Civil & Structural Engineering

TECHNICAL NOTE

Bingham Hall PARTNERSHIP LTD

Consulting Civil & Structural Engineers

Rev B – 26.02.25

Project No: 6807

Project Ref: Proposed Industrial unit at Nant-y-cafn, Seven Sisters.

Technical Note for proposed below ground gas preventative measures.

Introduction

Bingham Hall Partnership Limited (BHPL) have been commissioned by Andrew Scott Construction Ltd in respect of civil & structural engineering aspects for the above proposed development. We have been asked by our client to provide this technical note which is in support of discharge of Planning Condition 4, in particular with reference to ground gases precautionary measures to be employed at the above site, on which we would provide the following comments.

Ground gas risk is covered by geotechnical engineers Socotec UK Ltd within their site investigation report ref H3091-23/N2, Section 8.10 of their report refers, an extract of which is given below. The commentary given in Section 8.0 clearly explains the ground investigation works undertaken and the approach taken to gas preventative measures, given the difficulties encountered during testing, in that shallow ground water prevented monitoring. The report does however indicate that further supplementary monitoring should be carried out, but to do so would require an extended period of prolonged dry weather, which given the proposed construction programme and the location of the site was considered unlikely to be achieved. Given this, and from the initial results obtained, it was decided by the design team to take a conservative approach to gas preventative measures in complying as a minimum, to characteristic gas situation 2 (CS2) to BS8485 and provide appropriate gas protection/preventative measures to achieve a minimum score of 1.5 for such a low-risk building Type D, “Industrial” nature and consideration also given to a minimum score of 2.5 for a building Type C, “Commercial” use, i.e. small to large size rooms with active ventilation or good passive ventilation.

Socotec UK Ltd have since provided an updated supplementary technical note (see Appendix A) which further discusses the approach to gas preventative measures. The report clearly explains the reasoning behind adopting a conservative approach in complying with CS2.

To that end the ground floor slab has been designed and detailed to include a methane & CO_2 gas resistant membrane plus a well-constructed reinforced concrete ground bearing floor slab, with limited joints, and all service penetrations to be adequately sealed to prevent passage of ground gases seeping into the building. The below slab membrane is to be continuous, lapped and sealed to the wall DPC and be continuous across the cavity. In accordance with BS8485 such an approach achieves a combined score of 2.5, therefore the proposed floor construction scores the minimum required, as noted above.

We therefore feel the design team has taken a conservative approach to gas preventive measures on this site, all of which will be incorporated in the design, being adequate for the industrial nature of the development.

Construction details/specification for the proposed methane & CO_2 gas resistant membrane, its interface details to the perimeter walling, around columns & service entries, are as shown by EPT Architects drawing ref ISU-EPT-ZZ-XX-DR-A-3450-P01, a copy of which is appended in Appendix C for reference, which is issued in support of discharge of the condition and will be issued to Building Control for approval.

Extract from Socotec's report included for reference.

8.10 Permanent Ground Gases

The assessment methodology detailed in British Standard BS8485 require the calculation of a Gas Screening Value (GSV), which considers the peak concentrations of methane and carbon dioxide with respect to the borehole flow rate. A 'characteristic situation' (CS) can then be determined from the calculated GSV. The site's characteristic situation then corresponds to a set of appropriate gas protection score for the CS for a specific land use type or combination of types where there is a multipurpose development.

8.10.1 Summary of Investigation of Permanent Ground Gases

The investigation was scoped to study the gas regime of the site and assess the risk presented by any ground gases to construction works whilst excavating and conducting boring works in the construction phase (the overall risk is considered low to moderate). The below provides an overview of the results of the partial ground gas monitoring visits carried out following the ground investigation:

- *Methane was recorded above the limit of detection (0.1% v/v) on two of the monitoring visits at WSN01 (0.6 and 0.7 % v/v, 6 and 13 March 2024). All other readings were below the limit of detection.*

- *Carbon dioxide concentrations (0.2 to 3.4 % v/v) were recorded above the instruments limit of detection (0.1% v/v) in all monitored installations on 5 January and 6 March 2024.*

- *Significantly depleted oxygen (<10% v/v) was not recorded in any of standpipes during any of the monitoring visits.*

- *The maximum flow rate recorded in the monitoring programme was 4.1 l/hr on one occasion (BHN01, 5 January 2024), all other readings were between 0.1 and 0.3 l/hr; and*
- *Ground gas monitoring was undertaken during periods of variable atmospheric pressures in the range 991 to 1017 mb. Only one visit carried out <1000 mb.*

- *Shallow groundwater was encountered in several locations limiting the ability to carry out gas monitoring. Some monitoring visits were terminated due to water inflow and only peak gas readings were obtained. Other visits were unable to obtain any gas readings. WSN03 had a fully saturated response zone for all visits.*

8.10.2 Findings of Risk from Permanent Ground Gases

Based on the results of the monitoring visits carried out, the maximum recorded gas concentration was 3.4 % carbon dioxide. As the monitoring pipe response zones were either partially or completely saturated, however, the monitoring results may not be representative of ground gas conditions and, as such, it is not considered appropriate to characterise the site in accordance with standard guidance i.e. BS8485). In accordance with Table 4 of BS8485 for the proposed land use sensitivity as a large industrial /retail park style (Type D) the gas protection score and measures would be:

- *Alluvium (WSN03 – only one visit completed with saturated response zone)*
  - *GSV methane = <0.001*
  - *GSV carbon dioxide = <0.001*
  - *CS 1 – no gas protection measures required.*
  - *Minimum gas protection score – 0*

- *Till (WSN01 – four visits completed, some terminated early due to groundwater)*
  - *GSV methane = <0.001*
  - *GSV carbon dioxide = <0.001*
  - *CS 1 – no gas protection measures required.*
  - *Minimum gas protection score – 0*

- *Probable Coal Measures (BHN01 – three visits completed)*
  - *GSV methane = 0.004*
  - *GSV carbon dioxide = 0.14*
  - *CS 1, though with >1 % methane consideration to CS2 should be considered.*
  - *Minimum gas protection score – 1.5*

- *Where a gas resistant membrane is required, it should meet the requirements specified in Clause 7.2.4 of BS8485. The concentrations of ground gases appear to be reflective of the ground conditions encountered where generally moderate grade natural sources of ground gases such as alluvium, containing organic matter content were encountered at shallow depth in the areas investigated. However, these natural soils do not generally tend to have high gas generation rates (CL:AIRE Research Bulletin 17 (RB17)). In general, the results are likely to be influenced by the groundwater rather than being fully representative of gas concentrations in the ground. Potential longer-term variations in ground gas conditions and worst-case scenario pressure variations*

are therefore not represented. The shallow Alluvium strata retain the potential to generate ground gases such as methane but may be removed prior to construction as not a suitable founding material. This would limit the gas generation potential but not remove it entirely from the site. The Till shows higher gas readings, which may be due to dissolved gases within the groundwater. Carbon dioxide in natural soils such as Glacial Deposits can often be recorded up to 15 % in monitoring wells (RB17) but does not pose a potential risk to development. The underlying Coal Measures shows higher methane results, although the overlying impermeable Till will limit the pathway.

It is recommended that further remedial measures are required to reduce the potentially unacceptable risk presented by ground gases. Where there is incomplete monitoring data available or no monitoring, the approach for common scenario taken in RB17 for organic soils such as alluvium (and <1m of Made Ground) over natural soils such as Till i.e. the same scenario which we have on site, is to install gas protection measures.

Based on the gas regime and slightly elevated concentrations above 1 % v/v of methane from the Coal Measures, given the lack of ground gas data available to support otherwise, gas protection measures are recommend being installed in the proposed commercial development in accordance with Characteristic Situation 2 for a Type D building with a minimum gas protection score of 1.5 points.

BHPL conclusion

In consideration of the above findings and proposals, we feel adequate gas preventative measures for CS2, in accordance with the requirements of BS8485, will be achieved on site using the proposed form of construction described above as shown by BHPL ground floor slab drawing given in Appendix B, plus details contained within EPT Architects Drawing for the proposed under slab "Visqueen" Gas membrane/DPM construction details, given in Appendix C.

It is acknowledged that an Independent Gas Membrane Integrity Testing and Verification program is required, with back-up documentation in place and a hand-over package included in the final documents. To this end a verification and validation process of the proposed installation will be undertaken in accordance with "*CIRIA 735 - Good practice on the testing and verification of protection systems for buildings against hazardous ground gases"*. Andrew Scott Construction Ltd will appoint a suitably qualified independent consultant to undertake the validation & verification process. In-situ verification of the structural barrier and membrane will be required in accordance with CIRIA 735, and adequate allocation of time and resources are to be made available for the verification process to be undertaken on site.

Should there be further queries regarding the above please do not hesitate to contact us.

Report prepared by:

Mr D T Hopkins BSc., CEng., MIStructE.
for
Bingham Hall Partnership Ltd

APPENDIX A
Socotec UK Ltds Technical Note: Nant-y-cafn Contaminated Land Pre-commencement Conditions (dated 24th Jan 2025)

Our Ref: H4020-24_L002
Date: 24 January 2024

Neath Port Talbot County Borough Council
By email

For the attention of Tom Philips

Dear Sir

TECHNICAL NOTE: NANT Y CAFN CONTAMINATED LAND PRE-COMMENCEMENT CONDITIONS

1 INTRODUCTION

SOCOTEC UK Limited (SOCOTEC) were commissioned by Neath Port Talbot County Borough Council (NPT) to carry out a geoenvironmental appraisal of their Nant Y Cafn site (Report ref. H3091-23/N2) to support the planning submission for a commercial development. The report has been submitted to NPT Planning and the Environmental Health Unit have responded requesting further investigation or information to support their requirements to enable the discharge of the outstanding pre-commencement conditions relating to contaminated land.

The outstanding pre-commencement conditions are:

1. *(3). Notwithstanding the details within the submitted Ground Investigation Report (H3091-23/N2), no construction work shall commence on site until a further report to assess the nature and extent of contamination on the site, and confirmation of whether or not it originates on the site, has been first submitted to and provided in writing with the Local Planning Authority.*
2. *(4). No construction work shall commence on site until a remediation scheme to bring the site to a condition suitable for the intended use by removing any unacceptable risks to human health, buildings, other property and the natural and historic environment shall be prepared ad submitted to and approved in writing with the Local Planning Authority.*

2 PRE-COMMENCEMENT CONDITION 3 – GROUND GAS RISK ASSESSMENT

2.1 Background

Based on the findings of the SOCOTEC Geoenvironmental Appraisal, it was considered that no further work is required to assess the risk presented by chemical contamination. However, there is a potential ground gas risk which we have recommended is addressed.

SOCOTEC recommended in the Geoenvironmental Appraisal that further ground gas monitoring and assessment be undertaken although, at the time, the period to complete a longer monitoring programme was constrained by the project deadline. The reduced data set gave us less confidence and more uncertainty of the gas regime, so SOCOTEC wanted to conduct further visits to support the assessment if this could be accommodated before the start of the project.

NPT Planning has questioned whether this further gas monitoring and assessment is required to fully assess the risk prior to support the discharge of Condition 3.

2.2 Re-appraisal of Gas Regime

For reasons stated in the re-appraisal below, we consider that gas protection measures (CS2) are appropriate for the low sensitivity of the development, degree of risk presented by the current monitoring data, ground conditions and sources of ground gases identified.

It would have been ideal to have completed the additional rounds of ground gas monitoring and review the data. However, after reviewing the ground gas risk assessment and current Conceptual Site Mode (CSM) for the site, we would question if any additional rounds of monitoring data would be of any benefit at this present time, with seasonally higher groundwater levels this time of year potentially submerging the response zones and restricting ground gas flows. It is considered that further visits at present are unlikely to result in a change to the current assessment.

Based on our review of the CSM and potential sources of ground gas identified, i.e., limited Made Ground, Alluvium and a Coal Mining Area with shallow seams (though no recorded workings reported directly beneath the site), it is considered unlikely that the ground gas regime could be downgraded from CS2 to CS1 - though it is noted that very low flow rates and low gas concentrations have been identified.

Similarly, based on the current CSM and available gas data, it is considered unlikely that an upgrade of the Characteristic Situation to CS3, and respective protection measures, would be required at this site. Therefore, the precautionary CS2 gas protection measures as recommended are considered appropriate in these circumstances, based on the existing gas monitoring data and CSM.

Our assessment had been based on the CSM, where the potential sources of ground gases were considered to be based on the geology beneath the site (Made Ground, Alluvium and Coal Measures), rather than directly from worked coal seams (where a GSV and CS would not apply, as per CL:AIRE Good Practice for Risk Assessment for Coal Mine Gas Emissions). The SOCOTEC investigations identified that:

- There are limited potential sources of ground gas identified on or adjacent to the site.
- There are no current or historical coal mine workings recorded beneath the site, and there are no mapped mine entries (which would provide a link between the source and the site) either on site or within a 20m radius of the site.
- The site is underlain by shallow groundwater and a thin stratum of Glacial Till.
- Most of the monitoring installations are either partially saturated (particularly where Alluvium was present at WSN03) or fully saturated, and data from these positions will therefore not be representative of the gas regime. Even additional monitoring data would be compromised for this reason.

A number of rounds of monitoring have been completed, including during low atmospheric pressure events (i.e. indicating potential worst-case conditions – though the drop in pressure range at the time of monitoring was unknown), using the shallow installation across the site, which is sufficient to characterise the gas regime with caution.

3 PRE-COMMENCEMENT CONDITION 4 - REMEDIATION STRATEGY

To our knowledge a Remediation Strategy (RS) has not been prepared to date and SOCOTEC have not been involved in this element of work.

If the above observations about the gas risk assessment are approved, and it is agreed that no further ground gas monitoring and risk assessment is needed, the RS required by planning can be submitted by NPT.

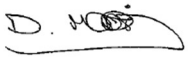
This RS will comprise a similar type of report / design information which was provided to planning for the Glynn Corrwg development. i.e., covering remedial measures needed to mitigate the potential risk from ground gas ingress. The RS shall be compiled in accordance with the Environment Agency Land Contamination Risk Management Framework.

The RS shall incorporate the details for the gas protection measures for a proposed land use sensitivity Type D, as detailed in the British Standard BS8485:2015+A1 2019 (Code of Practice for the Design of Protective

Measures from Methane and Carbon Dioxide Ground Gases for New Developments) and incorporate the proposed design drawings and specification of membranes etc. showing how this shall be constructed. This strategy should also describe how the construction of the gas protection measures will be validated / verified to confirm they have been installed correctly to mitigate the risks to human health.

We trust the information provided above is sufficient to address the outstanding issue relating to Condition 3 and support Condition 4. However, if you require any further information, please do not hesitate to contact me.

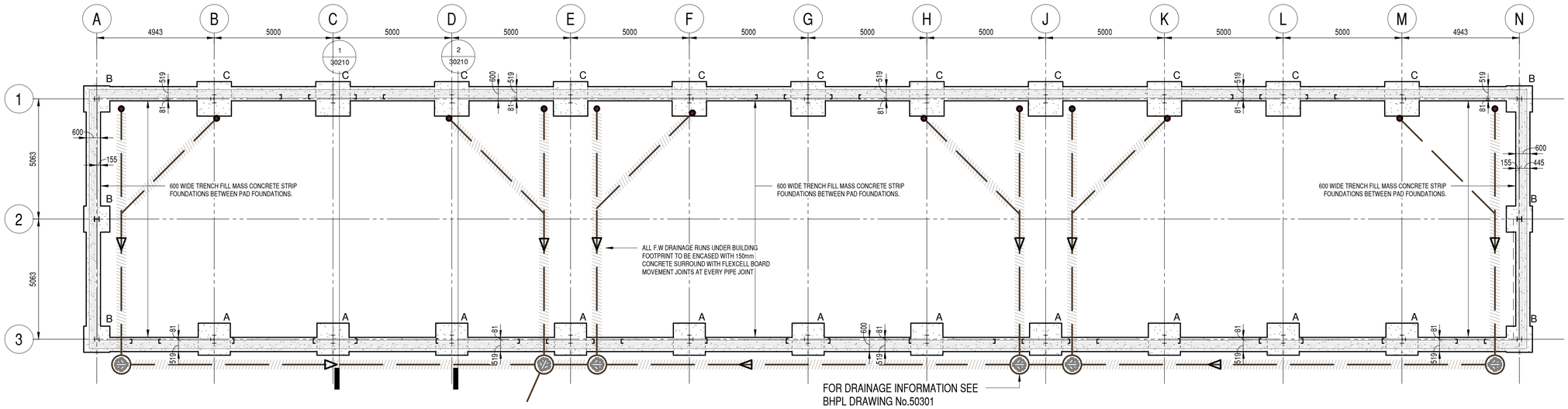
Yours faithfully,
For SOCOTEC UK Ltd



Darren Makin
GI Geoenvironmental Lead
Email: darren.makin2@socotec.co.uk

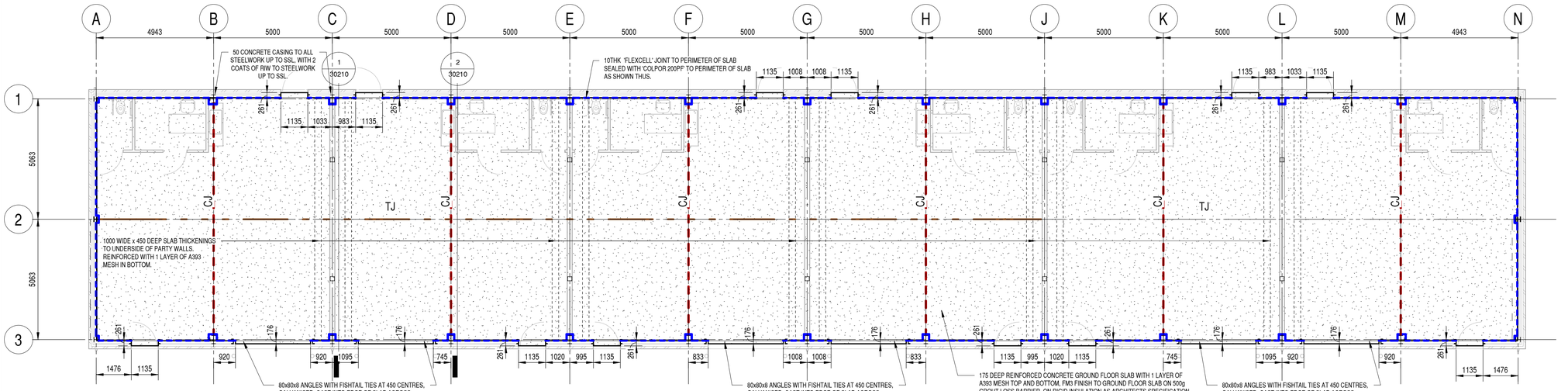
APPENDIX B
Bingham Hall Drawing No ISU-BHP-03-XX-DR-S-10201_P03
Foundation and Ground Floor Plans

NOTE THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN BINGHAM HALL PARTNERSHIP LIMITED AND MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR WRITTEN CONSENT



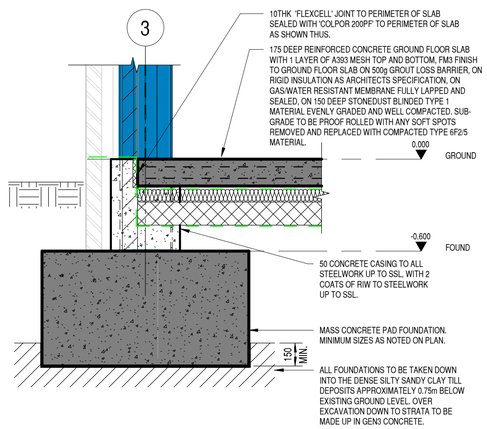
PLAN ON FOUNDATIONS

(1 : 100)



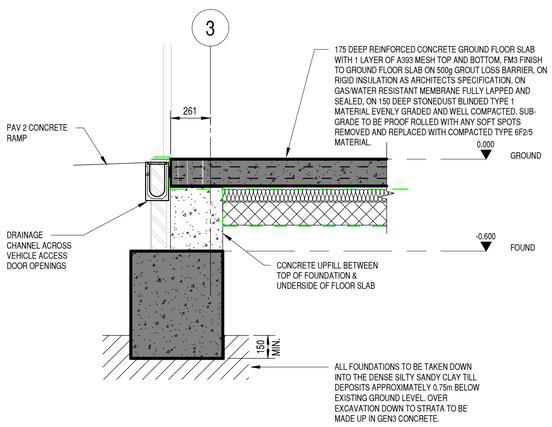
PLAN ON GROUND FLOOR SLAB

(1 : 100)



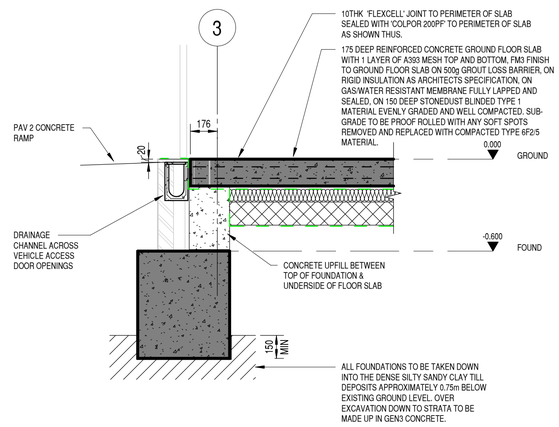
TYPICAL EDGE DETAIL

(1 : 20)



TYPICAL PERSONNEL DOOR EDGE DETAIL

(1 : 20)



TYPICAL VEHICLE ACCESS DOOR EDGE DETAIL

(1 : 20)

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT BHPL AND ARCHITECTS DRAWINGS.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SITE INVESTIGATION REPORT.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SERVICES INFORMATION PRIOR TO ANY WORKS COMMENCING.
4. THE CONTRACTOR IS TO ADHERE TO ALL RELEVANT HEALTH AND SAFETY REQUIREMENTS AND CURRENT REGULATIONS AT ALL TIMES.
5. ANY DISCREPANCIES FOUND TO BE REPORTED TO BHPL IMMEDIATELY.
6. DO NOT SCALE FROM THIS DRAWING, IF ANY DIMENSIONS ARE NOT GIVEN PLEASE ASK.
7. IF IN DOUBT PLEASE ASK.

FOUNDATION CONCRETE

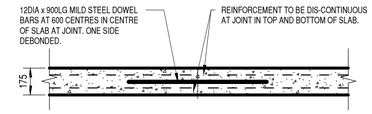
1. ALL WORK IS TO BE IN ACCORDANCE WITH THE NBS SPECIFICATION ISSUED AND THE CURRENT RELEVANT BS CODES OF PRACTICE.
2. IN ACCORDANCE WITH BS 8500 CONCRETE IS SPECIFIED THUS:-
2a. DESIGNATED CONCRETE IS NOTED, FOR EXAMPLE AS GEN3, RC35, ETC.
2b. DESIGNED CONCRETE IS NOTED, FOR EXAMPLE AS C28/35, C32/40, ETC.
2c. STANDARDIZED PRESCRIBED CONCRETE IS NOTED, FOR EXAMPLE AS ST1, ST2, ETC.
3. ALL STRUCTURAL CONCRETE IS TO BE MECHANICALLY VIBRATED.
4. CONCRETE TO FOUNDATIONS TO BE GRADE RC28/35 USING ANY OF CEM1,IIA,IIB,IIIA,orIIIB WITH A MAXIMUM AGGREGATE SIZE OF 20mm AND A S3 CONSISTENCE.
5. FOR NOTES ON TREATMENT OF CONSTRUCTION JOINTS, TEMPORARY WORKS, STRIPPING TIMES AND ACCURACY OF CONSTRUCTED WORK, SEE SPECIFICATION.
6. QUALITY CONTROL AND TESTING AND THE USE OF ADMIXTURES ARE DESCRIBED IN THE SPECIFICATION.
7. MINIMUM CONCRETE COVER TO MAIN REINFORCEMENT TO BE 40mm (WITH A MAX. DEVIATION OF 10mm)

GROUND FLOOR SLAB

1. ALL WORK IS TO BE IN ACCORDANCE WITH THE NBS SPECIFICATION ISSUED AND THE CURRENT RELEVANT BS CODES OF PRACTICE.
2. IN ACCORDANCE WITH BS 8500 CONCRETE IS SPECIFIED THUS:-
2a. DESIGNATED CONCRETE IS NOTED, FOR EXAMPLE AS GEN3, RC35, ETC.
2b. DESIGNED CONCRETE IS NOTED, FOR EXAMPLE AS C28/35, C32/40, ETC.
2c. STANDARDIZED PRESCRIBED CONCRETE IS NOTED, FOR EXAMPLE AS ST1, ST2, ETC.
3. ALL STRUCTURAL CONCRETE IS TO BE MECHANICALLY VIBRATED.
4. CONCRETE TO GROUND FLOOR SLAB TO BE GRADE RC28/35 USING ANY OF -CEM1,IIA,IIB,IIIA,orIIIB WITH A MAXIMUM AGGREGATE SIZE OF 20MM AND A S2 CONSISTENCE.
5. FOR NOTES ON TREATMENT OF CONSTRUCTION JOINTS, TEMPORARY WORKS, STRIPPING TIMES AND ACCURACY OF CONSTRUCTED WORK, SEE SPECIFICATION.
6. QUALITY CONTROL AND TESTING AND THE USE OF ADMIXTURES ARE DESCRIBED IN THE SPECIFICATION.
7. MINIMUM CONCRETE COVER TO MAIN REINFORCEMENT TO BE 25mm (WITH A MAX. DEVIATION OF 10mm)

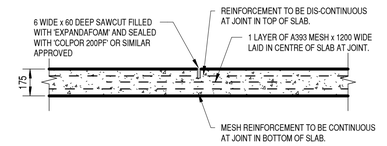
PAD FOUNDATIONS

Type	Length	Width	Foundation Thickness	No.Off
A	1350	1350	750	11
B	1100	1100	700	6
C	1450	1450	750	11



SLAB CONSTRUCTION JOINT (CJ)

(1 : 20)



SLAB TRANSVERSE JOINT (TJ)

(1 : 20)

Rev	By	Date	Revision
P03	AD	09/08/24	STAGE 4 - REVISED ISSUE
P02	AD	30/07/24	STAGE 4 ISSUE
P01	LRJ	30/05/24	ISSUE FOR COSTING PURPOSES

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Consulting Civil & Structural Engineers
5 Ty Nant Court,
Morganstown, ,
Cardiff.
CF15 8LW.
Telephone (029) 2048 8588

BHPL Project Ref: 6807

Project Title: Nant Y Cafn Industrial Unit

Drawing Title: FOUNDATION & GROUND FLOOR PLANS

Architect: EPT ARCHITECTS

Client: ANDREW SCOTT LIMITED

Drawing Status: S4 - SUITABLE FOR STAGE APPROVAL

Scale	Drawing Size	Drawn	Date	Checked
As indicated	A1	LRJ	MAY '24	DTH

Project No. - Originator - Volume - Level - Type - Role - Number: ISU - BHP - 03 - XX - DR - S - 10201

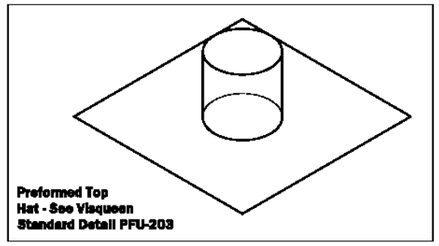
Rev: P03

SCOTT
Andrew Scott Limited

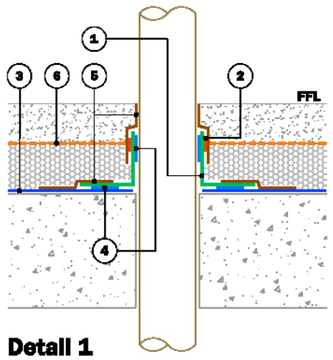
Registered in England + Wales No: 05348301

APPENDIX C
EPT Architects Drawing No ISU-EPT-ZZ-XX-DR-A-3450-P01
Standard Visqueen Details

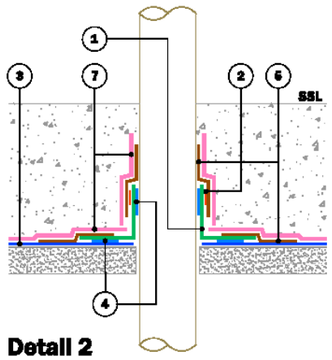
KEY TO MATERIALS :-	
1	Visqueen Ultimate Preformed Top Hat.
2	Jubilee clip.
3	Visqueen Gas Barrier.
4	Visqueen Double Sided Tape.
5	Visqueen Gas Resistant Foil Tape.
6	Visqueen Vapour Barrier or HP Vapour Barrier.
7	Visqueen TreadGUARD 300 or 1500.



Preformed Top Hat - See Visqueen Standard Detail PFU-203



Detail 1



Detail 2

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Detail based for Guidance Only. Designer's Approval Required.

Site construction sequencing should be assessed before the appropriate Visqueen Standard Detail is selected & approved by the Designer.

In order to develop a robust design for protecting a structure against groundwater, a Risk Assessment must be carried out in line with the guidance given in BS 8102:2022.

The Designer may need to specify one or a combination of waterproofing measures.

DPCs and DPC cavity trays to be installed in accordance with BS8215:1991 and PD6697:2019.

All Visqueen materials must be installed in strict accordance with the manufacturer's instructions. Refer to the current Visqueen datasheets.

Do Not Scale, Use Figured Dimensions only. All figured dimensions are in mm.

(Revision: Berry UK Design Centre)

Standard Detail

www.visqueen.com

Scale : NTS

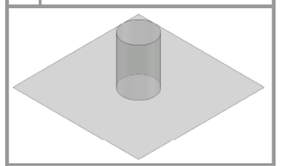
Date : March 2022

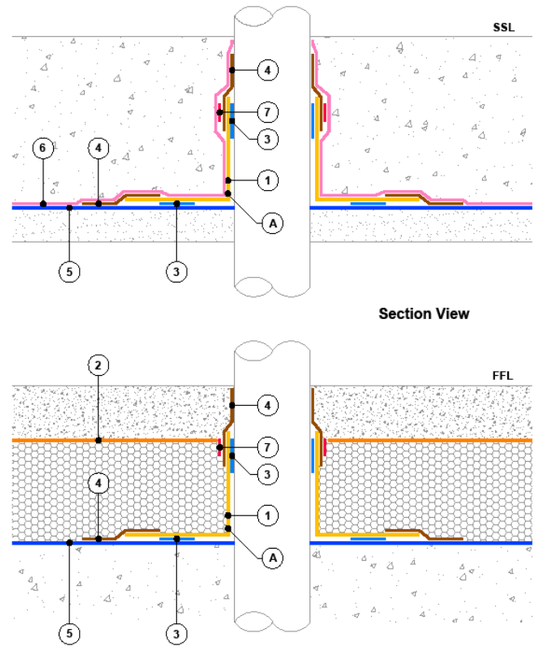
Drawing No : GB-81

Typical Pipe Sleeve Details (Top Hat).

VISQUEEN
0333 202 6800
www.visqueen.com
enquiries@visqueen.com

Key to materials:	
1	Visqueen Ultimate Preformed Pipe Sleeve (Top Hat)
2	Visqueen Vapour Check or Visqueen Vapour Barrier
3	VisqueenPro Double Sided Jointing Tape
4	Visqueen Gas Resistant Foil Lap Tape
5	Visqueen Gas Barrier
6	Visqueen TreadGUARD
7	Jubilee clip
A	PFU-203 Preformed Pipe Sleeve





CRITICAL GUIDANCE NOTES

Visqueen Guidance Details are for illustration purposes only. It is the lead designer's responsibility to ensure Guidance Details are incorporated correctly into construction drawings.

Visqueen take no project design liability, or responsibility for the use of Guidance Details. Visqueen have no control over the situation in which the products are installed. Visqueen provide a Contract Design Service where project specific drawings can be produced. Contact Visqueen Technical Services for further information.

Site construction sequencing should be assessed before the appropriate Guidance Detail is selected and approved by the lead designer.

All Visqueen materials must be installed in strict accordance with the Visqueen Product Datasheets and applicable third party certificates.

Radon protection in accordance with national building regulations and BR211:2023.

Ground gas protection in accordance with BS 8485:2015 + A1:2019.

Visqueen air and vapour control layers (AVCLs) should be installed in accordance with the recommendations of BS 5250:2021.

Drawing not to scale, use figured dimensions only. All figured dimensions are in millimetres.

Guidance Detail

Date: November 2023

Drawing No: GB-51

Revision: A | Drawn by: JR

Approved by: SD

Tel: 0333 202 6800
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www.visqueen.com

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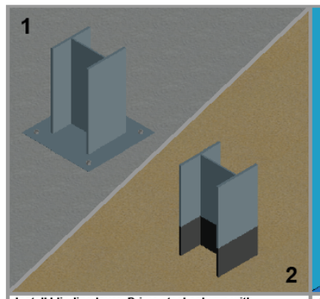
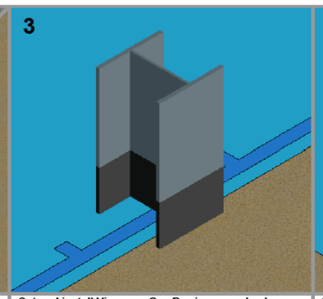
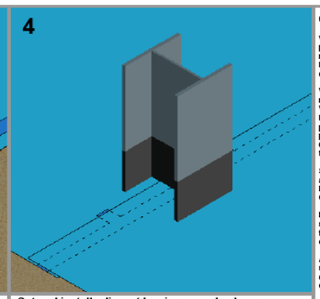
BARRIER BELOW & ABOVE SLAB PIPE SLEEVE DETAILS



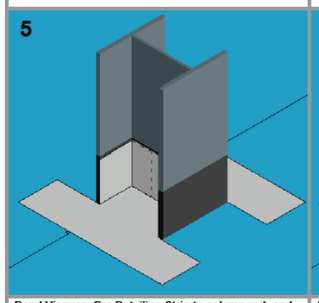
Install blinding layer. Prime steel column with Visqueen HP Tanking Primer min 150mm vertically.



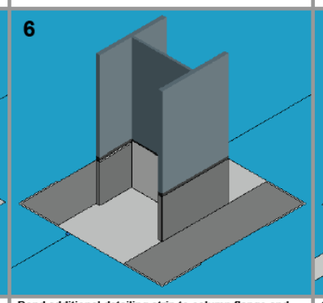
Cut and install Visqueen Gas Barrier around column. Apply VisqueenPro Double Sided Jointing Tape.



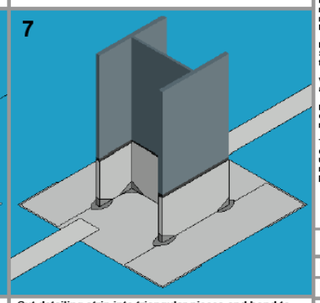
Cut and install adjacent barrier around column, bonding to VisqueenPro Double Sided Jointing Tape.



Bond VisqueenPro Detailing Strip to column web and barrier, extending min 150mm up column and onto barrier.



Bond additional detailing strip to column flange and barrier, extending min 150mm up column, onto barrier and detailing strip from previous step.



Cut detailing strip into triangular pieces and bond to corners. Bond Visqueen Gas Resistant Foil Lap Tape over barrier lap and min 75mm onto detailing strip.

CRITICAL GUIDANCE NOTES

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Designer/contractor to ensure that all stakeholders accept the approach shown in this Guidance Detail prior to implementation on site.

All Visqueen materials must be installed in strict accordance with the Visqueen product datasheets and applicable 3rd party certificates.

Radon protection in accordance with national building regulations and BR211:2023.

Further protection such as ventilation measures (not shown) will be necessary to meet the requirements of BS 8485:2015+A1:2013.

Each stage of the VisqueenPro Detailing Strip installation to be rollered to ensure a full bond is achieved.

Visqueen TreadGUARD protection layer above barrier required as per specification.

Drawing not to scale, use figured dimensions only. All figured dimensions are in millimetres.

The information in this Guidance Detail was correct at the time of publication. It is the user's responsibility to obtain the latest revision which supersedes all previously published revisions.

Guidance Detail

Date: November 2023

Drawing No: GB-82

Revision: | Drawn by: JR

Approved by: SD

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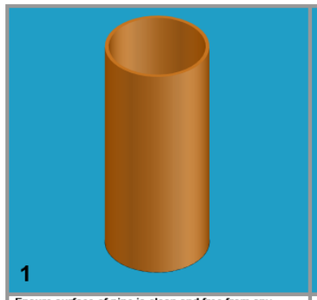
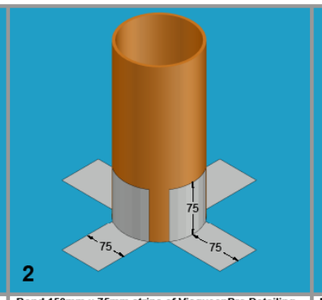
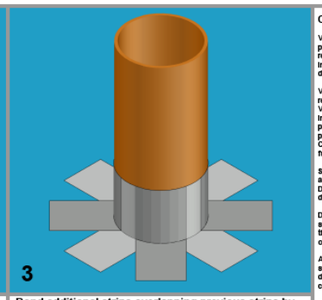
STEEL COLUMN DETAILING USING VISQUEENPRO DETAILING STRIP STEP BY STEP



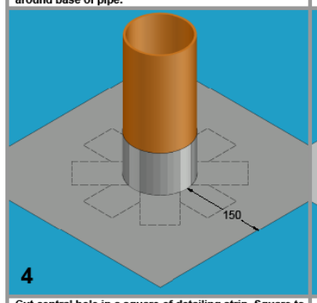
Ensure surface of pipe is clean and free from any contamination. Cut Visqueen Gas Barrier to fit tight around base of pipe.



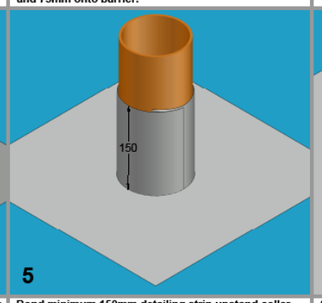
Bond 150mm x 75mm strips of VisqueenPro Detailing Strip as shown. Strips to be bonded 75mm onto pipe and 75mm onto barrier.



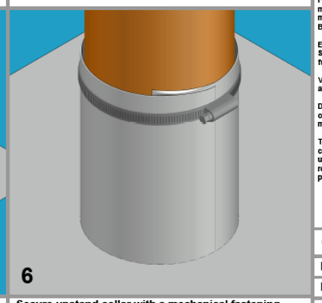
Bond additional strips overlapping previous strips by minimum 25mm.



Cut central hole in a square of detailing strip. Square to extend minimum 150mm beyond base of pipe. Bond over horizontal strips and barrier.



Bond minimum 150mm detailing strip upstand collar around vertical strips and pipe.



Secure upstand collar with a mechanical fastening.

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Guidance Detail

Date: November 2023

Drawing No: GB-81

Revision: | Drawn by: JR

Approved by: SD

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SERVICE PIPE DETAILING USING VISQUEENPRO DETAILING STRIP STEP BY STEP

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No.	Revision Description	Date	By
01	RIBA Stage 4 Issue	30/07/24	BG

EPT PARTNERSHIP CHARTERED ARCHITECTS
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Client:
Andrew Scott

Project:
NPT New Industrial Units

Drawing Title:
Standard Visqueen Detail

Status: Work in progress

Scale : | Original sheet size : A3

Project	Originator	Functional Breakdown	Spatial Breakdown	Form	Discipline	Number	Revision
ISU -	EPT	- ZZ -	XX -	DR -	A -	3450 -	P01

EPT project ref:	Drawn by:	Checked by:	Exported from model:
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