission - resistance	EN 1931	MNs/g	MDV	7000
Water vapour transmission - permeability	EN 1931	g/m ² /d	MDV	0.03
Visible defects	EN 1850 -2	-	Pass/Fail	Pass
Reaction to fire	EN 13501-1	Class	MDV	F
BS 8485:2015 + A1:2019 testing requirements				
Mass	EN 1849-2	g/m ²	Average >370	400
Methane permeability	ISO 15105-1	mIs/m ² /d/atm	Pass/Fail	<0.15
Puncture CBR	BS EN ISO 12236	N	MDV	1114
Tensiles yield strength MD	ASTM D4885-01	kN/m	MDV	12.5
Tensiles yield strength CD	ASTM D4885-02	kN/m	MDV	7.3
Resistance to static loading	EN 12730	kg	>MLV	20
Yield elongation CD	ASTM D4885-04	%	MDV	19
Tear resistance - trouser method A - MD	BS ISO 34-1	kN/m	MDV	48.2
Tear resistance - trouser method A - CD	BS ISO 34-1	kN/m	MDV	44.8
Tear resistance - angle method B - MD	BS ISO 34-1	N	MDV	53.5
Tear resistance - angle method B - CD	BS ISO 34-1	N	MDV	60.6

Health and safety information

Refer to the Visqueen Gas Barrier material safety datasheet (MSDS).

Visqueen Gas Barrier

About Visqueen

The Visqueen name has long been recognised as one of the leading manufacturers of high quality advanced membrane technologies and design based solutions by specifiers, distributors, builders merchants and contractors throughout the UK and Europe.

For further guidance on the Visqueen services shown below, please refer to the relevant section of the Visqueen website (www.visqueen.com) or contact Visqueen Technical Services on +44 (0) 333 202 6800 or enquiries@visqueen.com

Complete Range, Complete Solution



Structural
Waterproofing



Gas
Protection



Damp Proof
Membrane



Tapes



Damp Proof
Course



Stormwater



Vapour
Control

Visqueen Technical Support

Visqueen combine an extensive product portfolio with industry leading levels of service and support which includes guidance over the phone, bespoke CAD drawings to help with complex detailing, electronic NBS specifications and access to a dedicated team of highly knowledgeable and experienced field based Technical Support Managers.

Visqueen Technical Support is available to all our customers including architects, specifiers, distributors, builders merchants, contractors and end users. All of our technical team have been awarded the industry recognised qualification Certificated Surveyor in Structural Waterproofing (CSSW).

Visqueen CPD Seminars

The Visqueen Continuing Professional Development (CPD) Seminars provide up-to-date information on changes within Building Regulations/Building Standards and nationally recognised industry guidance affecting damp proofing, water vapour control, hazardous ground gas protection and below ground structural waterproofing.

The one hour seminars have been produced for design specialists within the construction sector and are delivered by our team of Technical Support Managers.

Visqueen PI designs and special projects

From initial design to the completed project, Visqueen are with you every step of the way. Whether it be hazardous ground gas protection and/or below ground waterproofing protection employing barrier, structurally integral or drained systems, Visqueen can offer professional indemnity (PI) insurance for bespoke Visqueen design solutions.

Visqueen Technical Support Managers work with all stakeholders to provide cost effective Visqueen solutions offering complete peace of mind throughout the construction phase and beyond.

Visqueen Training Academy

Based at our manufacturing facility in Derbyshire, the Visqueen Training Academy is available to support Visqueen customers throughout the UK by providing a wide range of both theory and practical skills related training.

Courses include one day product awareness training for our distributors and builders merchants to help them in their day-to-day jobs, through to intensive three day courses giving detailed hands-on training in the practical skills required for safe and robust product installation.

VisqueenPro Detailing Strip, 300mm x 10m, 500mm x 10m

Features & benefits

- Flexible - can be cut and shaped to various applications
- Multi-use - suitable for complex junctions, stanchions, patchwork and terminations
- Gas resistant aluminium core

Product description

VisqueenPro Detailing Strip is a composite of PET/aluminium and a cold weather butyl compound. It is available in roll format, 300mm x 10m and 500mm x 10m.

Approvals and standards

- Complies with the methane gas transmission rate, mass per unit area and thickness requirements of BS 8485:2015 + A1:2019 - industry standard for methane and carbon dioxide protection
- Suitable for all Characteristic Gas Situation (CS) ground gas regimes
- Conforms to the specification requirements of NHBC Amber 1 and Amber 2 applications
- Conforms to the specification requirements of BR 211:2023
- Visqueen certified with Quality Management System ISO 9001:2015
- Visqueen certified with Occupational Health and Safety System ISO 45001:2018
- Visqueen certified with Environmental Management System ISO 14001:2015

Usage

VisqueenPro Detailing Strip is used for sealing junctions and complicated detailing in Visqueen gas protection systems, waterproofing systems, and damp proofing systems. It can be used on concrete, blockwork, brickwork, particle boards, steel work, steel stanchions and wooden substrates for both vertical and horizontal application.

System components

- Visqueen HP Tanking Primer, 5L

Storage and handling

Store in a dry and clean environment in its current packaging. The product must be stored upright.

VisqueenPro Detailing Strip can be cut with a sharp retractable safety knife.

Care should be taken when handling the product in line with current manual handling regulations.

Preparation

Surfaces must be smooth and free from sharp protrusions, ensure the surface and working area is not water logged and is frost free. When applying to blockwork or brickwork the joints must be flush pointed. Prior to bonding, substrates such as masonry, concrete and steel should be primed using Visqueen HP Tanking Primer and allowed to dry thoroughly. Visqueen HP Tanking Primer must not be used on Insulation or ICF systems.

Installation

Position and peel back the VisqueenPro Detailing Strip release film and apply the pressure sensitive, self adhesive face to the prepared substrate. Apply pressure by rolling to ensure a full bond is achieved. All lap joints should be a minimum of 150mm and must be pressed and rolled to ensure damp, gas or waterproofing continuity.

When used for sealing membranes punctures, VisqueenPro Detailing Strip should be lapped at least 150mm beyond the extents of the puncture.

Usable temperature range

It is recommended that VisqueenPro Detailing Strip should be installed above -5°C. Prior to installation, ensure that frost or ice is not present on the substrate.

Additional information

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Property	Value
Width	300mm or

VisqueenPro Detailing Strip, 300mm x 10m, 500mm x 10m

	500mm
Length	10m
Application temperature range	-5°C to 40°C
Peel Adhesion BS EN 12316, ASTM D1000, in N/cm @ 5°C	
- Polyethylene	20.7
- Polyethylene with no static charge	21.2
- Steel	26.9
- Concrete	28.8
Mean water vapour resistance factor, BS EN 1931, u	3960000
Mean water vapour diffusion equivalent air layer thickness BS EN 1931, (Sd) in m	4752
Mean water vapour resistance, BS EN 1931, MNs/g	23760
Mean water vapour permeability, BS EN 1931, g/m2/day	0.03

Health and safety information

Refer to the VisqueenPro Detailing Strip safety datasheet (SDS)

About Visqueen

Visqueen is a leading provider of construction membrane technologies and design-based solutions for ground gas, structural waterproofing, damp proofing and fire protection.

We offer complete support at every stage of the specification, including the supply chain process. As the UK's principal technical authority, we are best placed to ensure that the principal designer and contractor specify the most technically suited, durable, and competitive solution to guarantee their project is protected for the lifetime of the building.

Visqueen is at the forefront of advanced membrane technology and innovation in the construction industry, earning the trust and loyalty of specifiers throughout the UK and Europe.

For more information, visit visqueen.com or contact our sales office at [+44 \(0\) 333 202 6800](tel:+44202332026800) or enquiries@visqueen.com

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Gas Protection



Damp Proof Membrane



Air and Vapor Control



Stormwater



Damp Proof Course



Temporary Protection

Visqueen Technical Support

Visqueen offer a comprehensive full nationwide technical support. Our team of CSSW qualified technical support managers provide on site design-based solutions for specifiers, contractors and builders merchants, and will ensure that from design stage to installation the project is fully risk assessed and the specification is approved by all stakeholders.

Our Technical Office, can design, prepare and manage CAD detailing, together with assisting in quantity take offs, while offering advice on technical installations and product selection.

Competency & Design

Visqueen promotes competency in building design by ensuring that its technical team possesses the necessary skills, knowledge, experience, and ethical practices. The company adopts the "golden thread of information," ensuring all project data is digitally secure and accessible throughout a building's lifecycle. This approach aligns

VisqueenPro Detailing Strip, 300mm x 10m, 500mm x 10m

with the Building Safety Act and aims to foster accountability and compliance with evolving regulations, providing clients with confidence in the safety and reliability of their projects.

Visqueen CPD Seminars

Visqueen's CPD Seminars offer insights into Building Regulations, Standards, and industry guidance related to damp proofing, hazardous ground gas protection, and structural waterproofing. These one-hour seminars are tailored for construction design professionals and delivered by our Technical Support Managers. Visit our website to book a free CPD.

Visqueen Contract Design Services

Visqueen Contract Design Services offers a bespoke design service led by our team of Certified Surveyors in Structural Waterproofing (CSSW), providing experienced and specialised waterproofing design expertise for complex projects. We provide comprehensive support throughout the entire project, ensuring that all work meets the requirements of warranty providers and adheres to the highest standards of quality, reliability and current legislation.

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VisqueenPro Double Sided Jointing Tape, 50mm x 10m

Features & benefits

- Part of a Visqueen's DPM and gas protection BBA approved jointing system
- Provides resistance to harmful bulk gases ingress and moisture ingress

Product description

VisqueenPro Double Sided Jointing Tape is a blue, double sided butyl based self adhesive lap bonding tape with an oversize quick release film. It is available in roll format 50mm x 10m.

Approvals and standards

- Visqueen certified with Quality Management System ISO 9001:2015
- Visqueen certified with Occupational Health and Safety System ISO 45001:2018
- Visqueen certified with Environmental Management System ISO 14001:2015

Usage

VisqueenPro Double Sided Jointing Tape is used to bond membranes (gas or damp) together along the lap joints.

To complete the joint, seal with the appropriate Visqueen single sided tape.

System components

- Visqueen Top Hat Units

Storage and handling

Store in a dry and clean environment in its current packaging. The tape should not be exposed to long periods of ultraviolet light. Prior to use, ensure that the tape is stored at temperatures above 5°C.

The tape can be cut with a sharp retractable safety knife.

Care should be taken when handling the product in line with current manual handling regulations.

Preparation

Ensure all lap joint surfaces are clean, dry and free from contamination such as dust or sand. Ensure the surface and working area is not water logged. Avoid areas of unsupported jointing.

Installation

Apply VisqueenPro Double Sided Jointing Tape to the lap area of the laid sheet starting approximately 50mm from the membrane edge. Apply pressure to the tape to ensure the tape has adhered to the membrane. Remove release paper from the tape and overlap the adjoining membrane by minimum 150mm. For Visqueen damp proof membranes and gas protection membranes lap joints should then be sealed using the appropriate Visqueen lap tape. Once the tape is applied, the completed lap should be well rolled with firm pressure to ensure a completely sealed joint has occurred, and continuity with the adjacent sheet has been achieved.

Usable temperature range

It is recommended that VisqueenPro Double Sided Jointing Tape should be installed above 5°C.

Additional information

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Property	Result
Width	50mm
Length	10m
Colour	Blue
Adhesive type	Butyl
Dynamic Shear Adhesion	14 N/cm ²

VisqueenPro Double Sided Jointing Tape, 50mm x 10m

Dynamic Tensile Adhesion	18 N/cm ²
180° Peel Adhesion	11 N/cm ²
Moisture Vapour Transmission Rate	0.24 g/m ² /d
Service Temperature Range	-40 to 90°C
Application temperature	>5°C

Health and safety information

Refer to VisqueenPro Double Sided Jointing Tape safety datasheet (SDS).

About Visqueen

Visqueen is a leading provider of construction membrane technologies and design-based solutions for ground gas, structural waterproofing, damp proofing and fire protection.

We offer complete support at every stage of the specification, including the supply chain process. As the UK's principal technical authority, we are best placed to ensure that the principal designer and contractor specify the most technically suited, durable, and competitive solution to guarantee their project is protected for the lifetime of the building.

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VisqueenPro Double Sided Jointing Tape, 50mm x 10m

legislation.

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Visqueen Gas Resistant Foil Lap Tape, 75mm x 50m

Features & benefits

- BBA certified jointing system - third party accreditation
- Provides an overlap seal to Visqueen gas protection membranes
- Joint integrity - reduces the risk of poured concrete entering the lap joint

Product description

Visqueen Gas Resistant (GR) Foil Lap Tape is a single sided overlap tape which has a solvent acrylic adhesive with a composite aluminium/PET carrier therefore it is resistant to alkaline which is present in cement and concrete. The tape also has a release film.

The product is supplied in roll format 75mm x 50m.

To be used in conjunction with VisqueenPro Double Sided Jointing Tape, 50mm x 10m.

Approvals and standards

- Third party accreditation (BBA 13/5069)
- Visqueen certified with Quality Management System ISO 9001:2015
- Visqueen certified with Occupational Health and Safety System ISO 45001:2018
- Visqueen certified with Environmental Management System ISO 14001:2015

Usage

Visqueen Gas Resistant Foil Lap Tape is used to seal lap joints on gas protection membranes. It can be used internally and externally and is suitable in compressed load applications.

Storage and handling

Store in warm, dry and clean environment in its current packaging. The tape should not be exposed to long periods of ultraviolet light. In very cold weather, prior to use ensure that the material is stored in warm conditions above 5°C.

Preparation

Ensure all surfaces are clean and dry. The membrane joint surfaces should be dry and free from contamination such as dust or sand. Ensure the surface and working area is not water logged. Avoid areas of unsupported jointing.

Installation

The membrane should be overlapped by at least 150mm, bonded with Visqueen Pro Double Sided Jointing Tape and sealed with Visqueen Gas Resistant Foil Lap Tape.

When using Visqueen Gas Resistant Foil Lap Tape, apply the tape equidistant over the lap area of the laid sheet and the overlap adjoining membrane. Apply pressure to the jointed area to ensure adhesion. Once the tape is applied, the completed lap should be well rolled with firm pressure to ensure a complete seal joint has occurred, and continuity with the adjacent sheet has been achieved.

Usable temperature range

It is recommended that Visqueen Gas Resistant Foil Lap Tape should not be installed below 5°C.

Additional information

In demanding site conditions seal lap joints with Visqueen GR Lap Tape.

The information in this datasheet was correct at the time of publication. It is the user's responsibility to obtain the latest version of the datasheet as it is updated on a regular basis. The information contained in the latest datasheet supersedes all previously published editions.

Property	Result
Dimensions	75mm x 50m
Peel adhesion	750N/m
Adhesive type	Solvent acrylic

Heanor Gate Road, Heanor, Derbyshire, DE75 7RG
+44 (0) 333 202 6800 | enquiries@visqueen.com | www.visqueen.com



Visqueen Gas Resistant Foil Lap Tape, 75mm x 50m

Visqueen Training Academy

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GeoShield Verification Plan



CLIENT DETAILS

CLIENT CONTACT: Paul Jones

CONTACTS ROLE: [Redacted]

MOBILE PHONE: [Redacted]

EMAIL ADDRESS: [Redacted]

CLIENT CONTACT:

CONTACTS ROLE:

MOBILE PHONE:

EMAIL ADDRESS

NOTES:



GeoShield Verification Plan



APPLICATOR'S DETAILS

APPLICATOR NAME:

COMPANY:

APPLICATOR TEL:

APPLICATOR EMAIL:

APPLICATOR NAME:

COMPANY:

APPLICATOR TEL:

APPLICATOR EMAIL:

NOTES:



GeoShield Verification Plan



APPLICATOR'S DETAILS

TRAINING LEVEL:

SPECIALIST CONTRACTOR:	YES	☐	NO	☒
NVQ LEVEL 2:	YES	☐	NO	☒
NVQ LEVEL 4:	YES	☐	NO	☒
COMPETENT APPLICATOR :	YES	☒	NO	☐

REASON FOR VISIT:

DURING INSTALLATION:	☒	UNDERSLAB VENTILATION	☒
PRE - POUR:	☒	DPC MEMBRANE CONNECTION	☐
TESTING:	☒	OTHER (PLEASE SPECIFY):	☐

NOTES: See method statement for breakdown of site visits.

NOTES: The applicators will be deemed to be at an appropriate skill level for the job

Of installing the ground gas protection measures.



GeoShield Verification Plan



HEALTH AND SAFETY

INDUCTION:

YES



NO:



INDUCTION TIME:

CSCS CARD:

YES



NO:



CSCS CARD NUMBER:

5369294

METHOD STATEMENT:

YES



NO:



RISK ASSESSMENT:

YES



NO:



COSHH:

YES



NO:



SITE SPECIFIC HAZARDS:

Materials falling from height

Slips, trips and falls

Excavations

Confined spaces

Plant



GeoShield Verification Plan



In accordance with guidance from
CIRIA 735 & CIRIA C748.

Radon gas protection measures
specify to the guidance from the
BR 211 document:

VOC/Hydrocarbons

☐

RADON BASIC

☐

RADON FULL

☐

Characteristic Specification (CS) Rating

CS 2

Building Type:

TYPE A

POINTS REQUIRED UNDER BS8485:2019

3.5 POINTS

POINTS GAINED FROM BS8485:2019

Score for Structural Barrier:

N/A

Grade 2 Basement:

N/A

Grade 3 Basement:

N/A

Score for Venting:

1.5 POINTS

Car Park:

N/A

Score for Membrane:

2.0 POINTS

POINTS ACHIEVED UNDER BS8485 2019:

3.5 POINTS



GeoShield Verification Plan



TESTING PROCEDURES

- VISUAL: PICK & PROBE/MECHANICAL POINT STRESS TEST: ☒
- NON-DESTRUCTIVE COMPRESSED AIR LANCE TEST: ☒
- NON-DESTRUCTIVE SMOKE TEST: ☐
- DESTRUCTIVE JOINT TESTING: ☐
- NON-DESTRUCTIVE TRACER GAS TESTING: ☐
- DIELECTRIC POROSITY TEST: ☐
- PUMP TEST FOR "Twinny" WELD ☐

NOTES: From the risk assessment GeoShield will initially conduct a visual

NOTES: and pick and probe testing regime for this project.

NOTES: Air lance testing will be conducted to test the installed membrane in

NOTES: accordance with CIRIA 735.

NOTES:

NOTES: Only if the application falls below the accepted standard will other testing

NOTES: be used.

SPECIFICATION

Mechanical Point Stress/ 'Pick and Probe' Testing



CIRIA 735

4.3.2 - Mechanical point stress tests involve running a blunt instrument (e.g. a screwdriver) along the edge of a seam to identify any unbonded seams. This method is not as effective as air lancing but it can be especially useful in hard to reach areas where it is not possible to air lance.

The instrument used should not puncture the gas membrane. This method is less appropriate for materials that are easily punctured where an air lance test is more suitable (although if a gas membrane can be easily punctured its suitability as a membrane is open to question).

SPECIFICATION

Air Lance Testing



CIRIA 735

4.3.3 - Air lance testing identifies unbonded areas of seam by directing a high pressure jet of air at the seam. The air is at a minimum pressure of 345kPa via a 4.8mm nozzle and is located no more than 50mm from the seam being tested.

In order to achieve the requirements of ASTM D4437-08:2013 bespoke specialist equipment is required to maintain the required pressure.



GeoShield Verification Plan



RISK ASSESSMENT

SITE SPECIFIC CIRCUMSTANCES	1	2	3	4	5
Complexity of Design	1	✓ 2	3	4	5
Repetition of design	1	2	✓ 3	4	5
Experience of workforce	1	2	✓ 3	4	5
Gas regime	1	✓ 2	3	4	5
Project management experience	1	✓ 2	3	4	5
Installation conditions (exposed?)	1	2	✓ 3	4	5
Robust Project specific gas design	1	2	✓ 3	4	5

TYPE OF RISK	RANGE	RISK
High Risk	23 - 30	
Medium High Risk	19 - 22	
Medium Risk	15 - 18	18
Medium Low Risk	11 - 14	
Low Risk	0 - 10	

GeoShield have classed this project as a medium risk.

GeoShield will lay all parameters down for standards at the pre-verification meeting to assist both the installer and the main contractor.



GeoShield Verification Plan



VERIFICATION REPORT

These items will be included in the report

- NUMBER 1 GAS MEMBRANE SPECIFICATION
- NUMBER 2 ELEMENTS OF THE GAS MEMBRANE
- NUMBER 3 DATE, TIME and WEATHER CONDITIONS
- NUMBER 4 PLANS and DETAILS ISSUED
- NUMBER 5 INSTALLATION PHOTO's RELATING TO GRID LINES
- NUMBER 6 REPORTING DEFECTS AND LOGGING IN REMEDIATION LOG
- NUMBER 7 AREAS OF LIMITATION (areas unable to inspect)
- NUMBER 8 LOGGING AND REPORTING RESULTS OF TESTING

VERIFICATION REPORT ISSUE

HARD COPY:	☐ YES	☒	☐ NO	☐	EMAIL:	☐ YES	☒	☐ NO	☐
DROP BOX LINK:	☐ YES	☒	☐ NO	☐	FLASH DRIVE:	☐ YES	☐	☐ NO	☒



GeoShield Verification Plan



GEOSHIELD COMPETENCE

>GeoShield was founded in 2015

>GeoShield solely verifies, they are fully independent of installers, manufacturers and geotechnical companies.

>GeoShield follow guidance in CIRIA 735 (sufficient experience, membership of relevant professional organisations) GeoShield are members of the BVC, BGA, ERA The RADON Council, and UKRA

>Currently GeoShield hold the Chairmanship of the British Verification Council

>Two employees are NSAC Level 3 assessors for the NVQ 2 Gas Membrane install

>GeoShield were key in forming the NVQ 4 Verification qualification in which 2 Verification officers are undertaking this qualification

>GeoShield have the only qualified assessor for the NVQ 4 Verification qualification

>GeoShield Verification officers currently keep up to date CPD's

>All GeoShield Verification Officers have a full understanding of gas membrane install including 3 experienced (NVQ 2) installers in the GeoShield team

>GeoShield Verification Officers are all independent carrying their own air compressors. Other testing equipment GeoShield have access to are 2 x Buckley Dielectric Testing machines and also inert gas testing equipment



GeoShield Verification Plan



METHOD STATEMENT - Page 1

EXPECTED VISITS:- 3 site visits are expected in line with the proposed build

programme, additional visits may be considered (if required) to achieve sign off.

TESTING:- Mechanical Point Stress (Pick & Probe) testing on taped/welded

Areas. Air lance testing will be carried out (as per CIRIA C735 Annex 1, Table A3).

Only if the application falls below the accepted standard will other testing be used.

This project will NOT achieve sign off for gas membrane installation unless

independent verification is carried out.

PURPOSE:- Geoshield are 3rd party gas membrane verifiers in accordance with

CIRIA 735 and for this project to be compliant with BS8485:2019, the gas system

must meet certain criteria from Tables 5, 6 & 7 to achieve mitigation of score for

verification. The chosen membrane must be verified by Geoshield to ensure the

materials have been installed in accordance with the manufacturer's specification.

REPORTING:- Each site visit be accompanied with a written and electronic report.

Any remediations either completed on the visit or outstanding will be recorded

and logged, sign off will not be achieved for each section area until all

remediations has been completed. This will be fully recorded at all times.



GeoShield Verification Plan



METHOD STATEMENT - Page 2

GROUND GAS RISK:- From the Geo-Environmental investigation this project has been classified as a Type A building and a CS2 rating in accordance with BS8485:2015+A1 2019, so this project will require a minimum score of 3.5 points. for mitigation

This will be achieved by 3rd party verification of the gas membrane, block and beam and ventilation provisions, where applicable to the site specific design.

A combination of which will achieve the necessary requirements.

GAS MEMBRANE PROTECTION:- It is advised that the substrate should be prepared by removal of loose stone and debris. Other forms of protection could be in the form of either a protection board, geotextile fleece and insulation. In addition labels will be issued by Geoshield to restrict access to the installed area by follow on trades and help raise awareness to encourage a better duty of care. This will help to reduce the risk of potential damage caused to the gas membrane system.

FINAL:- Geoshield will liaise with the projects site supervision and all relevant parties prior to the installation start. This plan will be presented and reviewed, all points made clear as previously stated. Any alterations will be listed at the end of this plan as an all party agreed way forward.



GeoShield Verification Plan



VERIFICATION PLAN

METHOD STATEMENT

VERIFICATION STRATEGY:

Percentage Strategy: 1st 10 Plots (100%), 11-50 Plots (1:5) & 51 or > (1:10) ☐

Percentage Strategy: 100% Verification for VOC/Hydrocarbons ☐

Verification Percentage on site: 100% Not Specified ☐

Remarks:

It is recommended that the installers are present at the time of testing so any

remediations can be rectified. If remediations are not rectified the nature of the fault

found will determine whether or not extra visits are required to test remediations.

Protection Type:- Protection Board ☐ Protection Fleece ☐

Insulation ☐ Remarks:

BGA
British Geomembrane Association

GeoShield Verification Plan



TESTING PROCEDURE

Method Statement - Pipe Penetrations and Service Entries Notice Signs



Geoshield Notice Signs -

During testing on site, notice signs will be tied to all pipe penetrations and service entries which have not passed inspection.
Areas cannot be passed unless verification stickers have been applied to the Notice Signs, once remediations have been successfully carried out.



GeoShield Verification Plan



TESTING PROCEDURE

Method Statement - Membrane Sticker Notice Signs



Geoshield Notice Signs -

During testing on site, areas cannot be passed unless verification stickers have been applied, once remediations have been successfully carried out.



GeoShield Verification Plan



SUBSTRATE METHOD STATEMENT

SUBSTRATE TYPE:

Block and Beam Construction	Yes	☒	No	☐
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Minimum Preparation	Swept Clear	Yes	☒	No	☐
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Minimum Preparation	Vacuuming	Yes	☐	No	☒
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Minimum Preparation	Compressed air to remove	Yes	☐	No	☒
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Minimum Preparation	Remove Mortar Droppings	Yes	☒	No	☐
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Stone Substrate	Yes	☐	No	☒
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Minimum Preparation	Minimum 25mm Sand Blinding	Yes	☐	No	☒
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Minimum Preparation	Limestone Dust	Yes	☐	No	☒
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Minimum Preparation	Compacted Substrate	Yes	☐	No	☒
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Minimum Preparation	No large stones	Yes	☐	No	☒
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Concrete Substrate	Yes	☐	No	☒
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Minimum Preparation	No Hollows	Yes	☐	No	☒
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Minimum Preparation	Troweled Surface	Yes	☐	No	☒
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Remarks:	
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GeoShield Verification Plan



PRE-CONTRACT MEETING

Items for discussion at the Pre-Contract meeting	☐
>Induction Procedure	☐
>Identification of installation team and point of contact	☐
>Identification of Project management team	☐
>Identification of Sub-Contractors associated with membrane installation	☐
>Validation of Membrane and design specification	☐
>Verification procedure	☐
>Notifications for Verification	☐
>Preparation of substrate	☐
>Program of works	☐
>Utility entry	☐
>Protection of Membrane	☐
>Remediation Procedure	☐
>Testing Procedures	☐
>Sign off Procedure	☐
>Installer PI	☐

All information is assumed correct at time of issue.

DATE:



GeoShield Verification Plan



PRE-CONTRACT MEETING SUMMARY

As discussed in this Pre Verification Plan, the installation and verification of Visqueen products. All details and drawings in this verification plan have been discussed so now the installers must run through how they will install the Visqueen products. The intended method and manufacturers specification have been discussed in relation to the details provided for the project. Methods for preparation before installation have been laid out so the workers are made aware of the standards required to gain consent from the local authorities in order to satisfy and discharge planning consent. In addition to this aftercare of the Visqueen products such as the Visqueen gas barrier during, after installation, and after verification.

Finally GeoShield have discussed the site visits that are required and what testing and verification will be carried out to the highest standard and verification principles associated with CIRIA 735 and BS8485:2015 +A1 2019.



GeoShield Verification Plan



PRE-CONTRACT MEETING SUMMARY

A pro-forma quality assurance document will be discussed during the Pre-Verification meeting and training undertaken with the management team for non verified areas.

The Pre-Verification meeting will be led by Geoshield and should include all relevant parties who have an impact on the installation and future protection. Geoshield will provide guidance and strategy for all parties.

The site specific checklist will be covered as well as the risk assessment.

This site has been classified as a CS2 Type A building.

Any design alterations will be discussed and included in a revised Pre-Verification Plan.

Any specification changes must also be included in a revised Pre-Verification Plan.

All items will be minuted by the Geoshield representative.

This Pre-Verification plan follows all current guidance and the aim is to make all parties aware of the ramifications of poor installation and their responsibilities if they damage the membrane.

