



**Validation Report
Local Centre Blocks B + D**

North Stoneham Park, Eastleigh, SO50 9RH

*Prepared for:
Highwood Group LLP
The Hay Barn
Upper Ashfield Farm
Hoe Lane
Romsey*

April 2023

Omnia ref: A11976/1.5r1

ISO Accredited Certification (UKAS)



Quality Assurance

Project Number: A11738

January 2023

 Geo-Environmental	Validation Report					
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1 INTRODUCTION

1.1 Background

Omnia were commissioned by Highwood Construction to provide geo-environmental consultancy support in order to produce a Validation Report for the Local Centre Blocks B & D, at North Stoneham Park Eastleigh, SO50 9RH. A validation report is required in order to assist with discharge of the associated Planning Condition 15 from Eastleigh Borough Council document (Application O/15/76023, dated 17/02/2015) for the phase. It is also required as part of the works as set out within the Remediation Strategy (RS) produced by Ramboll UK Limited (Report Ref: 61033023-MB-ps-RS, dated September 2018).

We have at this stage made reference to the preceding Remediation Strategy for the local centre, and based on this review noted that:

- Groundwater Risk Assessment established that there was low to negligible risk to the groundwater receptor and no elevated concentrations of leachable determinants identified.
- The gas risk assessment has concluded that the area of the local centre presents a credible risk via ground gas accumulation into proposed structures, and therefore gas protection measures are required in the construction of new buildings.

A site location map is presented as Figure 1.0. All references to 'site' within this report refers to the Local Centre Blocks B and D of this development plan.

1.2 Proposed Development

The development is located off Stoneham Lane and Chestnut Avenue, Eastleigh, Hampshire and is a mixed-use development of land separated into four (4no.) stages of development. The development stages are further separated into eight (8no.) phases of works. The entire development has been subject to several Site Investigations and Contaminated Land Investigation Reports carried out by Ramboll and Soils Limited between 2015 and 2016, the findings of which have been used to produce Ramboll's RS.

Blocks B and D comprise commercial buildings, community centre, nursery and residential accommodation above. From the Ground Gas Risk Zoning Plan, drawing no. 61033023-003 (Figure 3.0) produced by Ramboll, the site is classified as CS2 and therefore does require ground gas protection.

A development layout plan is present as Figure 2.0.

1.3 Objectives

The objectives of this Validation Report are to provide a complete record of post-contract works undertaken at the site as set out within the RS. This shall include a detailed summary of the works completed, all necessary laboratory analysis certification, waste transfer notes, any approvals obtained and detailed records of all movements of soil on site supported with chemical validation data. The Validation Report requirements are included within Table 11.1 – Validation Requirements of the RS.

1.4 Scope of Works

Based on the proposed remedial works set out in the agreed RS, the scope of works comprises the following;

- Review of information provided by Highwood Group LLP;
- Production of a Validation Report.

Omnia were not present during site works and have been supplied information by Highwood Group LLP.

1.5 Summary of Parties Involved

Table 1-1 Parties Involved

Name of Party	Function / Interest
Highwood Construction	Developer
Carlton Civil Engineering Ltd	Principal Contractor
Omnia Consulting	Geo-Environmental Consultant
Ramboll UK Limited	Provide Contaminated Land Services including production of a Remediation Strategy

1.6 Limitations

The limitations of this report are presented in Appendix I.

1.7 Confidentiality

Omnia has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from Omnia; a charge may be levied against such approval.

2 NORTH STONEHAM PARK – REMEDIATION STRATEGY

The site has undergone several phases of investigation including Ground Investigation carried out by Ramboll 2015-2016. The findings of these investigations form the basis for the RS. The Validation Report requirements are included within Table 11.1 – Validation Requirements within the RS and are summarised below.

- **V1** – Health and safety of ground worker, protection of users of land/water near to the site
- **V2** – Future Site Users from locally impacted PAH and hydrocarbon contamination
- **V3** – Waste
- **V4** – Stockpiles
- **V5** – Services
- **V6** – Additional Investigation
- **V7** – Unexpected Contamination
- **V8** – Imported fill material and soil reuse
- **V9** – Ground Gas
- **V10** – Soil Waste – General
- **V12** – Other.

The RS has been produced to include areas of the development outlined within drawing No. 61033023-002 (Figure 1.0) and includes the Local Centre Blocks B and D. Omnia have reviewed the RS and have been supplied information by Highwood Land LLP to meet the Validation Requirements.

3 VALIDATION REPORT

3.1 V1 – Health and Safety of Ground Worker, Protection of Users of the Land/Water near to the Site.

Carlton Ltd are the appointed sub-contract groundworkers onsite and have supplied Health and Safety risk assessments and method statements for ground works across all stages of the development included within Appendix IV.

Carlton Ltd have included methodology for the following items, documents are included within Appendix IV:

Table 3-1 Carlton Ltd summary of RAMS documentation

Organisation	Reference	Title
PAGeoContracting	n/a	COSHH - Petrol
	n/a	COSHH - SAGR
	n/a	COSHH – Extrusion Beads
	n/a	Manual Handling
	n/a	General Workplace Activity
	n/a	Working in or near Excavations
	n/a	Operation Tasks
	n/a	Environmental
Carlton Ltd	CC_HSS_007	RAMS Briefing Register
	n/a	Toolbox Talk Attendance Record

No liaisons with an asbestos specialist have been sought as no PACM was encountered during development.

3.2 V2 – Future Site Users from locally impact PAH and Hydrocarbon Contamination.

Local Centre Blocks B and D are not included within the Contamination Constraints Plan (Figure 4.0) and therefore does not require actions under V2 of the RS.

The client has confirmed that the hotspot areas are associated with the adjacent school site and that no works in regard to hotspot removal were required at the Local Centre Blocks B and D.

3.3 V3 – Waste

The client has provided a selection of muckaway records for soils removed from the Local Centre Blocks B and D. A detailed record of waste transfer notes is held by the client, a selection of which is included within Appendix V.

A total of six (6no.) WAC tests were undertaken on soils removed from the site. All six test results indicated Inert Waste Landfill suitability of the removed soils. Laboratory testing certificates are presented in Appendix V.

3.4 V4 – Stockpiles

Stockpiles were managed in accordance with the criteria set out within 5.2.1 of the RS.

Photographs of stockpiles have been included within Appendix VI.

3.5 V5 – Services

Service trench design, installation photos and supporting evidence is included within Appendix VII.

As set out within the RS Section 7.0, only buried supply pipes present in the vicinity of WS13 and WS28 may require the use of barrier pipe (should Made Ground be present at shallow depths) and as both WS13 and WS28 are located north of the subject area and all hotspot remediation works have been completed off site it is considered that Local Centre Blocks B and D are exempt from the requirement.

3.6 V6 – Additional Investigation

Additional investigation works were suggested as being potentially beneficial by the Ramboll RS, however were not considered essential. It is understood that no additional investigation works have been carried out in the area of the Local Centre Blocks B and D, but that the remedial measures undertaken are sufficient to mitigate the identified risks at the site.

3.7 V7 – Unexpected Contamination

Site notes from the onsite contractor did not identify the presence of any evidence of unexpected contamination within Local Centre Blocks B and D.

3.8 V8 – Imported fill material and soil reuse

It is understood from the client's site records that no imported fill materials have been used in this phase of the development.

Site won material reused at the site comprised Topsoil, described by the appointed soil testing laboratory as a very dark grey slightly moist, friable, slightly calcareous SANDY LOAM.

Topsoil was stripped, stockpiled, and reused within the Local Centre. As far as Omnia are aware, there was no surplus material.

Utilising Flowchart 1 (Appendix VIII) in the RS, the reuse of site won material and topsoil which is not suspected to be contaminated is allowed, providing there is sufficient data to confirm that soils meet the compliance criteria set out within the RS. Omnia consider that sufficient data has been presented during the previous site investigations alongside the further testing presented in Appendix VIII that the topsoil reused can be considered to be compliant with the agreed criteria.

3.9 V9 – Ground Gas

As set out in the agreed RS (Ramboll, 2018) the Local Centre Blocks B & D fall within the area of Ground Gas Zone 1 (Figure 02, revision 03 – Ramboll, 2018) and as such ground gas mitigation measures sufficient for a CS2 site were required across all building footprints. The building is understood to comprise a Type B building in line with BS8485 ((2015)+A1(2019) – private or commercial property with central building management control).

From discussion with Highwood and review of provided photograph during the construction phase (J.Wilson to D.Errington dated 11th April 2023 16:54), alongside annotated cross section (Appendix IX), we note that open voids were left below ground floor slabs through the omission of bricks (215x215mm) thereby providing free air way below the slab and acting as cross vents. Further review of the Highwood correspondence indicates that the open voids are present across each of the internal areas, with two voids serving each area. As presented in the email detailed above, we note the as built ventilation scheme exceeds the criteria for 'good' ventilation.

A selection of photographs and site diary records detailing the CS2 gas protection measures installation are included in Appendix IX alongside independent Verification Reports for the membrane installations produced by Geoshield.

Appendix IX also contains detailed schematics for external walls showing Gas Membrane specification (as confirmed by Geoshield), periscope venting requirements, and beam and block floor slabs.

3.10 V10 – Soil Waste – General

Information provided by the client has recorded soil/muck away movements from this phase of the site. A detailed record of the transfer notes is held by the client, a selection of which is included within Appendix X.

Copies of the waste carrier certificates are provided within Appendix V.

3.11 V11 – Other

No additional information considered pertinent to this phase of development has been provided.

4 DISCUSSION

Based on the information supplied by the client, Omnia consider that:

- Where appropriate, the validation requirements set out within the Remediation Strategy (RS) produced by Ramboll UK Limited (Report Ref: 61033023-MB-ps-RS, Dated September 2018) have been addressed with supporting evidence provided within the attached appendices for the Local Centre Blocks B and D.

APPENDIX I

LIMITATIONS

1. This report and its findings should be considered in relation to the terms of reference and objectives agreed between Omnia and the Client as indicated in Section 1.2.
 2. For the work, reliance has been placed on publicly available data obtained from the sources identified. The information is not necessarily exhaustive and further information relevant to the site may be available from other sources. When using the information, it has been assumed it is correct. No attempt has been made to verify the information.
 3. This report has been produced in accordance with current UK policy and legislative requirements for land and groundwater contamination, which are enforced, by the local authority and the Environment Agency. Liabilities associated with land contamination are complex and requires advice from legal professionals.
 4. During the site walkover reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not been made known or accessible.
 5. Access considerations, the presence of services and the activities being carried out on the site limited the locations where sampling locations could be installed and the techniques that could be used.
 6. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.
 7. Where mention has been made to the identification of Japanese Knotweed and other invasive plant species and asbestos or asbestos-containing materials this is for indicative purposes only and do not constitute or replace full and proper surveys.
 8. The executive summary, conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the report in full.
 9. Omnia cannot be held responsible for any use of the report or its contents for any purpose other than that for which it was prepared. The copyright in this report and other plans and documents prepared by Omnia is owned by them, and no such plans or documents may be reproduced, published or adapted without written consent. Complete copies of this may, however, be made and distributed by the client as is expected in dealing with matters related to its commission. Should the client pass copies of the report to other parties for information, the whole report should be copied, but no professional liability or warranties shall be extended to other parties by Omnia in this connection without their explicit written agreement there to by Omnia.
 10. New information, revised practices or changes in legislation may necessitate the re-interpretation of the report, in whole or in part.
-

APPENDIX II

GLOSSARY

AST	Above Ground Storage Tank
BGS	British Geological Survey
BSI	British Standards Institute
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CIEH	Chartered Institute of Environmental Health
CIRIA	Construction Industry Research Association
CLEA	Contaminated Land Exposure Assessment
CSM	Conceptual Site Model
DNAPL	Dense Non-Aqueous Phase Liquid (Chlorinated Solvents, PCB)
DWS	Drinking Water Standard
EA	Environment Agency
EQS	Environmental Quality Standard
GAC	General Assessment Criteria
GL	Ground Level
GSV	Gas Screening Value
HCV	Health Criteria Value
ICSM	Initial Conceptual Site Model
LNAPL	Light Non-Aqueous Phase Liquid (Petrol, Diesel, Kerosene)
ND	Not Detected
LMRL	Lower Method Reporting Limit
NR	Not Recorded
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Poly-Chlorinated Biphenyl
PID	Photo-Ionisation Detector
QA	Quality Assurance
SGV	Soil Guideline Value
SPH	Separate Phase Hydrocarbon
TPH (CWG)	Total Petroleum Hydrocarbon (Criteria Working Group)
SPT	Standard Penetration Test
SVOC	Semi Volatile Organic Compound
UST	Underground Storage Tank
VCCS	Vibro Concrete Columns
VOC	Volatile Organic Compound
WTE	Water Table Elevation

UNITS

M	Metres
KM	Kilometres
%	Percent
%V/V	Percent Volume in Air
MB	Milli Bars (Atmospheric Pressure)
L/HR	Litres Per Hour
µG/L	Micrograms Per Litre (Parts Per Billion)
PPB	Parts Per Billion
MG/KG	Milligrams Per Kilogram (Parts Per Million)
PPM	Parts Per Million
MG/M ³	Milligram Per Metre Cubed
M BGL	Metres Below Ground Level
M BCL	Metres Below Cover Level

MAOD	Metres Above Ordnance Datum (Sea Level)
KN/M ²	Kilo Newtons Per Metre Squared
μM	Micrometre

APPENDIX III

DRAWINGS

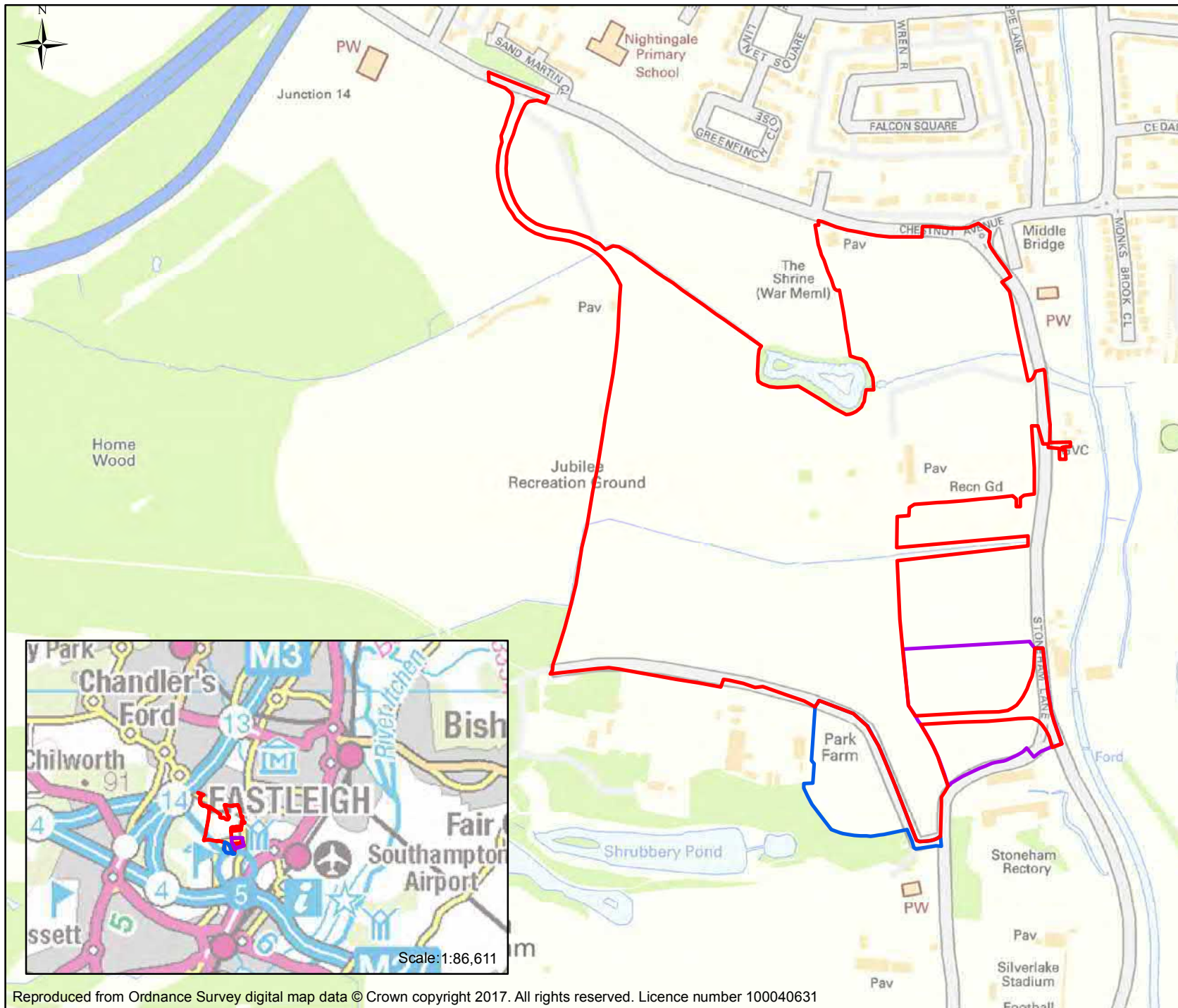
Figure 1.0 – Project No. 61033023-003 – Figure 1 - Site Location Plan

Figure 2.0 – Development Layout Plan

Figure 3.0 – Project No. 61033023-003 – Figure 2.1 - Ground Gas Zoning Plan

Figure 4.0 – Project No. 61033023-002 – Figure 2.2 - Contamination Constraints Plan

Figure 5.0 – Topsoil stockpiles and re-use



- Residential Phase 1 Application Boundary
- Local Centre - Application Boundary
- Extra Care - Application Boundary

Scale: 1:6,800

Colour Drawing

Client

HIGHWOOD
HIGHWOOD LAND LLP

Project Title

**North Stoneham Park
Phase One**

Project Number

61033023-002

Figure Title

Site Location Plan

RAMBOLL

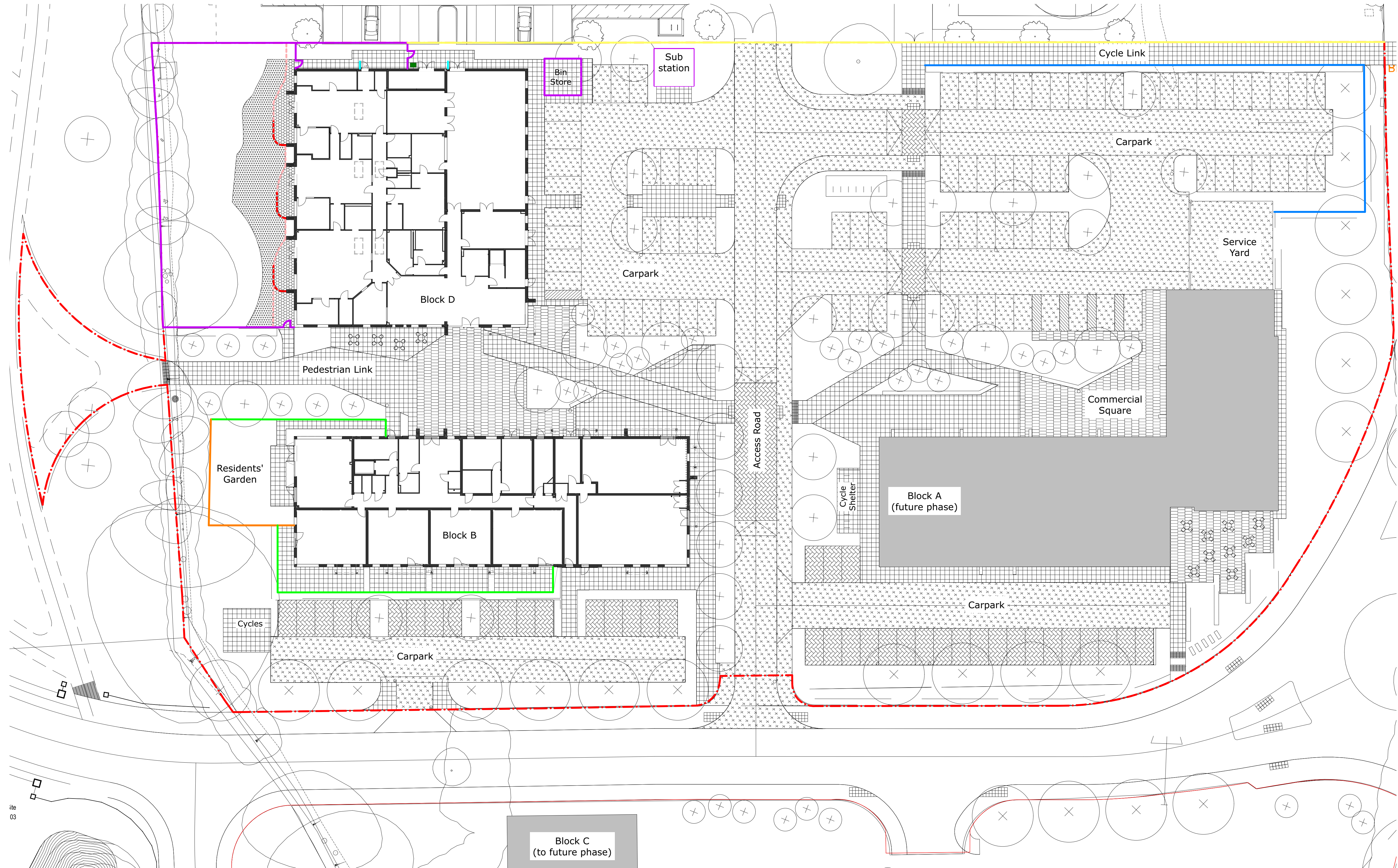
Tel: 023 8081 7500 southampton@ramboll.co.uk
Fax: 023 8081 7600 www.ramboll.co.uk

Date 25.01.2017

Prepared By
BH

Figure No.
Figure 1

Revision
01



Key Plan - Ground Floor

Risk Schedule	
1	Specific health & safety risks associated with this building are highlighted, but not limited to the caution symbol adjacent to the item of risk. Refer to risk schedule on individual drawing.
1	Injury caused by incorrect handling of large / heavy items.
2	Potential to fall from height.
3	Potential to fall from height through voids within floors.
4	Lifting Operations
5	Harm caused by Electrocution.
For further information refer to HGP's M06 & M07 documents	

Site notes

Drawing to be read in conjunction with HGP GA Plans, Sections, Elevations and Detail drawings and Engineer, Landscape Architect and other Consultants and Specialists' drawings, detail and specifications.

For soft landscaping refer to Landscape Architect's details and specification.

For hard landscaping including external drainage refer to Odyssey's details and Specification.

External Lighting and signage refer to Hopkins' Details and Specification.

External References Key - Site				
Originator	DWG No.	DWG Name	Rev	Date
Odyssey	14-159-3003	Levels Local Centre	J	30.01.20

KEY Site	
Surface finishes	Boundary treatment
Asphalt	Application Site Boundary
Paving slabs	1.20 m high black metal railing
Block paving	1.50 m high black metal railing
Tegula block paving	1.80 m high black metal railing
Gas cabinet - 800 x 600mm	1.80 m high close board fence
	1.80 m vertical slatted timber fence
	1.2m high Estate railing
	Door barrier
	0.8m high 215mm thk.bw walls
	Aco drain for YMCA nursery only
	Single gate 1m wide to have high level (1500mm AGL) lock operated by keypad (Digilock or equivalent) on inner face

Change	Description
--------	-------------

C1	056	Construction Issue	23.09.20	RA	AST
P1	037	Site Plan	28.02.20	FLT	AST
Rev.	Issue		Date	DB	CB

Date 06.11.19
Drawn By/Checked By FLT/AST
Scale 1:250@A1
Revision C1
Project Stoneham Local Centre
Title Site Plan - Ground Floor

Dwg # 19.024_HGP_XX_00_DR_A_100

Status **Construction**

ISO 9001
Quality
Management
FS 10342

Furzehall Farm, Wickham Road
Fareham, Hampshire
PO16 7JH

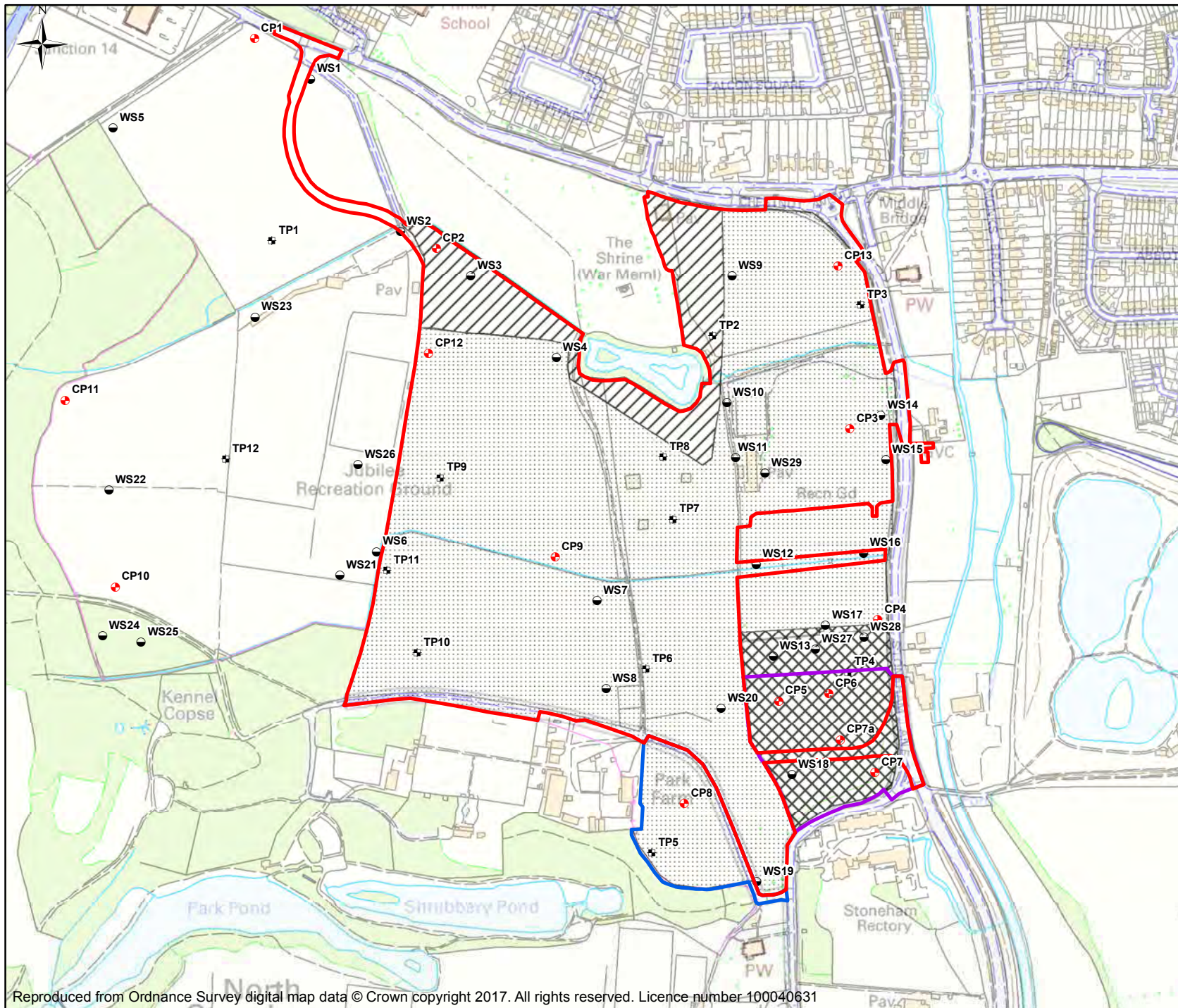
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- Residential Phase 1 Application Boundary
- Local Centre - Application Boundary
- Extra Care - Application Boundary

Ground Gas Zone

- Ground Gas Zone 1: CS2
- Ground Gas Zone 2: Amber 2/CS2
- Ground Gas Zone 3: Green/CS1

Ground Investigation

- + Cable Percussion (CP)
- + Trial Pit (TP)
- Windowless sample borehole (WS)

Scale: 1:6,000

Colour Drawing

Client

HIGHWOOD
HIGHWOOD LAND LLP

Project Title

**North Stoneham Park
Phase One**

Project Number

61033023-002

Figure Title

Ground Gas Risk Zoning Plan

RAMBOLL

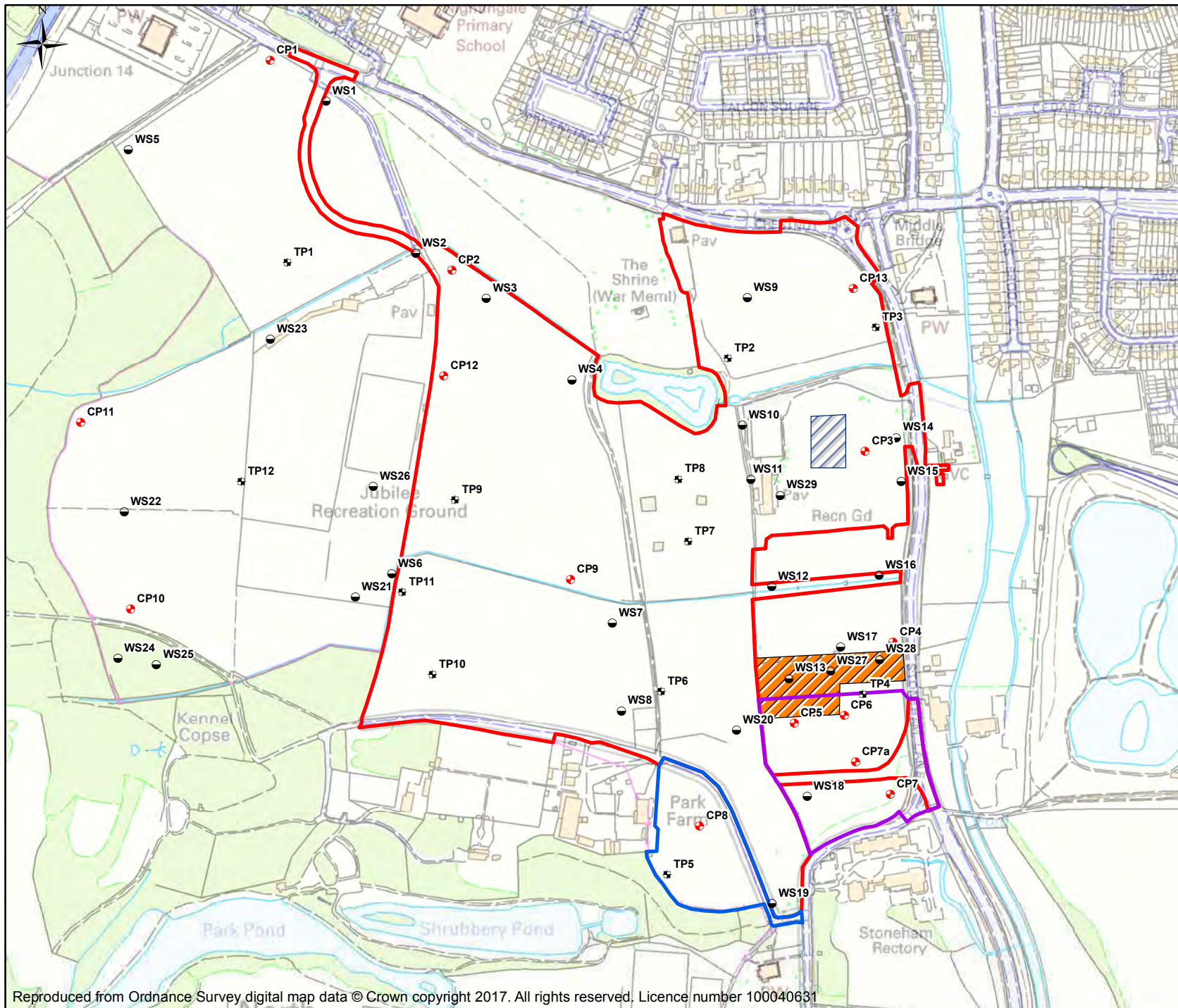
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Date 25.01.2017

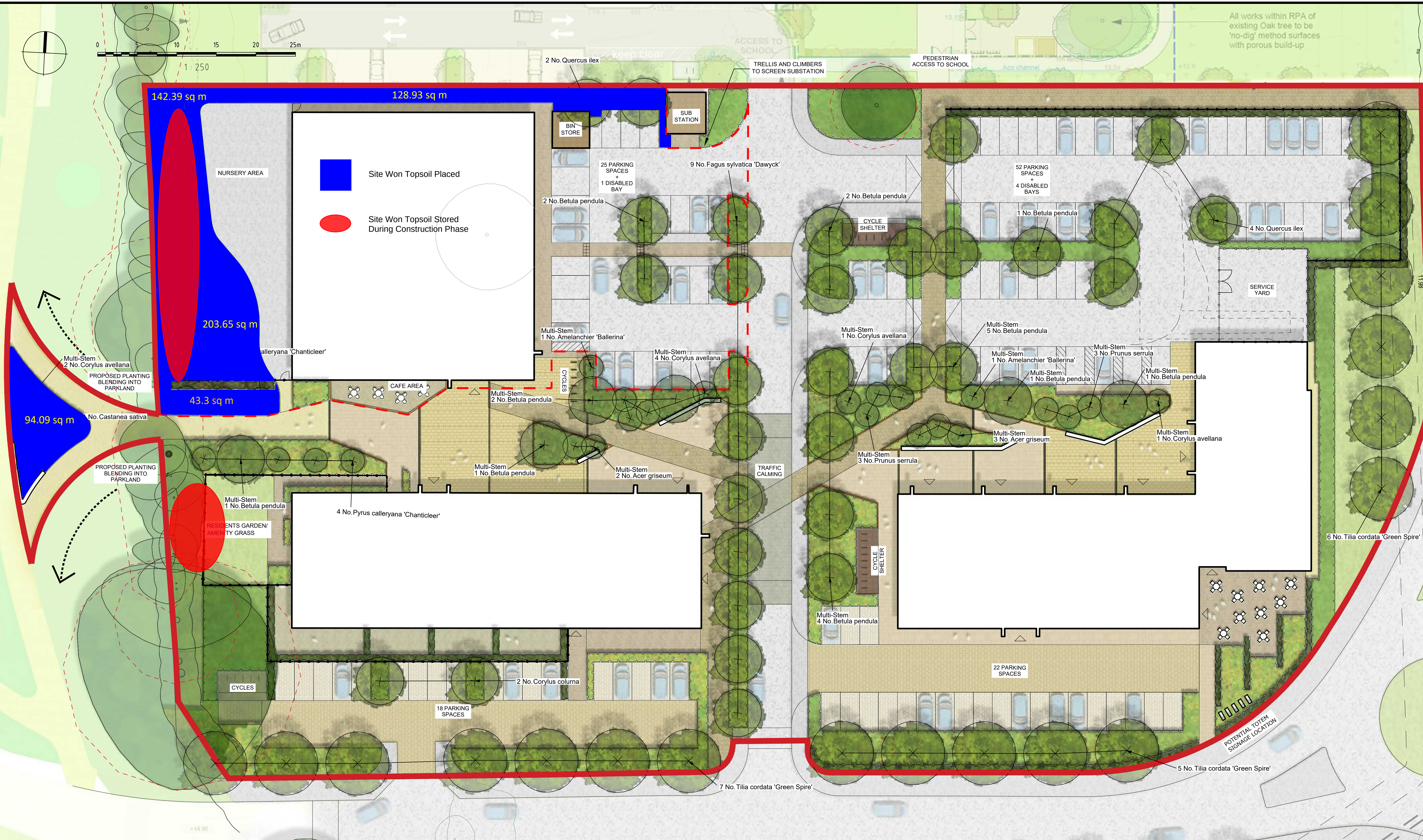
Prepared By
BH

Figure No.
Figure 2.1

Revision
01



Residential Phase 1 Application Boundary Local Centre - Application Boundary Extra Care - Application Boundary	
Contamination Constraints Shallow Made Ground soils around WS13, WS27 & WS28 New car park	
Ground Investigation Cable Percussion (CP) Trial Pit (TP) Windowless sample borehole (WS)	
Scale: 1:6,000 Colour Drawing	
Client HIGHWOOD HIGHWOOD LAND LLP	
Project Title North Stoneham Park Phase One	
Project Number 61033023-002	
Figure Title Contamination Constraints Plan	
RAMBOLL Tel: 023 8081 7500 southampton@ramboll.co.uk Fax: 023 8081 7600 www.ramboll.co.uk	
Date	25.01.2017
Prepared By	BH
Figure No.	Figure 2.2
Revision	01



NOTES:

- This drawing is to be read in conjunction with all relevant contract drawings and specifications with any conflicting information to be brought to the attention of Deacon Design before works commence on site.
- Do not scale from this drawing, always work to noted dimensions.
- All given dimensions in mm.

KEY

- Application Site Boundary
- Extent of EBC Land
- Soft Landscape
 - Existing tree planting to be retained / RPA shown dashed
 - Existing hedgerow vegetation to be retained and enhanced
 - Existing tree planting to be removed
 - Proposed tree planting
 - Proposed native/ ornamental and shrub/ groundcover planting for primary/ secondary areas
 - Proposed native/ ornamental and shrub/ groundcover planting for tertiary/ quaternary areas
 - Proposed formal hornbeam hedge
 - Proposed wildflower meadow

Landscape Specification

Implementation

All planting to be carried out at appropriate time within the first planting season post completion and maintained for a period of up to 5 years to ensure successful establishment. Recommended planting times.

- Wildflower / Lawn seed mix - First sow (April to June) / Secondary (August - September)
- Container Grown Planting - All year round (except during periods of frosts)
- Bareroot/Rootball Stock - November (After first frost) - March

It is the contractor's responsibility to check for services in this area before groundworks commence.

Growing Medium

Existing topsoil, ripped to a depth of 300mm, the full remaining depth replaced with BS 3882 Multipurpose Grade topsoil supplemented with PAS100 compost of spent mushroom compost at a depth of 100mm. Topsoil should be friable.

Trees and shrubs to be grown in accordance with NPS.

Trees - tree pits to be 300mm larger than the rootball on all sides with the base of the pit broken up. Heavy Standard trees to be double staked.

Planting Shrubs - to be planted in prepared beds, back filled and firmed to nursery level.

After planting all trees and shrubs are to be well watered, lightly firmed, mulched with 75mm of FSC certified mulch ensuring no damage to the plants. Rabbit proof fencing maybe required to protect the establishment of the plants.

Wildflower Meadow

A native seed mix has been proposed for the woodland edge to encourage a species rich / woodland edge meadow to establish. In the first year, wildflower should be cut short to a minimum height of 100mm during July/August to reduce competition with annual weed growth and encourage the development of groundcover. Once established, providing the weed species have been controlled through regular cutting, the grassland should be allowed to flower and set seed naturally.

Management and Maintenance

Establishment - Trees and shrubs will be watered to ensure they thrive through dry weather and re-firmed after strong winds or frost heave

Annual Maintenance - Trees and Shrubs - Tree ties to be adjusted, to be checked for damaged branches/stem and pruned in accordance with good horticultural practice. Where they have died or failed to thrive they will be replaced, incorporating a slow release fertilizer as per manufacturers rates, topping up mulch to ensure 75mm depth.

FINAL

15.04.20	DA	Minor amendments to Community Building	D	PD
07.02.19	PM	Amended following planner's comments	C	JH
30.11.18	PM	Issued for Planning	B	JH
27.11.18	PM	Amended application site boundary, added parking bays and substation	A	JH

DATE DRAWN DESCRIPTION OF REVISION REVISION LETTER CHECKED BY

DRAWING STATUS

FOR PLANNING

D

DEACON DESIGN

Landscape Architecture | Masterplanning | Urban Design
12a The Square, Wickham, Hampshire PO17 5JQ
Tel: 01235 557 820 Email: info@deacondesign.co.uk
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PROJECT TITLE:
North Stoneham Local Centre

PROJECT NUMBER:
DD239

PLOT DATE:
21.11.2018

DRAWING SCALE:
1:250

APPROVED BY:
JH

PAPER SIZE:
A1

DRAWN BY:
PM

DRAWING TITLE:
Planting Strategy

1 of 2

DRAWING NUMBER:
DD239L03

REVISION LETTER:
D

DRAWING FILE LOCATION:
Z:\Dropbox (Deacon Design Ltd)\03 PROJECTS 200+DD239 North Stoneham Local Centre\04-Drawings\AutoCAD-Landscape Design\DD239L03_Planting Strategy - Local Centre.dwg

Tree planting			
Species Name	Common Name	Specification	No.
Acer griseum	Paperbark maple	Multi-Stemmed :RB	14 No.
Amelanchier 'Ballerina'	-	Multi-Stemmed :RB	5 No.
Betula pendula	Common Silver Birch	Extra Heavy Standard :RB	5 No.
Betula pendula	Common Silver Birch	Multi-Stemmed :RB	20 No.
Castanea sativa	Sweet Chestnut	Extra Heavy Standard :RB	1 No.
Corylus avellana	Common Hazel	Multi-Stemmed :RB	20 No.
Corylus columna	Turkish Hazel	Heavy Standard :RB	3 No.
Fagus sylvatica 'Dawyc'	Dawyc Beech	Extra Heavy Standard :RB	9 No.
Pyrus calleryana 'Chanticleer'	-	Extra Heavy Standard :RB	7 No.
Prunus serrula	-	Multi-Stemmed :RB	6 No.
Quercus ilex	Holly oak	Extra Heavy Standard :RB	6 No.
Tilia cordata 'Green Spire'	Green Spire Lime	Extra Heavy Standard :RB	22 No.

Ornamental shrub planting to primary and secondary areas	
Species Name	Common Name
Abelia grandiflora 'Compacta'	-
Cistus corbariensis	Rock Rose
Cistus salvifolius 'prostratus'	Sage leaf Rock Rose
Cornus alba 'Elegantissima'	Silver Dogwood
Cornus sanguinea	Common Dogwood
Cornus sanguinea 'Midwinter Fire'	Dogwood 'Midwinter Fire'
Corylus avellana	Common Hazel
Daphne odora 'Aureomarginata'	Gold-edged winter daphne
Euonymus alatus 'Compactus'	-
Euonymus fortunei 'Dart's Blanket'	Euonymus 'Dart's Blanket'
Hebe 'Heartbreaker'	-
Hebe 'Silver Queen'	-
Hydrangea arborescens 'Grandiflora'	Aaronsbeard St. Johnswort
Hypericum calycinum	Delavay tea olive
Osmanthus delavayi	-

Perovskia 'Blue Spire'	-
Philadelphus coronarius 'Aureus'	Golden-leaved Mock Orange
Photinia fraseri 'Red Robin'	Christmas berry
Pieris japonica 'Bonfire'	-
Pinus mugo	dwarf pine
Rosa 'Kent'	Rose 'Kent'
Sarcococca confusa	Sweet Box
Skimmia confusa 'Kew Green'	Skimmia 'Kew Green'
Viburnum opulus	Guelder Rose
Viburnum opulus 'Compactum'	-

Ornamental herbaceous/grasses planting to primary and secondary areas	
Achillea millefolium 'Lilac Beauty'	-
Ajuga reptans 'Multicolor'	-
Anemone hybrida 'Queen Charlotte'	-
Aquilegia Songbird Series	-
Asplenium scolopendrium	Hart's Tongue Fern
Astrantia major 'Hadespen Blood'	Masterwort 'Hadespen Blood'
Bergenia 'Silberlicht'	Elephant's Ears 'Silberlicht'
Deschampsia cespitosa 'Goldtau'	-
Dryopteris dilatata	Spreading wood fern
Echinacea purpurea	-
Geranium cinereum 'Carol'	-
Helleborus orientalis	Lenten Rose
Liriope muscari	Big blue lily turf
Luzula sylvatica	-
Miscanthus sinensis 'Morning Light'	-
Pachysandra terminalis	Japanese spurge
Primula vulgaris	-
Salvia nemorosa 'Amethyst'	Balkan clary 'Amethyst'
Vinca minor 'Illumination' (v)	lesser periwinkle 'Illumination'

Ornamental planting to tertiary and quaternary areas (low maintenance)	
Carex oshimensis 'Evergold'	Sedge
Cornus sanguinea 'Mid-Winter Fire'	Dogwood
Cornus stolonifera 'Flaviramea'	Dogwood
Daphne odora 'Aureomarginata'	Gold-edged winter daphne
Deschampsia cespitosa	Tufted Hair-grass
Euonymus fortunei 'Dart's Blanket'	Euonymus 'Dart's Blanket'
Hedera helix 'Green Ripple'	Ivy
Hydrangea quercifolia	Oakleaf hydrangea
Iris pseudacorus	Yellow Iris
Lavandula intermedia 'Grosso'	English Lavender 'Grosso'
Miscanthus 'morning light'	Ornamental Grass
Philadelphus 'Belle Etoile'	Mock Orange
Photinia fraseri 'Red Robin'	Christmas Berry 'Red Robin'
Rosa 'Kent'	Rose
Salvia nemorosa 'Amethyst'	Balkan clary 'Amethyst'
Sarcococca confusa	Christmas Box
Spiraea japonica 'Magic Carpet'	-
Viburnum davidii	-
Viburnum x bodnantense 'Dawn'	-

Hedgerow Planting (Native)	
Acer campestre	Field Maple
Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn
Rosa canina	Dog-rose
Viburnum lantana	Wayfaring Tree
Viburnum opulus	Guelder Rose

Hedgerow Planting (Formal)	
Carpinus betulus	Hornbeam (to define rear garden boundaries)

Meadow Mix	
EM1 - Basic general purpose meadow mixture	
Achillea millefolium	
Wildflowers	
Centauria nigra	Common Knapweed
Daucus carota	Wild Carrot
Galium verum	Lady's Bedstraw
Leucanthemum vulgare	Oxeye Daisy
Poterium sanguisorba - (Sanguisorba minor)	Salad Burnet
Prunella vulgaris	Selfheal
Ranunculus acris	Meadow Buttercup
Rumex acetosa	Common Sorrel
Silene dioica	Red Campion
Grasses	
Agrostis capillaris	Common Bent
Cynosurus cristatus	Crested Dog's-tail
Festuca rubra	Slender-creeping Red-fescue
Phleum bertolonii	Smaller Cat's-tail

01 Outline Planting Schedule

L03 NTS

Note: To be read in conjunction with DD240Y04A_Hierarchy of Landscape Spaces

APPENDIX IV
V1 – SUPPORTING EVIDENCE

RAMS Briefing Register



Site Name: The Local Centre, Stoneham Lane

Client: Highwood Construction

Prepared by: Kevin Miskella

Signature:

Revision:	Date:	By:	Signature:	Authorised by:	Reason For Issue:

Introduction:

General Description of the Works:

This site is to be a community centre, with some shopping outlets with residential above on a previously greenfield site within a new major housing development on the outskirts of Eastleigh in Hampshire. It will be connected to local service networks, with the foul drainage connected to a local drain, and storm drains to a new network of soakaways.

The site is accessed from the public highway by means of a site roadway.

Specific Sequence:

- **Site Strip** - we will check drawings for local services and will survey the site with a CAT. We are aware of the presence of some services on site. We will proceed to strip the topsoil and store as required, then reduce ground levels as specified and muck away, all dumper movements to designated routes only.
- **Excavation Work** - We will complete permit to dig forms and CAT survey area of the task. Excavate using 360 machines supported by a banksman at all times. Ensure all operatives wear hi-visibility clothing and maintain verbal contact to avoid crushing risk.
- **Road Construction & Traffic Management** - all heavy traffic will be directed to the point of delivery by finger boards. No Reversing will take place without a banks-man present.

RAMS Briefing Register



- **Installation of Hard landscaping, Kerbs, Slabs and Paving** - Use lifting devices provided to position kerbs, slabs and paving. Position material and close to point of use as possible to reduce manual handling risk.

General Control Measures:

Where services are identified within the site boundary or the area of work, a permit to dig will be used. Areas under the control of Carlton Civil Engineering Ltd will be inspected at the end of the working day and those precautions necessary to prevent access to public/other site personnel will be provided in line with the nature of the identified risk. Plant operators will carry out weekly inspections of their machine records of which will be held in the safety documentation folder.

All operations are subject to either standard (attached to this statement below) or specific risk assessment. The standard assessments below will be used to construct the specific RAMS as required for each task as they present.

Resources Required (Personnel & Supervision):

A site foreman and 6 operatives.

Specially Trained Persons:

All plant operators, dumper drivers, roller operators will hold proof of adequate training.

Changing of abrasive wheels will be carried out only by trained and certificated personnel (see Carlton safety documentation folder)

Induction: All personnel will attend the site induction programme. Dependent on-site requirement signature of attendees and/or wearing of induction stickers will be complied with.

Method statement/risk assessment briefing: Prior to commencing work all personnel will be briefed on the contents and requirements of the method statement and relevant assessments. Where hazards from other contractor's activities have been communicated to Carlton Civil Engineering, this information will be forwarded to its personnel. Our site foreman will ensure all relevant information is communicated to our operatives and contractors and that this document is signed as a record of those attendees.

Task briefing/toolbox talk (frequency): Regular briefings will be held either weekly or at the beginning of a new operation or phase of work. Relevant risk assessments will be revisited as a refresher and to monitor their effectiveness by consultation with the personnel involved.

RAMS Briefing Register



Plant & Equipment:

360-degree diggers, dumpers, rollers and associated plant will be utilised to undertake the tasks on this project.

Storage/Waste Disposal/" Muck Away":

Arrangements for waste removal, storage containers and any special arrangements for muck away or spoil areas on-site. All waste transfer documentation will be copied to the local site manager for his records copies will also be maintained at our offices.

We will ensure that all heavy vehicles carrying granulated materials such as sands, aggregates and soils are suitably sheeted to prevent this material causing injury or accident in the public highway or elsewhere on site.

Access & Egress:

Access and egress will be via the traffic management plan put forward by Highwood.

Protection of Others (Public/Contractors):

Care will be taken for the protection of others, and joint meetings between Highwood and CCE will determine the best way to approach this matter as the job progresses.

COSHH, Manual Handling, Lifting Requirements:

See assessments later in folder

Building Sand	Wide Joint Grout
Petrol	Diesel
Hydraulic oil	

Manual handling assessments:

	Road formers/pins
	Manhole covers

Other Environmental Hazards:

Method Statement Matrix

RAMS Briefing Register



Where we use lubricant oils or deliver fuel on site we will ensure suitable spill kits are available and that operatives are trained to use them effectively. For general dust control we will use local water suppression or for repetitive tasks we may hire a wet cut bench. Operatives will also wear (for dusty operations) Force 8 half mask respirators from JSP. These respirators are CE0086, EN140:1998, and EN143:2000/A1:2006 marked, and can be self-fitted negating the need for face fitting by others, and instantly and easily checkable by the operative.

PPE: Hard Hats/ Safety Footwear/ Gloves/ Eye Protection/ Ear Protection/Respiratory Protection, Specify:

During certain specific activities further PPE will be required and this is identified in the following risk assessments i.e. goggles and ear defenders during use of disc cutter, gloves for handling pipe work etc.

We will observe local rules in respect of PPE compliance however we have assessed the use of general eye protection and found that this provides hindrance and distraction for ground works operatives. We will therefore provide a half face helmet mounted visor for basic works and full goggles will be used as and when required by specific process tasks.

Lifting Operations:

For certain tasks, we will need to mechanically lift materials and components into position. This will traditionally be carried out by a suitably rated excavator with check valve fittings using strops, chains and hooks. We will monitor the condition of all lifting tackle and replace equipment where it is no longer serviceable. All Excavators will undergo annual inspection and test by an independent engineer and lifting certificates issued.

The following are the main operations that require lifting,

- Placing & Positioning Pallets of blocks. (Pallet lifter/grabber)
- Placing & Positioning Manhole Rings & Biscuit tops (Chains & Hooks)

Only trained experienced operatives will sling loads when using an excavator.

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Emergency Arrangements (Including First Aid):

Accident: Serious; Cease work. Take those steps necessary to prevent further injury. Contact emergency services, principal contractor's site representative, head office. Gather information for accident investigation, complete RIDDOR report to cover major injury, 7-days lost or dangerous occurrence (consultant to advise on this as appropriate).

Minor: Cease work. Take those steps necessary to secure work area. Seek attention of first aider. Record accident in site accident book and notify head office.

Fire: Raise the alarm. Comply with site fire rules

Flooding: Ensure adequate means of escape in line with number of personnel exposed to risk. Secure area seek assistance from service company/emergency services.

First aiders: Main Contractor

First aid box location: Site Office

Hospital location: Southampton General Hospital, Tremona Road, Southampton SO16 6YD

Phone: 02380 777222

Temporary Services & Monitoring Arrangements:

The PC is providing suitable canteen and welfare facilities to include suitable drying rooms, toilets and washing facilities. We will also require use of a local power supply and water provision to support the works activities.

Carlton site supervisor will monitor compliance with the method statement and will report back to management issues identified as requiring review.

Where a change to previously planned operations occurs, sufficient and suitable assessments will be made and will be added to this document. These assessments will also be communicated to the involved personnel prior to commencing the 'new' operation we will issue an amendment to this statement on the attached form. The principal contractor/client should therefore take due note that changes/variations will require sufficient notice or may result in a brief interruption to the work.

RAMS Briefing Register



Communication:

Copy to,

Principal Contractor and;

Site Operatives, those involved in the works will be informed of this statement and will sign below to confirm that they understand and will comply with its requirements.

Signed: Name (print): Date:

Signed: Name (print): Date:

Signed: Name (print): Date:

Signed: Name (print): Date:

Signed: Name (print): Date:

Signed: Name (print): Date:

Attachments,

- Method Statement Site Amendment Form.
- Risk Assessment
- Other reports.

Management:

Supervisor:

Foreman:

Surveyor:

Engineer:

Schedule of Plant and Equipment:

Equipment	Required?	Certification Required
360 excavator (sized to suit depth of excavation)	☐	12 Month Thorough Examination
Mini Diggers	☐	12 Month Thorough Examination
180 Back Actor Excavator	☐	12 Month Thorough Examination
Trench Support	☐	n/a
Deep Excavation Support incl. Edge Protection	☐	n/a
Dumpers	☐	n/a
Compaction Equipment – Plates Rollers etc.	☐	n/a
Compressors and Associated Air Tools	☐	n/a

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Permit to Work Required?

Yes 

No 

Proprietary Falsework and Formwork systems		n/a
Concreting Equipment		n/a
Small Tools		n/a
CAT Scanner/ Genny		Calibration Certification
Other;		
		
		
		
		

RAMS Briefing Register



#	Method Statement	Tools and Equipment	Method of Works	Site Specific Requirements	Risk Assessments
1	General	Personal Protective Equipment Welfare Facilities Surveying Equipment	- All operatives will have a minimum qualification of 'Safety Awareness'. - Details of all plant and equipment to be recorded for reference. All plant to be kept in a condition suitable for its purpose. - All operatives working within the site boundary to wear hard hats, high-viz clothing and protective footwear. - Disc cutters to have blades changed by registered trained personnel. Safety goggles to be worn when in use. - Adequate welfare provision is to be made available: Canteen; Drying room; Toilet; Access to hot and cold water; First Aid facilities - Standard certified surveying equipment to be used by an experienced engineer, using information supplied by the Client.		RA10 RA14 RA26
2	Underground Services	Excavators Small Tools CAT Scanner Demarcation Tape Surveyors Paint	- Ensure utility services plans have been provided and copies of the drawings are available for reference. - Trial holes are to be hand dug to find buried services - there will be no mechanical digging within 500mm either side of the suspected location of the service. - Demarcation tape is to be used in conjunction with sand on all services. - Site Supervisors are to assess and either authorise or forbid the use of plant in areas where services are known or suspected. - The possibility of undetected underground services, particularly on urban sites, must be considered. - All works will be carried out in accordance with HSE guidance HS(G)47 "Avoiding Danger from Underground Services".		RA1 RA2 RA7 RA8 RA11 RA18
3	Overhead Electricity Services	Suitable materials to construct barriers and exclusions zones. Red and White Paint Measurement Tools Small Tools	- Generally, the Principal Contractor will provide the relevant protective measures to prevent contact with the overhead lines. - In cases where CC are acting as the Principal Contractor, the protective measures will be identified in agreement with our Safety Consultant and recorded within the Construction Phase Plan prior to works starting on site. - Any measures provided to protect the workforce will be briefed to the operatives. - In other cases where CC are requested to provide protection, or where no protection exists for whatever reason, the Site Supervisor and the Contracts Manager will agree measures required to be taken to remove the risk from site; e.g. isolation of the supply. However, if this is not possible, then suitable protective measures will be put in place at ground level. - All protective measures will be erected and installed in accordance with GS6 "Avoidance of danger from overhead electric power lines, i.e. Continued...		RA19

RAMS Briefing Register



#	Method Statement	Tools and Equipment	Method of Works	Site Specific Requirements	Risk Assessments
			○ A stout post and rail fence. ○ Steel drums, filled with aggregate, supporting non-conducting goalposts from which hazard bunting is hung; ○ An earth bank. • All measures shall be made as visible as possible by being painted with red and black stripes. • The minimum safe distance for working beneath overhead power lines is 6 metres but will vary, always check with the utility company first. • If work must take place closer than this or a defined passage from mobile plant is required underneath such lines, the machine operator must inform the Site Supervisor and a separate detailed method statement must be produced and agreed, again always check with the utility company in advance.		
4	Contaminated Ground	Contaminated Ground Reports Excavators Dumpers Welfare facilities Wheel Wash	• Client to advise any known areas and types of contamination. • Client to appoint an independent expert to identify and supervise the removal of any contaminated material that may be present. • Contaminated soil to be removed, if practical, prior to the commencement of general excavation work. • Spoil to be loaded directly into lorries from a certified waste carrier for removal to a licensed tip. • Lorry drivers to ensure that loads are sheeted prior to departure from site. • Operatives exposed to any contaminated material will wear suitable clothing, gloves, boots and hard hats. • Hot water washing facilities are to be provided and maintained as part of site welfare. • If any unusual or unexpected contamination is found, any asbestos, anything suspicious either visually or olfactorily all work is to cease immediately, and it is to be reported to the Site Supervisor. In this instance, the area is to be fenced off, and the PC will (with the benefit of advice from specialists) advise as to how to continue!		RA11
5	Excavations	Excavators Dumpers Trench Support	• Prior to commencing any excavation, the work will be assessed by both the Site Supervisor and the Contracts Manager to determine how the excavation operation will be controlled. • Factors to be considered are; 1. Ground Conditions, soils and sub strata; 2. The need for trench support and the materials required to do so; i.e. drag boxes, trench sheeting, contiguous or sheet piling, or the battering back to a suitable angle of repose/stepping. 3. Generally speaking, any excavation deeper than 1.2 metres will be supported, however in some conditions trench support may be		RA2 RA11

RAMS Briefing Register



			required in excavations less than 1.2 metres; 4. The need for edge protection to prevent falls into the excavation; 5. The need for stop blocks to prevent vehicles approaching the edge of the excavation, in particular tipper trucks;		
#	Method Statement	Tools and Equipment	Method of Works	Site Specific Requirements	Risk Assessments
			6. The location and detection of underground services; 7. Access into and egress out of the excavation. 8. The siting of the spoil heap generated by the excavation, generally at a distance away from the edge equal to or greater than the depth of the excavation. 9. Should the P/C for the site not undertake a permit to Dig system, CC Supervisor will issue CC Permit to Dig prior to works starting (CC_HSS_016) - The Contracts Manager and Site Supervisor will agree the required controls and this decision will be documented within the Excavation Inspection Register (CC_HSS_015) by the Site Supervisor. - The Ganger Man will be responsible for ensuring these provisions are installed. - Excavation inspections will be carried out by the Site Supervisor before carrying out any work within an excavation, at each shift throughout the open life of the excavation, after any event likely to have affected its strength or stability and after any fall of material. Weekly inspections will be recorded within the excavations register. - When unattended, all excavations will be adequately guarded by rigid barriers, or securely covered. In addition, signage indicating "Danger - Deep Excavations" will be erected around particularly deep works e.g. formation of deep chambers, pump stations, attenuation tanks etc. - If at any stage of the excavation the Site Supervisor deems the control provisions to be inadequate to prevent the collapse of the excavation or compromised in any way that may lead to a collapse, the works will be stopped, and an additional assessment will be undertaken by the Site Supervisor and Contracts Manager. - A Banksman is to direct machine operations where appropriate. - Only a controllable length of excavation to be opened at any one time. - Ladders are to be provided for access to deep excavations or trenches and are to extend to a minimum of 1 metre above ground level. - Excavators to backfill excavations with a Banksman directing operations.		
6	Lifting Operations	Cranes Excavators Any Lifting Tackle; strops, chains, eye bolts etc	Lifting gear can be chains, slings, eyebolts, shackles or any other items used for lifting. All lifting gear must: - Be properly constructed and regularly inspected for defects prior to first use on site and then at intervals of no more than 7 days with records of the inspection and any maintenance undertaken as a result being kept in an inspection register for that site. - Be tested, examined and marked with a safe working load; - Have valid 6 monthly test and examination certificates which will be kept		RA2 RA13

RAMS Briefing Register



			- within the site safety folder; - Be properly attached to the load that it is lifting and only used for the purpose for which it is designed.		
#	Method Statement	Tools and Equipment	Method of Works	Site Specific Requirements	Risk Assessments
			Lifting operations can be carried out by cranes or by excavators being used as lifting appliances. Lifting appliances must: - Have regular thorough examination and testing, - Be regularly inspected for defects prior to first use on site and then at intervals of no more than 7 days with records of the inspection and any maintenance undertaken as a result being kept within an register for that site. - Quick Hitches to be recorded within the Quick Hitch Register by the site Supervisor (CC_HSS_014). - Have all lifting operations controlled by an appointed Operative with appropriate training certificate; - Not lift weights in excess of the Safe Working Load (SWL) of that appliance; - Have loads correctly slung and made secure to prevent slipping and falling; - Have an adequate lifting plan for any unusual or complicated lifting operations.		
7	Mobile Plant	Dumpers Road Rollers Excavators	When operating Mobile plant and equipment: - Plant is only be used by trained Operatives who hold a current valid certificate - Plant will be inspected by the Operator at regular intervals of no more than 7 days, with records of the inspection and any maintenance undertaken as a result being kept within the plant inspection register (CC_HSS_013). - Operatives must dismount when dumpers are being mechanically loaded - Plant will NOT be used to carry passengers unless in a designated seat - Plant must be prevented from tipping into an excavation by using edge protection and/or barriers/sleepers - Do not exceed the site speed limit - Only use on designated routes that are separated from pedestrian traffic - Dumpers and other plant must be left secure to prevent unauthorised access. Site Manager is to organise a system of key control on each site. - Keys must be removed when plant is left unattended. - Plant must always be fitted with a seat belt and the seat belt to be worn when plant is in use.		RA1 RA2 RA17

RAMS Briefing Register



			When plant is fitted with a beacon it must be activated when the machine is in use.		
#	Method Statement	Tools and Equipment	Method of Works	Site Specific Requirements	Risk Assessments
8	Pipelaying	Excavators Trench Support Edge Protection Laser levels Small Tools	- Pipes to be placed in the trench by machine or by hand – depending upon the pipe diameter and material. - Pipes to be laid to line & level and air tested prior to backfilling. - Prevent falling from height by ensuring adequate edge protection is employed - Operatives are not to work underneath of the excavator bucket at any time - Operatives are to stand clear of any materials being placed in the trench by a machine - Operatives are to keep fingers and hands clear when pipes are being pushed home. - Operative must not look directly into the pipe laser beam.		RA11 RA14 RA16 RA17
9	Manholes	Small Tools Cement Excavators	- Manholes to be constructed where possible from standard components – plastic or precast concrete rings. - All surrounds to be concreted using appropriate shuttering. - Manholes to be sealed to prevent any leakage and benched accordingly. - Ladders and step irons to be installed depending upon the Undertakers requirements. - Only complete manholes or manholes bearing the appropriate lifting recesses are to be used. - Operatives must not work below machine bucket - Operatives must stand clear of any manhole components being placed in the trench. - Operators must keep fingers and hands clear when guiding manhole components - Proper lifting pins and chains must be used for lifting all components - Gas detector must be used in confined space.		RA7 RA11 RA17
10	Confined Spaces	Gas Monitor	Prior to entering any confined space, the work will be assessed by both the Site Supervisor and the Contracts Manager to determine how the risks will be controlled. Factors to be considered are; - Whether the space needs to be entered in order to undertake the work. - Provide suitable access into and escape from the confined space, especially in the event of an emergency. i.e. the use of A-Frame rescue equipment and 3-point safety harnesses. - Gas monitoring prior to entry, and fixed gas monitoring and or personal monitoring throughout the duration of the work.		RA22

RAMS Briefing Register



			Provide a confined space entry permit to work and ensure the operatives undertaking the work are adequately briefed.		
			Continued...		
#	Method Statement	Tools and Equipment	Method of Works	Site Specific Requirements	Risk Assessments
			- Provide a "Top Man" who will be in control of the work activity and will be in constant communication with the workforce within the confined space. The Top Man is never to enter the confined space under any circumstances. He is responsible for the workforce within the confined space and should be able to operate the rescue equipment. - Consider how the communication between the workforce and the top man is achieved. The Contracts Manager and Site Supervisor will agree the required controls and this decision will be documented within the Method Statement by the Site Supervisor prior to communicating the provisions to the workforce undertaking the works within the confined space. The Site Supervisor will be responsible for ensuring these provisions are installed. - Confined space working to only be carried out by persons who have received adequate training. - All necessary safety equipment to be available at the point of work - including tripods, winches, harnesses, breathing apparatus, and a gas detector. - An operative is to be always positioned outside the confined space and to have a means of emergency communication available. - Manhole covers to be lifted with manhole lifting keys in accordance with good lifting practices and manual handling regulations. - No operative to enter a chamber until the gas detector has been used and a tripod and harness have been secured. - If the gas detector sounds an alarm, no personnel to enter the confined space and any operatives within the confined space to evacuate immediately. - Step irons and safety chains to be visually checked before entering the chamber - a ladder to be used if these are not secure.		
11	Concreting	Mobile Plant Means Of Access to work at height Small Tools	- All steel fixing will be carried out according to the latest issue drawings - where possible beam steel and other suitable items to be prefabricated and then dropped into position. - Formwork to consist of traditional plywood shutters or proprietary shuttering systems depending upon the item to be poured. - For high level concrete pours, proprietary falsework systems, designed by specialist supplier, to be used - these systems to be erected in accordance with the details provided by the supplier. - Experienced concreting gangs to carry out concrete pours.		COSHH RA7

RAMS Briefing Register



			Concrete to be placed using several different methods depending upon what is being poured. These methods are:		
			Continued...		
#	Method Statement	Tools and Equipment	Method of Works	Site Specific Requirements	Risk Assessments
			- Direct from the concrete lorry via chute - Tipped from dumper skip - Concrete skip - Mobile concrete pump - Tremie pipe - Concrete strength and finishing to be in accordance with the drawings. - Operatives must wash hands and apply barrier cream - Operatives must wear gloves and resistant waterproof boots. - Eye protection must be worn - Ear defence must be worn when using or working within 5 metres of vibrating pokers - Operatives must not use vibrating poker longer than shown on vibration chart. - Exposure to Vibration will be recorded in the HAV Register on site by the supervisor (CC_HSS_018).		
12	Kerb Laying	Excavators Small Tools Kerb Lifters (Manual) Kerb Lifters (Mechanical)	- Walkways to be provided for access and loading out of materials. - Material stacks to have an adequate, firm and level base - stacks must not be too high as to become unstable. - Heavy block / kerbs to be lifted using mechanical plant. - Mortar to be mixed on site as close to the work area as possible. - No road pins to be driven into the ground for setting out kerb lines within 1m of buried electricity cables – road pins set into Heras fence panel feet to be used in these situations. - Operatives must use kerb lifters provided - Guide kerbs into place by hand – be aware of potential pinch and crush injuries - Refer to COSHH Assessment for correct handling precautions regarding concrete - Place lean mix concrete along working area using excavator - Operatives to keep back straight when bending to "back" kerbs - Mini digger to distribute kerbs		RA15
13	Highway Works	Signage and barriers Excavators	General Whenever work is undertaken on a public highway the work will be undertaken in accordance with the New Roads and Street Works Act and a suitably trained and certified Supervisor will monitor the works; Works in the highway to be discussed in advance with the Client and the local authority.		RA1 RA2 RA26

RAMS Briefing Register



			Statutory Undertakers to be contacted to locate the position of any services that may be affected by the works.		
			Continued...		
#	Method Statement	Tools and Equipment	Method of Works	Site Specific Requirements	Risk Assessments
			- The plan and formal advance notice of highway works will be submitted to the local authority in accordance with the New Roads and Street Works Act 1991. - Traffic management will be in accordance with 'Chapter 8 – Traffic Safety Measures and Signs for Roadworks and Temporary Situations' - The work area will be suitably safeguarded and provided with signs in accordance with the recommendations of the Approved Code of Practice "Safety at Street Works and Road Works" and Chapter 8 of the "Traffic Signs Manual" and, if necessary, following consultation with Police and Highway Authorities; - All operations will be planned to take into account the proximity of live traffic and the need to eliminate encroachment of the works into live traffic lanes; - All personnel engaged on work in proximity to live traffic must wear high-visibility clothing. - Excavations are to be protected by barriers and toe boards in order to prevent falls of persons and materials - Excavation fencing is to be secured out of hours to prevent unauthorised access - Heras fencing to be used to fence off working areas - Road barriers are to be used when working on roads and footways - Barriers are to be left secure overnight or when area is left unattended - Operatives are to halt cutting/hot works when pedestrians are passing Tarmac Works - Operatives must wash hands and apply barrier cream - Operatives must wear gloves and eye protection. - Overalls must be worn to prevent contact with bare skin - Prolonged inhalation of fumes must be avoided. - Works required in confined spaces must be avoided. - Working area should be segregated from the public by barriers - Provide information instruction and training Road signage - All signage and barriers are to be set up in line with Chapter 8 guidance - A competent person must supervise the placement of signage and barriers. - Signage and barriers are to be inspected at the beginning and end of each day and at regular intervals throughout the working shift. - Sand bags should be used as weights where required		

RAMS Briefing Register



#	Method Statement	Tools and Equipment	Method of Works	Site Specific Requirements	Risk Assessments
14	Traffic Management	Traffic Management Plan Suitable Chapter 8 signage Barriers Traffic Control Measures	Generally, Traffic Management within the public Highway will be undertaken by a competent sub-contractor. However, there may be situations for short or emergency works, CC may be required to install minor Traffic Management measures within the public highway. In this situation; - Plant & Pedestrian segregation is to be achieved by the employment of a traffic management plan. - Pedestrian routes should be clearly marked and explained during site inductions. They should also include crossing points with relevant signage. - One-way system to be established wherever possible, where this is not possible then a dedicated turning area should be in place. - When developing traffic routes avoid the traversing of steep slopes. - Audio visual reversing alarms as well as mirrors and CCTV are to be employed whenever available. - Banksmen are to be utilised to control reversing operations, difficult manoeuvres and entering or exiting the site onto a public highway. - Speed of vehicles is to be restricted to 5MPH and relevant signage in place, consider speed humps. - All unattended vehicles are to be effectively immobilised and secured. - Any structures adjacent to traffic routes such as scaffolding are to be highlighted. - Temporary ground covering should be provided when ground conditions are poor, and the final ground covering should be laid as soon as possible. - A wheel wash system should be in place to avoid the migration of mud onto public highways. - All site personnel including delivery drivers will receive a site induction prior to admission to the site. - All drivers are to ensure that they are carrying the relevant licenses and competency cards. - Spare personal protective equipment should be held in the site office in order to cater for drivers who have failed to bring their own.		RA1 RA26

RAMS Briefing Register



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RAMS Briefing Register



We the undersigned have been briefed on the Method and Risk Assessment(s) associated with our activity and undertake to carry out the works in accordance with the briefing.

Activity	Operative Name (Print)	Date	Signature

RAMS Briefing Register



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RAMS Briefing Register



We the undersigned have been briefed on the Method and Risk Assessment(s) associated with our activity and undertake to carry out the works in accordance with the briefing.

Activity	Operative Name	Date	Signature

Toolbox Talk Attendance Record

We the under signed, have attended a toolbox talk training session on the following, please also indicate below the source e.g. GT700, HSE Guidance, Client Bulletin etc.

Subject:.....Asbestos awareness

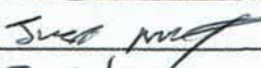
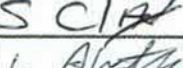
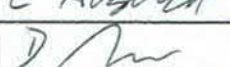
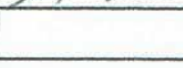
.....GT700.....

Duration of Talk (if 30 mins or over)

Presented by: Jamie Westrope.....

Date:.....17/12/2019.....

Site: Highwoods Stonham lane.....

Name (Capitals)	Signature	Trade	CCE or Universal/Agency
Jordan C		Groundworker	CCE
Justin M		Groundworker	CCE
Steve Clay		P Opp	CCE
Luke Alston		Groundworker	CCE
Darryl McLaughlin		Engineer	CCE

Consultation Notes

Issues raised can be recorded here and reviewed.

Toolbox Talk Attendance Record

We the under signed, have attended a toolbox talk training session on the following, please also indicate below the source e.g. GT700, HSE Guidance, Client Bulletin etc.

Subject:.....Emergency Spill control

.....GT700.....*EO3*.....

Duration of Talk (if 30 mins or over)

Presented by: Jamie Westrope.....

Date:.....12/12/2019.....

Site: Highwoods Stonham lane.....

Name (Capitals)	Signature	Trade	CCE or Universal/Agency
Jordan C		Groundworker	CCE
Justin M	<i>Justin M</i>	Groundworker	CCE
Steve Clay	<i>S Clay</i>	P Opp	CCE
Luke Alston	<i>L Alston</i>	Groundworker	CCE
Darryl McLaughlin	<i>D McLaughlin</i>	Engineer	CCE

Consultation Notes

Issues raised can be recorded here and reviewed.

Mock spill measures video watched.

Toolbox Talk Attendance Record

We the under signed, have attended a toolbox talk training session on the following, please also indicate below the source e.g. GT700, HSE Guidance, Client Bulletin etc.

Subject:.....COSHH

.....GT700 *B 17*

Duration of Talk (if 30 mins or over)

Presented by: Jamie Westrope.....

Date:.....17/12/2019.....

Site: Highwoods Stonham lane.....

Name (Capitals)	Signature	Trade	CCE or Universal/Agency
Jordan C	<i>[Signature]</i>	Groundworker	CCE
Justin M	<i>Justin M</i>	Groundworker	CCE
Steve Clay	<i>S CLAY</i>	P Opp	CCE
Luke Alston	<i>L Alston</i>	Groundworker	CCE

Consultation Notes

Issues raised can be recorded here and reviewed.

Toolbox Talk Attendance Record

We the under signed, have attended a toolbox talk training session on the following, please also indicate below the source e.g. GT700, HSE Guidance, Client Bulletin etc.

Subject:.....Excavations

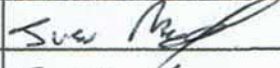
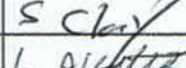
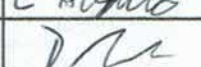
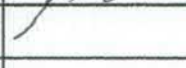
.....GT700.....D10.....

Duration of Talk (if 30 mins or over)

Presented by: Jamie Westrope.....

Date:.....6/01/2020.....

Site: Highwoods Stonham lane.....

Name (Capitals)	Signature	Trade	CCE or Universal/Agency
Jordan C		Groundworker	CCE
Justin M		Groundworker	CCE
Steve Clay		P Opp	CCE
Luke Alston		Groundworker	CCE
Darryl McLaughlin		Engineer	CCE

Consultation Notes

Issues raised can be recorded here and reviewed.

Toolbox Talk Attendance Record

We the under signed, have attended a toolbox talk training session on the following, please also indicate below the source e.g. GT700, HSE Guidance, Client Bulletin etc.

Subject:.....Underground services

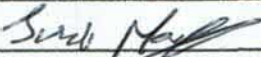
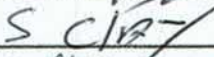
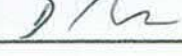
.....GT700.....D.H.....

Duration of Talk (if 30 mins or over)

Presented by: Jamie Westrope.....

Date:.....13/01/2020.....

Site: Highwoods Stonham lane.....

Name (Capitals)	Signature	Trade	CCE or Universal/Agency
Jordan C		Groundworker	CCE
Justin M		Groundworker	CCE
Steve Clay		P Opp	CCE
Luke Alston		Groundworker	CCE
Darryl McLaughlin		Engineer	CCE

Consultation Notes

Issues raised can be recorded here and reviewed.

COSHH Assessment Form

This assessment ***only addresses the risk of harm to health*** from the substances listed. Additional risk assessments may be required to control the risk from other hazards associated with this work/the procedures used.

Assessor. Liam Callaghan

Employer/Supervisor. PAGeocontracting Ltd / Peter Atchison

Assessment Date. 25th February 2020

Dates reviewed December 2020, or earlier if circumstances change.

HAZARDS IDENTIFIED

*If the substance has a R45 or R49 risk phrase or a H350 or H350i hazard statement, it must also be registered on your personal carcinogen return (at Occupational Health) *where exposure is not adequately controlled*.

Substance

Unleaded petrol

Hazardous Properties

Harmful by inhalation, skin irritation, carcinogenic, aspiration if swallowed

Flammable

Quantity

Normal delivery to fill generator 15 litres

Application method

Dispensed from a 20 litre jerry can using funnel directly into fuel tank jerrican is returned to PAG company vehicle for storage.

Exposure / frequency

On site environments, well ventilated / 10 minutes per working day

Note

R45 phrase present

What will the product be used for? Fuelling of on-site generator

Who may be exposed? Matt Evans & Operatives of PAGC and people in close proximity

METHODS OF PREVENTION OR CONTROL OF EXPOSURE

(select all that apply by circling/ticking/highlighting the appropriate statement)

1. Engineering controls required - total containment - fume cupboard - local exhaust ventilation - blast screen - Use funnel and drip trays	2. Access control - restricted to competent personnel - special containment facility (give specific area): - Observe no smoking at all times
3. Special procedures - Standard Operating Procedure (SOP) required ☐ - Code of practice, local rules, etc ☐	4. Approved PPE - gloves etc (EN388 : 4141 CAT2, 4121 CAT3) - eye protection (EN166 CAT A) - laboratory coat/overalls (specify type) - other PPE (specify) 
Disposal Procedures⁽¹⁵⁾ (Give details of waste disposal procedure to be used) Are chemicals with risk phrases R50-R59 or hazard statements H400 – H413 (environmental hazards) involved? Yes / No Disposal to comply with Local Authority licensed waste control.	
TRAINING REQUIREMENTS Correct storage, selection, wearing and fitting of PPE. Confirmation of operative understanding of COSHH and this assessment	
HANDLING AND STORAGE REQUIREMENTS (Note any special requirements e.g. ventilation, chemical incompatibility, flash point, etc) Unreactive under stable storage conditions. Secured in bunded area whilst in transit. Load in transit not to exceed amounts stated by the carriage of dangerous goods by road & HSE guidance. Avoid all possible sources of ignition. Avoid excessive heat	

ASSESSMENT OF RISK USING CONTROLS DETAILED ABOVE

(Are the hazards/risks suitably controlled, using the control measures detailed above? If not, state the further actions required, e.g. Requirement for a standard operating procedure (SOP), etc).

Reference; PAGeocontracting Ltd. Operational Task, Risk Assessment – Use of generator for power supply (110v)

Authorisation by Employer/Supervisor¹⁹

I confirm that I have considered and understand the chemical to be used and the associated hazards. I am satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.

Print name:

Signed:

Job No: 6858 Q3

Project: Highwood Construction Ltd, Stoneham Lane, Eastleigh, Hants, SO50 9HT.

Date:

Declaration by Employer/Supervisor

I confirm that I have read this COSHH Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated.

Declaration by employee

I confirm that the employee who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.

Name (please print)	Signed	PI countersignature	date

Guidance notes for COSHH assessment form

This form must be completed for every hazardous chemical used within the company. The form must be signed by the employee and their employer/supervisor before the work starts.

- (1) **Assessor:** Insert the name of the person doing this assessment
- (2) **Employer/Supervisor** Insert the name of **the Employer/Supervisor**.
- (3) **Assessment Date:** Insert the date that the assessment form is completed. The assessment is valid for a maximum of 1 year. It must be reviewed after 1 year, or if a significant change occurs (change of lab, pregnancy, etc).
- (4) **Dates reviewed:** all COSHH assessments must be reviewed annually (as a minimum). The review date as entered above, and signed by the assessor to confirm that the assessment is still valid.
- (5) **Substance:** insert name of the chemical to be used. NB. Biological hazards must not be assessed on this COSHH form.
- (6) **Hazardous properties:** insert details of all of the hazardous properties of the chemical – e.g. Flammable, explosive, carcinogen, harmful by inhalation, etc).
- (7) **Quantity:** insert quantity to be used (mg, g, ml, etc)
- (8) **Additional information:** Include details of any additional information, including any workplace exposure limits. Detail fully all R/S phrases and H and P statements (it is not sufficient to simply state R45, full details are needed).
- (9) **Emergency procedures:** provide full details of emergency procedures to be employed following contact with the chemical (skin contact, eye contact, inhalation and ingestion) – such as use of diphoterine, administration of emergency oxygen, etc. Also include details of emergency spill procedures.
- (10) **What will the chemical be used for? Who may be exposed? :** Insert title of experiment or experimental procedure that the chemical is to be used in, and detail who may be exposed (individual worker? People in close proximity? Cleaners? Engineers?).

Methods of prevention or control of exposure

Sections 11-14 detail the methods for preventing or controlling exposure to the chemical. The COSHH hierarchy of control measures should be used when determining the methods to be

used to prevent/control exposure, with engineering and group control measures being employed in preference to individual measures (such as individual PPE).

- (11) **Engineering controls** required: identify the control measures necessary to prevent/control exposure, such as use of a fume cupboard, LEV or blast screen, by circling/ticking/highlighting the appropriate statement(s).
- (12) **Access control:** In order to prevent/control exposure, is it necessary to restrict access to competent personnel? Are special containment facilities required? Please circle/tick/highlight the appropriate statement(s).
- (13) **Special procedures:** please identify any special procedures necessary to prevent/control exposure. This might include the need for an SOP to be developed, or for local rules to be drawn up. Please circle/tick/highlight the appropriate statement(s).
- (14) **Approved PPE:** PPE is to be used as the 'last resort' when preventing/ controlling exposure. Please detail the PPE to be used when handling the chemical. Please circle/tick/highlight the appropriate statement(s) and include details of the type of gloves, etc to be used.
- (15) **Disposal procedures:** Identify whether the chemical is an environmental hazard; Detail fully how the chemical waste is to be disposed of (down sink, by specialist contractor, etc)
- (16) **Training requirements:** detail any specialised training requirements that must be met before the work can begin – eg. Attendance on a gas safety course, etc).
- (17) **Handling and storage requirements:** Note any special requirements e.g. ventilation, chemical incompatibility, flash point, etc.
- (18) **Assessment of risk using controls detailed above:** Are the hazards/risks suitably controlled, using the control measures detailed above? Provide details; If not controlled, state the further actions required, eg. Requirement for a standard operating procedure (SOP), etc.
- (19) **Authorisation by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that they have considered and understand the chemical to be used and the associated hazards, and that they are satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.
- (20) **Declaration by employee:** the employee must sign and date the assessment to confirm that they have read the COSHH Assessment, understand the hazards and risks involved and will follow all of the safety procedures stated.

- (21) **Declaration by Employer/Supervisor** the employer/supervisor must sign and date the assessment, to confirm that the researcher is competent to undertake the work.

COSHH Assessment Form

This assessment ***only addresses the risk of harm to health*** from the substances listed. Additional risk assessments may be required to control the risk from other hazards associated with this work/the procedures used.

Assessor. Liam Callaghan	Employer/Supervisor. PAGeocontracting Ltd / Peter Atchison		
Assessment Date. 25 th February 2020	Dates reviewed December 2020, or earlier if circumstances change.		

HAZARDS IDENTIFIED

*If the substance has a R45 or R49 risk phrase or a H350 or H350i hazard statement, it must also be registered on your personal carcinogen return (at Occupational Health) *where exposure is not adequately controlled*.

Substance	Hazardous Properties	Quantity
<u>SAGR – Self adhesive gas resistant membrane</u>	Bitumen	6 m/sq and 20m/sq
Application method	Exposure / frequency	
Hot air application and pressure rolling	Manual handling with gloves in a well ventilated area / 4 hours or less (Internally), Externally no time limit.	

What will the product be used for.

Gas membrane application to detailing of pipe penetrations and sealing to concrete structures

Who may be exposed: Matt Evans & Operatives of PAGC and people in close proximity.

- a) Hard Hat. EN397
- b) Safety Boots. EN ISO 20345 SB
- c) Hi Viz Vest EN 471 2003
- d) Full Hand Protection. EN388 (4141 CAT2, 4121 CAT3)
- e) Task Specific Safety Glasses EN 166 CA

METHODS OF PREVENTION OR CONTROL OF EXPOSURE

(select all that apply by circling/ticking/highlighting the appropriate statement)

1. Engineering controls required - total containment - fume cupboard - local exhaust ventilation - blast screen	2. Access control (Not applicable) - restricted to competent personnel - special containment facility (give specific area):
3. Special procedures - Standard Operating Procedure (SOP) required ☐ - Code of practice, local rules, etc ☐	4. Approved PPE - gloves etc (EN388 : 4141 CAT2, 4121 CAT3) - eye protection (EN166 CAT A) - laboratory coat/overalls (specify type) - other PPE (specify)  

Disposal Procedures⁽¹⁵⁾ (Give details of waste disposal procedure to be used)

- Are chemicals with risk phrases R50-R59 or hazard statements H400 – H413 (environmental hazards) involved? Yes / No

Disposal to comply with Local Authority licensed waste control.

TRAINING REQUIREMENTS.

Installed to manufacturers specification and conform in accordance with QUN 846

HANDLING AND STORAGE REQUIREMENTS.

Stored in an enclosed location, avoid wet conditions and extreme heat environments, possible flammable

conditions.

ASSESSMENT OF RISK USING CONTROLS DETAILED ABOVE

(Are the hazards/risks suitably controlled, using the control measures detailed above? If not, state the further actions required, e.g. Requirement for a standard operating procedure (SOP), etc).

Reference;

Authorisation by Employer/Supervisor¹⁹

I confirm that I have considered and understand the chemical to be used and the associated hazards. I am satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.

Print Name:

Signed:

Job No: 6858 Q3

Project: Highwood Construction Ltd, Stoneham Lane, Eastleigh, Hants, SO50 9HT.

Date:

Declaration by Employer/Supervisor

I confirm that I have read this COSHH Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated.

Declaration by employee

I confirm that the employee who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.

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Guidance notes for COSHH assessment form

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- (2) **Employer/Supervisor** Insert the name of **the Employer/Supervisor**.
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- (4) **Dates reviewed:** all COSHH assessments must be reviewed annually (as a minimum). The review date as entered above, and signed by the assessor to confirm that the assessment is still valid.
- (5) **Substance:** insert name of the chemical to be used. NB. Biological hazards must not be assessed on this COSHH form.
- (6) **Hazardous properties:** insert details of all of the hazardous properties of the chemical – e.g. Flammable, explosive, carcinogen, harmful by inhalation, etc).
- (7) **Quantity:** insert quantity to be used (mg, g, ml, etc)
- (8) **Additional information:** Include details of any additional information, including any workplace exposure limits. Detail fully all R/S phrases and H and P statements (it is not sufficient to simply state R45, full details are needed).
- (9) **Emergency procedures:** provide full details of emergency procedures to be employed following contact with the chemical (skin contact, eye contact, inhalation and ingestion) – such as use of diphoterine, administration of emergency oxygen, etc. Also include details of emergency spill procedures.
- (10) **What will the chemical be used for? Who may be exposed? :** Insert title of experiment or experimental procedure that the chemical is to be used in, and detail who may be exposed (individual worker? People in close proximity? Cleaners? Engineers?).

Methods of prevention or control of exposure

Sections 11-14 detail the methods for preventing or controlling exposure to the chemical. The COSHH hierarchy of control measures should be used when determining the methods to be used to prevent/control exposure, with engineering and group control measures being employed in preference to individual measures (such as individual PPE).

- (11) **Engineering controls** required: identify the control measures necessary to prevent/control exposure, such as use of a fume cupboard, LEV or blast screen, by circling/ticking/highlighting the appropriate statement(s).
- (12) **Access control:** In order to prevent/control exposure, is it necessary to restrict access to competent personnel? Are special containment facilities required? Please circle/tick/highlight the appropriate statement(s).
- (13) **Special procedures:** please identify any special procedures necessary to prevent/control exposure. This might include the need for an SOP to be developed, or for local rules to be drawn up. Please circle/tick/highlight the appropriate statement(s).
- (14) **Approved PPE:** PPE is to be used as the 'last resort' when preventing/ controlling exposure. Please detail the PPE to be used when handling the chemical. Please circle/tick/highlight the appropriate statement(s) and include details of the type of gloves, etc to be used.
- (15) **Disposal procedures:** Identify whether the chemical is an environmental hazard; Detail fully how the chemical waste is to be disposed of (down sink, by specialist contractor, etc)
- (16) **Training requirements:** detail any specialised training requirements that must be met before the work can begin – eg. Attendance on a gas safety course, etc).
- (17) **Handling and storage requirements:** Note any special requirements e.g. ventilation, chemical incompatibility, flash point, etc.
- (18) **Assessment of risk using controls detailed above:** Are the hazards/risks suitably controlled, using the control measures detailed above? Provide details; If not controlled, state the further actions required, eg. Requirement for a standard operating procedure (SOP), etc.
- (19) **Authorisation by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that they have considered and understand the chemical to be used and the associated hazards, and that they are satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.
- (20) **Declaration by employee:** the employee must sign and date the assessment to confirm that they have read the COSHH Assessment, understand the hazards and risks involved and will follow all of the safety procedures stated.
- (21) **Declaration by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that the researcher is competent to undertake the work.



Environmental

<u>Activity</u>	<u>Environment at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Movement of contaminated product on clothing, boots, plant and equipment	Relocation of product ie Japanese knot weed, oil, petrol to affect un-contaminated environments	New plant grown and damage to property. Endanger other flora and fauna's habitats Cancerogenic / dermatologic consequences with prolonged skin contact	3 x 4 = 12			Cleaning and wash down of equipment following activity on site known to be affected. Use disposable overalls if site conditions stipulate or deemed necessary. Wash working clothing regularly	2 x 3 = 6		
Use of generator for power supply (110V)	Noise pollution. Exhaust fumes. Fuel consumption.	Combustion of fuel source. Noise and exhaust pollution	3 x 5 = 15			Locate in a well-ventilated area and use LEV to direct fume to a safe outlet. Minimise running times and observe permitted working times. Refuel in allocated areas using drip trays and a funnel. Refuel from a designated fuel can. No smoking/naked flames. Ensure plant is serviced to manufacturer's guidelines	2 x 3 = 6		

						and inspected prior to use.	
<u>Activity</u>	<u>Environment at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>
			<u>L</u>	<u>C</u>	<u>R L</u>		<u>L</u> <u>C</u> <u>R L</u>
Disposal of Bitumen based primers, silicon sealants and mastics.	Impact to ground conditions and /or watercourse	Combustion of product or misused and burnt. Ground contamination.	4	x 4	= 16	Store product as guidance under COSHH. Maintain clean work area. Use warning notices or cordon off work area/skips to restrict direct contact. Disposal in accordance with local authority guidelines. Operate spill protection measures and have spill kits available for such events.	2 x 3 = 6

<u>Activity</u>	<u>Environment at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Driving to/from site	CO2 pollution	Global warming	5 x 5 = 25			Minimise journeys, reduce vehicle weight, and drive within speed limits. Use alternative means if appropriate or vehicle share.	4 x 3 = 12		
Disposal of packaging and wrapping		Littering. Endanger wildlife	4 x 4 = 16			Disposal in accordance with local authority guidelines and site guidance if applicable. Ensure small items are bagged to prevent being blown out of skips. Recycle products identified by the manufacturer. Good housekeeping.	3 x 2 = 6		

Likelihood (L) = Frequent,5 / Probable,4 / Occasional,3 / Improbable, 2 / Remote, 1
Consequence (C) = Catastrophic, 5 / Major, 4 / Moderate, 3/ Minor, 2 / Insignificant, 1
Risk Level (RL) = 17 -25 Take action immediately / 10 – 16 Tolerable / 5 – 9 Adequate / 1 – 4 Acceptable

Assessment by; Liam Callaghan.

Date: 25/2/20

Position: Project Manager

Review Date: December 2020

COSHH Assessment Form

This assessment <i>only addresses the risk of harm to health</i> from the substances listed. Additional risk assessments may be required to control the risk from other hazards associated with this work/the procedures used.			
Assessor. Liam Callaghan		Employer/Supervisor. PAGeocontracting Ltd / Peter Atchison	
Assessment Date. 25 th February 2020		Dates reviewed December 2020, or earlier if circumstances change.	
HAZARDS IDENTIFIED *If the substance has a R45 or R49 risk phrase or a H350 or H350i hazard statement, it must also be registered on your personal carcinogen return (at Occupational Health) <i>where exposure is not adequately controlled.</i>			
Substance <u>Extrusion Beads</u>	Hazardous Properties Harmful by inhalation, skin irritation, Burns to skin	Quantity Normal delivery to fill extrusion hopper = 2kgs	
Application method Dispensed from a decommissioned water dispenser container using funnel directly into hopper	Exposure / frequency In an external environment there are no occupational exposure limits.	Note	
What will the product be used for? Re-filling of Polyethylene to extrusion welding machines to activate fusing of sheet materials			
Who may be exposed? Matt Evans & Operatives of PAGC and people in close proximity			

METHODS OF PREVENTION OR CONTROL OF EXPOSURE

(select all that apply by circling/ticking/highlighting the appropriate statement)

1. Engineering controls required - total containment - fume cupboard - local exhaust ventilation - blast screen - Use funnel and drip trays to avoid spilling of product	2. Access control - restricted to competent personnel - special containment facility (give specific area): - Observe no smoking at all times
3. Special procedures - Standard Operating Procedure (SOP) required ☐ - Code of practice, local rules, etc ☐	4. Approved PPE - gloves etc (EN388 : 4141 CAT2, 4121 CAT3) - eye protection (EN166 CAT A) - laboratory coat/overalls (specify type) - other PPE (specify)  

Disposal Procedures ⁽¹⁵⁾ (Give details of waste disposal procedure to be used)

- Are chemicals with risk phrases R50-R59 or hazard statements H400 – H413 (environmental hazards) involved?

Yes / No

Disposal to comply with Local Authority licensed waste control.

Control Symbols,



Irritant



Hot when melting

TRAINING REQUIREMENTS

Correct storage, selection, wearing and fitting of PPE. Confirmation of operative understanding of COSHH and this assessment. Understanding via Tool Box talk of technical data relating to this product

HANDLING AND STORAGE REQUIREMENTS

(Note any special requirements e.g. ventilation, chemical incompatibility, flash point, etc)

Unreactive under stable storage conditions.

Fire Fighting measures.



Y

Y

Y

X

ASSESSMENT OF RISK USING CONTROLS DETAILED ABOVE

(Are the hazards/risks suitably controlled, using the control measures detailed above? If not, state the further actions required, e.g. Requirement for a standard operating procedure (SOP), etc).

Reference; PAGEocontracting Ltd. Operational Task, Risk Assessment – Operational Tasks, Using Triac Heat Gun and Extrusion welders

Authorisation by Employer/Supervisor¹⁹

I confirm that I have considered and understand the chemical to be used and the associated hazards. I am satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.

Print Name:

Signed:

Job No: 6858 Q3

Project: Highwood Construction Ltd, Stoneham Lane, Eastleigh, Hants, SO50 9HT. Date:

--

Declaration by Employer/Supervisor

I confirm that I have read this COSHH Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated.

Declaration by employee

I confirm that the employee who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.

Name (please print)	Signed	PI countersignature	date

Guidance notes for COSHH assessment form

This form must be completed for every hazardous chemical used within the company. The form must be signed by the employee and their employer/supervisor before the work starts.

- (1) **Assessor:** Insert the name of the person doing this assessment
- (2) **Employer/Supervisor** Insert the name of **the Employer/Supervisor**.
- (3) **Assessment Date:** Insert the date that the assessment form is completed. The assessment is valid for a maximum of 1 year. It must be reviewed after 1 year, or if a significant change occurs (change of lab, pregnancy, etc).
- (4) **Dates reviewed:** all COSHH assessments must be reviewed annually (as a minimum). The review date as entered above, and signed by the assessor to confirm that the assessment is still valid.
- (5) **Substance:** insert name of the chemical to be used. NB. Biological hazards must not be assessed on this COSHH form.
- (6) **Hazardous properties:** insert details of all of the hazardous properties of the chemical – e.g. Flammable, explosive, carcinogen, harmful by inhalation, etc).
- (7) **Quantity:** insert quantity to be used (mg, g, ml, etc)
- (8) **Additional information:** Include details of any additional information, including any workplace exposure limits. Detail fully all R/S phrases and H and P statements (it is not sufficient to simply state R45, full details are needed).
- (9) **Emergency procedures:** provide full details of emergency procedures to be employed following contact with the chemical (skin contact, eye contact, inhalation and ingestion) – such as use of diphoterine, administration of emergency oxygen, etc. Also include details of emergency spill procedures.
- (10) **What will the chemical be used for? Who may be exposed? :** Insert title of experiment or experimental procedure that the chemical is to be used in, and detail who may be exposed (individual worker? People in close proximity? Cleaners? Engineers?).

Methods of prevention or control of exposure

Sections 11-14 detail the methods for preventing or controlling exposure to the chemical. The COSHH hierarchy of control measures should be used when determining the methods to be used to prevent/control exposure, with engineering and group control measures being employed in preference to individual measures (such as individual PPE).

- (11) **Engineering controls** required: identify the control measures necessary to prevent/control exposure, such as use of a fume cupboard, LEV or blast screen, by circling/ticking/highlighting the appropriate statement(s).
- (12) **Access control:** In order to prevent/control exposure, is it necessary to restrict access to competent personnel? Are special containment facilities required? Please circle/tick/highlight the appropriate statement(s).
- (13) **Special procedures:** please identify any special procedures necessary to prevent/control exposure. This might include the need for an SOP to be developed, or for local rules to be drawn up. Please circle/tick/highlight the appropriate statement(s).
- (14) **Approved PPE:** PPE is to be used as the 'last resort' when preventing/ controlling exposure. Please detail the PPE to be used when handling the chemical. Please circle/tick/highlight the appropriate statement(s) and include details of the type of gloves, etc to be used.
- (15) **Disposal procedures:** Identify whether the chemical is an environmental hazard; Detail fully how the chemical waste is to be disposed of (down sink, by specialist contractor, etc)
- (16) **Training requirements:** detail any specialised training requirements that must be met before the work can begin – eg. Attendance on a gas safety course, etc).
- (17) **Handling and storage requirements:** Note any special requirements e.g. ventilation, chemical incompatibility, flash point, etc.
- (18) **Assessment of risk using controls detailed above:** Are the hazards/risks suitably controlled, using the control measures detailed above? Provide details; If not controlled, state the further actions required, eg. Requirement for a standard operating procedure (SOP), etc.
- (19) **Authorisation by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that they have considered and understand the chemical to be used and the associated hazards, and that they are satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.
- (20) **Declaration by employee:** the employee must sign and date the assessment to confirm that they have read the COSHH Assessment, understand the hazards and risks involved and will follow all of the safety procedures stated.
- (21) **Declaration by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that the researcher is competent to undertake the work.



Manual Handling.

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Moving Loads	PAG operatives	Incorrect lifting technique (lifting, pulling, pushing, holding, reaching, carrying, twisting, lowering, standing)	4	x	4 = 16	Training on manual handling and refresh when needed or job changes via Tool box talks. 2 operatives to load/unload vehicles at all times.	3	x	2 = 6
Moving Loads	PAG operatives	Weight and size of load is excessive leading to MSD (Musculoskeletal disorders) Material weight's are on notice board inside container	4	x	4 = 16	Break weight into smaller denominations, use mechanical aids, seek assistance with additional operatives, to use 4 wheel trolley between vehicle and store.	3	x	2 = 6
Moving Loads	PAG operatives	Uneven surfaces resulting in slips, trips and falls	4	x	4 = 16	Check route to be taken is clear of debris and obstructions. Reduce time carrying load and take rests between loads.	3	x	2 = 6
Moving Loads	PAG operatives	Falling Loads of stacked material.	4	x	3 = 12	Secure loads with strapping on sound level surface. Use appropriate PPE	3	x	2 = 6

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Mechanical Moving of loads	Plant operator PAG operative Banksman	Crushing by moving plant, falling or swinging load	4	x	4 = 16	All loads to be slung by an appointed person. Use suitable lifting aids that have been inspected. Wear appropriate PPE during lifting. Plant movement directed by appointed Banksman.	3	x	3 = 9
Mechanical Moving of Plant	PAG Operatives	Failure of lifting aids leading to falling of loads and crushing	4	x	4 = 16	All loads to be slung by an appointed person. Use suitable lifting aids that have been inspected. Wear appropriate PPE during lifting.	3	x	3 = 9
General lifting operations	PAG operatives Assisting operatives	An operative's general health must be considered which could be affected by manual handling operations.	3	x	4 = 12	Prior assessment/health monitoring of operatives. Manual handling refresher/toolbox talks when situations are identified.	2	x	2 = 4

Page 2 of 2

Likelihood (L) = Frequent,5 / Probable,4 / Occasional,3 / Improbable, 2 / Remote, 1
Consequence (C) = Catastrophic, 5 / Major, 4 / Moderate, 3/ Minor, 2 / Insignificant, 1
Risk Level (RL) = 17 -25 Take action immediately / 10 – 16 Tolerable / 5 – 9 Adequate / 1 – 4 Acceptable

Assessment by; Liam Callaghan.

Date: 25/2/20

Position: Project Manager

Review Date: December 2020

- **Risk Assessment:** Highwood Construction Ltd, Stoneham Lane, Eastleigh, Hants, SO50 9HT.

Job No: 6858 Q3



General Workplace Activity.

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
General site attendance	PAG operatives	Plant movements resulting in crushing or impact injuries.	4	x	5 = 20	Comply with site traffic management systems; adhere to appointed Banksman's instruction when vehicle movements are in progress. Use designated pedestrian walkways. Wear Hi Viz PPE	3	x	4 = 12
General site attendance	PAG operatives. Other site operatives	Dust & fibre particles, smoke and fume inhalation causing breathing/ respiratory conditions.	4	x	5 = 20	Use approved PPE & RPE (see H&S Policy) and LEV, attend training/tool box talks when conditions arise. Comply with SSW and permit to work controls.	3	x	4 = 12
General site attendance	PAG operatives	Unstable walking/working platform. Poorly installed sub base. Potential of falling through voids	4	x	4 = 16	Visual inspection prior to entering the area. Complete sub base inspection formalities and report fail points. Do not proceed until correct. Remain on known surfaces	3	x	3 = 9

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
General site attendance	PAG operatives	Extreme weather conditions, from sun, rain, wind, frost resulting in sun burn, MSD from cold/wet exposure, lack of dexterity in frost.	4	x	5 = 20	Use approved PPE (see H&S Policy), take breaks to recover body warmth, rehydrate as guided by medical advice, apply sun screen. Attend tool box talks	3	x	3 = 9
General Site attendance	PAG operative	Airborne particles resulting in eye injuries.	4	x	5 = 20	Use approved PPE under H&S Policy that is maintained to a recommended standard and stored in accordance with manufacturer's instructions.	2	x	3 = 6
General site attendance	PAG operatives	Poor personal hygiene and possible infection transmission from hand to mouth/objects contact.	4	x	4 = 16	Wear gloves to reduce contact with dirty environments, apply barrier cream prior to work and wash hands thoroughly at the end of every working period and/or before urinating, eating & drinking.	2	x	2 = 4
General site attendance	PAG operative	Difficult site conditions underfoot. Mud, rutted, icy, waterlogged, slopes. Potential slip, trips and falls	3	x	4 = 12	If conditions restrict / limited regular walking, and pathway is not visible do not proceed. Use signposted routes and appointed walkways	2	x	2 = 4

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			<u>L</u>	<u>C</u>	<u>R L</u>		<u>L</u>	<u>C</u>	<u>R L</u>
General site attendance	PAG operatives	Contact with contaminants (water/ground conditions/vermin/waste products)	3	x 4	= 12	Uses approved PPE & RPE as guided under H&S policy, and insure any prior skin cuts are covered with waterproof dressing. Follow good hygiene practice as stated above.	2	x 3	= 6
General site attendance	PAG operatives	Working below other trades.	3	x 5	= 15	Attend daily work planning meeting if conducted. Plan access and exit to work areas to avoid trades above. Avoid working under other trades unless a safety net / debris barrier is installed.	2	x 4	= 8
General site attendance	PAG operative	Individual working.	4	x 5	= 20	Comply with site induction and signing in and out register. Notify line manager and on site manager of your activity. Implement a SSW for individual working with checks and reporting in.	3	x 4	= 12
General site attendance	PAG operatives. Other site operatives	Noise from non PAG related activity in close vicinity to PAG working area	4	x 3	= 15	Maintain observations to other trades preparing to operate noise generating appliances. Programme working location with site management team to reduce likelihood of encountering noise related activity	2	x 3	= 6

Likelihood (L) = Frequent,5 / Probable,4 / Occasional,3 / Improbable, 2 / Remote, 1

Consequence (C) = Catastrophic, 5 / Major, 4 / Moderate, 3/ Minor, 2 / Insignificant, 1

Risk Level (RL) = **17 -25 Take action immediately** / **10 – 16 Tolerable** / **5 – 9 Adequate** / **1 – 4 Acceptable**

Assessment by; Liam Callaghan.

Date: 25/2/20

Position: Project Manager

Review Date: December 2020

**Operational Tasks**

Activity	Persons at Risk	Hazards	Risk			Control Measures	Residual Risk		
			L	C	R L		L	C	R L
Manual cutting of membranes/textiles using scissors	PAG operatives	Cuts or punctures to skin	3 x 3 = 9			Use approved hand protection in accordance with PAGC H&S policy. Use and store scissors as guided in training.	1 x 3 = 3		
Mechanical cutting	PAG operatives	Cutting of skin. Electric shock. Inhalation/eye impact of waste product	3 x 4 = 12			Operate cutting device in accordance with manufactures guidelines and training. Adhere to PAGC H&S policy guidelines to hand, RPE and eye protection. Ensure plant carries valid PAT cert, use RCD on 110v supply	2 x 4 = 8		
Using Twinny welding systems	PAG operative	Burns to operator operator’s skin & other close proximity trades. Fumes. Combustion and fire. Electric shock. Crushing of fingers in feed rollers.	3 x 4 = 12			Operate as trained and specified by manufacturer. ensure plant carries valid PAT cert, use RCD on 110v supply. Adhere to site specific Hot works SSW. Maintain clean work area. Use warning notices or cordon off work area to restrict direct contact.	1 x 4 = 4		
Activity	Persons at Risk	Hazards	Risk			Control Measures	Residual		

			L	C	RL		Risk		
							L	C	RL
Using Triac Heat Gun and Extrusion welders	PAG operatives	Burning of operator’s skin & other close proximity trades. Fumes. Combustion and fire. Electric shock	4 x 4 = 16			Operate as trained and specified by manufacturer. Insure plant carries valid PAT cert, use RCD on 110v supply. Adhere to site specific Hot works SSW. Maintain clean work area. Use warning notices or cordon off work area to restrict direct contact. Adhere to Coshh controls for extrusion beads	2 x 4 = 8		
Drilling	PAG operatives	Vibration, dust/ particle inhalation, eye impact, noise. Electric shock	4 x 4 = 16			Monitor / assess timing of task to minimise exposure. Use PPE as approved under H&S Policy. . Ensure plant carries valid PAT cert, use RCD on 110v supply.	2 x 4 = 8		
Electrical supply to power tools (110v)	PAG operatives	Electric shocks	3 x 4 = 12			Use appointed site power source if available. Gain permission to connect. Ensure plant and extension leads carry valid PAT cert, use only 110v supply on RCD. Carry out visual inspections of appliances prior to use	1 x 3 = 3		
Use of generator for power supply (110V)	PAG operative Other site operatives	Electric shocks. Combustion of fuel source. Noise and exhaust pollution	3 x 5 = 15			Locate in a well-ventilated area and use LEV to direct fume to a safe outlet. Minimise running times and observe load rating. Refuel in allocated areas using drip trays/bunds and a funnel. Refuel from a designated fuel can. No smoking/naked flames. Ensure plant is serviced to manufacturer’s guidelines and visual inspection prior to use.	2 x 3 = 6		

Page 2 of 4

Activity	Persons at Risk	Hazards	Risk			Control Measures	Residual Risk		
			L	C	R L		L	C	R L
Using LPG flame sources	PAG operative	Burns, combustion, fumes	3 x 5 = 15			Maintain clean work area. Use warning notices or cordon off work area to restrict direct contact. Operate to site specific hot works SSW and have fire fighting measures or fire plan in place as of the SSW. Only use trigger active torches, minimising time of flame ignition. Store LPG bottles under COSHH guidelines.	2 x 3 = 6		
Using Bitumen based primers, silicon sealants and mastics.	PAG operative	Skin contact irritation, ingestion, eye contact, combustion.	4 x 4 = 16			Observe PAGC H&S policy to specific PPE & PRE measures. Store product as guidance under COSHH. No smoking and observe good hygiene practice after use. Maintain clean work area. Use warning notices or cordon off work area to restrict direct contact.	2 x 3 = 6		
Deploying membrane / holding down systems	PAG operatives Other site trades General public	Airborne sections of material in high wind causing whipping, striking injuries	4 x 4 = 16			Do not deploy in high wind or gusty conditions. Allocate and position holding down materials, complete TBT of operational procedures prior to deployment of membrane	2 x 3 = 6		
Working on sub base formation. Block and beam, sand blinded and membranes	PAG operatives	Falling through voids, slipping and tripping	3 x 4 = 12			Visual inspection of sub base prior to accessing. Identify variations in levels, inspection chambers, edges and thickenings and cordon off. Observe warning signs and barriers. Assess membrane suitability for access in wet or icy weather and ensure SSW are observed.	1 x 3 = 6		
Page 3 of 4									

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	RL		L	C	RL
Fixing and handling GRP battening	PAG operatives	Skin irritation and/or splinters from GRP. Dust inhalation	4 x 3 = 12			Observe PAGC H&S policy to hand and eye protection measures. Ensure LEV	1 x 2 = 2		
Applying Bitumen self-adhesive products	PAG operatives	Burning of operator's skin. Spitting of bitumen, becoming airborne and coming into skin / eye contact	3 x 3 = 9			Observe PAGC H&S policy to hand and eye protection measures. Cover arms when applying wide sections of self-adhesive, or if applying using LPG heat source.	2 x 3 = 6		

Likelihood (L) = Frequent,5 / Probable,4 / Occasional,3 / Improbable, 2 / Remote, 1
Consequence (C) = Catastrophic, 5 / Major, 4 / Moderate, 3/ Minor, 2 / Insignificant, 1
Risk Level (RL) = 17 -25 Take action immediately / 10 – 16 Tolerable / 5 – 9 Adequate / 1 – 4 Acceptable

Assessment by; Liam Callaghan.

Date: 25/2/20

Position: Project Manager

Review Date: December 2020



Working in or near Excavations.

Page 1 of 2

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Preparing to work in excavation	PAG operatives	Excavation liable to collapse if not suitably supported	4	x	5 = 20	Inspection by competent person before commencing work, apply risk controls such as props, shoring & suitable access	3	x	3 = 9
Walking near excavations	PAG operatives Other site operatives	Falling into excavation	3	x	4 = 12	Fence area off, use of warning signs, cover area over with suitable materials when access is not required	2	x	2 = 4
Working in excavation	PAG operatives	Material falling into excavation	3	x	3 = 9	Use PPE (hard hat), protect edges using toe boards, keep materials/plant away from excavation edge	2	x	2 = 4
Working in excavation	PAG operative	Overcome by fumes from vehicles or plant	3	x	3 = 9	Site plant that generates exhaust away from	2	x	2 = 4

		exhaust		excavation or duct away, use LEV in excavation					
<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Vehicle movements near excavation	Operatives in excavation	Vehicle falling into excavation	3 x 5 = 15			Stop barriers to protect excavation, guard rails and toe boards. Secure fencing with routine inspection. Use of Banksman for all vehicle movements.	2 x 3 = 6		
Working in excavation	Operatives in excavation	Underground services, gas, water & electric	3 x 5 = 15			Signage identifying hazard, permit to work system. Location (CAT) scanning area prior to working. Refer to site plans to confirm locations	2 x 3 = 6		

Assessment by: Liam Callaghan. Signed by:

Date: 25/2/20

Position: Project Manager

Review Date: December 2020

Likelihood (L) = Frequent,5 / Probable,4 / Occasional,3 / Improbable, 2 / Remote, 1

Consequence (C) = Catastrophic, 5 / Major, 4 / Moderate, 3/ Minor, 2 / Insignificant, 1

Risk Level (RL) = 17 -25 Take action immediately / 10 – 16 Tolerable / 5 – 9 Adequate / 1 – 4 Acceptable

APPENDIX V
V3 – SUPPORTING EVIDENCE

M.A.C CONTRACTING LTD

BULK EXCAVATION & RECYCLING

M.A.C

- Specialists in Muck Away
- Tipper Haulage and Plant Hire
- Suppliers of Road Planings
- Hardcore & Recycled Aggregates

M.A.C. Contracting Ltd.
Somborne Chalk Quarry, Kings Somborne,
Stockbridge SO20 6QR

Tel: 02476 641 771

Email: info@maccontracting.co.uk

Mobile: 07968 499 124

Waste Carrier Licence: CB/DU82366

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by regulation 12 of the Waste (England and Wales) Regulations 2011

www.maccontracting.co.uk

Required by Schedule 5 Part 2 of the Weights and Measures Act 1963. Subject to Conditions of Sale (available on request)

Name of Buyer				Conveyance and Transfer No. 30916			
CARCTON C-L				Date 6-4-21			
SITE (Address of Place of Loading)				Driver DAVE			
Stoneham Eastlish				Registration No. XH62MAE			
TIP (Address of Place of Delivery)				haver Warren			
Site Signature				Signature of Acceptance			
Print Name: DEAN CUNSON				Print Name:			
Volume Carried			Description of Material Carried		Tick	EWG Code	SIC Code
8w	Grab	No. of Loads	Hardcore			170107	43.12
1		1	Soil & Stone			170504	43.12
			Planings			170302	42.11
			Other (specify) CCAY				
LOAD DETAILS				DAYWORK DETAILS			
Gross Weight				Travelling Time			
Tare Weight				Time On Site 750			
Net Weight				Time Off Site 815			
				Total Time			
				Site Signature			

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I confirm that I have fulfilled my duty to apply the waste heirarchy as required by regulation 12 of the Waste (England and Wales) Regulations 2011

www.maccontracting.co.uk

Required by Schedule 5 Part 2 of the Weights and Measures Act 1963. Subject to Conditions of Sale (available on request)

Name of Buyer

Carlton C.E

SITE (Address of Place of Loading)

Stoneham

Site Signature

Print Name:

D. CURBIN

Conveyance and Transfer No.

25692

Date

6/4/21

Driver

Quentin

Registration No.

FF65MAC

TIP (Address of Place of Delivery)

Hammer Warren
Verwood

Signature of Acceptance

Print Name:

Volume Carried

Description of Material Carried

Tick

EWG Code

SIC Code

8w

Grab

No. of Loads

Hardcore

170107

43.12

Soil & Stone

170504

43.12

Planings

170302

42.11

Other (specify)

M/A Clay

✓

LOAD DETAILS

DAYWORK DETAILS

Gross Weight

Travelling Time

Time On Site

8.37

Tare Weight

Time Off Site

Total Time

Net Weight

Site Signature





Material Testing

RF/CA161

www.inertechwasteconsultancy.com
inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2

Report No: 19-16536		Date Sampled	25/11/19	Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill		
Carlton Civil Engineering Ltd		Time Sampled	None Supplied			
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA161			
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied			
Order No: \NL09695		Depth (m)	0.10			
Reporting Date: 29/11/2019		Sample No	449170			
Determinand	Unit	MDL				
TOC ^{MU}	%	<0.1		3%		
Loss on Ignition	%	<0.01		--		
BTEX ^{MU}	mg/kg	<0.005		6		
Sum of PCBs	mg/kg	<0.7		1		
Mineral Oil ^{MU}	mg/kg	<6		500		
Total PAH ^{MU}	mg/kg	<1.7		100		
pH ^{MU}	pH Units	+ / - 0.1		--		
Acid Neutralisation Capacity	mol/kg (+/-)	N/a		--		
				To be evaluated		
				To be evaluated		
Eluate Analysis			10:1 mg/l		Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)
Arsenic ^U		< 0.01			< 0.1	0.5
Barium ^U		< 0.02			< 0.2	20
Cadmium ^U		< 0.0005			< 0.005	0.04
Chromium ^U		< 0.005			< 0.05	0.5
Copper ^U		< 0.01			< 0.1	2
Mercury ^U		< 0.0005			< 0.005	0.01
Molybdenum ^U		< 0.001			< 0.01	0.5
Nickel ^U		< 0.007			< 0.07	0.4
Lead ^U		< 0.005			< 0.05	0.5
Antimony ^U		< 0.005			< 0.05	0.06
Selenium ^U		< 0.005			< 0.05	0.1
Zinc ^U		< 0.005			< 0.05	4
Chloride ^U		1			11	800
Fluoride ^U		< 0.5			< 5	10
Sulphate ^U		1			13	1000
TDS		18			180	4000
Phenol Index		< 0.01			< 0.1	1
DOC		5			50.3	500
						800
						1000
Leach Test Information						
Sample Mass (kg)			0.11			
Dry Matter (%)			84.5			
Moisture (%)			18.4			
Stage 1						
Volume Eluate L10 (litres)			0.88			

Results are expressed on a dry weight basis, after correction for moisture content where applicable
 Stated limits are for guidance only and Inertech Waste Consultancy Ltd and the laboratory cannot be held responsible for any discrepancies with current legislation
 M Denotes MCERTS accredited test
 U Denotes ISO17025 accredited test

Please note this data is presented by Inertech Waste Consultancy Ltd and is a true copy of the original test certificate results. For further information please contact the office

Sample GPS Coordinates

SU44069 17612



Material Testing

RF/CA162

www.inertechwasteconsultancy.com
inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2

Report No: 19-16536		Date Sampled	25/11/19	Landfill Waste Acceptance Criteria Limits																													
Carlton Civil Engineering Ltd		Time Sampled	None Supplied																														
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA162																														
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																														
Order No: \NL09695		Depth (m)	0.15	<table border="1"> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </table>			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill																															
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1	--	--																															
500	--	--																															
100	--	--																															
--	>6	--																															
--	To be evaluated	To be evaluated																															
Reporting Date: 29/11/2019		Sample No	449171																														
Determinand	Unit	MDL																															
TOC ^{MU}	%	<0.1																															
Loss on Ignition	%	<0.01																															
BTEX ^{MU}	mg/kg	<0.005																															
Sum of PCBs	mg/kg	<0.7																															
Mineral Oil ^{MU}	mg/kg	<6																															
Total PAH ^{MU}	mg/kg	<1.7																															
pH ^{MU}	pH Units	+ / - 0.1																															
Acid Neutralisation Capacity	mol/kg (+/-)	N/a																															
Eluate Analysis			10:1 mg/l		Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																											
Arsenic ^U		< 0.01		< 0.1	0.5	2	25																										
Barium ^U		< 0.02		< 0.2	20	100	300																										
Cadmium ^U		< 0.0005		< 0.005	0.04	1	5																										
Chromium ^U		< 0.005		< 0.05	0.5	10	70																										
Copper ^U		0.01		0.1	2	50	100																										
Mercury ^U		< 0.0005		< 0.005	0.01	0.2	2																										
Molybdenum ^U		< 0.001		< 0.01	0.5	10	30																										
Nickel ^U		< 0.007		< 0.07	0.4	10	40																										
Lead ^U		< 0.005		< 0.05	0.5	10	50																										
Antimony ^U		< 0.005		< 0.05	0.06	0.7	5																										
Selenium ^U		< 0.005		< 0.05	0.1	0.5	7																										
Zinc ^U		0.011		0.11	4	50	200																										
Chloride ^U		1		10	800	15000	25000																										
Fluoride ^U		< 0.5		< 5	10	150	500																										
Sulphate ^U		5		48	1000	20000	50000																										
TDS		37		370	4000	60000	100000																										
Phenol Index		< 0.01		< 0.1	1	-	-																										
DOC		9.8		98.4	500	800	1000																										
Leach Test Information																																	
Sample Mass (kg)			0.11																														
Dry Matter (%)			79.3																														
Moisture (%)			26.2																														
Stage 1																																	
Volume Eluate L10 (litres)			0.88																														

Results are expressed on a dry weight basis, after correction for moisture content where applicable
 Stated limits are for guidance only and Inertech Waste Consultancy Ltd and the laboratory cannot be held responsible for any discrepancies with current legislation
 M Denotes MCERTS accredited test
 U Denotes ISO17025 accredited test

Please note this data is presented by Inertech Waste Consultancy Ltd and is a true copy of the original test certificate results. For further information please contact the office

Sample GPS Coordinates

SU 44105 17602



Material Testing

RF/CA163

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inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
Report No: 19-16536		Date Sampled	25/11/19		<table border="1"> <thead> <tr> <th colspan="3">Landfill Waste Acceptance Criteria Limits</th> </tr> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>					Landfill Waste Acceptance Criteria Limits			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
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Carlton Civil Engineering Ltd		Time Sampled	None Supplied																																				
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA163																																				
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																																				
Order No: \NL09695		Depth (m)	0.30																																				
Reporting Date: 29/11/2019		Sample No	449172																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	<0.1																																					
Loss on Ignition	%	<0.01																																					
BTEX ^{MU}	mg/kg	<0.005																																					
Sum of PCBs	mg/kg	<0.7																																					
Mineral Oil ^{MU}	mg/kg	<6																																					
Total PAH ^{MU}	mg/kg	<1.7																																					
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Acid Neutralisation Capacity	mol/kg (+/-)	N/a																																					
Eluate Analysis		10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																																	
Arsenic ^U		< 0.01			< 0.1	0.5	2	25																															
Barium ^U		< 0.02			< 0.2	20	100	300																															
Cadmium ^U		< 0.0005			< 0.005	0.04	1	5																															
Chromium ^U		< 0.005			< 0.05	0.5	10	70																															
Copper ^U		< 0.01			< 0.1	2	50	100																															
Mercury ^U		< 0.0005			< 0.005	0.01	0.2	2																															
Molybdenum ^U		< 0.001			< 0.01	0.5	10	30																															
Nickel ^U		< 0.007			< 0.07	0.4	10	40																															
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Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		< 0.005			< 0.05	4	50	200																															
Chloride ^U		< 1			< 10	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		1			13	1000	20000	50000																															
TDS		13			130	4000	60000	100000																															
Phenol Index		< 0.01			< 0.1	1	-	-																															
DOC		4.5			44.5	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)		0.11																																					
Dry Matter (%)		82.4																																					
Moisture (%)		21.4																																					
Stage 1																																							
Volume Eluate L10 (litres)		0.88																																					

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Sample GPS Coordinates

SU 44070 17562



Material Testing

RF/CA164

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inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
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Carlton Civil Engineering Ltd		Time Sampled	None Supplied																																				
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA164																																				
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																																				
Order No: \NL09695		Depth (m)	0.70																																				
Reporting Date: 29/11/2019		Sample No	449173																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	<0.1																																					
Loss on Ignition	%	<0.01																																					
BTEX ^{MU}	mg/kg	<0.005																																					
Sum of PCBs	mg/kg	<0.7																																					
Mineral Oil ^{MU}	mg/kg	<6																																					
Total PAH ^{MU}	mg/kg	<1.7																																					
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Lead ^U		< 0.005			< 0.05	0.5	10	50																															
Antimony ^U		< 0.005			< 0.05	0.06	0.7	5																															
Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		< 0.005			< 0.05	4	50	200																															
Chloride ^U		< 1			< 10	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		2			19	1000	20000	50000																															
TDS		16			160	4000	60000	100000																															
Phenol Index		< 0.01			< 0.1	1	-	-																															
DOC		5.4			54.4	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)		0.10																																					
Dry Matter (%)		86																																					
Moisture (%)		16.2																																					
Stage 1																																							
Volume Eluate L10 (litres)		0.89																																					

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M Denotes MCERTS accredited test

U Denotes ISO17025 accredited test

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Sample GPS Coordinates

SU 44070 17562



Material Testing

RF/CA165

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
Report No: 19-16536		Date Sampled	25/11/19		<table border="1"> <thead> <tr> <th colspan="3">Landfill Waste Acceptance Criteria Limits</th> </tr> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>					Landfill Waste Acceptance Criteria Limits			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
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100	--	--																																					
--	>6	--																																					
--	To be evaluated	To be evaluated																																					
Carlton Civil Engineering Ltd		Time Sampled	None Supplied																																				
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA165																																				
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																																				
Order No: \NL09695		Depth (m)	0.80																																				
Reporting Date: 29/11/2019		Sample No	449174																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	<0.1																																					
Loss on Ignition	%	<0.01																																					
BTEX ^{MU}	mg/kg	<0.005																																					
Sum of PCBs	mg/kg	<0.7																																					
Mineral Oil ^{MU}	mg/kg	<6																																					
Total PAH ^{MU}	mg/kg	<1.7																																					
pH ^{MU}	pH Units	+ / - 0.1																																					
Acid Neutralisation Capacity	mol/kg (+/-)	N/a																																					
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																																
Arsenic ^U		< 0.01				< 0.1	0.5	2	25																														
Barium ^U		< 0.02				< 0.2	20	100	300																														
Cadmium ^U		< 0.0005				< 0.005	0.04	1	5																														
Chromium ^U		< 0.005				< 0.05	0.5	10	70																														
Copper ^U		< 0.01				< 0.1	2	50	100																														
Mercury ^U		< 0.0005				< 0.005	0.01	0.2	2																														
Molybdenum ^U		0.002				0.02	0.5	10	30																														
Nickel ^U		< 0.007				< 0.07	0.4	10	40																														
Lead ^U		< 0.005				< 0.05	0.5	10	50																														
Antimony ^U		< 0.005				< 0.05	0.06	0.7	5																														
Selenium ^U		< 0.005				< 0.05	0.1	0.5	7																														
Zinc ^U		< 0.005				< 0.05	4	50	200																														
Chloride ^U		2				17	800	15000	25000																														
Fluoride ^U		< 0.5				< 5	10	150	500																														
Sulphate ^U		23				226	1000	20000	50000																														
TDS		92				920	4000	60000	100000																														
Phenol Index		< 0.01				< 0.1	1	-	-																														
DOC		11.4				114	500	800	1000																														
Leach Test Information																																							
Sample Mass (kg)			0.10																																				
Dry Matter (%)			86.9																																				
Moisture (%)			15.2																																				
Stage 1																																							
Volume Eluate L10 (litres)			0.89																																				

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Sample GPS Coordinates

SU 44197 17545



Material Testing

RF/CA166

www.inertechwasteconsultancy.com
inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2									
Report No: 19-16536		Date Sampled	25/11/19		Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill				
Carlton Civil Engineering Ltd		Time Sampled	None Supplied						
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA166						
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied						
Order No: \NL09695		Depth (m)	1.00						
Reporting Date: 29/11/2019		Sample No	449175						
Determinand	Unit	MDL							
TOC ^{MU}	%	<0.1			3%				
Loss on Ignition	%	<0.01			--				
BTEX ^{MU}	mg/kg	<0.005			6				
Sum of PCBs	mg/kg	<0.7			1				
Mineral Oil ^{MU}	mg/kg	<6			500				
Total PAH ^{MU}	mg/kg	<1.7			100				
pH ^{MU}	pH Units	+ / - 0.1			--				
Acid Neutralisation Capacity	mol/kg (+/-)	N/a			--				
Eluate Analysis			10:1 mg/l		Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)			
Arsenic ^U		< 0.01			< 0.1	0.5	2	25	
Barium ^U		< 0.02			< 0.2	20	100	300	
Cadmium ^U		< 0.0005			< 0.005	0.04	1	5	
Chromium ^U		< 0.005			< 0.05	0.5	10	70	
Copper ^U		< 0.01			< 0.1	2	50	100	
Mercury ^U		< 0.0005			< 0.005	0.01	0.2	2	
Molybdenum ^U		< 0.001			< 0.01	0.5	10	30	
Nickel ^U		< 0.007			< 0.07	0.4	10	40	
Lead ^U		< 0.005			< 0.05	0.5	10	50	
Antimony ^U		< 0.005			< 0.05	0.06	0.7	5	
Selenium ^U		< 0.005			< 0.05	0.1	0.5	7	
Zinc ^U		0.009			0.09	4	50	200	
Chloride ^U		2			17	800	15000	25000	
Fluoride ^U		< 0.5			< 5	10	150	500	
Sulphate ^U		11			107	1000	20000	50000	
TDS		53			530	4000	60000	100000	
Phenol Index		< 0.01			< 0.1	1	-	-	
DOC		9.7			96.5	500	800	1000	
Leach Test Information									
Sample Mass (kg)			0.10						
Dry Matter (%)			89.6						
Moisture (%)			11.6						
Stage 1									
Volume Eluate L10 (litres)			0.89						

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Sample GPS Coordinates

SU 44110 17568



Material Testing

RF/CA160

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2

Report No: 19-16536		Date Sampled	25/11/19	Landfill Waste Acceptance Criteria Limits																													
Carlton Civil Engineering Ltd		Time Sampled	None Supplied																														
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA160																														
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																														
Order No: \NL09695		Depth (m)	0.80	<table border="1"> <tr> <td>Inert Waste Landfill</td> <td>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</td> <td>Hazardous Waste Landfill</td> </tr> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </table>			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill																															
3%	5%	6%																															
--	--	10%																															
6	--	--																															
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500	--	--																															
100	--	--																															
--	>6	--																															
--	To be evaluated	To be evaluated																															
Reporting Date: 29/11/2019		Sample No	449169																														
Determinand	Unit	MDL																															
TOC ^{MU}	%	<0.1																															
Loss on Ignition	%	<0.01																															
BTEX ^{MU}	mg/kg	<0.005																															
Sum of PCBs	mg/kg	<0.7																															
Mineral Oil ^{MU}	mg/kg	<6																															
Total PAH ^{MU}	mg/kg	<1.7																															
pH ^{MU}	pH Units	+ / - 0.1																															
Acid Neutralisation Capacity	mol/kg (+/-)	N/a																															
Eluate Analysis			10:1 mg/l		Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																											
Arsenic ^U		< 0.01		< 0.1	0.5	2	25																										
Barium ^U		< 0.02		< 0.2	20	100	300																										
Cadmium ^U		< 0.0005		< 0.005	0.04	1	5																										
Chromium ^U		< 0.005		< 0.05	0.5	10	70																										
Copper ^U		< 0.01		< 0.1	2	50	100																										
Mercury ^U		< 0.0005		< 0.005	0.01	0.2	2																										
Molybdenum ^U		< 0.001		< 0.01	0.5	10	30																										
Nickel ^U		< 0.007		< 0.07	0.4	10	40																										
Lead ^U		< 0.005		< 0.05	0.5	10	50																										
Antimony ^U		< 0.005		< 0.05	0.06	0.7	5																										
Selenium ^U		< 0.005		< 0.05	0.1	0.5	7																										
Zinc ^U		< 0.005		< 0.05	4	50	200																										
Chloride ^U		< 1		< 10	800	15000	25000																										
Fluoride ^U		< 0.5		< 5	10	150	500																										
Sulphate ^U		4		37	1000	20000	50000																										
TDS		32		320	4000	60000	100000																										
Phenol Index		< 0.01		< 0.1	1	-	-																										
DOC		8.1		81.3	500	800	1000																										
Leach Test Information																																	
Sample Mass (kg)			0.12																														
Dry Matter (%)			78.3																														
Moisture (%)			27.8																														
Stage 1																																	
Volume Eluate L10 (litres)			0.88																														

Results are expressed on a dry weight basis, after correction for moisture content where applicable
 Stated limits are for guidance only and Inertech Waste Consultancy Ltd and the laboratory cannot be held responsible for any discrepancies with current legislation
 M Denotes MCERTS accredited test
 U Denotes ISO17025 accredited test

Please note this data is presented by Inertech Waste Consultancy Ltd and is a true copy of the original test certificate results. For further information please contact the office

Sample GPS Coordinates

SU44092 17596

APPENDIX VI
V4 – SUPPORTING EVIDENCE





APPENDIX VII
V5 – SUPPORTING EVIDENCE





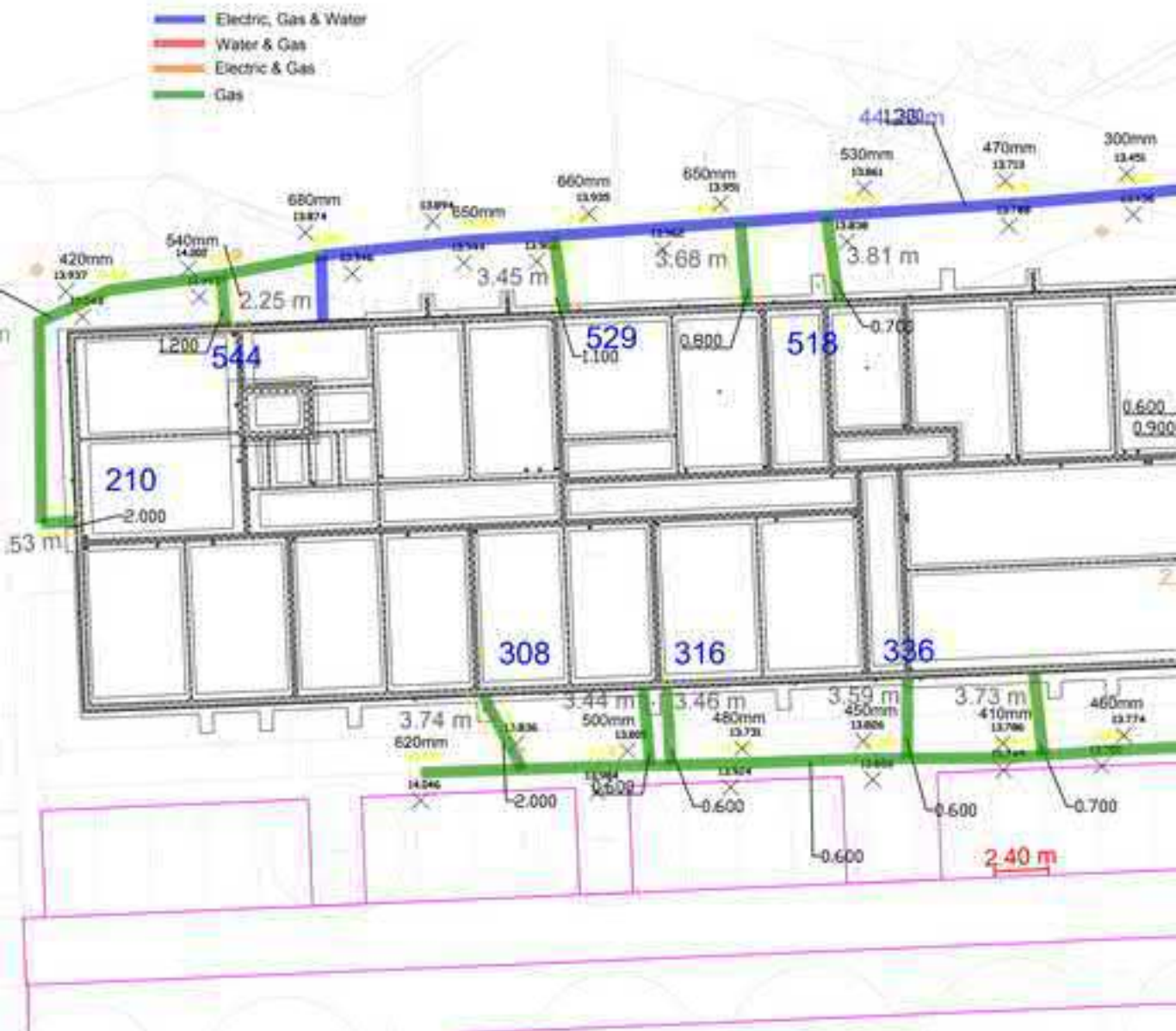










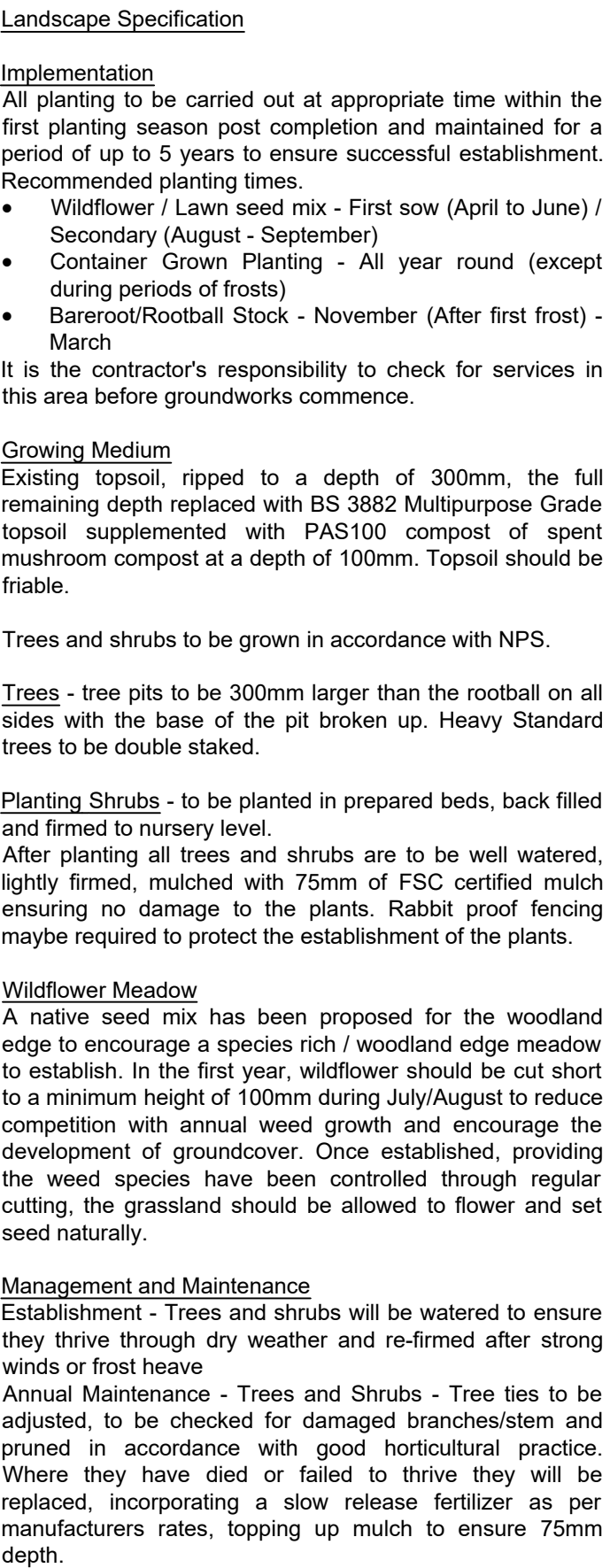








APPENDIX VIII
V8 – SUPPORTING EVIDENCE



Note: To be read in conjunction with DD240Y04A_Hierarchy of Landscape Spaces

PROJECT TITLE:	
North Stoneham Local Centre	
PROJECT NUMBER:	PLOT DATE:
DD239	21.11.2018
DRAWING SCALE:	APPROVED BY:
1:250	JH
PAPER SIZE:	DRAWN BY:
A1	PM
DRAWING TITLE:	
Planting Strategy	
1 of 2	
-	
DRAWING NUMBER:	REVISION LETTER:
DD239L03	D
DRAWING FILE LOCATION:	
Z:\dropbox (Deacon Design Ltd)\03 PROJECTS 200+ \DD239 North Stoneham Local Centre\03 Drawings\Autocad\ Landscape Drawg\DD239L03_Planting Strategy - Local Centre.dwg	

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M.A.C. Contracting Ltd.

Somborne Chalk Quarry, Kings Somborne,
Stockbridge SO20 6QR

Tel: 02476 641 771

Email: info@maccontracting.co.uk

Mobile: 07968 499 124

Waste Carrier Licence: CB/DU82366

I confirm that I have fulfilled my duty to apply the
waste hierarchy as required by regulation 12 of the
Waste (England and Wales) Regulations 2011

www.maccontracting.co.uk

Required by Schedule 5 Part 2 of the Weights and Measures Act
1963. Subject to Conditions of Sale (available on request)

Name of Buyer

CARLTON C.E.

Conveyance and
Transfer No.

31896

Date

1/4/21

Driver

N PARSONS

Registration No.

NN18MAC

SITE (Address of Place of Loading)

TIP (Address of Place of Delivery)

ECO

STONEHAM LAKE
KEASTLEWILL

Site Signature

Signature of Acceptance

Print Name:

[Signature]

Print Name:

Volume Carried

Description of Material Carried

Tick

EWC Code

SIC Code

8w

Grab

No. of Loads

Hardcore

170107

43.12

Soil & Stone

170504

43.12

Planings

170302

42.11

Other (specify)

15-20m ECO SOIL

1

1

LOAD DETAILS

DAYWORK DETAILS

Gross Weight

Travelling Time

Time On Site

Tare Weight

Time Off Site

Total Time

Net Weight

Site Signature

APPENDIX IX
V9 – SUPPORTING EVIDENCE

Olivia Maxwell

From: Tim Mitchell
Sent: 17 April 2023 15:27
To: Olivia Maxwell
Subject: Fw: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

Tim Mitchell BSc (Hons) C.Env MEnvSc FGS
Director



Geo-Environmental, Geotechnical, Acoustics, Air Quality, Ecology

Tel: 01489 808 088 / 0115 7043 492 / 01772 963 024

Mob: 07747 463 911

Email: tim.mitchell@omnia-consulting.co.uk

Website: www.omnia-consulting.co.uk

North : Office 4, No.3 Fulwood, 3 Caxton Road, Preston, PR2 9ZZ

Midlands : 12 High Pavement, Lace Market, Nottingham, NG1 1HN

South : 3-6 The Quarterdeck, Port Solent, Portsmouth, PO6 4TP

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Always improving our safety culture:



From: Jonathan Wilson <j.wilson@highwoodgroup.co.uk>

Sent: 13 April 2023 19:11

To: William Bennett <william.bennett@omnia-consulting.co.uk>; Tim Mitchell <tim.mitchell@omnia-consulting.co.uk>; Georgia Wass <Georgia.Wass@omnia-consulting.co.uk>
Subject: Fwd: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

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Hi Will

I think this is progress below. If you can review and amend accordingly.

The plans already show at least 2 per area and it is true of the total install.

Regards

JONATHAN WILSON HEAD OF TECHNICAL



T: 023 8074 8900 | M: 07825768918 | W: highwoodgroup.co.uk

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From: Scott, Neil <Neil.Scott@eastleigh.gov.uk>

Sent: Thursday, April 13, 2023 18:30

To: Jonathan Wilson <j.wilson@highwoodgroup.co.uk>; Errington, Dawn <Dawn.Errington@Eastleigh.gov.uk>

Subject: RE: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

CAUTION: This email originated outside of Highwood Group. Please take care when responding, clicking on links or opening attachments.

Mr Wilson

Thank you advising on the size of the cross vents, can you please confirm that this is true of all of the vents and that there are two serving each of the internal areas? I'd also be obliged if you could confirm that the building use is to be Type B as described in BS8485.

With respects to perimeter ventilation some confusion has been caused by reference in supplied documents to the need for 'very good' performance when this is not the case, and the actual requirement is for 'good'. However, Annex B6 of BS 8485 highlights the need for increased side ventilation over and above that for traditional low rise housing types. Hence my previous comments about perimeter ventilation.

I look forward to receiving the updated report from Omnia.

Regards

Neil Scott

Neil Scott

Senior Pollution Control Officer

Service Delivery - Specialist Services - Environment

023 8068 8304

07467012360



Eastleigh Borough Council | Eastleigh House | Upper Market Street | Eastleigh | SO50 9YN

From: Jonathan Wilson <j.wilson@highwoodgroup.co.uk>

Sent: 11 April 2023 16:54

To: Errington, Dawn <Dawn.Errington@Eastleigh.gov.uk>

Cc: Scott, Neil <Neil.Scott@eastleigh.gov.uk>

Subject: RE: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

Hi Dawn

I was a little concerned that we have jumped to the worst-case conclusion, and I would have appreciated a phone call or further with Neil to review this. However, on revaluation of the submission I have noticed that Neil would have reviewed the HGP detail 811 Sleeper wall details and seen that the ventilator notes shown would lead to this query.

I am more than happy to point out the detailed design progressed with advice from the gas membrane specialist and thus improving the substructure cross ventilation providing more than the external wall ventilation rate and more than achieving the very good criteria. See marked detail and photos to confirm installation and that the cross-void ventilation was the total opening without a proprietary ventilator (only needed to external façade) thus being 240x95 achieving 22,800mm² per vent with locations already confirmed on the previous submission. As you already know with full height doors & windows sometimes it hard to achieve a standard set spacing of vents so oversupplying free area per vent can be critical, which has been done here on both blocks.

I would dearly like to receive the approval of condition as soon as possible. I will be asking HGP to issue an as built detail and Omnia (staff on leave) to update the report for completeness however the approval could be issued on this email chain and photo evidence.

Should you wish to discuss I am free all day tomorrow, but I hope this matter can now be concluded.



Issue
Progress
Assigned To
Comments

Kind Regards

JONATHAN WILSON HEAD OF TECHNICAL



T: 023 8074 8900 | M: 07825768918 | W: highwoodgroup.co.uk

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From: Errington, Dawn <Dawn.Errington@Eastleigh.gov.uk>

Sent: Friday, March 24, 2023 6:31 PM

To: Jonathan Wilson <j.wilson@highwoodgroup.co.uk>

Subject: FW: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

Hi Jonathan

I'm happy for you to contact Neil directly whilst I am on leave

Regards

Dawn

Dawn Errington Monday-Thursday

Principal Planning Officer Monday-Thursday

023 8068 8260

From: Scott, Neil <Neil.Scott@eastleigh.gov.uk>

Sent: 24 March 2023 18:26

To: Errington, Dawn <Dawn.Errington@Eastleigh.gov.uk>

Subject: RE: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

Hi Dawn

Thanks for sending the information through.

I've looked at the Ramboll RMS, and whilst it has some details on the gas protection measures, particularly in respect of the membrane, it falls short of being a site specific scheme, the plans included below would have sat well within such a site specific RMS had one been drawn up, and given the large building footprint this has led to some issues.

At section 8.1.11 it recommends that for 'Type B' buildings '...ground gas protection *could comprise*;

1) A sub floor dispersal layer with "very good" performance (2.5 points); and

2) A gas resistant membrane meeting all the requirements in Table 7 of BS8485 (2 points)...'.
Giving a Gas Protection Score of 4.5.

It is against these generic criteria that the validation report, mentioned previously was issued. And as we have highlighted previously, we are satisfied that item 2) has been demonstrated. However, the matter of adequate ventilation, item 1) is less clear.

The plans provided recently show a proposed: 250mm sub floor void, and ventilation of 1500mm² / metre run of wall, with cross ventilation across internal subfloor walls. The building dimension exceeds 15 metres.

The British Standard, BS8485 is clear that the *minimum* ventilation for a building in excess of 15 metres to achieve 'very good' ventilation performance is in fact 2000mm² per metre run of wall, as a minimum. The information supplied unfortunately shows the ventilation was not specified appropriately.

However, given that we understand that these are type B buildings as per BS8485, ie,

'...private or commercial property with central building management control of any alterations to the building or its uses but limited or no central building management control of the maintenance of the building, including the gas protection measures. Multiple occupancy. Small to medium size rooms with passive ventilation of rooms and other internal spaces throughout ground floor and basement areas. May be conventional building or civil engineering construction. Examples include managed apartments,...'

Then the Gas Protection score need only achieve 3.5, meaning that the performance of the ventilation need only be 'good' and not 'very good' as has been stated by the applicant and their consultants.

The cross sectional area of the cross vents is not given. For large footprint buildings the effect of multiple in ground walls, albeit with cross ventilators, is complex and affects the overall ventilation negatively, such that wall vent sizes need to be increased further. Appendix B6 of BS8485 refers in more detail. The information provided unfortunately shows the ventilation was not specified appropriately, does not take account of the impact of numerous internal walls, and does not demonstrate that 'good' ventilation performance will be achieved by the design.

The verification report should have included confirmation that the ventilation of the underfloor achieved the 'good' performance criteria, and that elements had been installed adequately.

As it is my understanding that the buildings are up, I think the sensible way forward will be for the developer / consultant to provide confirmation of how the building ventilation and void was built, including details of the cross ventilation, and that the end use type is 'Type B' as per BS8485. Further, and importantly, that calculations are provided showing the performance of the void in terms of meeting the 'good' performance criteria as referred to in Appendix B of BS 8485.

Should the calculations show that the performance does not meet the criteria for 'good' ventilation then a quantitative risk assessment will be required to determine the severity of the non-compliance and identify what remedial measures are required to ensure 'good' performance is attained for the ventilation layer.

I appreciate this is getting somewhat involved so happy to talk it through

Regards

Neil

Neil Scott

Senior Pollution Control Officer

Service Delivery - Specialist Services - Environment

Ext.: 8304

Mobile: 07467012360

From: Errington, Dawn <Dawn.Errington@Eastleigh.gov.uk>

Sent: 13 March 2023 17:03

To: DM Technicians <DMTechnicians@eastleigh.gov.uk>

Cc: Scott, Neil <Neil.Scott@eastleigh.gov.uk>

Subject: FW: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

Hi

Please could you add the attached drawings and document in the Link to the above file.

Neil – for your further review please

Thanks

Dawn

Dawn Errington

Principal Planning Officer Monday-Thursday

Ext.: 8260

From: Jonathan Wilson <j.wilson@highwoodgroup.co.uk>

Sent: 13 March 2023 16:55

To: Errington, Dawn <Dawn.Errington@Eastleigh.gov.uk>

Subject: RE: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

Hi Dawn

Further to Neil's request for further information I duly attach the following drawings.

1. Substructure layouts showing the location of the subfloor vents including internal walls below slab.

2. In support of item 1, specification of the subfloor vents, product choice allows for the maximum free area – nearly 8000mm². [MFAB – Rytons Multifix® Air Brick – Rytons Building Products \(vents.co.uk\)](https://www.rytons.co.uk/ventilation/)
3. Slab detail showing the minimum 250mm clear void.
4. Link to Ramboll RMS <https://www.dropbox.com/t/TOZpQH6aIKFJIUAo>

Please note that the Gas protection measures have also been ratified by Building Control and LABC via site inspections and construction details together with the 3rd party validation report that they needed. This has been provided in the Validation report by Omnia.

We score more than is needed for CS2 Amber 1. The required points score are achieved with a combination of gas membrane meeting the criteria laid out in table 7 of BS8485:2015 as follows;

Sub floor venting – Min 150mm clear void = 2.5 points
 Gas membrane in line with BS8485:2015, Table 7 = 2 points
 B&B floor construction = 0 point

I trust that this now provide EBC with the comfort to approve the condition.

Thanks

JONATHAN WILSON HEAD OF TECHNICAL



T: 023 8074 8900 | M: 07825768918 | W: highwoodgroup.co.uk

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From: Errington, Dawn <Dawn.Errington@Eastleigh.gov.uk>

Sent: Monday, March 13, 2023 9:33 AM

To: Jonathan Wilson <j.wilson@highwoodgroup.co.uk>

Subject: RE: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

Hi Jonathan

We can't locate the Ramboll report so please send again as well as the other information to speed this up

Thanks

Dawn

Dawn Errington Monday-Thursday

Principal Planning Officer Monday-Thursday

023 8068 8260



Eastleigh Borough Council | Eastleigh House | Upper Market Street | Eastleigh | SO50 9YN

From: Jonathan Wilson <j.wilson@highwoodgroup.co.uk>

Sent: 13 March 2023 09:29

To: Errington, Dawn <Dawn.Errington@Eastleigh.gov.uk>

Subject: RE: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

Hi Dawn

This is frustrating, I will provide more details of the construction to show the cross ventilation today.

The Ramboll report is a document appended to planning consent and has already been submitted to EBC?

Ramboll don't need to be involved further, they provided the RMS and Omnia are confirming that it was adhered to. It was as Neil correctly points out, only gas protection measures required to Blocks B and D and that is what has been constructed, and verified by the specialist contractor.

Thanks

JONATHAN WILSON HEAD OF TECHNICAL



HIGHWOOD

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From: Errington, Dawn <Dawn.Errington@Eastleigh.gov.uk>

Sent: Monday, March 13, 2023 9:23 AM

To: Jonathan Wilson <j.wilson@highwoodgroup.co.uk>

Subject: FW: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

Hi Jonathan

Please see below and arrange for the missing information to be sent. After Neil has had the chance to look at this it may be best for him to discuss anything outstanding with Ramboll direct.

Regards
Dawn

Dawn Errington Monday-Thursday
Principal Planning Officer Monday-Thursday
023 8068 8260



Eastleigh Borough Council | Eastleigh House | Upper Market Street | Eastleigh | SO50 9YN

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when voting at a polling station on Thursday 4 May.

You need
photo ID
at a polling
station

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Eastleigh Borough Council

From: Scott, Neil <Neil.Scott@eastleigh.gov.uk>

Sent: 09 March 2023 17:15

To: Errington, Dawn <Dawn.Errington@Eastleigh.gov.uk>

Subject: Pollution comment - Land Contamination Validation Report for Stoneham local centre DC/23/94492

Hi Dawn

I've looked at the recent report, updated, by Omnia Ltd., titled 'Validation Report Local Centre Blocks B + D', re: A11976/1.4, dated, January 2023.

Firstly, we still don't have a copy of the Remedial Scheme, as put forward by Ramboll UK Limited (Report Ref: 61033023-MB-ps-RS, dated September 2018) and referenced in section 1 of this report, and upon which the remedial actions taken are based. As there is no detailed description of the remedial scheme given in this report I'm unable to confirm that the report actions meet with the Ramboll RMS.

This report advises that the only remedial measures required were for ground gas protection measures to be installed to meet CS2. It includes details (plans) in Appendix IX, showing that the floor construction would contain a ground gas membrane, have a void beneath (250mm) and vents from the void to atmosphere. This is consistent with CS2 for this type of end use. Certification that the membrane was installed correctly is included.

However, there are also important details missing, for example for buildings up to 15m in length ventilation to the sub floor void is to be provided of 1500mm² per metre run of wall (or equivalent), where buildings are larger (as appears to be the case here) this increases to 2000mm². No information is provided as to the amount of ventilation provided. Importantly, and especially so with larger footprint buildings, the design and construction of the sub floor

must also allow for a free flow of air and not be impeded by obstructions. Again, no information is provided in this regard. Suitable information needs to be provided showing how these two aspects have been addressed, such that the measures perform as necessary so as to mitigate the risks from ground gas.

We would also request a copy of the Ramboll RMS referred to in the report so we can confirm that the mitigation measures are consistent with it.

Consequently we are unable to support the discharge of condition at this time

Regards

Neil

Neil Scott

Senior Pollution Control Officer

Service Delivery - Specialist Services - Environment

Ext.: 8304

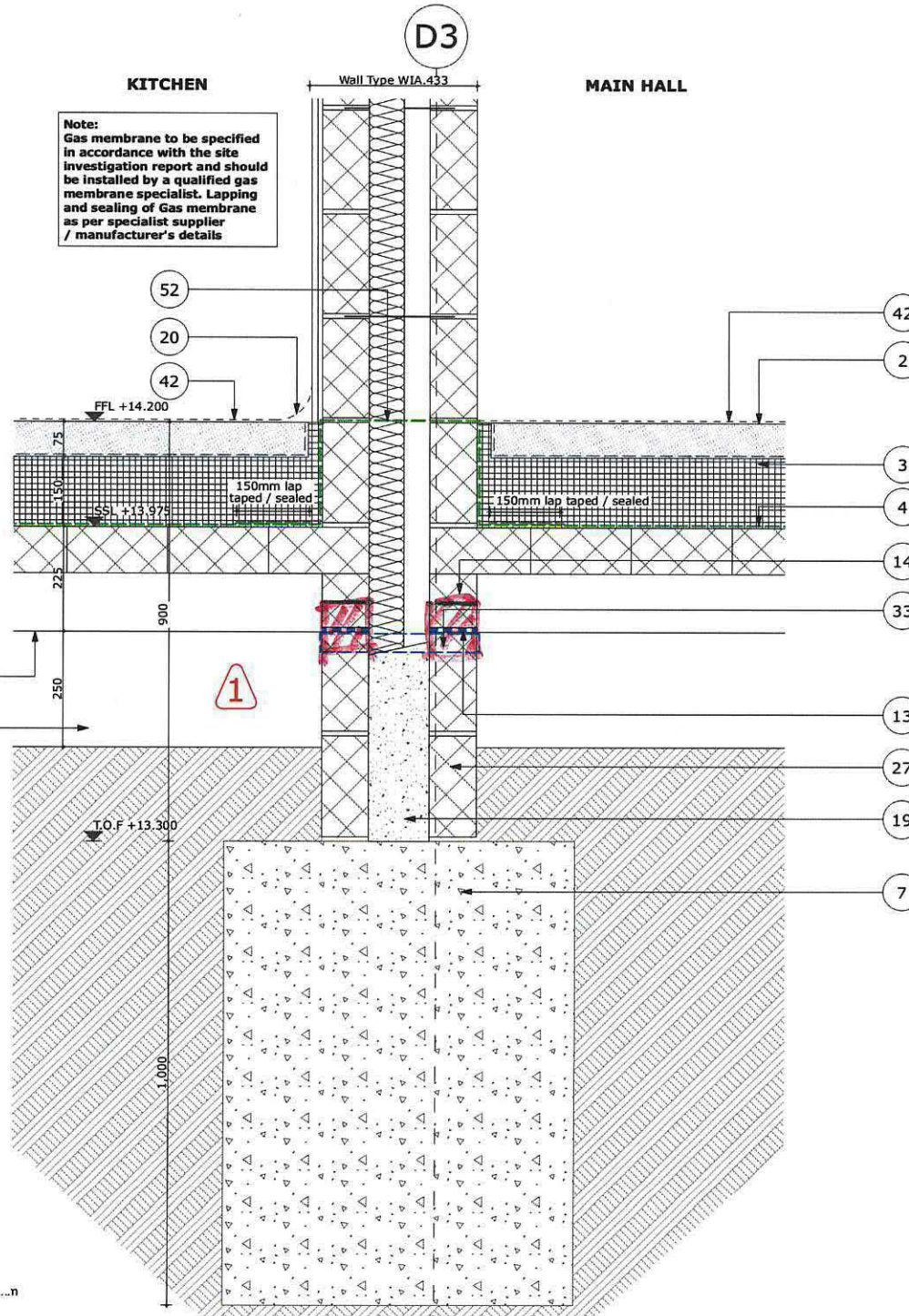
Mobile: 07467012360

DETAIL LEGEND

(Refer to construction notes for detailed specification)

- 2 75mm sand cement screed on separating layer.
- 3 150mm + 25mm perimeter rigid insulation board
- 4 Visqueen Gas Barrier or equivalent installed in strict accordance with manufacturer's recommendations.
- 5 225mm deep beam and block floor system
- 6 250mm deep ventilated floor void below floor planks
- 7 RC foundation to SE specs / details
- 13 Housing grade DPC under beam and block floor beams
- 14 Slip block
- 19 Lean mix cavity fill Min. 270mm from DPC to top of lean mix but not to be above base of insulation.
- 20 Skirting as per H21 specification
- 27 100mm medium dense blockwork skin (min. strength 7.3N/mm²).
- 33 Through wall ventilator to provide continuous cross ventilation to underfloor void.
- 42 Nominal 5mm (approx) floor finishes
- 52 Gas barrier to be continuous across cavity

Note:
Gas membrane to be specified in accordance with the site investigation report and should be installed by a qualified gas membrane specialist. Lapping and sealing of Gas membrane as per specialist supplier / manufacturer's details

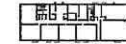


296

95

FREE AREA

SCALE 1:10
0 200 400 600



Key Plan - Ground Floor

Please Note:

This drawing must not be scaled, dimensions to be checked on site and any discrepancies are to be highlighted to the Architect prior to construction.

This drawing is to be read in conjunction with all other project drawings, construction notes and / or project specifications including those by other project consultants and specialists. All discrepancies should be reported immediately.

Prior to the commencement of any works, the Contractor is to check and / or determine all construction details including checking existing site levels and dimensions.

Design subject to detail development / approval. Measurements and accommodation schedules subject to amendments following coordinated input by others. Costings cannot be finalised until approval / confirmation by relevant authorities and Client.

Risk Schedule

- Specific health & safety risks associated with this building are highlighted, but not limited to the caution symbol adjacent to the item of risk. Refer to risk schedule on individual drawing.
- Injury caused by incorrect handling of large / heavy items.
- Potential to fall from height.
- Potential to fall from height through voids within floors.
- Lifting Operations
- Harm caused by Electrocution.

For further information refer to HGP's M06 & M07 documents

A-083	Construction Issue
Change	Description

C1	053	Details issued	14.09.20	RA	AST
P1	025	Preliminary	20.12.19	GRW	AST
Rev.	Issue		Date	DB	CB

Date 12.12.19
Drawn By/Checked By AST/AST
Scale 1:10@A3
Revision C1
Project Stoneham Local Centre
Title Typical Block D Separating Wall Sleeper Wall Detail
Dwg # 19.024_HGP_BB_00_DR_A_811

Status Construction

HGP
ARCHITECTS

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HIGHWOOD
CONSTRUCTION

The Hay Barn, Upper Ashfield Farm
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SO51 9NJ

+44 2380 748 900
info@highwoodgroup.co.uk

Foundation notes:

All foundations are shown as indicative only. Refer to SE drawings.

Grid subject to confirmation by Structural Engineer

Foundation depths to be agreed on site with the local Building Inspector and to conform to warranty company requirements.

Refer to Structural Engineer's design / specification for floor loadings

Drawing to be read in conjunction with coordinated site setting out plan by the Civil Engineer.

Any drains passing under buildings to be encased in 150mm granular fill.

Provide pre-stressed concrete lintels over drains/services where passing through walls, ensure that lintels clear pipework by 50mm. Location to be co-ordinated with individual plot drainage.

Refer to co-ordinated Civil Engineer drawings for locations of RWP, below ground drainage connections.

Void beneath suspended ground floor to be ventilated by air bricks with telescopic vents or ducts. Air bricks to be located 450mm from any corner. Min ventilation to be calculated as 1500mm² per metre run of wall or 500mm² of floor area, which ever provides greater opening area.

Proprietary periscope ventilator to sit below standard dpc level. (Note: where raised ground levels dictate an additional dpc the periscope ventilator must sit directly below the higher dpc level.

Telescopic vents through party walls to be installed min. 300mm below finished floor level of dwelling floor.

SE to review and confirm sleeper wall thickness and positions.

Gas meter locations subject to confirmation of incoming service positions

All incoming services refer to Civil Engineer's details and specifications

For all site levels refer to Civil Engineers drawings, in all instances a distance of at least 150 mm is required from external finished levels and the internal FFL.

Please refer to Structural Engineer's drawings, details and schedules for block strengths, lintel loadings / sizes for building incoming services and steelwork details.

Items in abeyance
(requirements provision subject to Highwood appointment by Specialist)

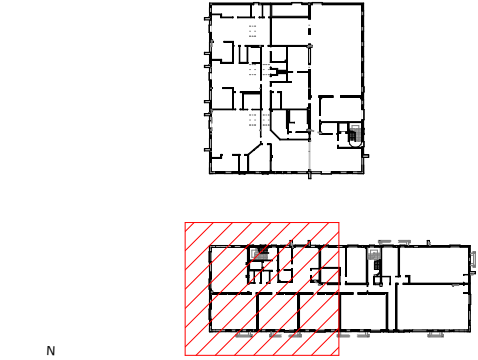
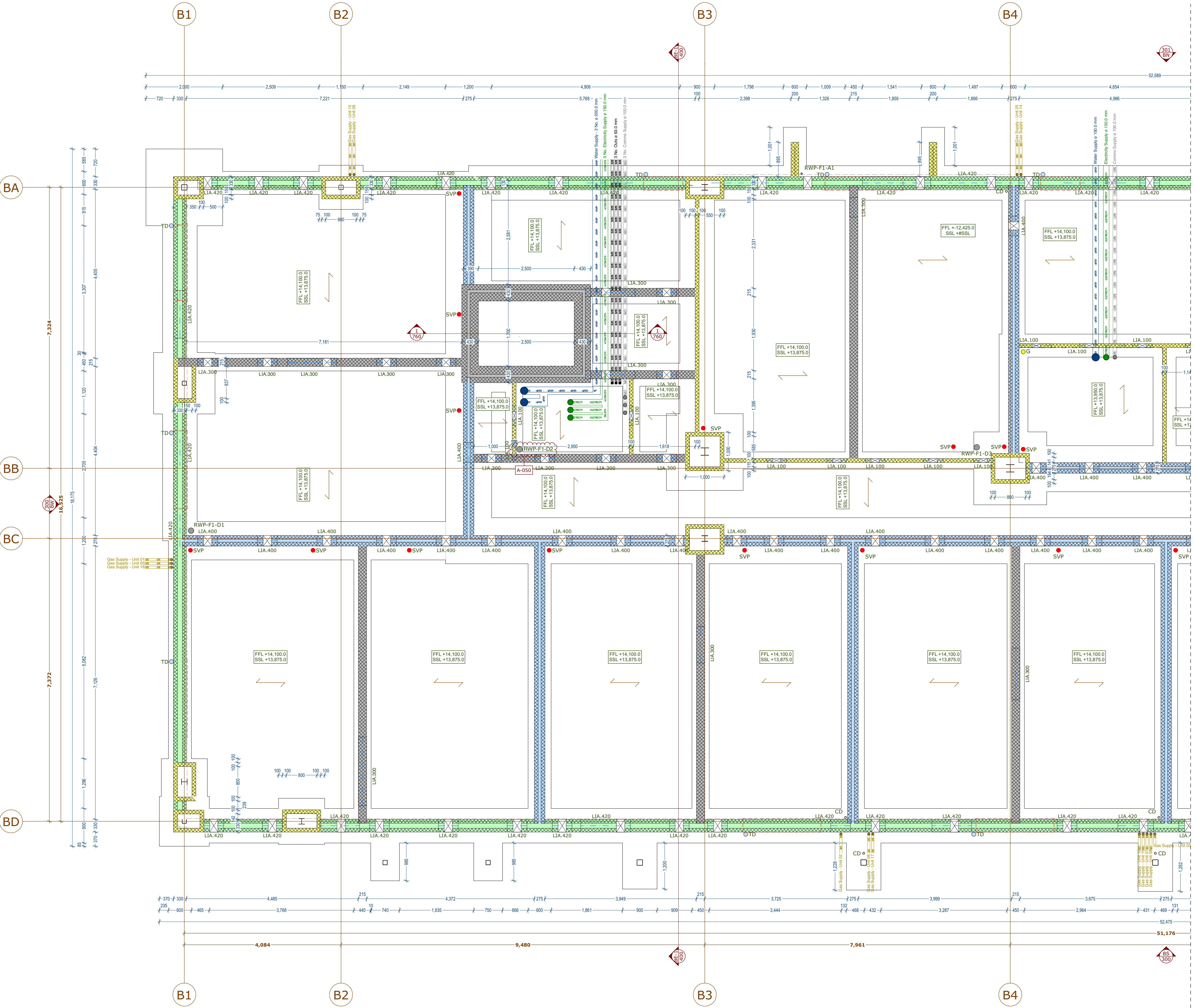
- Final layouts subject to change following input from the Fire Engineer
- Outgoing service routes to tie into site wide civil network
- External site levels tie in to building
- Lightning protection
- Lightning earthing rod locations
- Lightning test pit locations
- Incoming water supply pressure for sprinklers to be validated by specialist
- Lift pit tanking / waterproofing grade requirements subject to agreement with Premier warranty

Alterations from planning drawings

Alterations have been made to these drawings over those approved by the Local Planning authority, in all instances these alterations have been made following close consultation with Highwood Construction and the design team but are subject to approval by the LPA & end users of the Building.

B - HGP 200 External References Key - GA Plans				
Originator	DWG No.	DWG Name	Rev	Date
Odyssey	14-159-3028	Blocks B and D Private Drainage Layout	E	29.11.19
SWH	W02177-SWH-XX-XX-M3-S	Structural IFC	0001-201 91122	22.11.19
Siteline	34NS002D	Site Survey	-	N/A

Foundations Lintel Types		
Type ID	Wall Width	Associated Wall Type
LIA.100	100	Lintel for Wall Type WIA.100
LIA.200	140	Lintel for Wall Type WIA.200
LIA.300	215	Lintel for Wall Type WIA.300
LIA.400	275	Lintel for Wall Type WIA.400
LIA.420	330	Lintel for Wall Type WIA.420



Key Plan - Ground Floor

Please Note:

This drawing must not be scaled, dimensions to be checked on site and any discrepancies are to be highlighted to the Architect prior to construction.

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Prior to the commencement of any works, the Contractor is to check and / or determine all construction details including checking existing site levels and dimensions.

Design subject to detail development / approval. Measurements and accommodation schedules subject to amendments following coordinated input by others. Costings cannot be finalised until approval / confirmation by relevant authorities and Client.

Risk Schedule	
	Specific health & safety risks associated with this building are highlighted, but not limited to the caution symbol adjacent to the item of risk. Refer to risk schedule on individual drawing.
	Injury caused by incorrect handling of large / heavy items.
	Potential to fall from height.
	Potential to fall from height through voids within floors.
	Lifting Operations
	Harm caused by Electrocutation.
For further information refer to HGP's M06 & M07 documents	

KEY	
GA Plan - Substructure	
	SVP (Soil vent pipe)
	SS (Stub Stuck)
	G (Gully)
	DC (Direct Connection)
	TD (Threshold Drain)
	CD (Condensate Drain)
	RWP (Rainwater Pipe)
	LT (Level Threshold Above)
	MJ (Movement Joint)
	BT Supply
	Gas Supply
	Water Supply
	Electricity Supply
	Dimension to core
	Dimension to finish
	Proposed floor span
	Subfloor Ventilation
	Tanking membrane

A-050	RWP moved to water riser
Change	Description

GA Plans for Blocks B and D and Accommodation Schedule for Block D					
C6	031		31.01.20	FLT	AST
C5	020	Construction	05.12.19	FLT	AST
C4	019	Construction	04.12.19	FLT	AST
C3	017	Construction	29.11.19	FLT	AST
C2	016	Construction	28.11.19	FLT	AST
C1	014	Construction	15.11.19	FLT	AST
T2	005	Superstructure Tender	11.10.19	FLT	AST
T1	002	Groundworks Package	20.09.19	FLT	AST
Rev.	Issue		Date	DB	CB

Date 20.09.19

Drawn By/Checked By FLT/AST

Scale 1:50@A1

Revision C6

Project Stoneham Local Centre

Title Block B GA Plan - West Side Substructure

Dwg # 19.024_HGP_BB_F1_DR_A.200

Status **Construction**

150 Southampton Road
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FS 10342

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info@highwoodgroup.co.uk

Foundation notes:

All foundations are shown as indicative only. Refer to SE drawings.

Grid subject to confirmation by Structural Engineer

Foundation depths to be agreed on site with the local Building Inspector and to conform to warranty company requirements.

Refer to Structural Engineer's design / specification for floor loadings

Drawing to be read in conjunction with coordinated site setting out plan by the Civil Engineer.

Any drains passing under buildings to be encased in 150mm granular fill.

Provide pre-stressed concrete lintels over drains/services where passing through walls, ensure that lintels clear pipework by 50mm. Location to be co-ordinated with individual plot drainage.

Refer to co-ordinated Civil Engineer drawings for locations of RWP, below ground drainage connections.

Void beneath suspended ground floor to be ventilated by air bricks with telescopic vents or ducts. Air bricks to be located 450mm from any corner. Min ventilation to be calculated as 1500mm² per metre run of wall or 500mm² of floor area, which ever provides greater opening area.

Proprietary periscope ventilator to sit below standard dpc level. (Note: where raised ground levels dictate an additional dpc the periscope ventilator must sit directly below the higher dpc level.

Telescopic vents through party walls to be installed min. 300mm below finished floor level of dwelling floor.

SE to review and confirm sleeper wall thickness and positions.

Gas meter locations subject to confirmation of incoming service positions

All incoming services refer to Civil Engineer's details and specifications

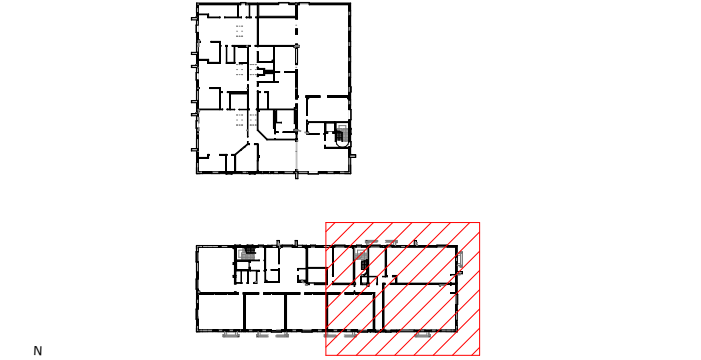
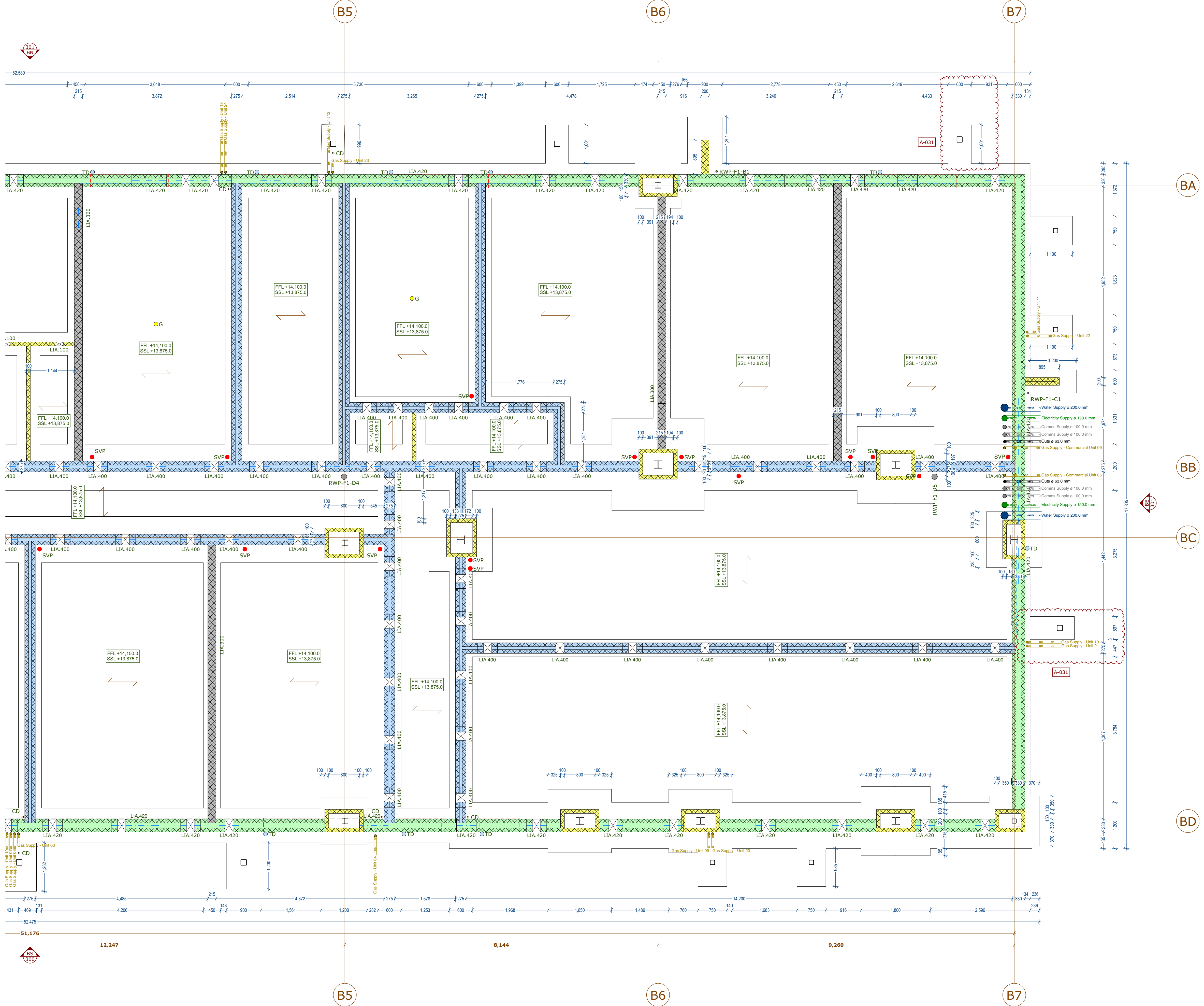
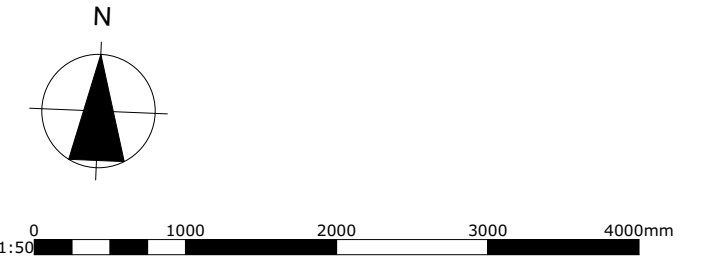
For all site levels refer to Civil Engineers drawings, in all instances a distance of at least 150 mm is required from external finished levels and the internal FFL.

Please refer to Structural Engineer's drawings, details and schedules for block strengths, lintel loadings / sizes for building incoming services and steelwork details.

- Items in abeyance**
(requirements provision subject to Highwood appointment by Specialist)
- Final layouts subject to change following input from the Fire Engineer
 - Outgoing service routes to tie into site wide civil network
 - External site levels tie in to building
 - Lightning protection
 - Lightning earthing rod locations
 - Lightning test pit locations
 - Incoming water supply pressure for sprinklers to be validated by specialist
 - Lift pit tanking / waterproofing grade requirements subject to agreement with Premier warranty
- Alterations from planning drawings
- Alterations have been made to these drawings over those approved by the Local Planning authority, in all instances these alterations have been made following close consultation with Highwood Construction and the design team but are subject to approval by the LPA & end users of the Building.

B - HGP 200 External References Key - GA Plans				
Originator	DWG No.	DWG Name	Rev	Date
Odyssey	14-159-3028	Blocks B and D Private Drainage Layout	E	29.11.19
SWH	W02177-SWH-XX-XX-M3-S	Structural IFC	0001-201 91122	22.11.19
Siteline	34NS002D	Site Survey	-	N/A

Foundations Lintel Types		
Type ID	Wall Width	Associated Wall Type
LIA.100	100	Lintel for Wall Type WIA.100
LIA.200	140	Lintel for Wall Type WIA.200
LIA.300	215	Lintel for Wall Type WIA.300
LIA.400	275	Lintel for Wall Type WIA.400
LIA.420	330	Lintel for Wall Type WIA.420



Please Note:

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Risk Schedule	
1	Specific health & safety risks associated with this building are highlighted, but not limited to the caution symbol adjacent to the item of risk. Refer to risk schedule on individual drawing.
2	Injury caused by incorrect handling of large / heavy items.
3	Potential to fall from height.
4	Potential to fall from height through voids within floors.
5	Lifting Operations
6	Harm caused by Electrocution.
For further information refer to HGP's M06 & M07 documents	

KEY	
GA Plan - Substructure	
● SVP (Soil vent pipe)	● BT Supply
● SS (Stub Stuck)	● Gas Supply
● G (Gully)	● Water Supply
● DC (Direct Connection)	● Electricity Supply
● TD (Threshold Drain)	● Dimension to core
● CD (Condensate Drain)	● Dimension to finish
● RWP (Rainwater Pipe)	● Proposed floor span
● LT (Level Threshold Above)	● Subfloor Ventilation
● MJ (Movement Joint)	● Tanking membrane

A-031 Column added to support canopy above and incoming services moved consequently

Change	Description
--------	-------------

C6	031	GA Plans for Blocks B and D and Accommodation Schedule for Block D		31.01.20	FLT	AST
C5	020	Construction		05.12.19	FLT	AST
C4	019	Construction		04.12.19	FLT	AST
C3	017	Construction		29.11.19	FLT	AST
C2	016	Construction		28.11.19	FLT	AST
C1	014	Construction		15.11.19	FLT	AST
T2	005	Superstructure Tender		11.10.19	FLT	AST
T1	002	Groundworks Package		20.09.19	FLT	AST
Rev.	Issue			Date	DB	CB

Date 20.09.19

Drawn By/Checked By FLT/AST

Scale 1:50@A1

Revision C6

Project Stoneham Local Centre

Title Block B GA Plan - East Side Substructure

Dwg # 19.024_HGP_BB_F1_DR_A.201

Status **Construction**

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info@highwoodgroup.co.uk

Foundation notes:
All foundations are shown as indicative only. Refer to SE drawings.

Grid subject to confirmation by Structural Engineer

Foundation depths to be agreed on site with the local Building Inspector and to conform to warranty company requirements.

Refer to Structural Engineer's design / specification for floor loadings

Drawing to be read in conjunction with coordinated site setting out plan by the Civil Engineer.

Any drains passing under buildings to be encased in 150mm granular fill.

Provide pre-stressed concrete lintels over drains/services where passing through walls, ensure that lintels clear pre-work by 50mm. Location to be co-ordinated with individual plot drainage.

Refer to co-ordinated Civil Engineer drawings for locations of RWP below ground drainage connections.

Void beneath suspended ground floor to be ventilated by air bricks with telescopic vents or ducts. Air bricks to be located 450mm from any corner with ventilation to be calculated at 150mm² per metre run of wall or 500mm² of floor area, which ever provides greater opening area.

Proprietary periscope ventilator to sit below standard dpc level. (Note: where raised ground levels dictate an additional dpc the periscope ventilator must sit directly below the higher dpc level).

Telescopic vents through party walls to be installed min. 300mm below finished floor level of dwelling floor.

SE to review and confirm sleeper wall thickness and positions.

Gas meter locations subject to confirmation of incoming service positions.

All incoming services refer to Civil Engineer's details and specifications.

For all site levels refer to Civil Engineer's drawings, in all instances a distance of at least 150 mm is required from external finished levels and the internal FFL.

Please refer to Structural Engineer's drawings, details and schedules for block strengths, lintel loadings / sizes for building incoming services and steelwork details.

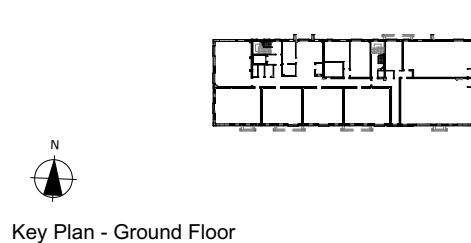
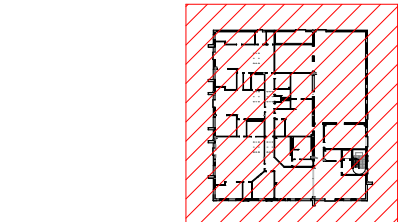
Items in abeyance
(requirements provision subject to Highwood appointment by Specialist)

- Final layouts subject to change following input from the Fire Engineer
- Outgoing service routes to tie into site wide civil network.
- External site levels tie in to building
- Lightning protection
- Lightning earthing rod locations
- Lightning test pit locations
- Incoming water supply pressure for sprinklers to be validated by specialist.
- LIA pit banking / waterproofing grade requirements subject to agreement with Premier warranty

Alterations from planning drawings
Alterations have been made to those drawings over those approved by the Local Planning authority, in all instances these alterations have been made following close consultation with Highwood Construction and the design team but are subject to approval by the LPA and users of the Building.

B - HGP 500 External References Key - GA Plans				
Originator	DWG No.	DWG Name	Rev	Date
Odyssey	14-159-3028	Blocks B and D Private Drainage Layout	E	29.11.19
SWH	W02177-SWH-X000045-X	Structural DFC	0001-201 91122	22.11.19
Site/line	34NS002D	Site Survey	-	N/A

Foundations Lintel Types		
Type ID	Wall Width	Associated Wall Type
LIA-100	100	Lintel for Wall Type WIA-100
LIA-200	140	Lintel for Wall Type WIA-200
LIA-300	215	Lintel for Wall Type WIA-300
LIA-400	275	Lintel for Wall Type WIA-400
LIA-420	320	Lintel for Wall Type WIA-420



Key Plan - Ground Floor

Phase Notes:
This drawing must not be scaled, dimensions to be checked on site and any discrepancies are to be highlighted to the Architect prior to construction.

This drawing is to be read in conjunction with all other project drawings, construction notes and / or project specifications including those by other project consultants and specialists. All discrepancies should be reported immediately.

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Design subject to detail development / approval. Measurements and accommodation schedules subject to amendments following coordinated input by others. Costings cannot be finalised until approval / confirmation by relevant authorities and Client.

Risk Schedule	
▲	Specific health & safety risks associated with this building are highlighted, but not limited to the caution symbols adjacent to the item of risk. Refer to risk schedule on individual drawing.
▲	Injury caused by incorrect handling of large / heavy items.
▲	Potential to fall from height.
▲	Potential to fall from height through voids within floors.
▲	Lifting Operations
▲	Harm caused by Electrocution.
For further information refer to HGP's M06 & M07 documents	

GA Plan - Substructure			
●	SVP (Soil vent pipe)	●	BT Supply
●	SS (Sub Stuck)	●	Gas Supply
●	G (Gully)	●	Water Supply
●	DC (Direct Connection)	●	Electricity Supply
●	TD (Threshold Drain)	●	Dimension to core
●	CD (Condensate Drain)	●	Dimension to finish
●	RWP (Rainwater Pipe)	●	Proposed floor span
●	LT (Level Threshold Above)	●	Subfloor Ventilation
●	MJ (Movement Joint)	●	Tanking membrane

A-093	External fencing and walls updated to suit clients requests
Change	Description

C6	054	Construction Issue	18.09.20	RA	AST
C5	028	Amended Block D Substructure GA Plan			
C4	027	Amended Block D Substructure GA Plan	13.01.20	FLT	AST
C3	017	Construction	29.11.19	FLT	AST
C2	016	Construction	28.11.19	FLT	AST
C1	014	Construction	15.11.19	FLT	AST
T2	005	Superstructure Tender	11.10.19	FLT	AST
T1	002	Groundworks Package	20.09.19	FLT	AST
Rev.	Issue	Date	DB	CB	

Date: 20.09.19
Drawn By/Checked By: FLT/AST
Scale: @A0
Revision: C6
Project: Stoneham Local Centre
Title: Block D GA Plan - Substructure

Dwg # 19.024_HGP_BD_F1_DR_A_200

Status: Construction

- DETAIL LEGEND
- (Refer to construction notes for detailed specification)
- 1

Nominal 20mm (approx) floor finishes
- 2

75mm sand cement screed on separating layer.
- 3

150mm + 25mm perimeter rigid insulation board
- 4

Visqueen Gas Barrier or equivalent installed in strict accordance with manufacturer's recommendations.
- 5

225mm deep beam and block floor system
- 6

250mm deep ventilated floor void below floor planks
- 7

RC foundation to SE specs / details
- 13

Housing grade DPC under beam and block floor beams
- 14

Slip block
- 17

Wall ties at 400mm horizontal c/s to support cavity wall insulation min 25mm above the cavity fill
- 18

80mm thick foil faced PIR cavity wall insulation 0.018 W/mK
- 19

Lean mix cavity fill Min. 270mm from DPC to top of lean mix but not to be above base of insulation.
- 20

Skirting as per H21 specification
- 21

Below DPC brickwork min F2/S2 durability grade, for colour refer to materials schedule/elevations. Brickwork to extend 150mm min. above ground level.
- 24

External finishes subject to Landscape Architects design / specification on bedding and sub-base to Civil Engineer's design / specification (Falls and levels to Civil Engineer's design)
- 27

100mm medium dense outer blockwork skin (min. strength 7.3N/mm²).
- 29

Continuous horizontal DPC with 100mm laps, positioned minimum 150mm above external ground level.
- 30

Cavity tray with perp end weep vents @ 450mm c/c.
- 31

Reinforced concrete lintel over opening for periscope vent
- 32

Periscope vent to match brick colour to vent floor void to manufacturers details
- 52

Gas barrier to be continuous across cavity
- 60

DPC

SCALE 1:10

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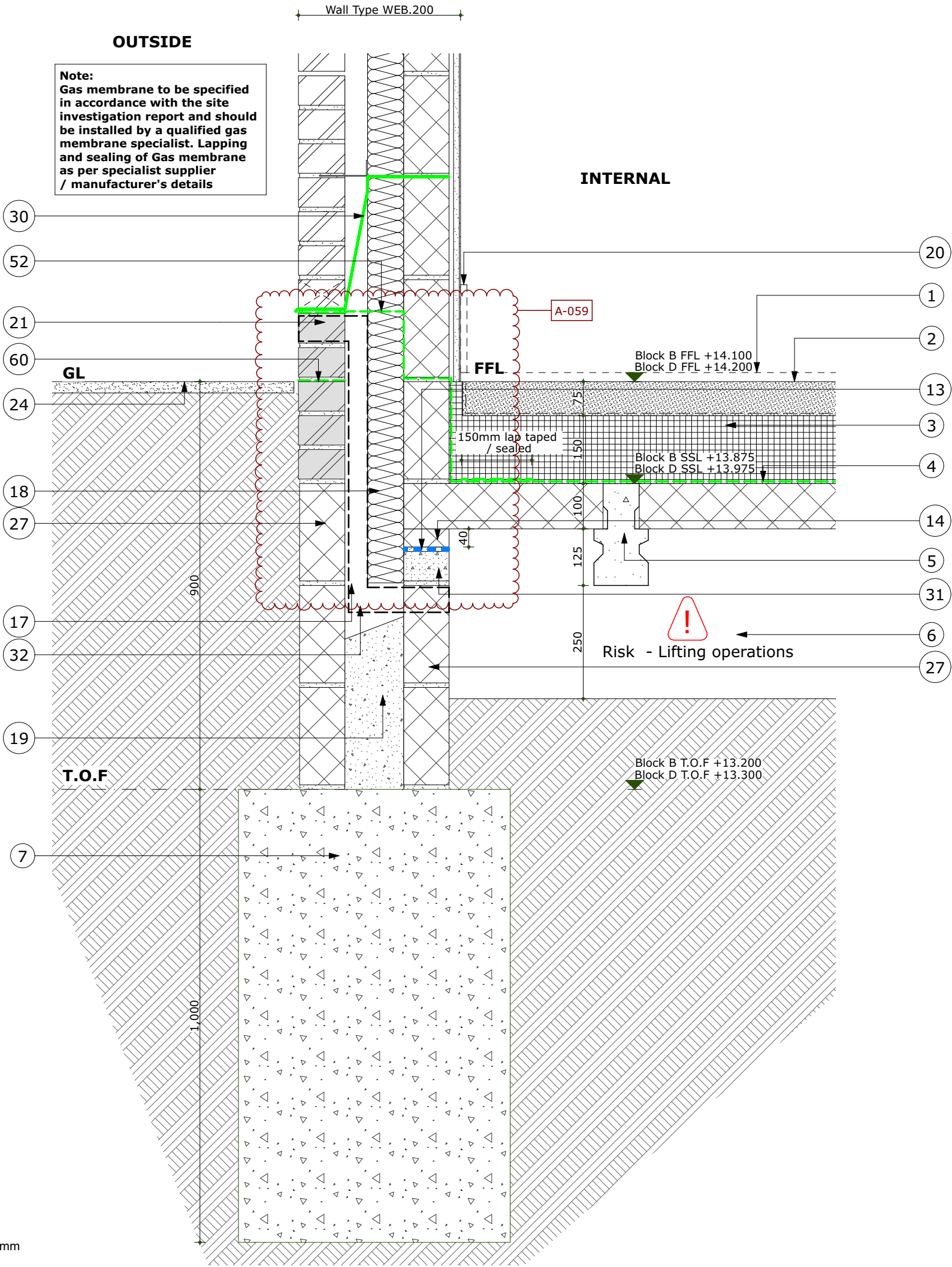
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400

600

800

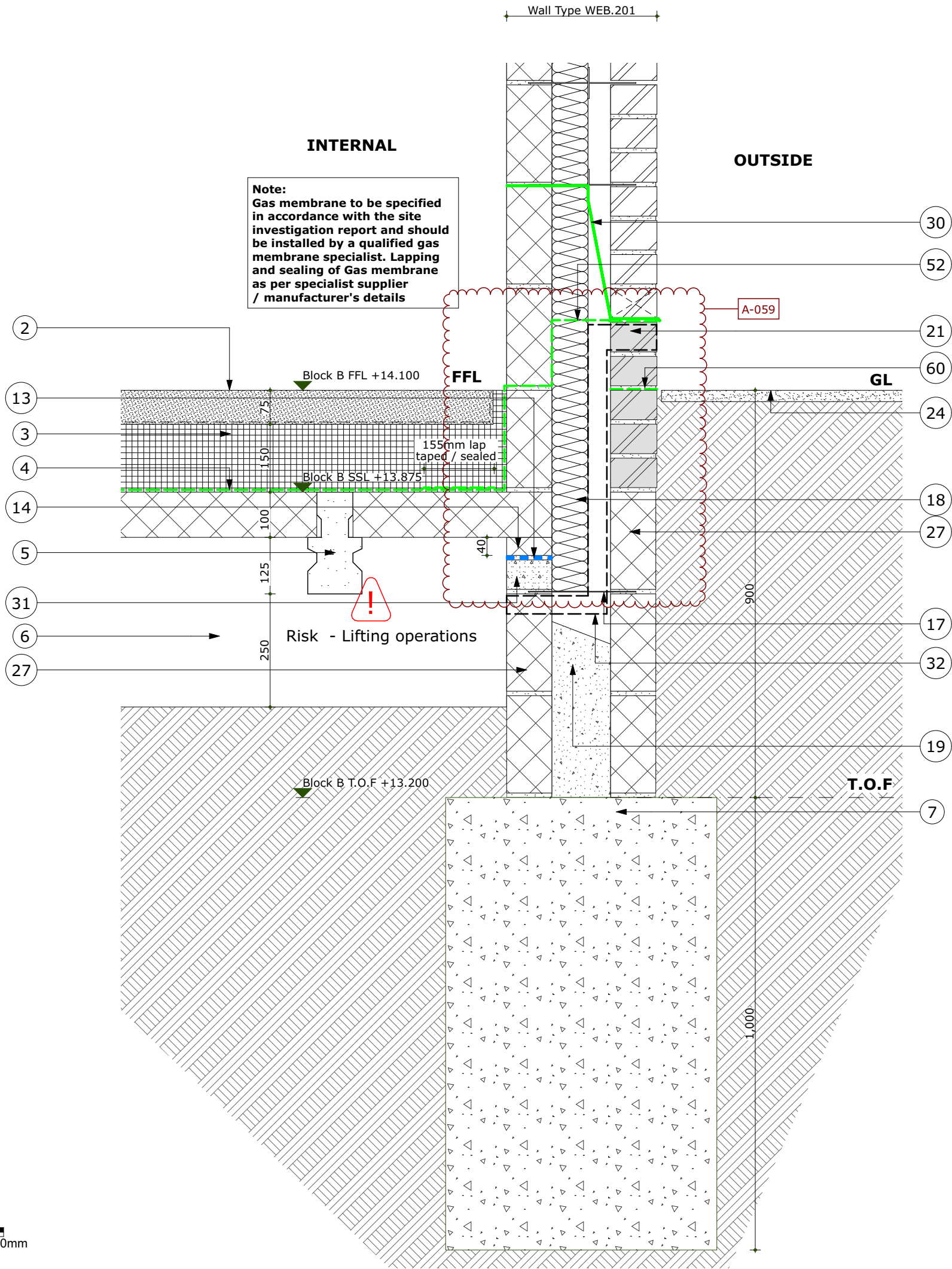
1000mm



DETAIL LEGEND
(Refer to construction notes for detailed specification)

- 1
- Nominal 20mm (approx) floor finishes
- 2
- 75mm sand cement screed on separating layer.
- 3
- 150mm + 25mm perimeter rigid insulation board
- 4
- Visqueen Gas Barrier or equivalent installed in strict accordance with manufacturer's recommendations.
- 5
- 225mm deep beam and block floor system
- 6
- 250mm deep ventilated floor void below floor planks
- 7
- RC foundation to SE specs / details
- 13
- Housing grade DPC under beam and block floor beams
- 14
- Slip block
- 17
- Wall ties at 400mm horizontal c/s to support cavity wall insulation min 25mm above the cavity fill
- 18
- 80mm thick foil faced PIR cavity wall insulation 0.018 W/mK
- 19
- Lean mix cavity fill Min. 270mm from DPC to top of lean mix but not to be above base of insulation.
- 21
- Below DPC brickwork min F2/S2 durability grade, for colour refer to materials schedule/elevations. Brickwork to extend 150mm min. above ground level.
- 24
- External finishes subject to Landscape Architects design / specificationon bedding and sub-base to Civil Engineer's design / specification (Falls and levels to Civil Engineer's design)
- 27
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- 29
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- 30
- Cavity tray with perp end weep vents @ 450mm c/c.
- 31
- Reinforced concrete lintel over opening for periscope vent
- 32
- Periscope vent to match brick colour to vent floor void to manufacturers details
- 52
- Gas barrier to be continuous across cavity
- 60
- DPC

SCALE 1:10
0 200 400 600 800 1000mm



Key Plan - Ground Floor

Please Note:

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Risk Schedule	
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2	Potential to fall from height.
3	Potential to fall from height through voids within floors.
4	Lifting Operations
5	Harm caused by Electrocutation.

For further information refer to HGP's M06 & M07 documents

A-059	Liquid membrane omitted
Change	Description

C2	036	Groundworks Details	20.02.20	AST	AST
C1	030	Construction Issue			
Rev.	Issue		Date	DB	CB

Date 20.09.19
Drawn By/Checked By GRW/AST
Scale 1:10@A3
Revision C2
Project Stoneham Local Centre
Title Typical Block B Commercial External Wall Junction Detail (Raised GL)
Dwg # 19.024_HGP_BB_00_DR_A_711A

Status Construction



Furzehall Farm, Wickham Road
Fareham, Hampshire
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+44 2380 748 900
info@highwoodgroup.co.uk



GEOSHIELD Verification Report



PROJECT REFERENCE:

GEO101032/ 6858

REPORT NUMBER:

003

REPORT DATE:

23 July 2020

PROJECT:

North Stoneham Park

PROJECT ADDRESS:

Stoneham

Eastleigh

SO50 9HT

MEMBRANE SPECIFICATION:

Verified in accordance with CIRIA 735.

Design in accordance to BS8485 2015+2019 for methane and carbon dioxide.

Monarflex reflex super

PAG SAGR

Welded laps



GEOSHIELD

Verification Report



MEMBRANE SPECIFICATION:

DESIGN DETAILS:



GEOSHIELD Verification Report



VERIFICATION OFFICER:

Tom Dicker

VERIFICATION COMPANY:

GeoShield Limited

Icon Business Park, 4100 Park Approach

Thorpe Park, LEEDS

West Yorkshire

LS15 8GB

CONTACT NUMBER:

07584222519

EMAIL ADDRESS:

tdicker@geoshield.com

ORDER NUMBER:

PER VISIT: YES:

☐

NO:

☐

PROJECT: YES:

☒

NO:

☐



GEOSHIELD

Verification Report



CLIENT DETAILS

CLIENT CONTACT:	Rick Grady
CONTACTS ROLE:	Supervisor
MOBILE PHONE:	07595328991
EMAIL ADDRESS:	Rick@pageo.co.uk



CLIENT CONTACT:	
CONTACTS ROLE:	
MOBILE PHONE:	
EMAIL ADDRESS	
NOTES:	
NOTES:	
NOTES:	



GEOSHIELD Verification Report



APPLICATION TEAM LEADERS

APPLICATOR NAME: Rick Grady

COMPANY: PAG

APPLICATOR TEL: 07595328991

APPLICATOR EMAIL: Rick@pageo.co.uk

APPLICATOR NAME: Matt Evans

COMPANY: PAG

APPLICATOR TEL:

APPLICATOR EMAIL:

NOTES:

NOTES:

NOTES:

NOTES:



GEOSHIELD Verification Report



AREA SURVEYED: Block D

SITE CONDITIONS:

WEATHER: Overcast

TEMPERATURE: 15c

MEMBRANE TEMPERATURE:

RELATIVE HUMIDITY:

TIME: 09.00

REPORT NUMBER: 003

DATE: 23 July 3020

ACCOMPANIED RickGrady PAG

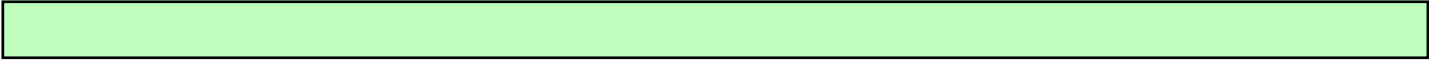
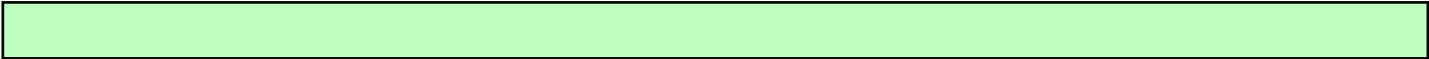


GEOSHIELD Verification Report



VERIFICATION LAYOUT

Click to set image



GEOSHIELD Verification Report

OVERVIEW PHOTOGRAPHS



Picture 1 shows the Overview of the verification area



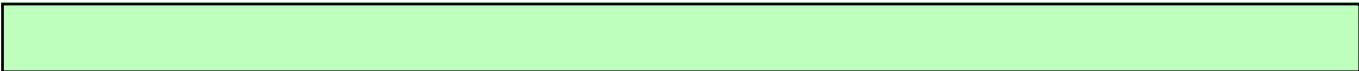
GEOSHIELD Verification Report



OVERVIEW PHOTOGRAPHS



Picture above shows an alternative angle of the overview area.





GEOSHIELD Verification Report



LIMITATIONS

SURVEY AREA:

RESTRICTIONS AND LIMITATIONS:

Click to set image

GEOSHIELD Verification Report

BGA
British Geotechnical Association



VERIFICATION ITEM ONE

LOCATION/GRID LINE: Corner details.

NOTES: The picture below and left shows an example of an column

corner detail of which has been applied monarflex membrane and sealed using a heat gun to butyl tape. The seal has been applied according to manufacturers specification.



The picture above, right, demonstrates the verification of the corner detail with the

pick and probe testing device. Verification completed in accordance with CIRIA 735.

GEOSHIELD Verification Report

VERIFICATION ITEM ONE



The picture above shows an example of a completed corner detail. The membrane is sealed with a butyl tape and is adequately sealed against the perimeter using a heated weld. Any defects found were remedied on site and can be found in remedy log below.



GEOSHIELD Verification Report



VERIFICATION ITEM TWO

LOCATION/GRID LINE: Block. D

NOTES: Infill membrane/lap joints

The below photo shows the pick and probe investigation take place on the lap detailing of the internal Monoflex membrane. The lap is satisfactory and the seal has been correctly completed to a high standard.



As visible in the right hand photo, the application has occurred to a high standard and complied with BS8485 and CIRIA 735. All lap details have the correct amount of overlap which ensures a tight seal. The seal was completed using a heat roller and the whole block was verified in accordance with CIRIA 735.

GEOSHIELD Verification Report

VERIFICATION ITEM TWO



The above picture shows multiple finished lap joints on the infill monarflex membrane.

As you can see in the photograph above, there was a substantial space requiring

covering and it was important to lap at a high standard, which the installers achieved.



GEOSHIELD Verification Report



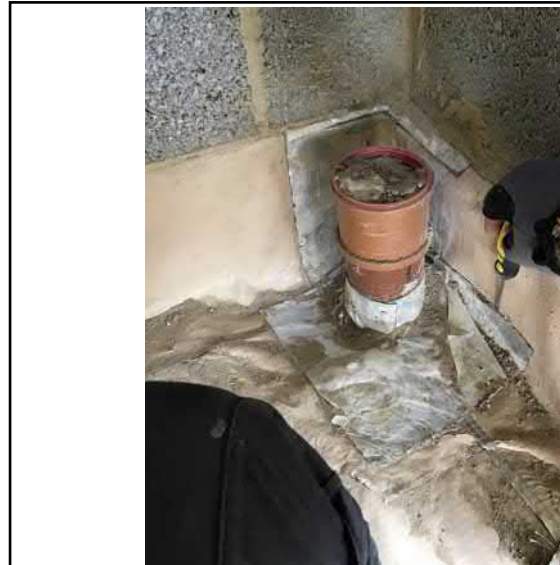
VERIFICATION ITEM THREE

LOCATION/GRID LINE: Block B - pipe penetration

NOTES: The below photographs show complex pipe penetration

details which require a high level of workmanship. The left photo shows a variety

of pipe penetration details which were well sealed and gas protected by the installers.



The photo above and right show the verification officer completed a pick and probe

test in order to correctly inspect the patch of heat welded tape, there were defects

found and documented all of which can be found further on in this report.

No outstanding defects were left by the installers and a high work ethic was achieved.

GEOSHIELD Verification Report

VERIFICATION ITEM THREE



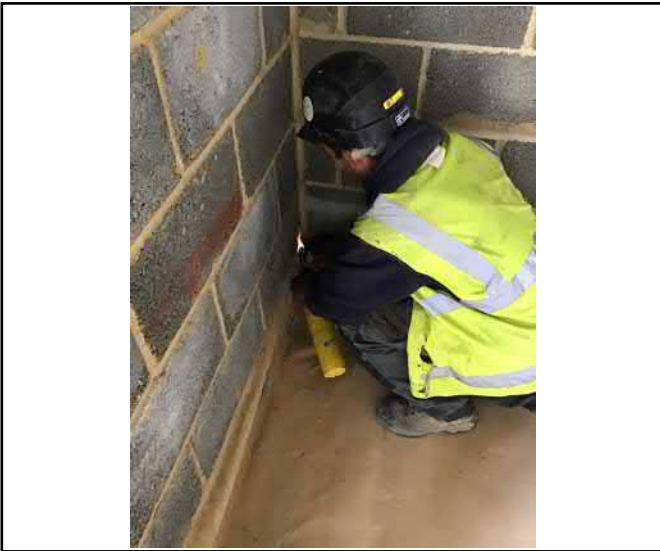
The above photograph shows a complicated corner pipe penetration.

This detail was completed by the installers and tested in accordance with

CIRIA 735 and BS8485.

GEOSHIELD Verification Report

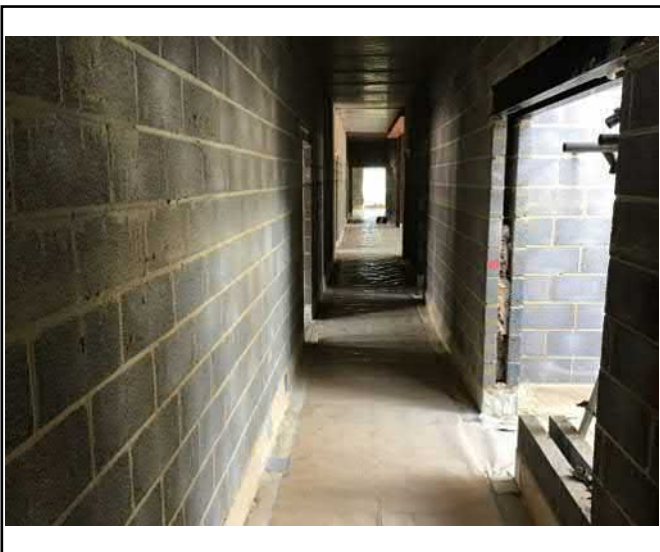
ADDITIONAL PHOTOGRAPHS



The above photo shows the installer
correctly making good a defect



This shows that adequate seal
has been achieved



An overview of corridor showing
the monoflex installation



The end result of a remediation
carried out by the installers.

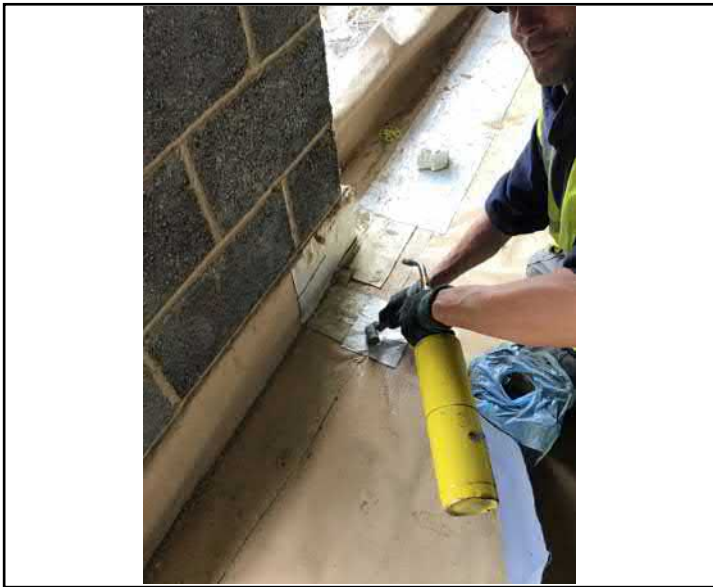


GEOSHIELD

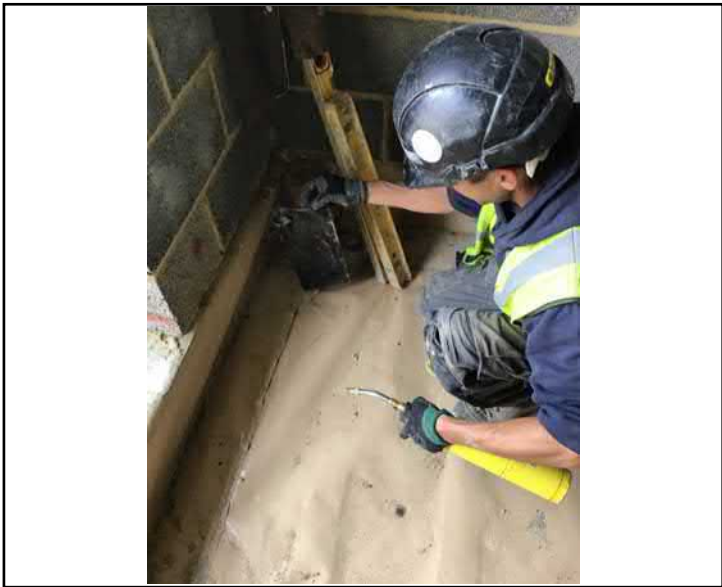
Verification Report



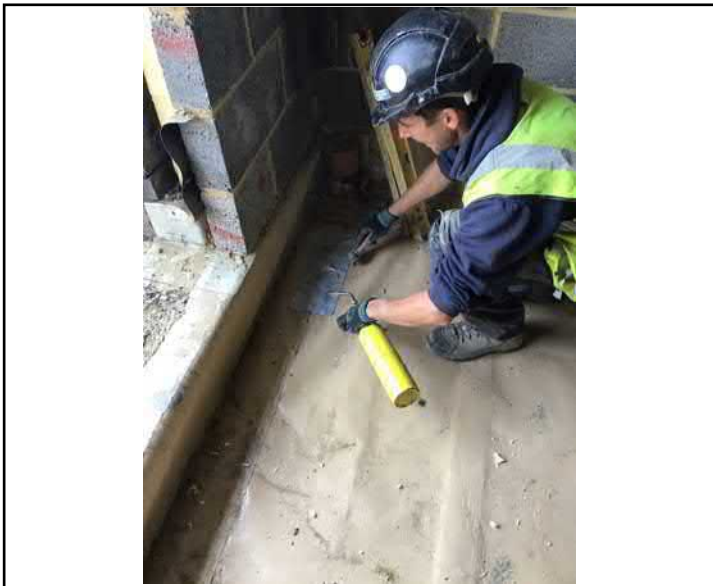
REMEDIATION LOG PHOTOS



LOG Nr:		YES		NO	
---------	--	-----	--	----	--



LOG Nr:		YES		NO	
---------	--	-----	--	----	--



LOG Nr:		YES		NO	
---------	--	-----	--	----	--



LOG Nr:		YES		NO	✓
---------	--	-----	--	----	---



GEOSHIELD Verification Report



VERIFICATION SUMMARY

This was my 3rd visit to site. I was shown around Block B by installers Matt and Rick who were both very happy to promptly make good any defects found upon my investigation. The main damage was to the perimeter details of which were primarily caused by subsequent trades instead of poor workmanship. There were no remediations left outstanding. All of the membrane installed by the team was of a high standard and all seams were well applied. The pipe penetration details were expertly produced and no defects were found.

The monoflex membrane was correctly applied by heat weld tape which ensures adequate protection against ground gas.

All installation measures were completed as per the manufacturers specification.

All testing completed in accordance with CIRIA 735 and the BS8485 2015+2019



GEOSHIELD Verification Report



PROJECT REFERENCE:

High wood (PAG) 3835 001

REPORT NUMBER:

001

REPORT DATE:

17/03/2020

PROJECT:

Highwood care home

PROJECT ADDRESS:

Stoneham Lane

Eastleigh

SO 50 9HT

MEMBRANE SPECIFICATION:

Gas membrane to specification BS8485 2015

Installed to CIRIA 735



GEOSHIELD

Verification Report



MEMBRANE SPECIFICATION:

DESIGN DETAILS:

190516 - BN049 - KKL - 00 - DR - A - 200



GEOSHIELD Verification Report



VERIFICATION OFFICER: John Turnbull

VERIFICATION COMPANY: GeoShield Limited

Icon Business Park, 4100 Park Approach

Thorpe Park, LEEDS

West Yorkshire

LS15 8GB

CONTACT NUMBER: 07584 222519

EMAIL ADDRESS: jturnbull@geoshield.co.uk

ORDER NUMBER:

PER VISIT: YES:

☐

NO:

☐

PROJECT: YES:



NO:

☐



GEOSHIELD Verification Report



CLIENT DETAILS

CLIENT CONTACT:	Clare PAG
CONTACTS ROLE:	
MOBILE PHONE:	01536 740040
EMAIL ADDRESS:	clare@pageo.co.uk

CLIENT CONTACT:	
CONTACTS ROLE:	
MOBILE PHONE:	
EMAIL ADDRESS	
NOTES:	
NOTES:	
NOTES:	



GEOSHIELD Verification Report



APPLICATION TEAM LEADERS

APPLICATOR NAME: Russell Clifford

COMPANY: PAG

APPLICATOR TEL: 01536 740040

APPLICATOR EMAIL:

APPLICATOR NAME:

COMPANY:

APPLICATOR TEL:

APPLICATOR EMAIL:

NOTES:

NOTES:

NOTES:

NOTES:



GEOSHIELD Verification Report



AREA SURVEYED: Blocks B/D perimeter

SITE CONDITIONS:

WEATHER: Fine/dry

TEMPERATURE: 12c

MEMBRANE TEMPERATURE:

RELATIVE HUMIDITY: Low

TIME: 11.00 - 12.00

REPORT NUMBER: 001

DATE: 17/03/2020

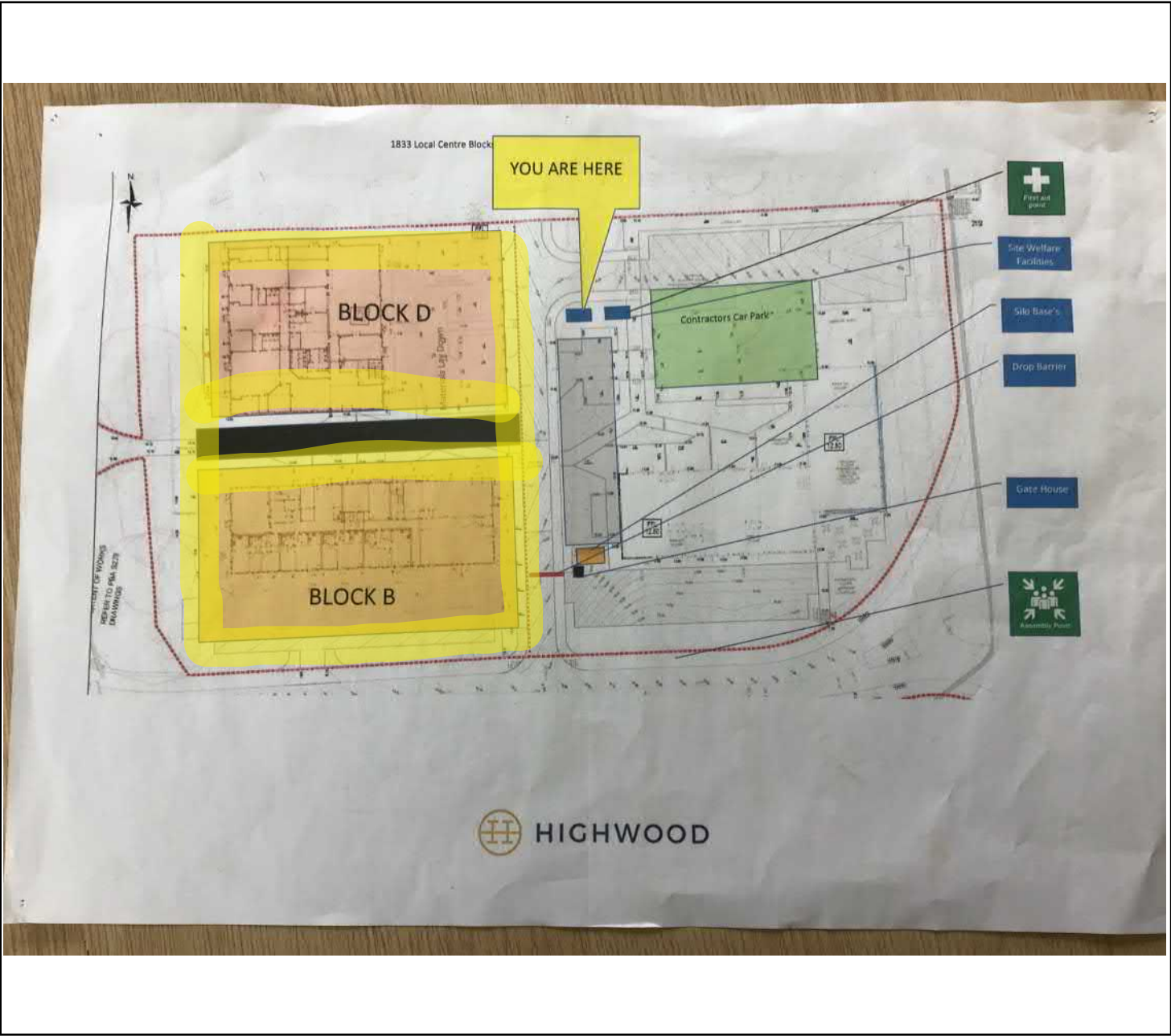
ACCOMPANIED J Woods



GEOSHIELD Verification Report



VERIFICATION LAYOUT



Area Inspected Highlighted Above.

GEOSHIELD Verification Report

OVERVIEW PHOTOGRAPHS



Overview of Area that has been Installed

Block B

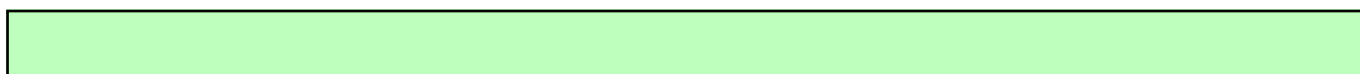
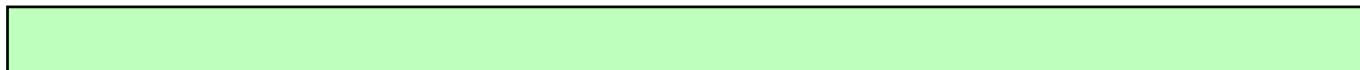


GEOSHIELD Verification Report



OVERVIEW PHOTOGRAPHS

Click to set image



GEOSHIELD Verification Report

BGA
BRITISH GEOTECHNICAL ASSOCIATION



VERIFICATION ITEM ONE

LOCATION/GRID LINE: Blocks B /D

NOTES: Upstand detailing

These two photos are close ups showing the upstand detailing

The left photo is showing the external corners

The right hand photo is showing an internal corner

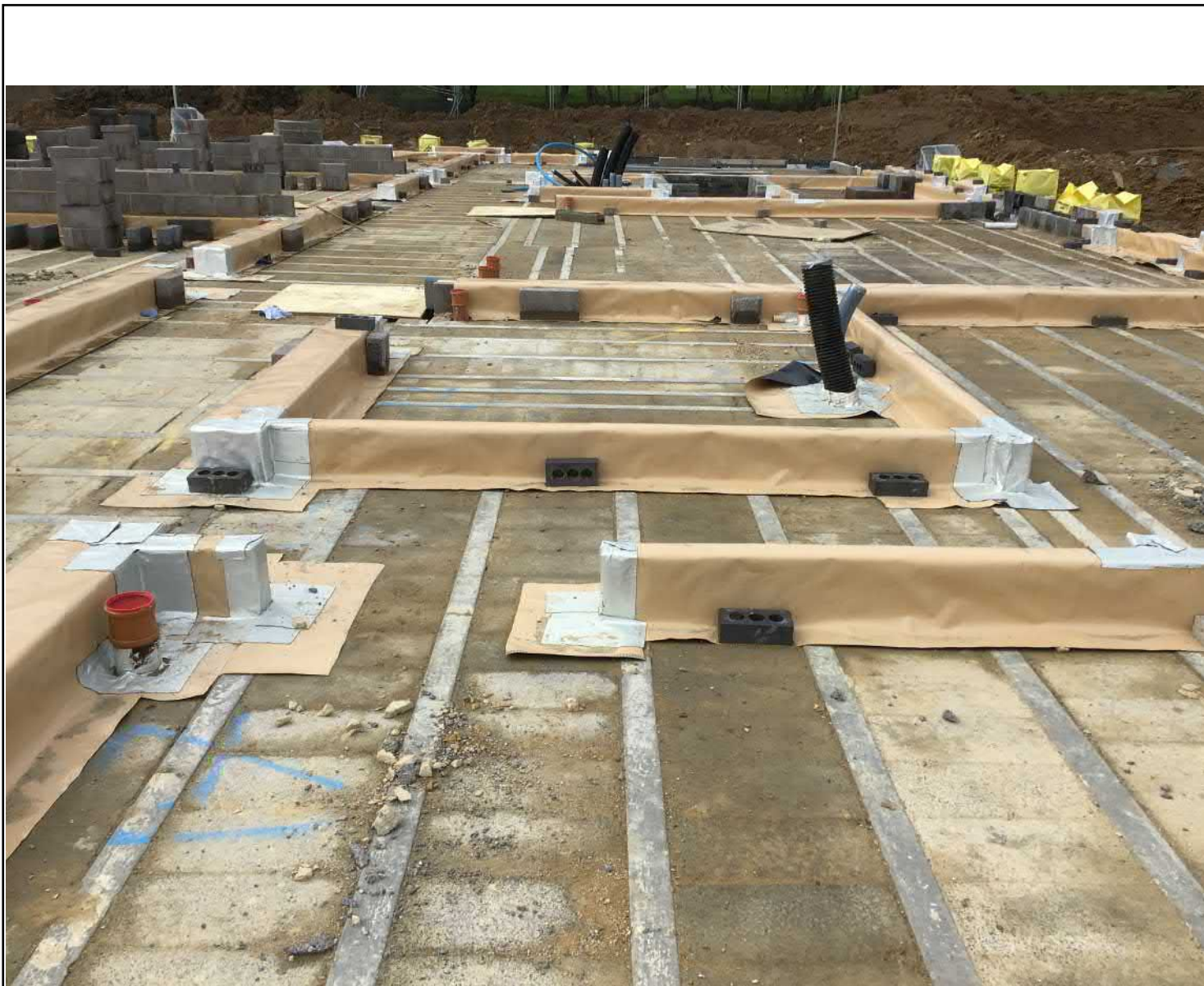


These have been very well sealed using detailing tape which has been heated

and rolled to remove air bubbles and aid adherence to the membrane

GEOSHIELD Verification Report

VERIFICATION ITEM ONE



This photo is a larger overview showing more of the membrane installation

Both the perimeter walls and internal walls have been extremely well sealed

Visually inspected and pick and probe tested



GEOSHIELD Verification Report



VERIFICATION ITEM TWO

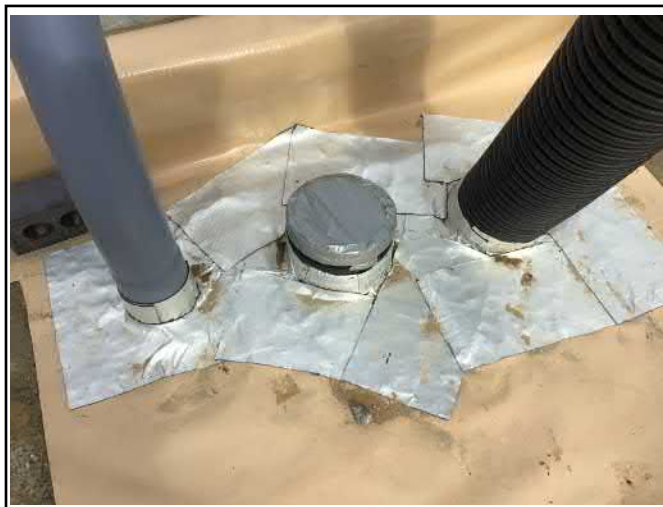
LOCATION/GRID LINE: Blocks B/D

NOTES: Pipe penetrations

These two photos are close ups showing the pipe penetrations

These have once again been very well sealed to the membrane using

detailing tape, heated and rolled to remove air bubbles and aid adherence



All the pipe penetrations have been visually inspected and pick and
probe tested

This is a very good standard of installation and finishing

GEOSHIELD Verification Report

VERIFICATION ITEM TWO



This photo is a larger overview showing more of the pipe penetrations

Again very well sealed using detailing tape

Visually inspected and pick and probe tested

GEOSHIELD Verification Report

VERIFICATION ITEM THREE



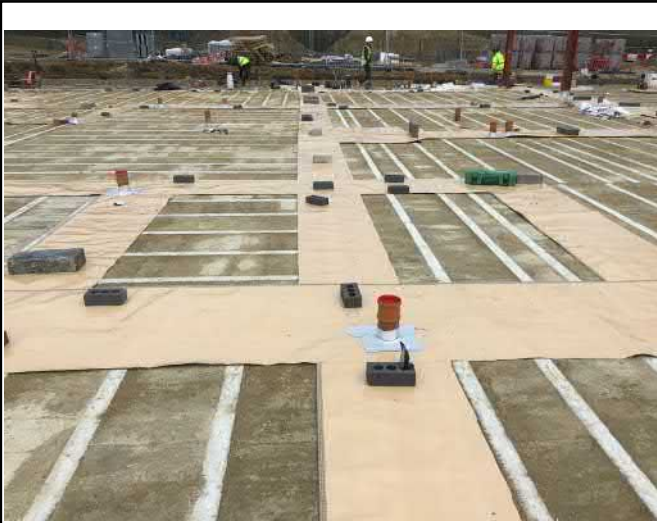
Perimeter membrane installation

This photo is a larger overview showing more of the membrane installation

The membrane has been installed across the cavity

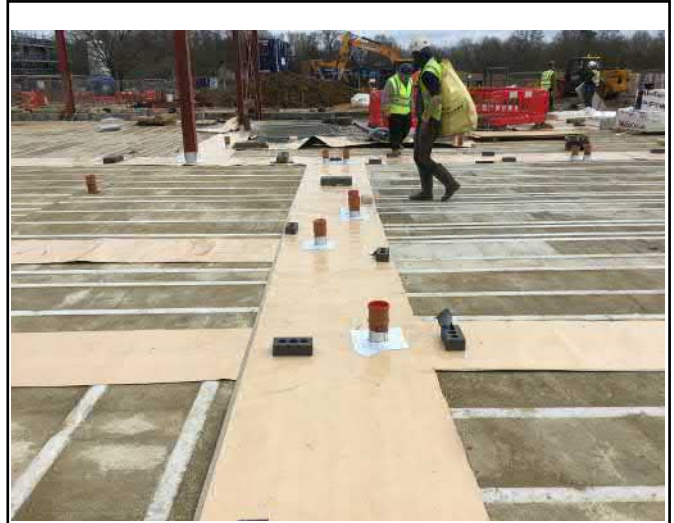
GEOSHIELD Verification Report

ADDITIONAL PHOTOGRAPHS



Membrane installation

ahead of the internal walls



Alternative overview of the membrane

Installation



Detailing around the

Steel columns



More of the steel

columns





GEOSHIELD Verification Report



VERIFICATION SUMMARY

This was the first visit to this site

I was escorted by the site manager (J Woods)

The reason for this visit is to inspect the perimeter membrane installation

of both blocks B /D

The standard of installation work was extremely good

All pipe penetrations have been very well sealed

All the welded joints are finished well

Gas membrane to specification BS8485 2015

Installed to CIRIA 735

All the work has been installed to the manufacturers spec

APPENDIX X
V10 – SUPPORTING EVIDENCE

M.A.C CONTRACTING LTD

BULK EXCAVATION & RECYCLING

M.A.C

- Specialists in Muck Away
- Tipper Haulage and Plant Hire
- Suppliers of Road Planings
- Hardcore & Recycled Aggregates

M.A.C. Contracting Ltd.
Somborne Chalk Quarry, Kings Somborne,
Stockbridge SO20 6QR

Tel: 02476 641 771

Email: info@maccontracting.co.uk

Mobile: 07968 499 124

Waste Carrier Licence: CB/DU82366

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by regulation 12 of the Waste (England and Wales) Regulations 2011

www.maccontracting.co.uk

Required by Schedule 5 Part 2 of the Weights and Measures Act 1963. Subject to Conditions of Sale (available on request)

Name of Buyer				Conveyance and Transfer No. 30916			
CARCTON C-L SITE (Address of Place of Loading) Stoneham Eastlish				Date 6-4-21 Driver DAVE Registration No. XH62MAE TIP (Address of Place of Delivery) Haver Warren			
Site Signature DEAN COUSIN				Signature of Acceptance			
Print Name:				Print Name:			
Volume Carried			Description of Material Carried		Tick	EWG Code	SIC Code
8w	Grab	No. of Loads	Hardcore			170107	43.12
1		1	Soil & Stone			170504	43.12
			Planings			170302	42.11
			Other (specify) CCAY				
LOAD DETAILS				DAYWORK DETAILS			
Gross Weight				Travelling Time			
Tare Weight				Time On Site 750			
Net Weight				Time Off Site 815			
				Total Time			
				Site Signature			

M.A.C CONTRACTING LTD

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Tel: 02476 641 771

Email: info@maccontracting.co.uk

Mobile: 07968 499 124

Waste Carrier Licence: CB/DU82366

I confirm that I have fulfilled my duty to apply the waste heirarchy as required by regulation 12 of the Waste (England and Wales) Regulations 2011

www.maccontracting.co.uk

Required by Schedule 5 Part 2 of the Weights and Measures Act 1963. Subject to Conditions of Sale (available on request)

Name of Buyer

Carlton C.E

SITE (Address of Place of Loading)

Stoneham

Site Signature

Print Name:

D. CURBIN

Conveyance and
Transfer No.

25692

Date

6/4/21

Driver

Quentin

Registration No.

FF65MAC

TIP (Address of Place of Delivery)

Hammer Warren
Verwood

Signature of Acceptance

Print Name:

Volume Carried

Description of Material Carried

Tick

EWG Code

SIC Code

8w

Grab

No. of Loads

Hardcore

170107

43.12

Soil & Stone

170504

43.12

Planings

170302

42.11

Other (specify)

M/A Clay

✓

LOAD DETAILS

DAYWORK DETAILS

Gross Weight

Travelling Time

Time On Site

8.37

Tare Weight

Time Off Site

Total Time

Net Weight

Site Signature