



GeoShield Verification Report 4



PROJECT REFERENCE:

GEO105396

PROJECT ADDRESS:

R4 Civils,
Barlestone,
Barton Road,
Osbaston
Nuneaton,
CV13 0EU

SPECIFICATION:

Verified in accordance with CIRIA 735.

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

Substrate prepared in accordance with
manufacturer's instructions.

MATERIAL SPECIFICATION:

JUTA GP1 Gas Barrier
JUTA GP1 SAM



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NAME OF SURVEYOR:

Lee Adams

VERIFICATION COMPANY:

GeoShield Limited

COMPANY ADDRESS:

Icon Business Centre

4100 Park Approach, Thorpe Park

Leeds

LS15 8GB

CONTACT NUMBER:

07795 994117

EMAIL ADDRESS:

leeadams@geoshield.co.uk



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CLIENT DETAILS

CLIENT CONTACT:	Ricky Cooper
CONTACTS ROLE:	Director - Omega Lining Solutions Ltd
MOBILE PHONE:	07817634284
EMAIL ADDRESS:	ricky.c@omega-ls.co.uk



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



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APPLICATOR'S DETAILS

APPLICATOR NAME: Dom Lombari

COMPANY: Omega Lining Solutions Ltd

APPLICATOR TEL: 07377 406097

APPLICATOR EMAIL:

APPLICATOR NAME:

COMPANY: Omega Lining Solutions Ltd

APPLICATOR TEL:

APPLICATOR EMAIL:

NOTES:

At least one member of each team group will have a NVQ Level 2 qualification in gas membrane installation.

All installers are deemed competent and skilled to complete the installation of gas membranes.



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INSPECTION AREA(S)

Plots 26, 27, 28, 29, 30, 31, 32, 33 & 34 - Full Line Out

SITE CONDITIONS

WEATHER:

Rain

TEMPERATURE:

18°C

TIME:

12:30 - 14:00

DATE:

15.07.2025

REPORT NUMBER:

004

ACCOMPANIED BY:

VERIFICATION LAYOUT



The photograph above shows a plan layout of the site. The area highlighted in blue shows Plots 26, 27, 28, 29, 30, 31, 32, 33 & 34 where the verification inspection took place on site today.

VERIFICATION INSPECTION INFORMATION



The image above provides details of today's verification inspection visit to site, including the gas membrane(s) used for the installation.

OVERVIEW



The photograph above displays an overview of Plots 26 & 27 where today's verification inspection took place on site.

OVERVIEW



The photograph above displays an overview of Plots 28 & 29 where today's verification inspection took place on site.

OVERVIEW



The photograph above displays an overview of Plots 30, 31 & 32 where today's verification inspection took place on site.

OVERVIEW



The photograph above displays an overview of Plots 33 & 34 where today's verification inspection took place on site.

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VERIFICATION ITEM ONE

LOCATION/GRID LINE: Plots 26, 27, 28, 29, 30, 31, 32, 33 & 34 - Full Line Out

Installation of JUTA GP1 Gas Barrier - Lap Joints



NOTES:

A complete line out of the JUTA GP1 Gas Barrier has been installed across the footprint of Plots 26, 27, 28, 29, 30, 31, 32, 33 & 34, upon an insulated block and beam ventilated sub floor void. The JUTA GP1 Gas Barrier has been lined out across the entirety of the plots, including the internal party walls, ensuring it overlaps



NOTES:

the external cavity to the outer leaf brickwork. All lap joints between the adjacent sheets of JUTA GP1 Gas Barrier have been overlapped a sufficient amount, and heat welded using a hot air leister and silicone roller with adequate pressure applied to ensure a continuous gas resistant seal is achieved.

VERIFICATION ITEM ONE



The above photograph displays a non destructive air lance integrity test being conducted upon a welded lap joint of the JUTA GP1 Gas Barrier. Thorough visual inspections, supported by non destructive air lance integrity testing and mechanical point stress testing conducted upon all overlaps, identified three miswelded lap joints. Tested and verified in accordance with CIRIA 735.



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REMEDIATIONS

Miswelds Identified & Remediated



As mentioned, three miswelds were identified during the testing procedures conducted today.

The miswelds were brought to the attention of the installers and remediated during the verification visit in the presence of GeoShield.



The specialist installers from Omega Lining Solutions opted to remediate the faults by applying a 150mm patch of JUTA GP SAM over the affected area, with heat and rolled pressure applied to ensure a secure bond was achieved. No further faults were identified during the re-testing of the remedial works.

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VERIFICATION ITEM TWO

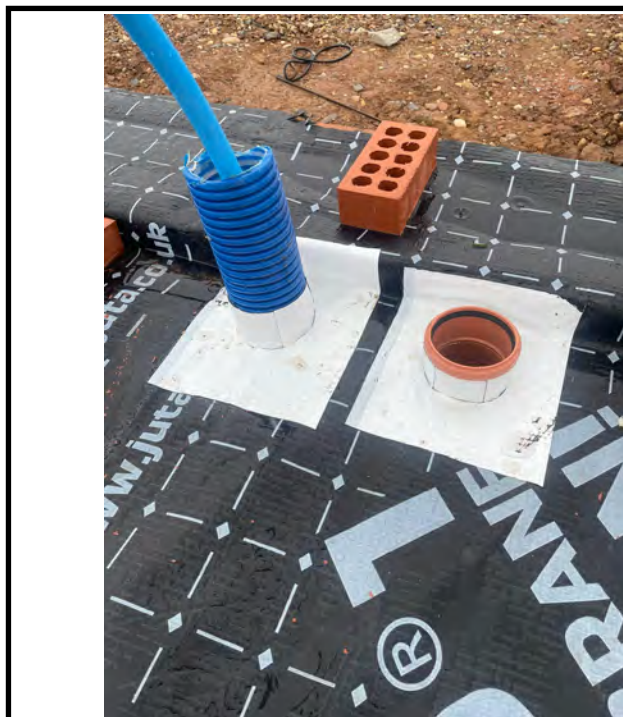
LOCATION/GRID LINE: Plots 26, 27, 28, 29, 30, 31, 32, 33 & 34 - Full Line Out

Pipe Penetrations



NOTES:

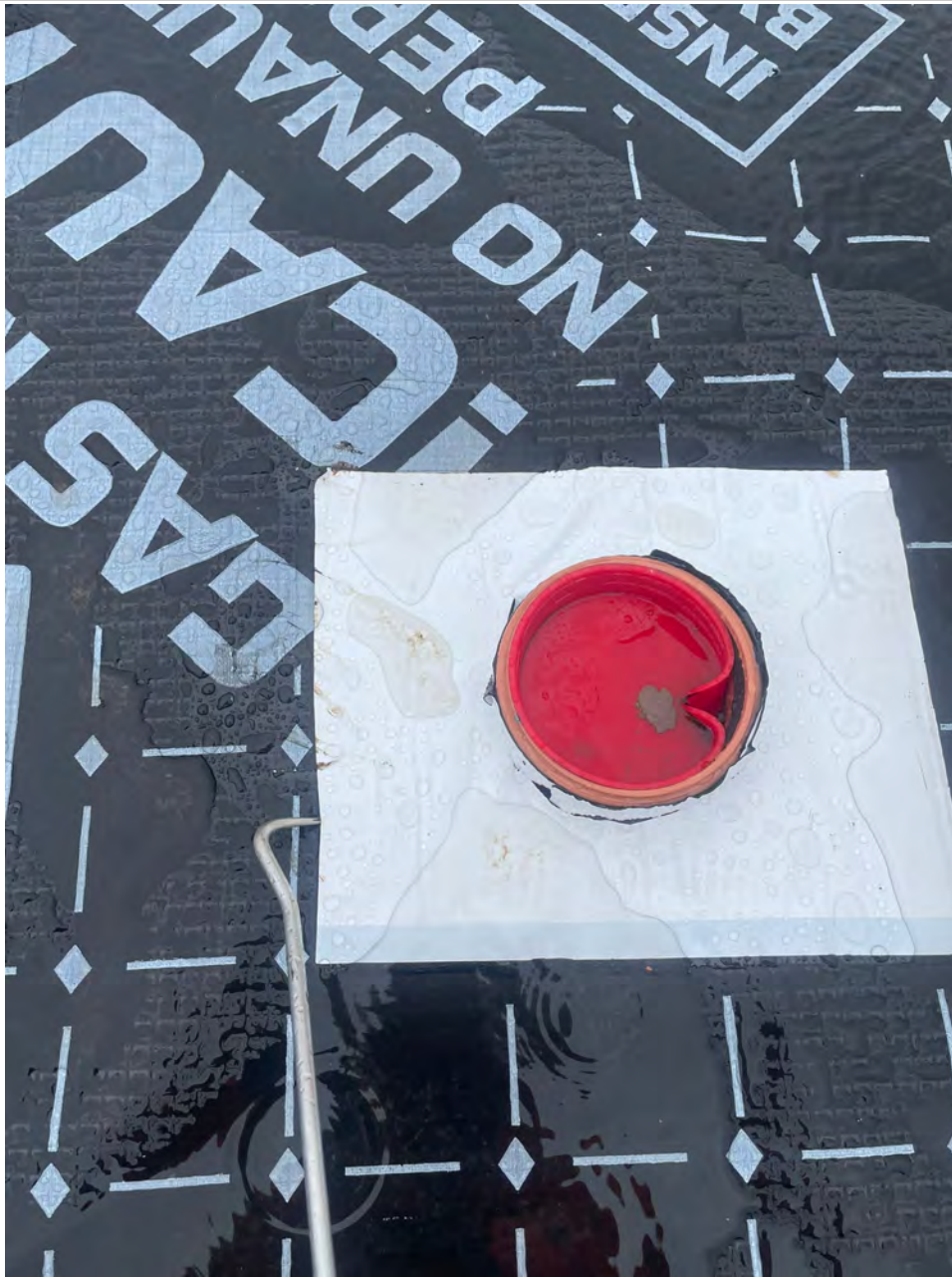
Throughout the complete line out installation of the JUTA GP1 Gas Barrier to the referenced plots, there were a number of pipe penetrations that have been sealed in accordance with manufacturer's specifications and design guidelines. This has been achieved using JUTA GP SAM, which is a gas resistant self adhesive



NOTES:

membrane. The installers have first cut the JUTA GP1 Gas Barrier tight around the base of each pipe penetration to minimise voided areas. Next, patches of JUTA GP SAM are placed intricately in a petal formation around the pipe penetration and onto the JUTA GP1 Gas Barrier, with a 300mm square of JUTA GP SAM placed

VERIFICATION ITEM TWO



over the top to form a top hat detail. Heat and rolled pressure are applied to activate the bitumen backing, creating a secure bond between the pipe penetration and the JUTA GP1 Gas Barrier. All pipe penetrations throughout the referenced plots were subjected to thorough visual inspection and mechanical point stress testing, where a probe was run along all edges of the JUTA GP SAM detailing. No faults were identified.

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VERIFICATION ITEM THREE

LOCATION/GRID LINE: Plots 26, 27, 28, 29, 30, 31, 32, 33 & 34 - Full Line Out

Corner & Threshold Detailing



NOTES:

A number of corners and thresholds throughout the referenced plots have also been sealed as per manufacturer's specifications and design guidelines. This has been achieved using JUTA GP SAM. Where the JUTA GP1 Gas Barrier has been cut to minimise voided areas and gaps across the footprint of the plots, each



NOTES:

corner and threshold junction has been reinforced by heating strips of JUTA GP SAM and placing into position around each corner and threshold, onto the JUTA GP1 Gas Barrier. Firm rolled pressure is applied with a silicone roller to aid in the adhesion, ensuring the JUTA GP SAM has fully bonded.

VERIFICATION ITEM THREE



As with the pipe penetrations, a probe was run along all edges of the JUTA GP SAM within the corner & threshold detailing to validate that a continuous gas resistant seal had been achieved throughout. No faults or defects were identified with the corners and thresholds during the testing procedures.

Tested and verified in accordance with CIRIA 735.

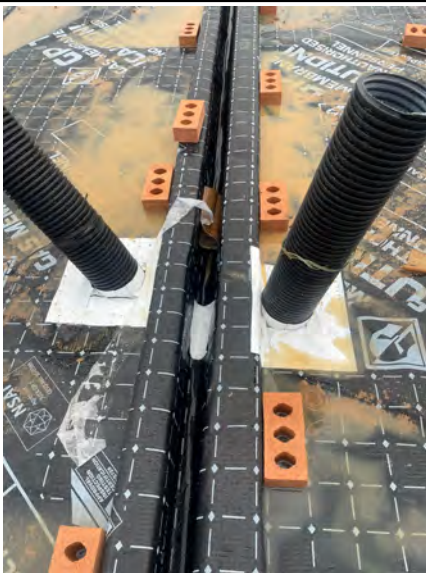
ADDITIONAL PHOTOGRAPHS



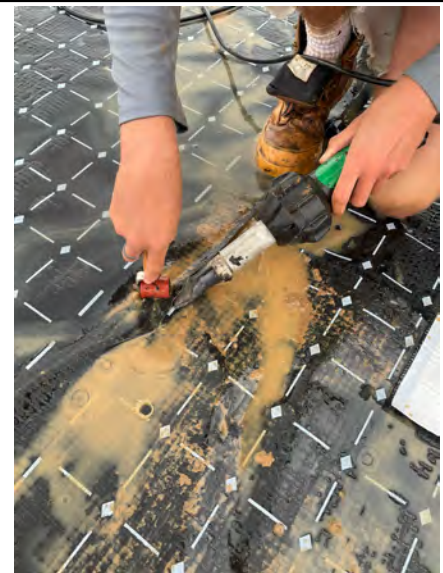
A misweld identified.



A mechanical point stress test being conducted upon a misweld remediated using a patch of JUTA GP SAM.



The JUTA GP1 Gas Barrier crosses the internal cavity to ensure continuity throughout.



The installer heat welding an overlap between the adjacent sheets of JUTA GP1 Gas Barrier.

AIR LANCE INTEGRITY TESTING

Air Lance Integrity Testing - ASTM D4437-08:2013. This inspects all seams for unbonded areas using a 4.8mm air nozzle held a minimum of 51mm away. 50 PSI is the minimum requirement. The air nozzle is directed on the upper edge seam, ripples indicate an unbonded seam. Each fault identified is highlighted for remediation to take place.



Air lance test on a welded lap.



Air lance test on a welded lap.



Air lance test on a welded lap.



Air lance test on a welded lap.



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REMEDIATION LOG

[illegible]



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VERIFICATION SUMMARY

This was the fourth visit to the site where verification was required for the complete line out installation of the JUTA GP1 Gas Barrier to Plots 26, 27, 28, 29, 30, 31, 32, 33 & 34, carried out by Omega Lining Solutions.

All overlaps between the adjacent sheets of JUTA GP1 Gas Barrier have been welded using a hot air leister and silicone roller, creating continuous gas resistant seals throughout.

All details throughout the installation, such as pipe penetrations, thresholds and corners have been sealed using JUTA GP SAM, a self adhesive membrane which has been heated down to aid in the adherence.

Thorough visual inspections, supported by mechanical point stress testing and non destructive air lance integrity testing conducted across all aspects of the installation identified two miswelded lap joints. The miswelds were successfully remediated during the visit in the presence of GeoShield.

The installation has been conducted to a good NVQ Level 2 standard and in accordance with manufacturer's specifications.

Is the project ready for handover?	No
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This was passed and verified in accordance with CIRIA 735 and installed to BS8485:2015+A1 2019.

GEOSHIELD SIGNATURE

DATE:	15-Jul-2025
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