



GEOSHIELD

Verification Report



PROJECT REFERENCE:

GEO103260

REPORT NUMBER:

017

PROJECT:

Riverside Academy

PROJECT ADDRESS:

Riverside Academy

Reading,

RG1 8EQ

MEMBRANE SPECIFICATION:

Verified in accordance with CIRIA 735.

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

Substrate prepared in accordance with manufacturers instructions and BS8485

Juta GP1

Juta GP SAM

Juta Titan Flex (Basal layer membrane)

Juta Titan Tank (Basal layer membrane)



GeoShield Verification Report



INFORMATION INCLUDED

GG52686 River Academy, Reading GGVRA Final

FS0949-ASO-XX-XX-RP-Y-0005 Remediation Strategy S3 P02

FS0949-HEX-01-FN-DR-S-1601-FOUNDATION LAYOUT_P07

SWC_RVS-Det_Version A (6 pages)

JUTA Material Specification Technical Data Sheets

Radon Maps UK - (Map 1) Site Location & (Map 2) Nearby Location

Information presented to at the pre-verification stage assumed correct

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



GeoShield Verification Report



CLIENT DETAILS

CLIENT CONTACT:	James Hay
CONTACTS ROLE:	Commercial Director
MOBILE PHONE:	07507 560 728
EMAIL ADDRESS:	jameshay@swcontracts.co.uk

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



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VERIFICATION OFFICER: Kavanagh Palmer-Fletcher

VERIFICATION COMPANY: GeoShield Limited

Icon Business Park, 4100 Park Approach

Thorpe Park, LEEDS

West Yorkshire

LS15 8GB

CONTACT NUMBER: 07470012812

EMAIL ADDRESS: Kpalmer-fletcher@geoshield.co.uk

ORDER NUMBER:

PER VISIT: YES:

☐

NO:



PROJECT: YES:



NO:

☐



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APPLICATION TEAM LEADERS

APPLICATOR NAME: Baz Carey

COMPANY: SWC

APPLICATOR TEL:

APPLICATOR EMAIL:

APPLICATOR NAME: Robin

COMPANY: SWC

APPLICATOR TEL:

APPLICATOR EMAIL:

NOTES: The installers from SWC are specialists in the installation of ground gas

NOTES: and waterproofing systems. They hold NVQ level 2 qualifications in the

NOTES: installation of gas membranes and weld all lap joints, which is required

NOTES: for this project.



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APPLICATION TEAM LEADERS

Ground gas monitoring probes.

APPLICATOR NAME: Ben

COMPANY: Prestige Air.

APPLICATOR TEL:

APPLICATOR EMAIL:

APPLICATOR NAME:

COMPANY:

APPLICATOR TEL:

APPLICATOR EMAIL:

NOTES: The installers from Prestige Air are specialists in the installation of ground

NOTES: gas protection systems. They hold NVQ level 2 qualifications in the

NOTES: installation of gas membranes and further qualifications in the installation

NOTES: of ground gas monitors, clean air blanket systems and an array of others.



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AREA SURVEYED: East Block Above Basal Layer Probes 6,7 and 8.

SITE CONDITIONS:

WEATHER: Cloudy

TEMPERATURE: 13c

MEMBRANE TEMPERATURE: N/a

RELATIVE HUMIDITY: N/a

TIME: 12:00-13:00

REPORT NUMBER: 017

DATE: 17/04/2023.

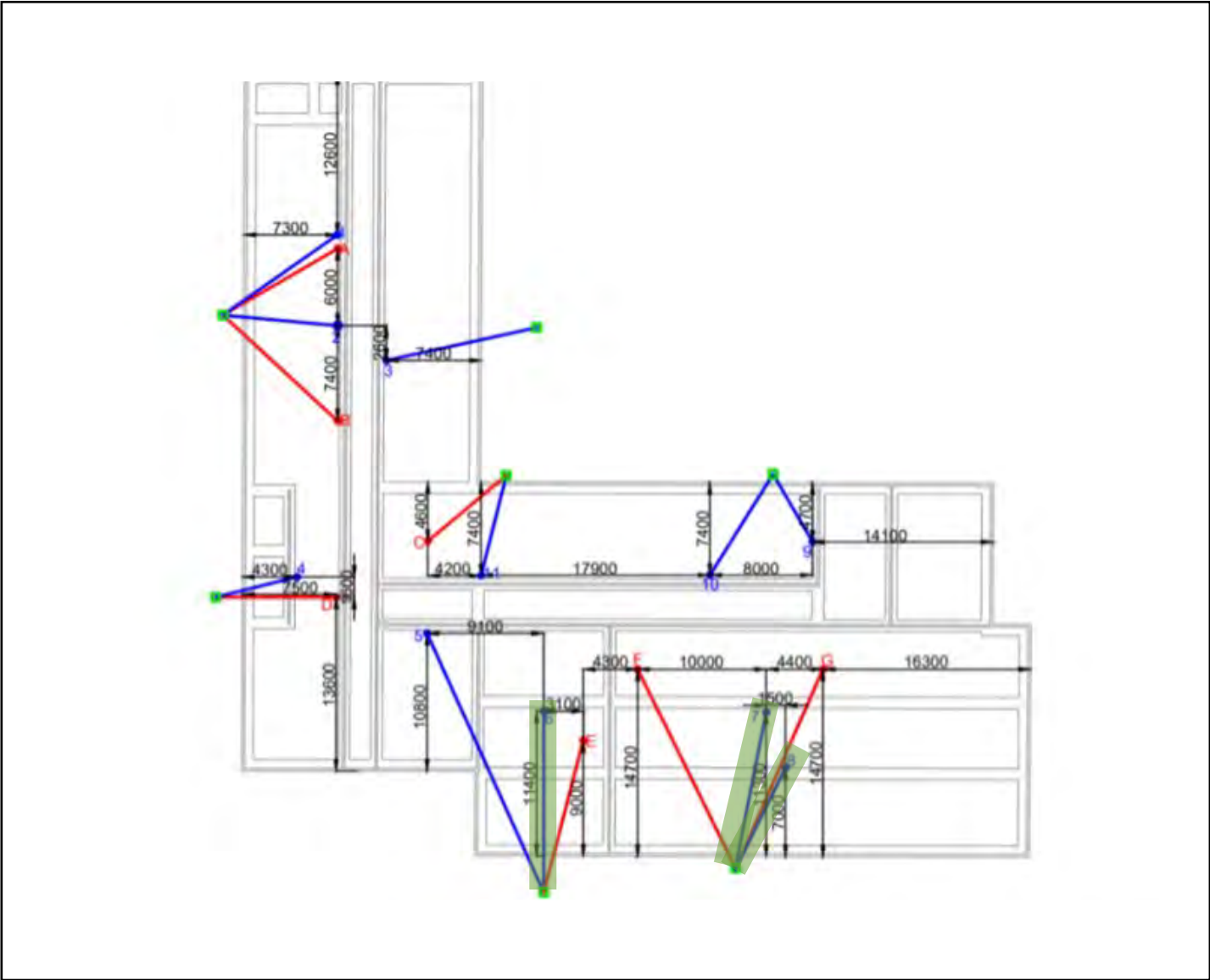
ACCOMPANIED Nigel - Fenton Group



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VERIFICATION LAYOUT



The above photograph displays a layout plan of East Block.

The above basal layer probes highlighted green above were verified during this visit.

East Block Above Basal Layer Probes 6,7 and 8.



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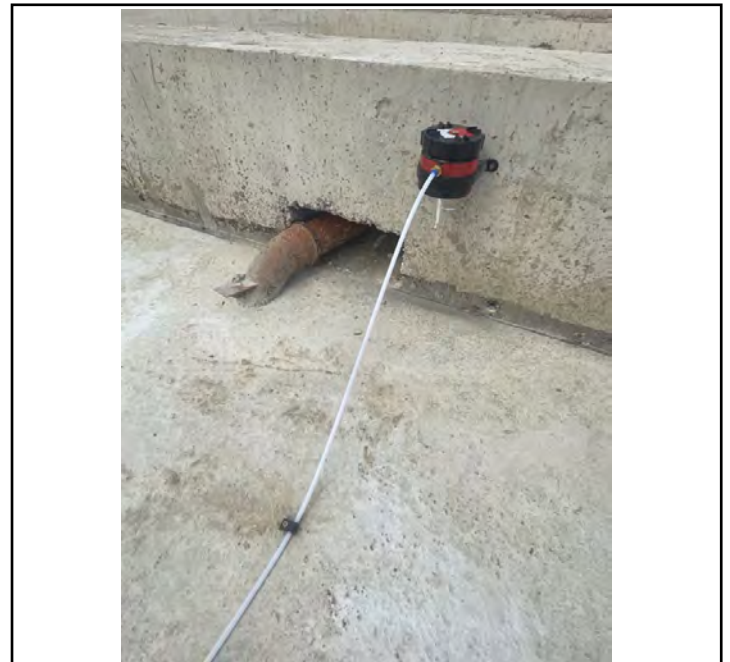
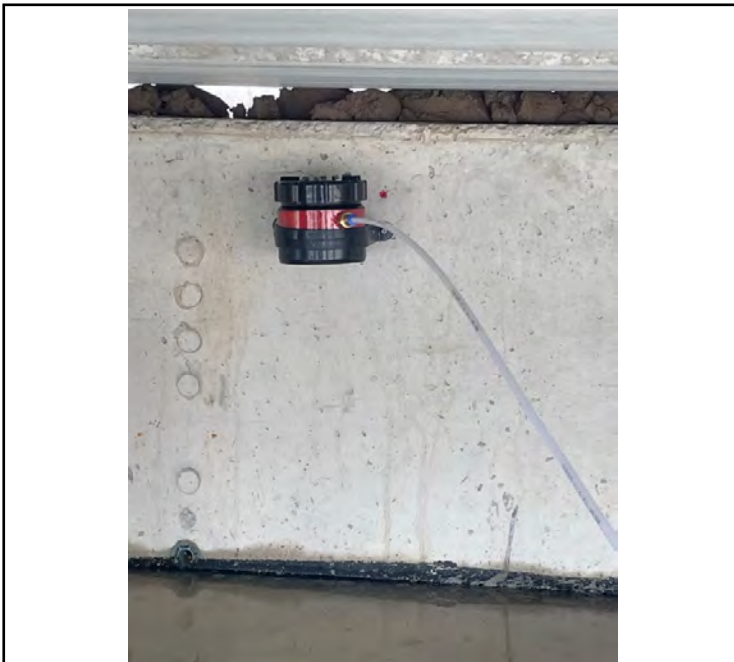


VERIFICATION ITEM ONE

LOCATION/GRID LINE: East Block Above Basal Layer Probes 6,7 and 8.

NOTES: Installation-

The remaining above nasal layer probes within the east block have now been successfully installed by the specialists Prestige Air. All monitoring probes have been installed as per Geoshields mark up. However, the probe pipe routes have differed due to obstructions.



The above photographs display the ground gas monitoring probes securely fixed upon the concrete walls.



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VERIFICATION ITEM TWO

LOCATION/GRID LINE: East Block Above Basal Layer Probes 6,7 and 8.

NOTES: Probe pipe routes-

As mentioned above the probe pipe routes have been altered due to obstruction within the structure and jetting voids. This will not affect the ground gas monitoring procedures

The photographs below displays some of the probe pipe routes.



The probe pipe has been lined and installed as horizontally as possible, it has been lightly fixed upon the concrete blinding to reduce movements throughout the development. No sharp angles within the probe pipe routes were present.

A gradual gradient to each probe monitoring point was present eliminating any areas potentially creasing causing disruption during the post monitoring procedures.

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BGA
British Gas Association



VERIFICATION ITEM THREE



The probe pipe has been returned immediately through hard PVC pipe work

vertically up against the concrete perimeter walls in which the ground gas monitoring

works will be carried out on future visits.

Evidence of this shown above.



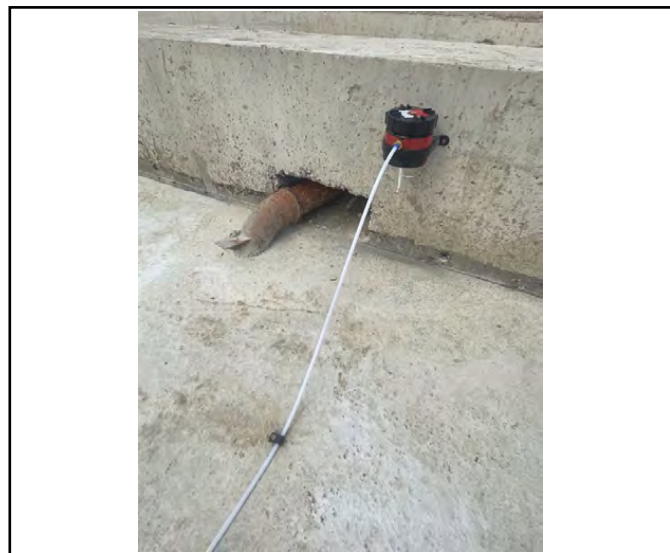
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ADDITIONAL PHOTOGRAPHS



Probe pipe individually tagged.



Probe pipe and monitor installation.



Ground gas monitor fixed.



Ground gas monitor fixed.



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REMEDIATION LOG

Date	Nr	Remediation Description	Y/N
27/01/2023	001	Probe 1 6.5 metres from centre & probe 2 5.8 metres from centre.	✓
		- The above has been confirmed it doesn't affect the ground gas	✓
		monitoring. However, centres are now to be followed as per design.	✓
06/02/2023	002	Six miswelded lap joints identified. Remediated on-site.	✓
15/02/2023	003	Six miswelded lap joints identified. Remediated on-site.	✓
17/02/2023	004	Membrane to be repaired and verified where basal layer probe 3	✓
		has been installed.	✓
22/02/2023	005	Zone B & C Above Basal Layer 3	✓
		Below Basal probe 4 needs membrane re installed.	✓
28/02/2023	006	No faults identified	✓
01/03/2023	007	Probes 4,8 & 9 ABL / Probes 5 & 6 BBL	✓
03/03/2023	008	Block B, D & E and Extension to Probe 5 BBL.	✓
08/03/2023	009	Block B, D & E.	✓
10/03/2023	010	No faults or defects were identified.	✓
23/03/2023	011	Inconsistent seal around retrofit detailing see locations above.	✓



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GAS MEMBRANE TESTING

VISUAL: YES ☒ NO ☐ SMOKE TEST: YES ☐ NO ☒

COMPRESSED AIR: YES ☒ NO ☐ DILECTIC YES ☐ NO ☒

DESTRUCTIVE: YES ☐ NO ☒ OTHER: YES ☐ NO ☒

Testing checklist attached: YES ☐ NO ☐

Gridline/Plot Sign off

Gridline/Plot Sign off	Zone A - Below Basal Layer - Probes 1 and 2.	☒
Gridline/Plot Sign off	Membrane Basal Layer. GL's; C-D/1-10, A-B/1-2 & B-C/1-6.	☒
Gridline/Plot Sign off	Membrane Basal Layer. GL's; C-D/10-11, C-D 12-14, A-B/5-13	☒
Gridline/Plot Sign off	B-C/6-13 & C-H/12-12.5	☒
Gridline/Plot Sign off	Below Basal Layer - Probe 3	☒
Gridline/Plot Sign off	Above Basal Layer - Probes 1 & 2.	☒
Gridline/Plot Sign off	Zone B & C / Below Basel 4 and Above Basel 3.	☒
Gridline/Plot Sign off	Zone C & D	☒
Gridline/Plot Sign off	Probes 4,8 & 9 ABL / Probes 5 & 6 BBL	☒
Gridline/Plot Sign off	Block B, D & E and Extension to Probe 5 BBL.	☒
Gridline/Plot Sign off	Block B, D & E.	☒
Gridline/Plot Sign off	Membrane Basal Layer membrane - Gridlines; L-N/13-14	☒



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GAS MEMBRANE TESTING

VISUAL:	☐ YES	☒	☐ NO	☐	SMOKE TEST:	☐ YES	☐	☐ NO	☒
COMPRESSED AIR:	☐ YES	☐	☐ NO	☒	DILECTIC	☐ YES	☐	☐ NO	☒
DESTRUCTIVE:	☐ YES	☐	☐ NO	☒	OTHER:	☐ YES	☒	☐ NO	☐
Testing checklist attached:	☐ YES	☐	☐ NO	☐					

Gridline/Plot Sign off

Gridline/Plot Sign off	Below Basal Layer Probe - 7.	☒
Gridline/Plot Sign off	East Block Basal Layer- GLs Q-Q.5/10-12 & Q-R/12-13	☒
Gridline/Plot Sign off	East Block Below Basal Layer Probe 3&4	☒
Gridline/Plot Sign off	East Block Basal Layer Membrane - GLs A-T/10-11	☒
Gridline/Plot Sign off	East Block Basal Layer Membrane - GLs Q-T/1-13	☒
Gridline/Plot Sign off	East Block Basal Layer Membrane - GLs S-T/12-13	☒
Gridline/Plot Sign off	East Block Below Basal Layer Probes 5,6 and 7	☒
Gridline/Plot Sign off	East Block Basal Layer Membrane -GLs T-W/12-13	☒
Gridline/Plot Sign off	East Block Basal Layer Membrane - GLs S-AA/11-12	☒
Gridline/Plot Sign off	East Block Above Basal Layer Probes 1,2 and 3.	☒
Gridline/Plot Sign off	East Block Basal Layer -GLs: 10-12/BB-EE	☒
Gridline/Plot Sign off	East Block Basal Layer Membrane -GLs: 12/Z-EE	☒



Gridline/Plot Sign off



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VERIFICATION SUMMARY

Today's visit to Riverside Academy, Reading was the seventeenth verification visit required for the installation of the remaining Probes 6,7 and 8 within the east block above basal layer. All probes and ground gas monitors have been successfully installed to the centres on Geoshields design. However, the probe pipe routes have altered due to obstruction and jetting voids. This will not affect the ground gas monitoring procedures. No sharp/aggressive angles are present within the probe pipe installation. All ground gas monitors have been suitably fixed upon the concrete walls within the void. All probe pipe has been returned encapsulated immediately vertically external to the building at the monitoring point.

Verified in accordance with CIRIA 735

GEOSHIELD SIGNATURE:

DATE: 17/04/2023