APPENDIX G - OFF-SITE UTILITY BUDGET QUOTE

Registered Office
Newington House
237 Southwark Bridge Road
London SE1 6NP

Company:
UK Power Networks
(Operations) Limited

Registered in England and Wales No: 3870728

Kiel Jordaan
Utilitas Associates Limited
Elm House
Shackleford Road
Elstead, Godalming
Surrey
GU8 6LB

Date: 26 July 2021

Our Ref: 8500184224 / QID 3000034879

Dear Mr. Jordaan,

Site Address: Aberfeldy, Abbott Road, London, E14 0NE

Thank you for your recent enquiry regarding the above premises. I am writing to you on behalf of London Power Networks plc the licensed distributor of electricity for the above address trading as UK Power Networks.

I am pleased to be able to provide you with a budget estimate for the work.

It is important to note that this budget estimate is intended as a guide only. It may have been prepared without carrying out a site visit or system studies. No enquiry has been made as to the availability of consents or the existence of any ground conditions that may affect the ground works. It is not an offer to provide the connection and nor does it reserve any capacity on UK Power Networks electricity distribution system.

Budget estimate:

The budget estimation for this work is a proposal for providing 6806.3kVA supply to the above site for developments. Customer requested for BNO services on site.

Description: Supply of 6.8MVA by EHV

The Budget solution to provide 6.8MVA supply at the above site is **£13,635,000.00 (exclusive of VAT)**, if the Point of Connection (PoC) is at our Bow GIS 132kV and on feeder breakers 03 and 11.

The above budget estimate is based on the following works:

1) Installation of 2x 30MVA 132/11kV transformers on customer premises.
2) Installation of 5x panel 11kV switchboard to consist of 2x incomer CBs, 1x Bus section and 2x outgoing feeder breakers.
3) Installation of 2x 2.75km of 300mm^2 132kV Al XLPE circuits to customers premises.
4) Establish 7x 1.0MVA 11KV/LV package substations and 7x 1600A ACB services at customer site (For the BNO connections)
5) Installation of circa 1km of 11kV circuit (300mm^2 Al Triplex)
6) Undertake lease for the substations
7) Undertake 11kV final joints

Please note the following:

- Provision of an 11kV connection point: - This option is rejected due to capacity constraints on the 11kV network and the level of reinforcement required for accommodating the generation to the above site.

- The circuits would be laid to a new substation for which the customer would need to provide space. The Cost of the transformers and circuits would be cost apportioned at 20% if UKPN would have shared use of this site.

- The dimension of the primary substation are Bespoke designed, hence it will be looked at in details at the formal quotation. The design is based on what is needed. All transformers are located outdoor within a fenced wall and the 11KV board and Telecom control chambers are installed indoors.

- As it is a budget referral, capacity has not been reserved and the provided solution might change for the formal application at that point of time.

Assumptions

This budget estimate is based on the following assumptions:

- The most appropriate Point of Connection (POC) is as described above.
- A viable cable or overhead line route exists along the route we have assumed between the Point of Connection (POC) and your site.
- In cases where the Point of Connection (POC) is to be at High Voltage, that a substation can be located on your premises at or close to the position we have assumed.

- Where electric lines are to be installed in private land UK Power Networks will require an easement in perpetuity for its electric lines and in the case of electrical plant the freehold interest in the substation site, on UK Power Networks terms, without charge and before any work commences.

- You will carry out, at no charge to UK Power Networks, all the civil works within the site boundary, including substation bases, substation buildings where applicable and the excavation/reinstatement of cable trenches.

- Unless stated in your application, all loads are assumed to be of a resistive nature. Should you intend to install equipment that may cause disturbances on UK Power Networks' electricity distribution system (e.g. motors; welders; etc.) this may affect the estimate considerably.

- All UK Power Networks' work is to be carried out as a continuous programme of work that can be completed substantially within 12 months from the acceptance of the formal offer.

Please note that if any of the assumptions prove to be incorrect, this may have a significant impact on the price in any subsequent quotation. You should note also that UK Power Networks' formal connection offer may vary considerably from the budget estimate. If you place reliance upon the budget estimate for budgeting or other planning purposes, you do so at your own risk.

Post estimate call

I will contact you within the next few days to discuss your estimate, to ensure you understand the work we will do for the estimated price, your responsibilities, any dependencies and the likely timescales for the work. UK Power Networks are always looking to improve our service offering and as such, the post estimate call may be recorded for training purposes. We will not share the recorded call with anyone outside of our connections business and it will be deleted as soon as we have completed the training review. However, if you do not want us to record the call please let me know at the beginning of the call.

If you would like to proceed

If you would like to proceed to a formal offer of connection then you should apply for a quotation. Please refer to our website click here for `The connection process' which details our application process.

To help us progress any future enquiry as quickly as possible please quote the UK Power Networks Reference Number from this letter on all correspondence.

Any Questions?

If you have any questions about your budget estimate or need more information, please do not hesitate to contact me. The best time to call is between the hours of 9am and 4pm, Monday to Friday. If the person you need to speak to is unavailable or engaged on another call when you ring, you may like to leave a message or call back later.

Yours sincerely

Rita Sefa
Centenary House
London, West Ham
E16 4ET
075 2392 3054
rita.sefa@ukpowernetworks.co.uk

APPENDIX H - JAPANESE KNOTWEED COST

Ark Japanese Knotweed Insurance Backed Guarantee

Policy Document

Policy of Insurance

Definitions

"Contractor" means the **Contractor** who undertook the **Insured Works** and who is named in the **Certificate of Insurance**.
"Ceased Trading" means ceasing to trade due to Liquidation, Receivership, Administration or the winding up of the business due to Bankruptcy, State Retirement or Death of the Principal(s).
"**Certificate of Insurance**" means the Certificate issued by the **Insurer** to signify acceptance of the **Insured Works** for insurance hereunder.
"Completion Date" means the date shown in the **Certificate of Insurance** on which the **Insured Works** were fully completed to the **Insured's** entire satisfaction.

"Consequential Loss" means any indirect, special or consequential damages or losses suffered or incurred by the **Insured** and for the purposes of this insurance indirect, special or consequential damages or losses shall include, but not be limited to damages to or losses of data, furniture or equipment, economic loss or damage, damage to or loss of profits, interest, business revenue, anticipated savings, business or goodwill, any losses, cost or expenses which are not directly incurred by the **Insured** wholly in respect of or which are additional to the remedial work for which indemnity is provided by this insurance, the costs and expenses of any redecoration, repainting or retiling work, the costs and expenses of removing and/or replacing any cupboards, carpets or other furniture, or any other fixtures or fittings and the incurring of liability for losses or damages of any nature whatsoever suffered by third parties (including in each case incidental and/or punitive damages), even if the **Insurer** is advised in advance of the possibility of any such losses and/or damages.
"Contractors Written Guarantee" means the written guarantee or warranty issued by the **Contractor** in respect of the Insured Works.
"Contract Price" means the figure shown on the **Certificate of Insurance** representing the amount paid by the **Insured** to the **Contractor** for the **Insured Works** including VAT where the **Insured** is unable recover this element.
"Excess" means the initial amount relating to each and every claim which the **Insurer** has no liability for under this policy and which the **Insured** must themselves pay before any settlement is made the **Insurer**.
"Insured" means a person or body corporate named on the **Certificate of Insurance** or any subsequent owner of the **Insured Works**.
"Insured Works" means the works described on the **Certificate of Insurance**.

"Insurer" means Evolution Insurance Company Limited a company registered in Gibraltar, Registered Number 88737 with a registered office at 5/5 Crutchett's Ramp, Gibraltar GX11 1AA.
"Period of Insurance" means the period shown in the **Certificate of Insurance** or the period stated in the **Contractor's Written Guarantee**, whichever is the less.
"Scheme Administrator" This policy is administered on behalf of the **Insurer** by Ark Insurance Group Ltd, Oak House, Eastwood Business Park, Harry Weston Road, Coventry. CV3 2UB

Benefits

The **Insurer** agrees to indemnify the **Insured** in respect of treatment costs to eradicate the regrowth of Japanese knotweed in the area covered by the **Contractors Written Guarantee** at the **Location** described in the **Certificate of Insurance** arising during the **Period of Insurance,** where the **Contractor** has **Ceased Trading** and is unable to honour the terms of their own **Contractors Written Guarantee** issued to the **Insured**.

Limit of Indemnity

The **Insurer's** total liability in the aggregate in respect of all claims under this policy shall be limited to the **Contract Price** of the **Insured Works**.

Exclusions

The **Insurer** shall not be liable for:

1) the amount of the Excess shown in the **Certificate of Insurance** in respect of each and every claim for which the **Insured** is responsible,
2) any defect that would not have been recoverable under the **Contractor's Written Guarantee**,
3) the cost of routine maintenance, overhaul or modifications or loss or damage arising therefrom, any damage or defect caused by any peril capable of being insured under a commercial property, household or similar policy of insurance whether or not such insurance is effective or in force at the time,
4) any loss of use or **Consequential Loss** of any nature,
5) any consequence of terrorism, war risks or nuclear radiation,
6) any damage or defect caused by fair wear and tear, sunlight, storm or deterioration due to neglect in maintenance,
7) any remedial work undertaken without the consent of the **Insurer**, or,
8) any costs associated with the spread of Japanese knotweed to neighbouring properties.

Conditions

1) In the event of any regrowth occurring the **Insurer** may at their option arrange retreatment or pay a cash sum in lieu of retreatment.
2) The **Insured** shall take all reasonable precautions to avoid losses that are or may be recoverable under this insurance.
3) The **Insured's** benefit under this insurance is governed by English Law and will be forfeited if that **Insured** knowingly makes a fraudulent claim.
4) The **Insurer** may at its expense take such proceedings as it sees fit in the name of the **Insured** to enforce any rights and remedies against or obtain relief or indemnity from other parties to which the **Insurer** shall be or may become entitled or subrogated under this insurance and the **Insured** shall at the request and expense of the **Insurer** do such acts and things as may reasonably be required by the **Insurer.**
5) If any difference shall arise as to the amount to be paid under this policy (liability being otherwise admitted) such difference shall be referred to an Arbitrator to be appointed by the parties in accordance with the statutory provisions then in force. Any making of an award shall be a condition precedent to any right of action against the **Insurer**.

Transferability

The benefits of this insurance will pass to subsequent owners of the **Insured Works** providing the **Contractor's Written Guarantee** states it is transferable. No replacement policy requires to be issued.

Claims Procedure

In the event of any defect arising in the **Insured Works** the matter should immediately be reported to the **Contractor**. If a defect becomes apparent to the **Insured** and the **Contractor** has **Ceased Trading** the **Scheme Administrator** must be advised within 30 days. The **Insured** must supply all details and proofs as may be reasonably called for by the **Insurer**. The **Insurer** shall have the right to inspect the **Insured Works**.

Cancellation

You have the right to cancel cover under this Policy. If you wish to cancel the cover you must do so within 14 days starting on the day after you receive the policy documents. Please write to the **Scheme Administrator** at Oak House, Eastwood Business Park, Harry Weston Road, Coventry, CV3 2UB.

Please quote the policy number shown in the **Certificate of Insurance** when cancelling. If you choose to cancel the premium paid will be returned. In the case of the Insured being a Commercial entity an administration fee of £25 will apply. Any return of premium will only be made to the party that has paid the premium.

All policy documents and the **Certificate of Insurance** must be returned with the cancellation request.

You should be aware that if you choose to cancel the policy after the 14 days, no refund of premium will be paid.

Enquiries and Complaints

If you have any enquiry about this insurance you should contact the **Scheme Administrator.** Please quote your policy number or claim number so that your enquiry can be dealt with quickly.

If you have a complaint you should contact The Complaints Manager Ark Insurance Group Ltd, Oak House, Eastwood Business Park, Harry Weston Road, Coventry. CV3 2UB. In the course of dealing with a complaint it may be necessary for the matter to be referred to Evolution Insurance Company Ltd – you will be informed immediately if this is the case. Please quote your policy number or claim number in all correspondence.

In the unlikely event that the matter is still not resolved to your satisfaction your complaint can be referred to the Financial Ombudsman Service ('FOS') at South Quay Plaza, 183 Marsh Wall, London E14 9SR or by phone on 0845 080 1800. Please note you have 6 months from the date of our final response in which to refer the matter to the FOS. Referral to the FOS does not affect your right to take legal action against us.

About the Insurer

Evolution Insurance Company Limited, a company registered in Gibraltar (No. 88737), is authorised and regulated by the Gibraltar Financial Services Commission and is subject to limited regulation by the UK's Financial Conduct Authority and the Prudential Regulation Authority under Firm Reference Number (FRN) 227649. Details about the extent of the firm's regulation by the UK's Financial Conduct Authority and the Prudential Regulation Authority are available from us on request.

Financial Services Compensation Scheme

If we are unable to meet our liabilities you may be entitled to compensation under the Financial Services Compensation Scheme (FSCS). Further information about compensation scheme arrangements is available at www.fscs.org.uk, or by email at enquiries@fscs.org.uk or by phone on 0207 892 7300.

Privacy Notice

The **Scheme Administrator** and the **Insurer** gather and process personal data in accordance with the EU General Data Protection Regulation (GDPR) and any relevant data protection legislation.

Personal data may be used by the **Scheme Administrator**, the **Insurer** or third parties for underwriting and claims purposes and in order to administer the policy. The **Scheme Administrator** and the **Insurer** will ensure that personal data is kept secure, is used only for the purpose for which it was supplied and is retained only for as long as necessary.

The policy administrator is registered with the Information Commissioner's Office (ICO) as a data controller and is listed on the Register of Data Controllers under registration number ZA197420. The **Scheme Administrator** full Privacy Notice is available at https://www.arkinsurance.co.uk/privacy.aspx

The **Insurer** is registered with the Gibraltar Regulatory Authority (GRA) as a data controller and is listed on the Register of Data Controllers under registration number DP003699. The **Insurer's** full Privacy Notice is available at www.evo-insurance.com/privacy.

Fraud

The **Insured** must not act in a fraudulent way. If the **Insured** or anyone acting for the **Insured**:

1. makes a claim under the insurance knowing the claim to be false or exaggerated in any way; or
2. makes a statement in support of a claim knowing the statement to be false in any way; or
3. sends us or the administrator any documentation in support of a claim knowing the documentation to be forged or false in any way; or
4. makes a claim for any loss caused by the **Insured's** deliberate act or with the **Insured's** agreement;

then the **Insurer**:

- **will not pay** the claim;
- will not pay any other claim which has been or will be made under the insurance;
- may declare the insurance void;
- will be entitled to recover from the **Insured** the amount of any claim already paid under the insurance;
- will not return any of the premiums;
- may pass your details to the authorities should it become necessary for investigative purposes.

Other Important Notes

Language - All communication between you and us will be conducted in English.

In accordance with the Equality Act 2010, we are able, upon request, to provide a text phone facility, audio tapes and large print documentation. Please advise us if you require any of these services to be provided so that we can communicate with you in an appropriate manner.

Ark Insurance Group Ltd
Oak House
Eastwood Business Village
Harry Weston Road
Coventry
CV3 2UB

Telephone: 02476 437 611 | Fax: 02476 636 902 | Email: info@arkinsurance.co.uk

Insurance Backed Guarantee Policy Summary
The following summary does not contain the full terms and conditions of the contract which can be found in the policy document. The summary does not form part of your contract of insurance.

About your policy

Insurer
This insurance policy is underwritten by Evolution Insurance Company Limited a company registered in Gibraltar, Registered Number 88737 with a registered office at 5/5 Crutchett's Ramp, Gibraltar GX11 1AA.

This policy is administered on behalf of the **Insurer** by Peacock Insurance Services Ltd, Oak House, Eastwood Business Village, Harry Weston Road, CV3 2UB.

Insured Period
The insurance cover starts on the date the Japanese Knotweed treatment works completed shown in the contractors written guarantee and finishes on the date as shown in your Certificate of Insurance.

Coverage
The Insurer agrees to indemnify the Insured in respect of treatment costs to eradicate the regrowth of Giant Hogweed or Himalayan Balsam in the area covered by the Contractors Written Guarantee at the Location described in the Certificate of Insurance arising during the Period of Insurance, where the Contractor has Ceased Trading and is unable to honour the terms of their own Contractors Written Guarantee issued to the Insured.

This insurance does not cover any items or work that is not covered in the contractors written guarantee and treatment plan. If the guarantee does not cover a particular matter, then neither shall this insurance.

Insurance Backed Guarantee Claims
In the event of any regrowth occurring the Insurer may at their option arrange retreatment by another contractor or pay a cash sum in lieu of retreatment.

Guarantee Insurance Claims
The insurers have the right to exclude from cover any remedial work carried out without the written agreement of Peacock Insurance Services.

Your Right To Cancel
You have the right to cancel cover under this Policy. If you wish to cancel the cover you must do so within 14 days starting on the day after you receive the policy documents. Please write to the **Scheme Administrator**.

Please quote the policy number shown in the Certificate of Insurance when cancelling. If you choose to cancel the premium paid will be returned. Any return of premium will only be made to the party that has paid the premium. In the case of the Insured being a Commercial entity an administration fee of £25 will apply.
All policy documents and the Certificate of Insurance must be returned with the cancellation request.
You should be aware that if you choose to cancel the policy after the 14 days, no refund of premium will be paid.

Enquiries and Complaints
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If you have a complaint you should contact The Complaints Manager at Peacock Insurance, Oak House, Eastwood Business Village, Harry Weston Road, CV3 2UB. In the course of dealing with a complaint it may be necessary for the matter to be referred to Evolution Insurance Company Ltd – you will be informed immediately if this is the case. Please quote your policy number or claim number in all correspondence.
In In the unlikely event that the matter is still not resolved to your satisfaction your complaint can be referred to the Financial Ombudsman Service ('FOS') at South Quay Plaza, 183 Marsh Wall, London E14 9SR or by phone on 0845 080 1800. Please note you have 6 months from the date of our final response in which to refer the matter to the FOS. Referral to the FOS does not affect your right to take legal action against us.

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Financial Services Compensation Scheme
If we are unable to meet our liabilities you may be entitled to compensation under the Financial Services Compensation Scheme (FSCS). Further information about compensation scheme arrangements is available at www.fscs.org.uk, or by email at enquiries@fscs.org.uk or by phone on 0207 892 7300.

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Personal data may be used by **Scheme Administrator,** Evo or third parties for underwriting and claims purposes and in order to administer the policy. The **Scheme Administrator** and Evo will ensure that personal data is kept secure, is used only for the purpose for which it was supplied and is retained only for as long as necessary.
The **Scheme Administrator** is registered with the Information Commissioner's Office (ICO) as a data controller and is listed on the Register of Data Controllers under registration number ZA030164. The **Scheme Administrators** full Privacy Notice is available at https://www.peacockinsurance.co.uk/privacy.aspx

Evo is registered with the Gibraltar Regulatory Authority (GRA) as a data controller and is listed on the Register of Data Controllers under registration number DP003699. Evo's full Privacy Notice is available at www.evo-insurance.com/privacy.

Fraud
The **Insured** must not act in a fraudulent way. If the **Insured** or anyone acting for the **Insured** or the **User**:

- makes a claim under the insurance knowing the claim to be false or exaggerated in any way; or
- makes a statement in support of a claim knowing the statement to be false in any way; or
- sends us or the administrator any documentation in support of a claim knowing the documentation to be forged or false in any way; or
- makes a claim for any loss caused by the **Insured's** deliberate act or with the **Insured's** agreement;

then the **Insurer:**

- **will not pa**y the claim;
- will not pay any other claim which has been or will be made under the insurance;
- may declare the insurance void;
- will be entitled to recover from the **Insured** the amount of any claim already paid under the insurance;
- will not return any of the premiums;
- may pass your details to the authorities should it become necessary for investigative purposes.

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In accordance with the Equality Act 2010, we are able, upon request, to provide a text phone facility, audio tapes and large print documentation. Please advise us if you require any of these services to be provided so that we can communicate with you in an appropriate manner.

INSURANCE BACKED GUARANTEE

CERTIFICATE OF INSURANCE

Policy Number:	BAA-Ark-EV-PH-IBG-21073826	**Reason for Issue:**	New Business

Insurer:	Evolution Insurance Company Limited
Insured:	The Owner Of The Location Of The Insured Works That Are The Subject Of This Insurance, Holding A Freehold Or Leasehold Interest In The Location Of The Insured Works Or Their Successor In Title, Or Any Mortgagee Or Lessor Whose Interest Has Been Noted Under The Policy.
Contractor:	C and F (UK) Limited
Insured Works:	Japanese Knotweed Herbicide Treatment/Removal under contractor reference: KMR AV_P3 Main
Contract Price:	£47,200.00
Location of Insured Works	25 Aberfeldy Street, Phase 3, Aberfeldy. E14 0NU
Completion Date:	24/07/2019
Period of insurance:	**The Insurer agrees to indemnify the Insured subject to the terms and conditions of this policy for a period of 10 years from the 'Completion Date' shown above, if this date is incorrect you must contact the insurance intermediary who issued the document (Peacock Insurance Services Ltd on 02476 437 600) and a new document must be issued.**
Excess:	General excess £250.00 (each and every loss)
Applicable Endorsements:	

Signed on behalf of the Insurer

Name: Rachel Gow
Date: 24/07/18

Knotweed Management Report
Japanese Knotweed Excavation
Reference: KMR AV_P3 MAIN
Location: Aberfeldy Village P3

- Assessor: C. Vickers Signed - 
- Original Issue Date: 26th June 2018
- This Issue Date: 07th July 2018
- Completed To: Excavation Completion

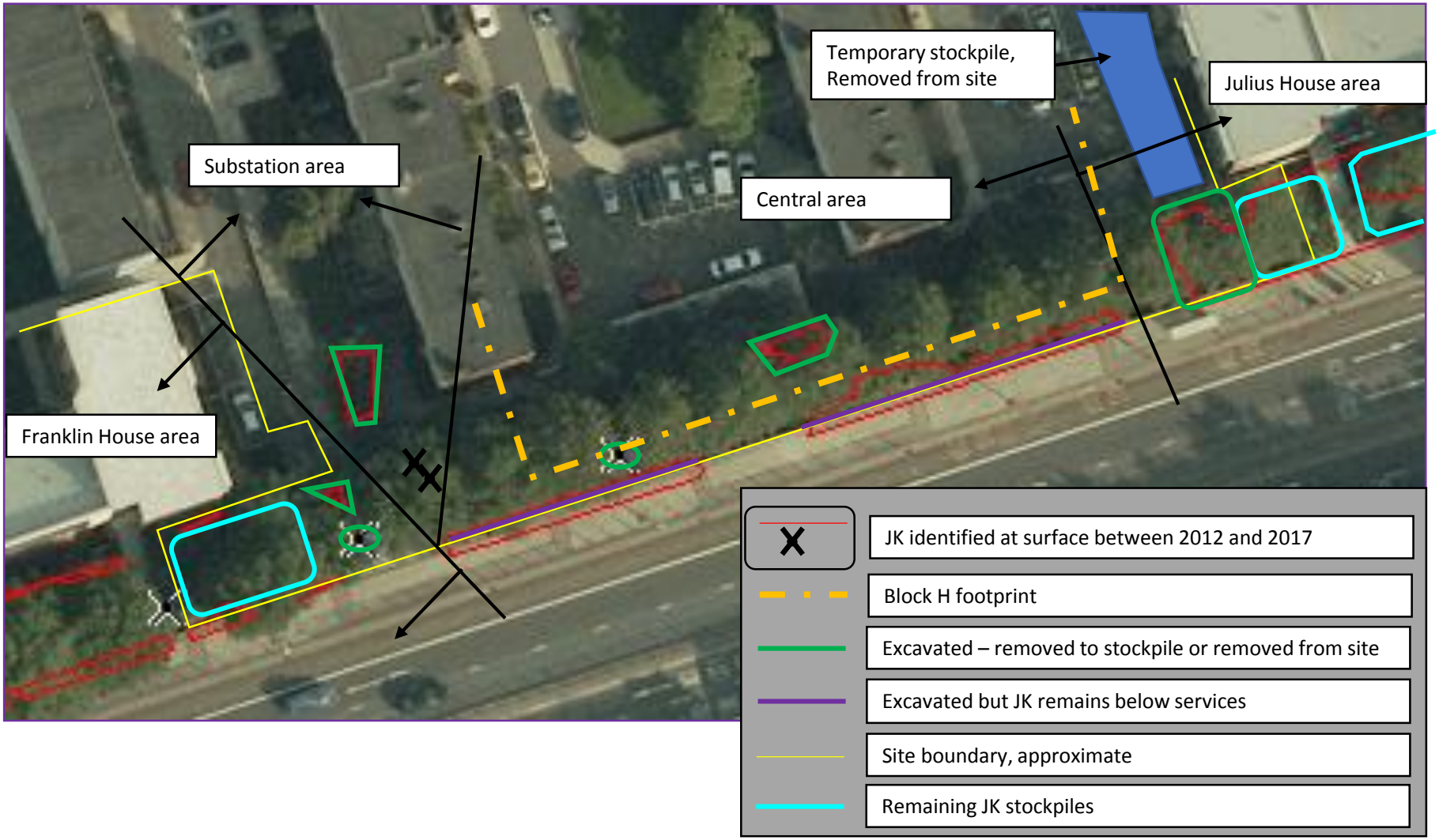
Client	Consultant		Site Address
Willmott Dixon	Charles Vickers C&F(UK) Ltd 07814891041 charles@candf.co.uk		Main Site - Aberfeldy Village Phase 3 Blocks F, G, H, and J E14 0TE Shares boundary with – A13 Footpath Julius House Franklin House
Willmott Site contact – Scott Brand	Emergency POCs	Charles Vickers	07814 891041
	Complaint/ incident POC	Charles Vickers	07814 891041 charles@candf.co.uk

A – Summary (1/1)

- All of the Japanese Knotweed (JK) under the footprint of Block H was removed by excavation in the period 03-20 July 2017
- JK out side of the block footprint including JK next to the A13 pavement, Julius House and the substation by Franklin House was also worked on
- Some JK was removed from site and some was stockpiled for landscaping in front of Franklin House
- All JK had been previously treated in the period 2011 to 2017 under a separate chemical control programme
- The physical risk to the buildings from JK is now effectively zero. The construction method is also highly resistant to damage by JK
- A very low risk of site re-infestation from the rhizome under the A13 footpath remains; continuing maintenance will eradicate this
- The JK in the landscaped are in front of Franklin also poses a very small risk, there is no pathway to Franklin House and on-going maintenance will eradicate the JK

B – Site Detail (1/1)

Relevant Boundaries And JK Location



C – Excavation Detail (1/7)
General Considerations

- Site layout
  - Demolition had nearly been completed prior to the start of the JK excavation and all JK areas remained undisturbed
  - A concrete slab remained close to Julius house; this was used as a base for the machine and stockpile in that area
  - Utilities (gas) work inside the hoarding had disturbed some of the JK area close to the A13 pavement
  - Paving works outside of the hoarding had also disturbed some JK but the materials had been stockpiled appropriately
  - A pile of clean crush was partially moved to allow sufficient access for the machine to load the dumper
  - Bucket change area – contaminated area used for contaminated bucket, clean bucket positioned on clean pile of crush away from pedestrian access – no transfer between areas
  - Good separation was maintained between the JK works and other site works
- Site conditions
  - Good weather and soil conditions during work – buckets stayed clean so easy to decontaminate; tracks remained off contamination, ground not churned making site hygiene straightforward
- Vehicle control
  - JK was removed from site using a different contractor to the one taking away the concrete
  - Loading was controlled by banksmen and wagons were sheeted prior to moving
  - Wheels checked for and cleared of contamination prior to moving off
- Transport Routes
  - No vehicle movement onto transport route from loading area until confirmed contamination free
  - The dumper route was scraped on completion
- Machines
  - A 5t and a 14t were used as appropriate. A 3t dumper was also used

Gas pipe work in central area

C – Excavation Detail (2/7)

Julius House Area

- The majority of this JK within the P3 boundary had been transported in from P2. As such it was relatively easy to grade off back to the original profile of the bank which was readily identifiable from the old vegetation. No actively growing JK was discovered and all of the rhizome in the pile was decayed
- The work was done in 2 stages with the 14t working from the bottom of the bank and moving spoil straight to the stock pile. At a later date the 5t worked from the top of the bank moving spoil via the dumper to a temporary stockpile in the substation area. This material was subsequently removed from site with a grab wagon
- Material from the paving works was stockpiled here; it was separated into clean and contaminated as part of the work
- JK remains in a stockpile in this area. No re-growth has been seen since 2015 and no healthy rhizome was found during the work. The risk from JK is low and on-going maintenance will manage the problem adequately

Area before excavation

On completion of 14t work

On completion of JK works

C – Excavation Detail (3/7)

Central Area

- JK areas marked with road pins and tape; clean material removed from contaminated area
- Transport routes, bucket change areas and stockpile areas prepared
- The entire bank along the A13 was given a light application of herbicide to brown non-target vegetation which may have been masking JK. Once the grasses etc. had started to die back the JK was easily identifiable and was given further treatment
- Only small amounts of JK were present; these were mainly in the strip next to the pavement although 3 separate plants had been identified earlier in the year close to the substation at Franklin House
- The main stand was dug out using the 14t with spoil being tracked over to the stockpile area beside Julius House
    - Significant concrete footings from old houses were present under the stand; some rhizome penetration meant these had to be removed. Contaminated sections were broken off and the majority of the concrete was disposed of as clean material
- The small JK plants were also dug out using the 14t sitting on a pile of crush to enable sufficient reach. This material was moved directly to the temporary stockpile beside the substation
- The rhizome under the A13 pavement remains the main risk of re-infestation

Change in level between phases 1 and 3

Footings encountered during excavation

Surface scraped off towards substation area

C – Excavation Detail (4/7)

Substation Area

- This was the most difficult area with multiple buried services and significant legacy foundations
- JK was removed with the 5t and moved directly to the stockpile in front of Franklin House
- Spread was more extensive than first thought due to rhizome tracking between layers of paving
- Several heavy footings were broken out with a 30t machine to allow excavation to continue
- 2 footings were left in-situ to avoid de-stabilising the ramp containing the services
- The majority of the remaining rhizome was chased out by hand until the concrete, the services or the risk of collapsing the ramp meant it was no longer practical to do so. Remaining rhizome was removed by hand once further works including back filling and removal of paving made the area safe for the work to continue
- The single JK plants were hand dug, no healthy rhizome was found

Lifting the paving next to the bank

General area showing buried walls and footings

Chasing out around services by hand

C – Excavation Detail (5/7)

Franklin House Area

- No excavation was undertaken in this area, only stockpiling
- Stockpile height was dictated by the trees, the boundary wall to the A13 pavement and the retaining wall to Franklin House
- Prior JK infestation, the same ownership as the other areas and the incorporation of the area into the site boundary meant that the JK was not being taken off site or spread
- Once the stockpile had reached its maximum height it was battered down with a ditching bucket to allow grass to be sown
- This method was used in front of Julius House for the phase 2 spoil, no increase in JK occurred. All the JK had been treated prior to movement and the rhizome network was broken leaving only fragments in the spoil
- The JK rhizome under the A13 pavement remains the biggest threat of re-infestation to the area

Temporary fence being installed

Change in level and retaining wall removes pathway from JK to Franklin House

C – Excavation Detail (6/7)

Block H

- All JK within the footprint of Block H was removed by excavation by C&F
- The risk of contamination from other JK on the site was minimised by removing all practicable JK under controlled conditions
- JK rhizome remains under the A13 footpath, under the services next to the old substation and in the stockpiles beside Franklin and Julius Houses. All JK has been treated chemically and broken by hand digging or turned by machine in the stockpiles
- The only pathway to Block H is for JK to re-infest the site and grow undisturbed for several years until rhizome reaches the block. The area around Block H will be maintained and therefore the risk of unhindered JK growth is removed
- The concrete construction of the block makes it extremely resistant to JK

C – Excavation Detail (7/7)

Detailed Risk to Franklin and Julius Houses

Franklin House

- Risk remains unchanged – no risk from previous JK or P3 works
    - There was no pathway from previous JK areas to the building
    - Stockpiled JK is on top of previous JK area – still no pathway

Julius House

- Risk remains unchanged – no additional JK material has been brought into the area
    - There is a conceivable pathway from the JK area to the building
    - No JK has been found growing within 7m of the building since 2013
    - 2 small plants were found and treated in front of the building beside the A13 footpath in 2015, approx. 9m

D – Future Work (1/1)

Special Measures During Construction and Landscaping

- Inspect and treat Summer 2018 – all areas
- Inspect and treat Summer 2019 – all areas
- Landscapers to be aware of JK stockpiles and take appropriate measures. Inspection visit prior to landscaping start
- Care to be taken when removing hoarding – posts in contaminated zone next to A13 pavement

Annual inspections

- Although all the JK has been removed by excavation it is normal to conduct 2x annual inspections to confirm no regrowth to satisfy the insurers for an Insurance Backed Guarantee
- Herbicide treatment would be conducted at the same time
- A 2 year JK free period is required, the 2 yearly regime re-starts on discovery of JK
- Inspections for an IBG on Block H would be conducted in conjunction with the Special Measures inspections in -
    - Summer 2018
    - Summer 2019

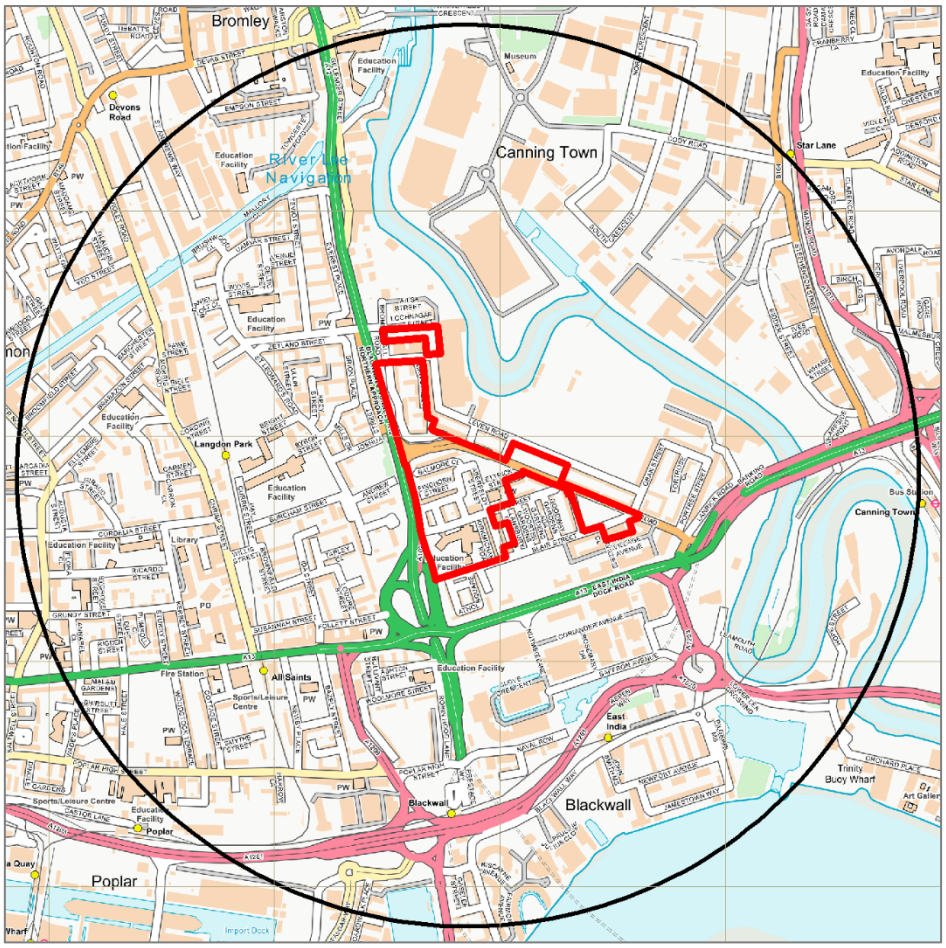
Maintenance (Landscaping)

- Maintenance contractors to be aware of JK, how to identify it and what steps to take on discovery

APPENDIX I - UNEXPLODED ORDNANCE RISK STUDY

Detailed Unexploded Ordnance (UXO) Threat & Risk Assessment

Meeting the requirements of *CIRIA* C681 'Unexploded Ordnance (UXO) A guide for the Construction Industry' Risk Management Framework



PROJECT NUMBER	8557	**ORIGINATOR**	L. Hayes
VERSION NUMBER	1.0	**REVIEWED BY**	B. Wilkinson (11th February 2021)
CLIENT	Ecoworld International	**RELEASED BY**	L. Gregory (12th February 2021)
STUDY SITE	Aberfeldy New Village		
RATING	**HIGH** - This Study Site requires further action to reduce risk to ALARP during intrusive activities.		

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FIGURES

Acronyms and Abbreviations

AA	Anti-Aircraft
AAA	Anti-Aircraft Ammunition
ALARP	As Low As Reasonably Practicable
AOD	Above Ordnance Datum
ARP	Air Raid Precaution
AXO	Abandoned Explosive Ordnance
BD	Bomb Disposal
BDO	Bomb Disposal Officer
bgl	Below Ground Level
BGS	British Geological Survey
BH	Borehole
BPD	Bomb Penetration Depth
CDP	Cast Driven Piles
CFA	Continuous Flight Auger
CIRIA	Construction Industry Research and Information Association
CPT	Cone Penetration Testing
CS	County Series
EO	Explosive Ordnance
EOC	Explosive Ordnance Clearance
EOD	Explosive Ordnance Disposal
GI	Ground Investigation
GIS	Geographic Information Systems
GL	Ground Level
GP	General Purpose
GPS	Global Positioning Systems
HAA	Heavy Anti-Aircraft
HE	High Explosive
HO	Home Office
HSE	Health and Safety Executive
IB	Incendiary Bomb
kg	Kilograms
km	Kilometres
LAA	Light Anti-Aircraft
LCC	London County Council
LE	Low Explosive
LSA	Land Service Ammunition
m	Metres
MoD	Ministry of Defence
mm	Millimetres
NEQ	Net Explosive Quantity
NFF	National Filling Factory
NGR	National Grid Reference
OD	Ordnance Datum
OS	Ordnance Survey
PM	Parachute Mine
PoW	Prisoner of War
RADAR	Radio Detection And Ranging
RAF	Royal Air Force
RN	Royal Navy
RNAS	Royal Naval Air Service
ROF	Royal Ordnance Factory
SAA	Small Arms Ammunition
TA	Territorial Army
TNT	Trinitrotoluene
UK	United Kingdom
UN	United Nations
USAAF	United States Army Air Force
UXB	Unexploded Bomb
UXO	Unexploded Ordnance
V Weapons	*Vergeltungswaffen* – Vengeance Weapons
WD	War Department
WWI	World War One
WWII	World War Two

EXECUTIVE SUMMARY

Study Site

The Client has defined the Study Site as "Aberfeldy New Village" and is centred on NGR 538429, 181412.

Risk Level

HIGH

Potential Threat Sources

The most probable UXO threat is posed by WWII *German* HE bombs, whilst IBs and *British* AAA projectiles (which were used to defend against *German* bombing raids) pose a residual threat.

Risk Pathway

Given the types of UXO that might be present on-site, all types of aggressive intrusive engineering activities may generate a significant risk pathway.

Key Findings

During WWII, the Study Site was situated within *Poplar Metropolitan Borough,* which recorded 80 HE bomb strikes per 100 hectares, a very high level of bombing.

Luftwaffe aerial reconnaissance photography associated with the Study Site identified *Leven Road Gas Works* (located 15m to the north-east), *East India Docks* (65m to the south-east), *West Ham Power Station* (340m to the north-east), *Railway Works* (415m to the north-west), *West India Docks* (545m to the south-south-west) and *Poplar Power Station* (670m to the west) as primary bombing targets.

ARP records associated with the Study Site identified four HE bomb strikes on-site. In addition, five were recorded in close proximity; 5m to the north-east, 5m to the east, 20m to the north-east, 20m to the south-west and 25m to the south-east. Furthermore, one *V1* and one *V2* rocket strike were also recorded within the Study Site.

An analysis of the *LCC* bomb damage maps shows that almost all structures within the Study Site suffered bomb damage ranging from "*General Blast Damage; Minor in Nature*" up to and including "*Total Destruction*". Although bomb damage was recorded across the Study Site, higher levels of bomb damage were noted particularly within the south-eastern and south-western sectors of the Study Site.

The CS mapping prior to WWII (1938) and 1945 aerial photography, shows that the Study Site was located in a densely developed urban area during WWII, with numerous residential structures present, as well as two *Schools*. Therefore, it is likely that footfall across the Study Site would have been relatively high. Despite the high levels of footfall, significant bomb damage was recorded across the Study Site, and therefore, it is possible that bomb damage debris may have concealed a UXB entry hole and therefore, it may have gone unnoticed.

The Study Site has undergone considerable post-war redevelopment. Consequently, it is considered likely that any UXO within post-war disturbed and developed ground would potentially have been discovered and removed, however, the potential for deep buried UXO to be present within remaining areas is assessed to be extant.

Given the Study Site was subjected to a significant concentration of bombing and substantial bomb damage during WWII, the following risk mitigation measures are recommended as a minimum, in order to reduce risks ALARP, during intrusive works in all previously undisturbed ground i.e. that which has not previously been excavated, probed, drilled or otherwise intrusively disturbed since it was potentially contaminated with UXO.

EXECUTIVE SUMMARY (…continued)

Recommended Risk Mitigation Measures Overview

"Open" Intrusive Works

Engineering Methodology	UXO Emergency Response Plan	UXO Safety and Awareness Briefing	Non-Intrusive Survey	EODE Watching Brief	Intrusive Magnetometer Survey	UXO Risk Rating (Post-Mitigation)
Excavations	✔	✔	✔	✔	✘	ALARP
Trenching	✔	✔	✔	✔	✘	

"Blind" Intrusive Works

Engineering Methodology	UXO Emergency Response Plan	UXO Safety and Awareness Briefing	Non-Intrusive Survey	EODE Watching Brief	Intrusive Magnetometer Survey	UXO Risk Rating (Post-Mitigation)
Piling	✔	✔	✘	✘	✔	ALARP

A full and detailed guide to the recommended risk mitigation measures is presented at Section 5 of this report.

For further information, please contact *6 Alpha Associates*:

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ASSESSMENT METHODOLOGY

Approach

6 Alpha Associates is an independent, specialist risk management consultancy practice, which has assessed the risk of encountering UXO (as well as buried bulk high explosives) at this Study Site, by employing a process advocated for this purpose by *CIRIA*. The *CIRIA* guide for managing UXO risks in the construction industry (C681) not only represents best practice but has also been endorsed by the *HSE*. Any risk mitigation solution is recommended *only* because it delivers the Client a risk reduced to ALARP at best value.

UXO hazards can be identified through the investigation of local and national archives associated with the Study Site, *MoD* archives, local historical sources, historical mapping as well as contemporaneous aerial photography (if it is available). Hazards will have only been recorded if there is specific information that could reasonably place them within the boundaries of the Study Site. The amalgamation of information is then assessed to enable the researcher to provide relevant and accurate risk mitigation practices.

The assessment of UXO risk is a measure of *probability of encounter* and *consequence of encounter*; the former being a function of the identified hazard and proposed development methodology; the latter being a function of the type of hazard and the proximity of personnel (and/or other 'sensitive receptors', such as equipment) to the hazard, at the moment of encounter.

If UXO risks are identified, the methods of mitigation we have recommended are considered reasonably and sufficiently robust to reduce them to ALARP. We advocate the adoption of the legal ALARP principle because it is a key factor in efficiently and effectively ameliorating UXO risks. It also provides a ready means for assessing the Client's tolerability of UXO risk. In essence, the principle states that if the cost of reducing a risk significantly outweighs the benefit, then the risk may be considered tolerable. This does not mean that there is never a requirement for UXO risk mitigation, but that any mitigation must demonstrate that it is beneficial. Any additional mitigation that delivers diminishing benefits and that consume disproportionate time, money and effort are considered *de minimis* and thus unnecessary. Because of this principle, UXB and UXO risks will rarely be reduced to zero (nor need they be).

Important Notes

Key source material is referenced within this document, whilst secondary/anecdotal information may be available upon request.

Although this report is up to date and accurate at the time of writing, our databases are continually being populated as and when additional information becomes available. Nonetheless, *6 Alpha* have exercised all reasonable care, skill and due diligence in providing this service and producing this report.

The assessment levels are based upon our professional opinion and have been supported by our interpretation of historical records and third-party data sources. Wherever possible, *6 Alpha* has sought to corroborate and to verify the accuracy of all data we have employed, but we are not accountable for any inherent errors that may be contained in third party data sets (e.g. *National Archive* or other library sources), and over which *6 Alpha* cannot exercise control.

STAGE ONE – STUDY SITE LOCATION AND DESCRIPTION

Study Site

The Client has defined the Study Site as "Aberfeldy New Village". The Study Site is centred at NGR 538429, 181412 as presented at *Figures 1* and *2,* respectively.

Location Description

The Study Site is situated within *London Borough of Tower Hamlets* and totals an area of 9.18 hectares (ha).

Furthermore, the Study Site is bounded by:

- North: *Lochnagar Street*;
- East: *Leven Road*, residential and industrial structures;
- South: *Blair Street*;
- West: The *A12*.

Aerial Photography (2018) (*Figure 3*)

Current aerial photography corroborates the information above and shows that the Study Site is situated within a densely developed urban area. The Study Site itself consists of numerous commercial and residential structures, in addition to *Culloden Primary School*. The Study Site is also intersected by several roads, in addition to areas of undeveloped ground in its eastern and northern sectors.

Proposed Works

The proposed works were previously described for the Study Site, as follows:

- "*It is proposed to demolish the existing buildings and to construct a mix of houses and blocks of flats, between two and eleven stories in height. No basements are proposed. Shallow foundations and/or ground improvements are proposed for low-rise buildings and piled foundations are likely to be used for medium and high-rise buildings.*"

As a result, *6 Alpha* will assume that a number of construction methodologies will be undertaken, including excavations, trenching and piling.

Ground Conditions

It is important to establish the specific ground conditions in order to determine the maximum *German* UXB penetration depth as well as the potential for other types of munitions to be buried.

If the site investigations and/or construction methodologies change, and/or if a specific methodology is to be employed, and/or if the scope of work is focused upon a specific part of the Study Site, then *6 Alpha* are to be informed so that the prospective UXO risks and the associated risk mitigation methodology might be re-assessed. Certain ground conditions may also constrain certain types of UXO risk mitigative works e.g. magnetometer survey is adversely affected in mineralised and made ground.

It is important to establish the provenance of made ground, where this is recorded as being part of the ground make-up, in order to accurately determine the ground levels at the time when UXO contamination may have occurred so as to accurately determine the average/maximum bomb penetration depths and subsequently to make appropriate recommendations aimed at reducing the risk to ALARP.

STAGE ONE – STUDY SITE LOCATION AND DESCRIPTION (…continued)

Ground Conditions

BGS borehole log "TQ38SE3572 — Northern Drainage Phase 2A 5A" (located in the Study Site's central sector), recorded the following strata:

Depth bgl (m)	Strata	Description
0.00m to 1.40m	Made Ground	Brown fine to coarse sand with a little fine to medium angular to sub-rounded gravel and many brick and concrete fragments.
1.40m to 1.70m	Made Ground	Firm brown silty clay with a little fine to medium angular to sub-rounded gravel and many brick fragments.
1.70m to 2.45m	Sand	Dense brown silty fine to coarse sand with some fine to coarse angular to sub-rounded gravel and occasional pockets of firm brown-grey silty clay.
2.45m to 6.20m	Gravel	Dense yellow-brown slightly sandy fine to coarse angular to sub-rounded gravel.
6.20m to 6.50m	Clay	Stiff mottled brown and orange-brown silty clay.
6.50m to 19.00m	Clay	Stiff dark grey faintly laminated very closely fissured very silty occasionally slightly sandy clay with some light brown silty fine sand partings and occasional plant remains.
19.00m to 25.00m	Sand	Very dense becoming dense dark grey slightly clayey silty fine sand with much black rounded medium to coarse gravel.

STAGE TWO – REVIEW OF HISTORICAL DATASETS

Sources of Information Consulted

The following primary information sources have been used in order to establish the background UXO threat:

1. *6 Alpha*'s *Azimuth* Database;
2. *Home Office* WWII Bomb Census Maps;
3. WWII and post-WWII aerial photography;
4. Official Abandoned Bomb Register;
5. *LCC* Bomb Damage maps;
6. Information gathered from the *National Archives* at *Kew*;
7. Historic UXO information provided by *33 Engineer Regiment* (Explosive Ordnance Disposal) at *Carver Barracks, Wimbish*.

Potential Sources of UXO Contamination

In general, there are several activities that might contaminate a site with UXO, but the three most common ways are: legacy munitions from military training/exercises; deliberate or accidental dumping (AXO) and ordnance resulting from war fighting activities (also known as the Explosive Remnants of War (ERW)).

During WWII, the *Luftwaffe* undertook bombing campaigns all over the *UK*. The most common type of UXO discovered today is the aerially delivered high explosive (HE) bomb, which are comparatively thick-skinned and were dropped from *Luftwaffe* aircraft. If the bomb did not detonate when it was dropped, the force of impact enabled the UXO to penetrate the ground, often leaving behind it a UXB entry hole. These entry holes were not always apparent, and some went unreported, leaving the bomb buried and unrecorded. More rarely, additional forms of *German* UXO are occasionally discovered including *inter alia V1* and *V2* rockets, Incendiary Bombs (IBs), and Anti-personnel (AP) bomblets.

Although the *Luftwaffe* had designated primary bombing targets across the *UK*, their high-altitude night bombing was not accurate. As a result, thousands of buildings were damaged and civilian fatalities were common. Bombs were also jettisoned over opportunistic targets and residential areas were sometimes struck.

As the threat of invasion lingered over *Britain* during WWII, defensive actions were undertaken. The *British* and *Allied Forces* requisitioned large areas of land for military training and bomb storage (including HE bombs, naval shells, artillery and tank projectiles, explosives, LSA and SAA). Thousands of tonnes of these munitions were used for the *Allied Forces* weapon testing and military training alone. It has been estimated that at least 20 per cent of the *UK*'s land has been used for military training at some point.

The best practice guide for dealing with your UXO risks on land (CIRIA publication C681) suggests that approximately 10 per cent of all munitions deployed failed to function as designed. ERW are therefore, still commonly encountered, especially whist undertaking construction and civil engineering groundwork.

Furthermore, in exceptional circumstances, UXO is discovered unexpectedly and without apparent rational explanation. There are several ways this might occur:

- When *Luftwaffe* aircraft wished to swiftly escape e.g. from an aerial attack, they would jettison some or all of their bombs and flee. This is commonly referred to as *tip and run* and it has resulted in bombs being found in unexpected locations;
- Transportation of aggregate containing munitions to an area that was previously free of UXO, usually related to construction activities employing material dredged from a contaminated offshore borrow site;
- Poor precision during targeting (due to high altitude night bombing and/or poor visibility) resulted in bombs landing off target, but within the surrounding area;
- *British* decoy sites were also constructed to deliberately cause incorrect targeting. For obvious reasons, such sites were often built in remote and uninhabited areas.

Study Site Development History From an analysis of the CS and OS historical mapping and aerial photography associated with the Study Site, the following history can be deduced:	
Year	Analysis
1899 CS Map	The Study Site was located in a densely developed urban area and comprised numerous structures and roads.
1920 CS Map	A *School* had been constructed in the Study Site's south-western sector.
1938 CS Map	Changes were not recorded at the Study Site.
1951 OS Map	Several clearance areas and *Ruins* associated with potential bomb damage were recorded at the Study Site, with new structures developed in its south-eastern sector.
1955 OS Map	Changes were not recorded at the Study Site.
1965 OS Map	Additional structures had been developed in the Study Site's central sector.
1975 OS Map	Structures had been demolished in the south-western, central and northern sectors of the Study Site. *School* structures had also been developed in the Study Site's south-western sector.
1982 OS Map	Structures had been developed in the northern sector of the Study Site.
1995 OS Map	Changes were not recorded at the Study Site.
1999 OS Map	Changes were not recorded at the Study Site.
2007 OS Map	The *School* in the south-western sector of the Study Site had been redeveloped, in addition to demolition in its south-eastern sector and construction in its central sector.
2018 Aerial Photography	Additional structures had been developed in the Study Site's south-western sector.

The Study Site history assessment is our best interpretation of the data available at the time of writing. Given that yearly revisions of neither CS and OS mapping, nor aerial photography, are available for analysis, there are gaps between the mapping revisions.

Consequently, it should not be assumed that any new structures and/or features that are labelled on a map revision were constructed, developed, installed or demolished in the exact year that the mapping illustrates the change. It is possible – and indeed likely – that the exact date of development occurred somewhere between the two closest mapping revisions. Specifically, this may be particularly relevant where there is a gap between pre and post-WWII mapping, as it may not be clear whether structures were present during WWII or if they were constructed in the post-WWII period.

WWII Site Use (*Figure 4*)

The CS mapping prior to WWII (1938) and 1945 aerial photography, shows that the Study Site was located in a densely developed urban area during WWII, with numerous residential structures present, as well as two *Schools*. Therefore, it is likely that footfall across the Study Site would have been relatively high. Despite the high levels of footfall, significant bomb damage was recorded across the Study Site, and therefore, it is possible that bomb damage debris may have concealed a UXB entry hole and therefore, it may have gone unnoticed.

WWII Bombing of *London*

As the capital of the *UK*, *London* became the most important symbolic and strategic target for the *Luftwaffe* during WWII. The most intensive period of bombing over *London* occurred in the nine months between October 1940 and May 1941 - known as *The Blitz*. During this period, the *Luftwaffe* had a variety of strategic goals they hoped to achieve with the bombing of *London.* Plans to overwhelm *Britain's* air defences, destroy its key military and industrial facilities, and/or wear down the morale of the *British* people were all the key motivation behind *German* bombing of *London* at various intervals throughout WWII.

In total, 18,000 tonnes of bombs were dropped on *London* between 1940 and 1945. Many residential, commercial, and industrial buildings sustained large scale damage, with up to 43,000 civilians killed as a result of *Luftwaffe* bombing in *London*. Even those not directly impacted by the bombing often had gas, electricity and water supplies cut-off following damage to either the installations themselves or to the supply infrastructure.

WWII HE Bomb Density (*Figure 5*)

The Study Site was located within the *Poplar Metropolitan Borough,* which recorded 80 HE bombs per 100 hectares, a very high level of bombing.

WWII Luftwaffe Bombing Targets (*Figure 6*)

Prior to WWII, the *Luftwaffe* conducted numerous aerial photographic reconnaissance missions over *Britain*, recording key military, industrial and commercial facilities for attack, in the event of war. In addition, logistics infrastructure and public services, such as railways, canals, power stations, reservoirs, water and gas works were also considered viable bombing targets.

Luftwaffe aerial reconnaissance photography associated with the Study Site identified *Leven Road Gas Works* (located 15m to the north-east), *East India Docks* (65m to the south-east), *West Ham Power Station* (340m to the north-east), *Railway Works* (415m to the north-west), *West India Docks* (545m to the south-south-west) and *Poplar Power Station* (670m to the west) as primary bombing targets.

WWII HE Bomb Strikes (*Figure 7*)

During WWII, ARP wardens compiled detailed logs of bomb strikes across their respective districts. ARP records associated with the Study Site identified four HE bomb strikes on-site. In addition, five were recorded in close proximity; 5m to the north-east, 5m to the east, 20m to the north-east, 20m to the south-west and 25m to the south-east. Further research also noted two parachute mines close to the Study Site; 40m to the south-west and 80m to the north-east. Furthermore, whilst IBs may have fallen within the Study Site, they fell in such large numbers that accurate record keeping was often either non-existent or perfunctory, however, further research noted several IBs at *Culloden Street* (in the south-western sector of the Study Site).

In addition to IBs and HE bomb strikes, during the latter part of the war when aerial bombing had significantly declined, the main threat came from *V* type weapons. The first recorded *V1* strike on *London* was on the 13th June 1944, with the first recorded *V2* strike on *London* on the 8th September 1944. *V1* and *V2* rockets were thin-skinned, unmanned and inaccurate weapons. One *V1* and one *V2* rocket strike were recorded within the Study Site, with a further three rocket strikes within 190m of its boundaries.

The potential penetration depth of an UXB was dependent on a number of factors including but not restricted to those prior to striking the ground e.g. velocity and orientation of the UXB which in turn will be influenced on factors such as the release altitude from the aircraft and encounters with infrastructure during its fall; those encountered at the point of impact i.e. was the impact on concrete, grass, water etc. and finally, the below ground level conditions which were encountered such as infrastructure e.g. services, basements, foundations, and geology e.g. made ground, clay, sand, etc. Further, as the UXB penetrated the ground, it's velocity naturally slowed where, it either came to an abrupt stop e.g. against foundations or would continue for 10's of feet along a route of least resistance which often resulted in a curving of the trajectory back towards the surface. This is known as the "J Curve" effect and often resulted in a considerable horizontal off-set from the point of entry. This is often the reason why UXBs have been discovered against or under the foundations of buildings, which were present during WWII, or many meters from the point of impact.

WWII Bomb Damage (*Figure 8*)

An analysis of the *LCC* bomb damage maps shows that almost all structures within the Study Site suffered bomb damage ranging from "*General Blast Damage; Minor in Nature*" up to and including "*Total Destruction*". Although bomb damage was recorded across the Study Site, higher levels of bomb damage were particularly visible in the south-eastern and south-western sectors of the Study Site.

Furthermore, an analysis of post-war mapping and further research of historical records corroborated this, with numerous clearance areas and three "*Ruins*" identified within the Study Site, which often indicate potential bomb damage.

Abandoned Bombs

An examination of the official abandoned bomb records did not identify any abandoned bombs situated on-site, nor within 1,000m of its boundaries.

Records of WWII UXB Disposal Tasks

An examination of the civil defence records listing UXBs dealt with in the *Borough of Poplar* from 1940-45 has identified 12 UXB disposal tasks within 670m of the Study Site, the closest of which being as follows:

- One UXB was removed from *Forestors Levens Wharf, Leven Road* (situated 80m to the north) on the 6th October 1940;
- One 250kg UXB was removed from *Crown Wharf, Howard Brothers Canning Town, Bidder Street* (situated 440m to the east-north-east) on the 29th July 1942;
- One UXB was removed from *LMS/244, Poplar High Street* (situated 520m to the south-west) on the 27th January 1944;
- One UXB was removed from *Garden 226, Poplar High Street* (situated 520m to the south-west) on the 27th January 1944;
- One UXB was removed from *228, Poplar High Street* (situated 520m to the south-west) on the 27th January 1944.

Records of Post-WWII UXB Disposal Tasks

An examination of the post-WWII BDO tasks associated with the area has not identified any BDO operations within the Study Site itself, nor within 1,000m of its boundaries.

Sources of UXO Contamination

The most likely source of UXO contamination is from *German* aerially delivered ordnance, which ranges from small IBs through to large HE bombs (the latter forms the principal threat). Additional residual contamination may be present from *British* AAA projectiles (which were used to defend the UK against *German* bombing raids).

STAGE THREE – DATA ANALYSIS

Variable	Result	Comment
Was the area considered to be a primary bombing target?	✔	Six primary bombing targets were identified within 670m, the closest being *Leven Road Gas Works* (located 15m to the north-east).
Was the Study Site or the immediate area bombed during WWII?	✔	ARP records identified four HE bomb strikes on-site.
Did the Study Site or the immediate area experience bomb damage?	✔	*LCC* mapping recorded significant bomb damage on-site.
Was the ground undeveloped during WWII?	✘	The Study Site consisted of residential housing and schools.
Would the footfall have been high in the area?	✔	Given that residential housing was located on-site and in the immediate vicinity, it is likely that footfall would have been high.
Would a UXB entry hole have been observed during WWII?	✘	Given that bomb damage was recorded on-site, it is possible that bomb damage debris may have concealed a UXB entry hole and therefore it may have gone unnoticed.
Have military personnel ever occupied the Study Site?	✘	No military facilities were identified within close proximity of the Study Site.
Would munitions have been manufactured, stored and/or fired from the Study Site?	✘	There is no evidence to suggest munitions were located or fired from this Study Site.
Would previous intrusive works have removed the potential for UXO to be present?	✘	The Study Site has been subjected to significant redevelopment and therefore, it is likely that any UXO within post-war disturbed and developed ground would potentially have been discovered and removed, whilst the surrounding areas remain extant.
Are proposed intrusive works likely to extend into previously undisturbed ground?	✔	Areas of the Study Site are currently undeveloped and therefore, some proposed works may extend into previously undisturbed ground.
Is there potential for an unplanned encounter with UXO to occur during proposed intrusive works?	✔	Given that the Study Site was subject to bomb strikes, it is considered possible for an unplanned encounter with UXO to occur.
Does the probability of UXO vary across the Study Site?	✔	The probability of discovering UXO within post-war disturbed and developed ground is considered to be remote, however, the probability of UXO discovery within all previously undisturbed areas of the Study Site is extant.

N.B. The ✔ / ✘ symbology is intended to act only as a succinct visual indicator as to whether the data analysis has returned a positive (i.e. ✔) or negative (✘) answer to each question concerning the potential for UXO contamination at the Study Site.

STAGE FOUR – RISK ASSESSMENT

Threat Items

The most probable UXO threat items are *German* HE bombs, whilst IBs and *British* AAA projectiles pose a residual threat. The consequences of initiating *German* HE bombs are more severe than initiating IBs or AAA projectiles, and thus they pose the greatest prospective risk to intrusive works.

Bomb Penetration Depth

Considering the ground conditions (highlighted in Stage 1), the average BPD for a 250kg *German* HE bomb within clays is assessed to be approximately 7m bgl, with the maximum BPD considered to be approximately 16m bgl. Although it is possible that the *Luftwaffe* deployed larger bombs in the area, their deployment was infrequent, and to use such larger (or the largest) bombs for BPD calculations are not justifiable on either technical or risk management grounds.

WWII *German* bombs have a greater penetration depth when compared to IBs and AAA projectiles, which are unlikely to be encountered at depths greater than 1m bgl. However, due to the "J Curve" and the potential for structures to impede the penetration into the ground, HE bombs have been discovered at much shallower depths than the average.

Risk Pathway

Given the types of UXO that might be present on-site, all types of aggressive intrusive engineering activities (i.e. construction methodologies) may generate a significant risk pathway. Whilst not all UXO encountered aggressively will initiate upon contact, such a discovery could lead to serious impact on the project especially in terms of critical injury to personnel, damage to equipment and project delay.

Prospective Consequences

Consequences of UXO initiation include:

1. Fatally injure personnel;
2. Severe damage to plant and equipment;
3. Deliver blast and fragmentation damage to nearby buildings;
4. Rupture and damage underground utilities/services.

Consequences of UXO discovery include:

1. Delay to the project and blight;
2. Disruption to local community/infrastructure;
3. The expenditure of additional risk mitigation resources and EOD clearance;
4. Incurring additional time and cost.

UXO RISK CALCULATION

Site Activities

Although there is some variation in the probability of encountering and initiating items of UXO when conducting different types of intrusive activities, a number of construction methodologies have been described for analysis at this Study Site. The consequences of initiating UXO vary greatly, depending upon, *inter alia* the mass of HE in the UXO and how aggressively it might be encountered. For this reason, *6 Alpha* has conducted separate risk rating calculations for each construction methodology that might be employed.

Risk Rating Calculation

6 Alpha's Semi-Quantitative Risk Assessment assesses and rates the risks posed by the most probable threat items when conducting a number of different activities on the site. Risk Rating is determined by calculating the probability of encountering UXO and the consequences of initiating it.

UXO Risk Calculation Table – All Areas				
Activity	**Threat Item**	**Probability (SH+EM=P)**	**Consequence (D+PSR=C)**	**Risk Rating (PXC=RR)**
Excavations	HE Bombs	2+2=4	3+3=6	4x6=24
	AAA Projectiles	1+2=3	3+1=4	3x4=12
	IBs	2+2=4	3+1=4	4x4=16
Trenching	HE Bombs	2+2=4	3+3=6	4x6=24
	AAA Projectiles	1+2=3	3+1=4	3x4=12
	IBs	2+2=4	3+1=4	4x4=16
Piling	HE Bombs	2+3=5	3+2=5	5x5=25
	AAA Projectiles	1+3=4	3+1=4	4x4=16
	IBs	2+3=5	3+1=4	5x4=20
Abbreviations – Site History (SH), Engineering Methodology (EM), Probability (P), Depth (D), Consequence (C), Proximity to Sensitive Receptors (PSR) and Risk Rating (RR).				

STAGE FIVE – RECOMMENDED RISK MITIGATION MEASURES

Do the ground conditions support a geophysical UXO survey?

Non-Intrusive Methods of Mitigation – Magnetometer results may be affected by ferro-magnetic contamination due to previous construction activities and made ground within the Study Site.

Intrusive Methods of Mitigation – Intrusive magnetometry may be effective on this Study Site, prior to piling especially. However, any ferrous metal/red brick contamination in made ground/old foundations may affect the detection capability of the UXB survey equipment, as it passes through the contaminated layer especially. Nonetheless, beyond the contaminated strata such a survey should prove effective.

Mitigation Measures to Reduce Risk to 'ALARP'

Activity	Risk Mitigation Measures	Final Risk Rating
All Activities in All Areas	**1. Operational UXO Emergency Response Plan;** appropriate site management documentation should be held on-site to guide and plan for the actions which should be undertaken in the event of a suspected or real UXO discovery (this plan can be supplied by *6 Alpha*); **2. UXO Safety & Awareness Briefings;** the briefings are essential when there is a possibility of explosive ordnance encounter and are a vital part of the general safety requirement. All personnel working on the site should receive a briefing on the identification of a UXB, what actions they should take to keep people and equipment away from such a hazard and to alert site management. Information concerning the nature of the UXB threat should be held in the site office and displayed for general information on notice boards, both for reference and as a reminder for ground workers. The safety awareness briefing is an essential part of the *Health & Safety Plan* for the site and helps to evidence conformity with the principles laid down in the *CDM* regulations 2015 (this brief can be delivered directly, or in some cases remotely, by *6 Alpha*).	**ALARP**
Excavations and Trenching into Previously Undisturbed Ground	**3. Non-intrusive UXO Survey and/or EOD Engineer in the Watching Brief Role;** Where "open" intrusive works into previously undisturbed ground are proposed and where the extent is considered to be within the capabilities of non-intrusive UXO survey equipment and implementation of this is assessed as likely to prove effective, a non-intrusive geophysical UXO survey should be trialled and, if it proves successful, should be employed to survey site-wide, or in specific areas where "open" intrusive works are to be implemented to identify for signs of sub-surface anomalies which may model as the target UXO in advance of said works. If the survey proves partially or wholly ineffective, an EOD Engineer should be present in the UXO Watching Brief role to monitor ongoing "open" intrusive works to identify any suspicious items that may be UXB or UXO related (this service can be provided by *6 Alpha*).	
Piling into Previously Undisturbed Ground	**4. Intrusive UXO Survey;** Where 'blind' intrusive works into previously undisturbed ground are proposed, an intrusive UXO survey (employing down-hole magnetometer or MagCone techniques) is strongly recommended. Such a survey should extend to the *assessed average bomb penetration depth* or to the maximum depth of the works, whichever is encountered first, or until geology is encountered through which it is assessed a UXB would not penetrate, to identify for signs of sub-surface anomalies which may model as the target UXO in advance of said works. (this service can be provided by *6 Alpha*).	

This assessment has been conducted based on the information provided by the Client, should the proposed works change then *6 Alpha* should be re-engaged to refine this risk assessment

Report Figures

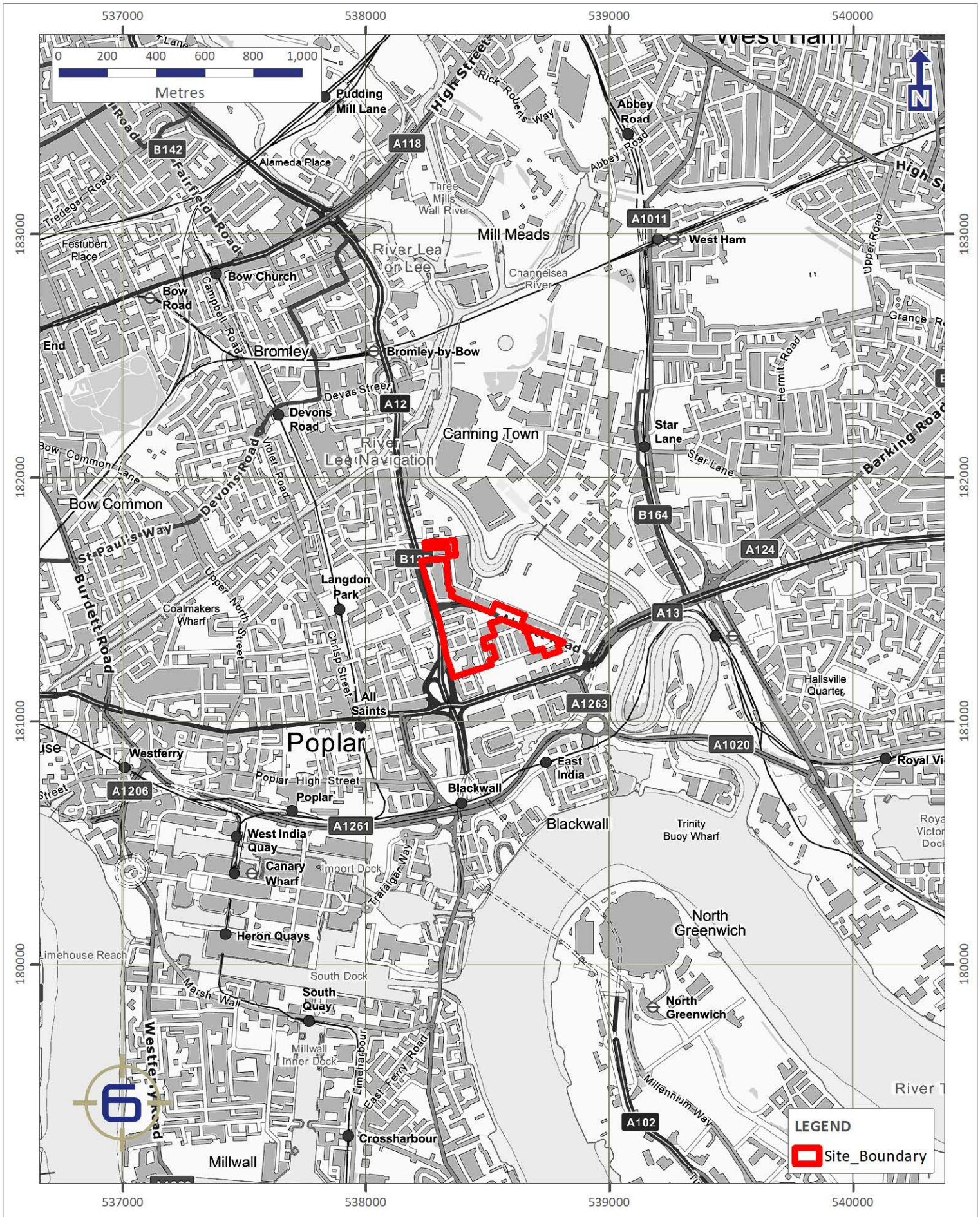
Figure One - Study Site Location

BRITISH NATIONAL GRID

ABERFELDY NEW VILLAGE

Site Location

BOMB SEARCH
WWW.6ALPHA.COM



PROJECT NO.	FIGURE	DRAWN	CHECKED	DATE
8557	1	CC	LG	09 February 2021

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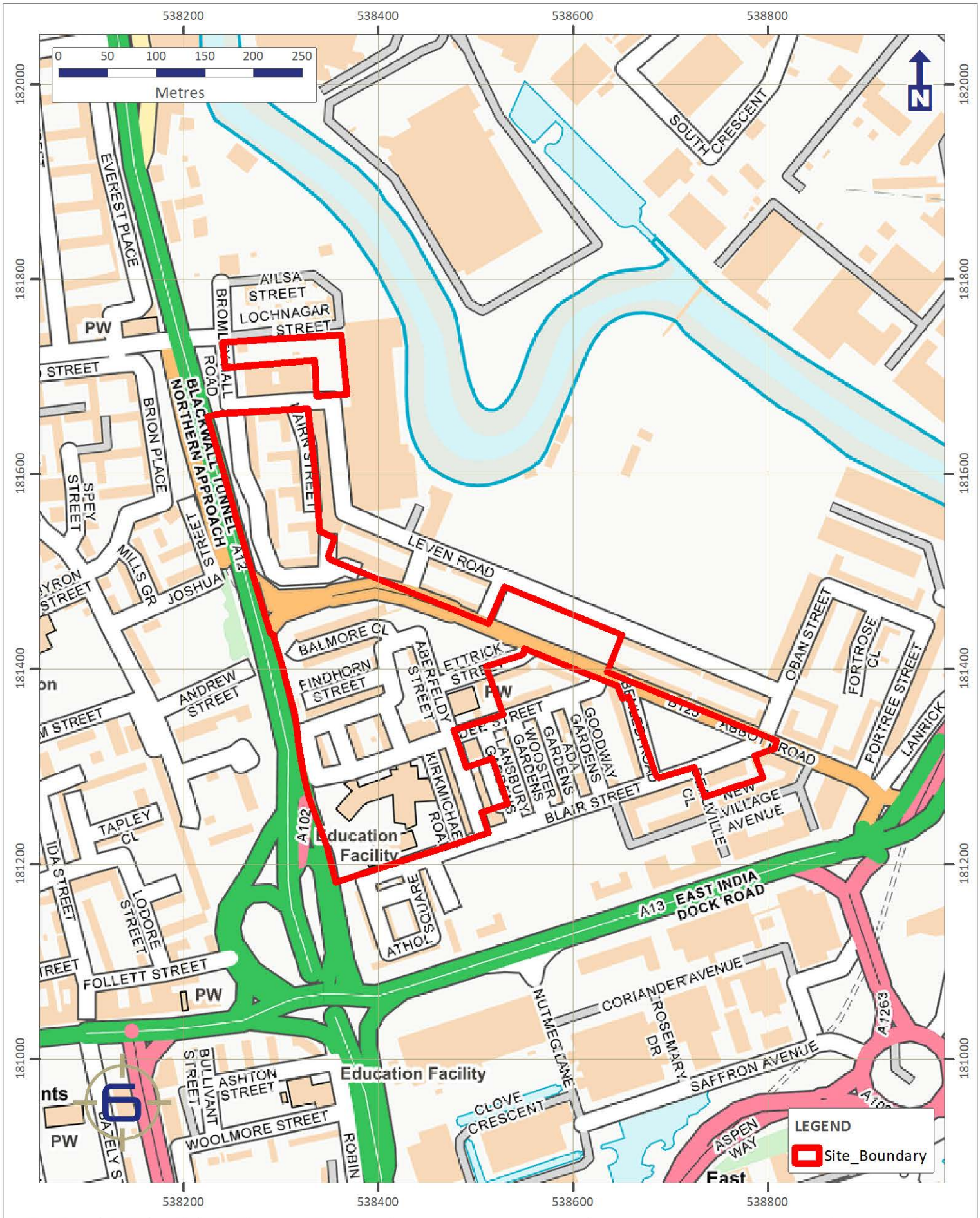
Figure Two - Study Site Boundary

BRITISH NATIONAL GRID

ABERFELDY NEW VILLAGE

Site Boundary

BOMB SEARCH
WWW.6ALPHA.COM



PROJECT NO.	FIGURE	DRAWN	CHECKED	DATE			
8557	2	CC	LG	09 February 2021	Contains Ordnance Survey data © Crown copyright and database right 2017	Produced by and Copyright to 6 Alpha Associates Ltd. Users noting any errors please notify 6 Alpha.	alpha ASSOCIATES

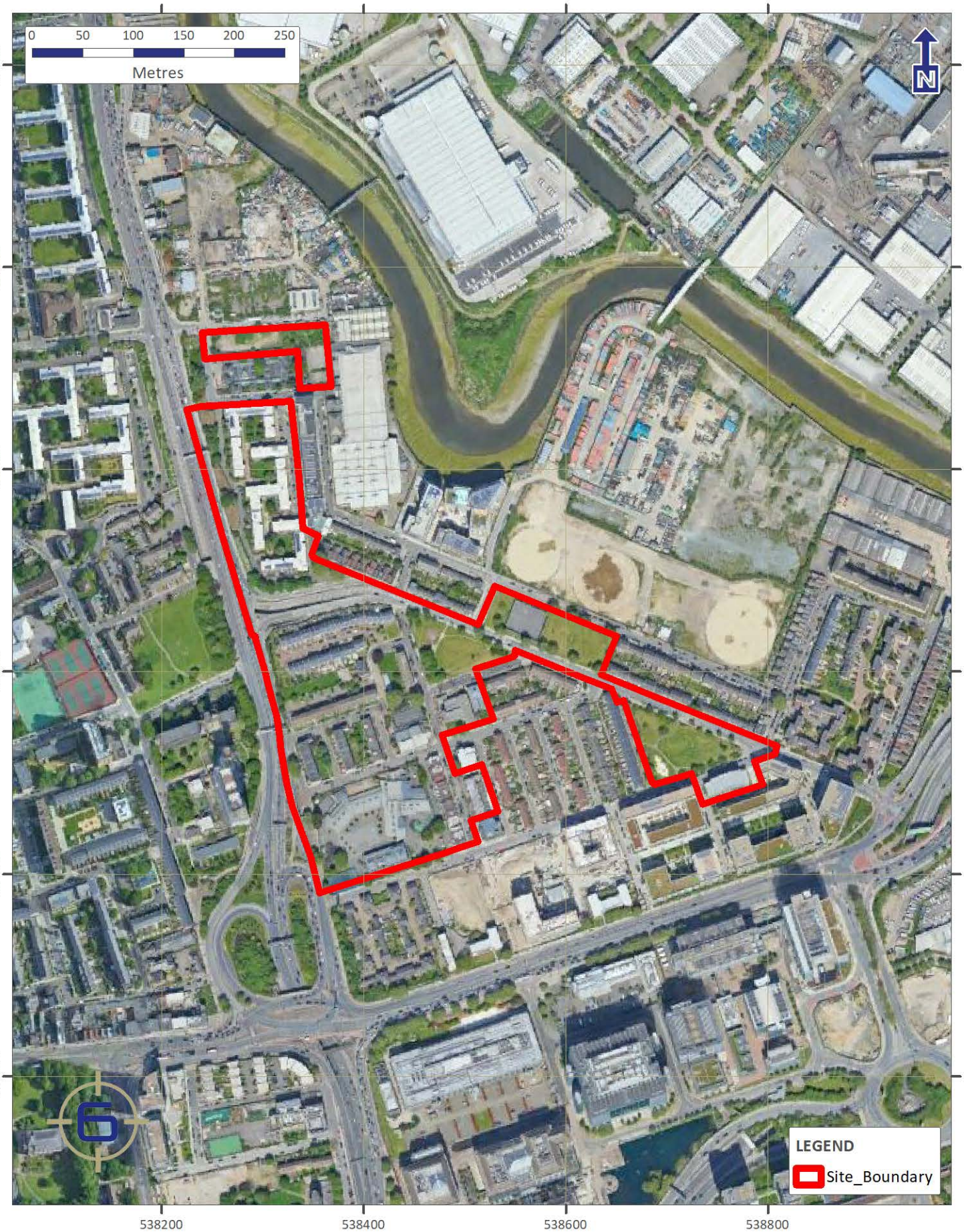
Figure Three - Aerial Photography (2018)

BRITISH NATIONAL GRID

ABERFELDY NEW VILLAGE

Aerial Photography (2018)

BOMB SEARCH
WWW.6ALPHA.COM



PROJECT NO.	FIGURE	DRAWN	CHECKED	DATE		
8557	3	CC	LG	09 February 2021	Map data: Google	Produced by and Copyright to 6 Alpha Associates Ltd. Users noting any errors please notify 6 Alpha.

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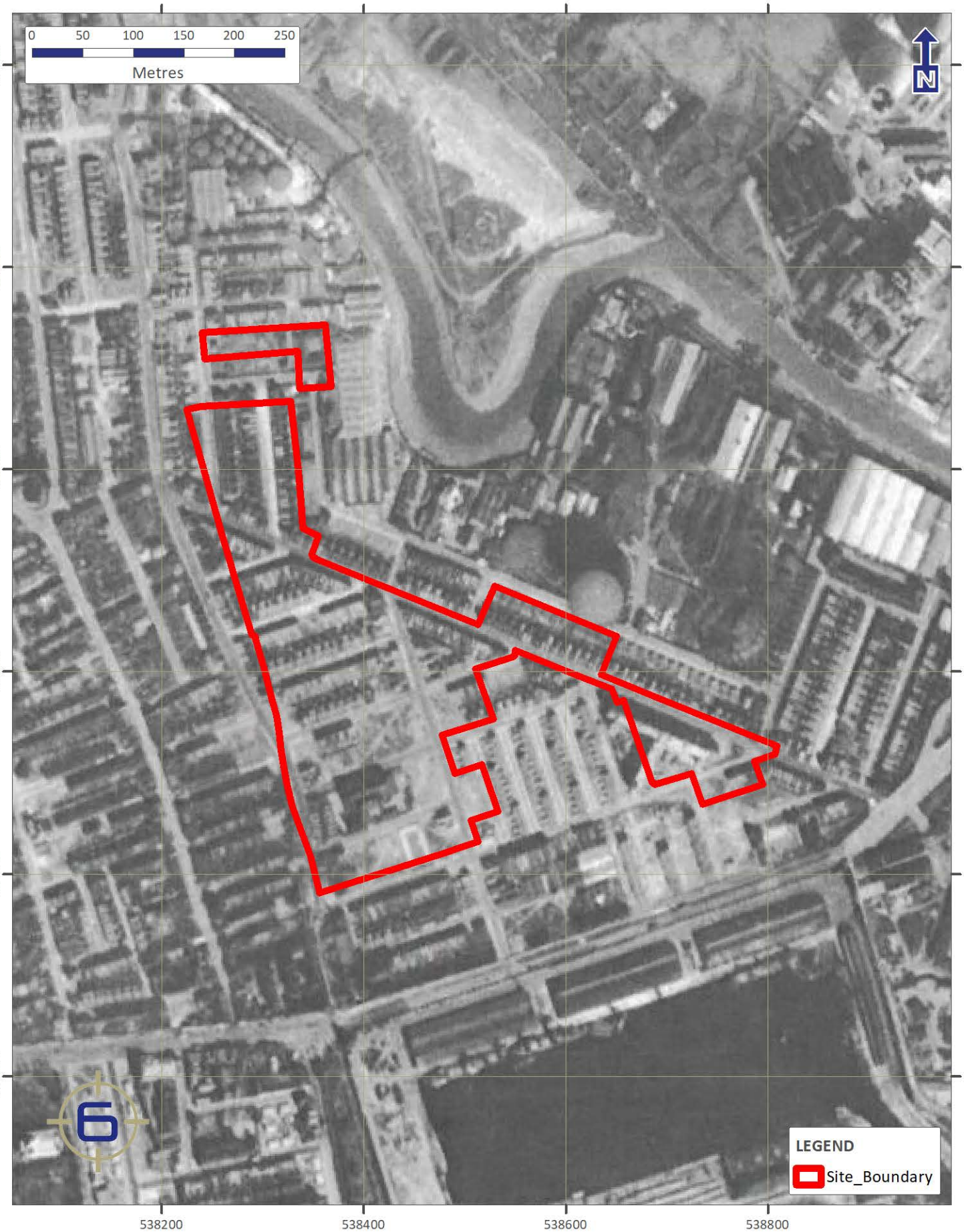
Figure Four - Aerial Photography (1945)

BRITISH NATIONAL GRID

ABERFELDY NEW VILLAGE

Aerial Photography (1945)

BOMB SEARCH
WWW.6ALPHA.COM



PROJECT NO.	FIGURE	DRAWN	CHECKED	DATE		
8557	4	CC	LG	09 February 2021	Map data: Google, The GeoInformation Group	Produced by and Copyright to 6 Alpha Associates Ltd. Users noting any errors please notify 6 Alpha.

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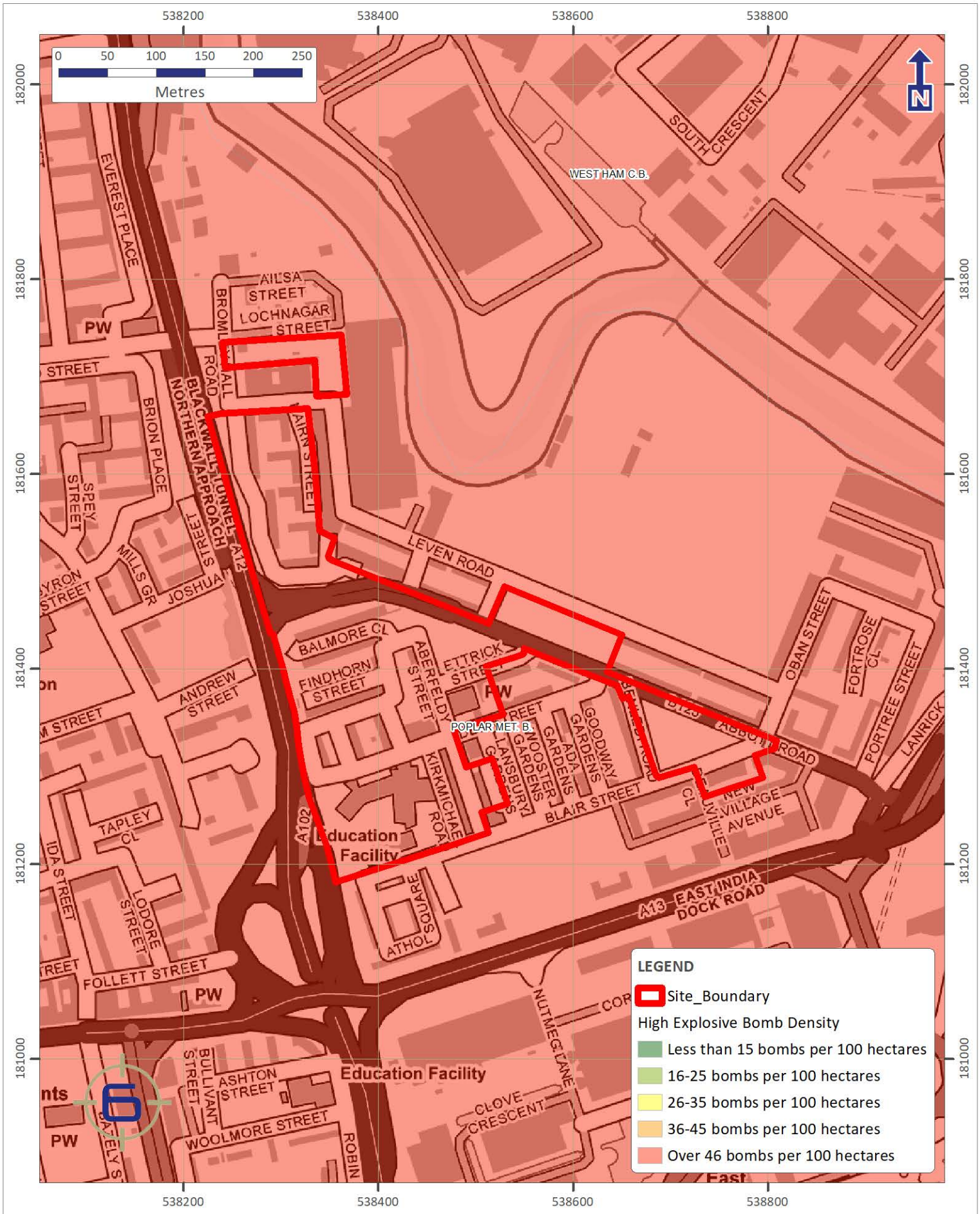
Figure Five - WWII High Explosive Bomb Density

BRITISH NATIONAL GRID

ABERFELDY NEW VILLAGE

WWII High Explosive Bomb Density

BOMB SEARCH
WWW.6ALPHA.COM



PROJECT NO.	FIGURE	DRAWN	CHECKED	DATE
8557	5	CC	LG	09 February 2021

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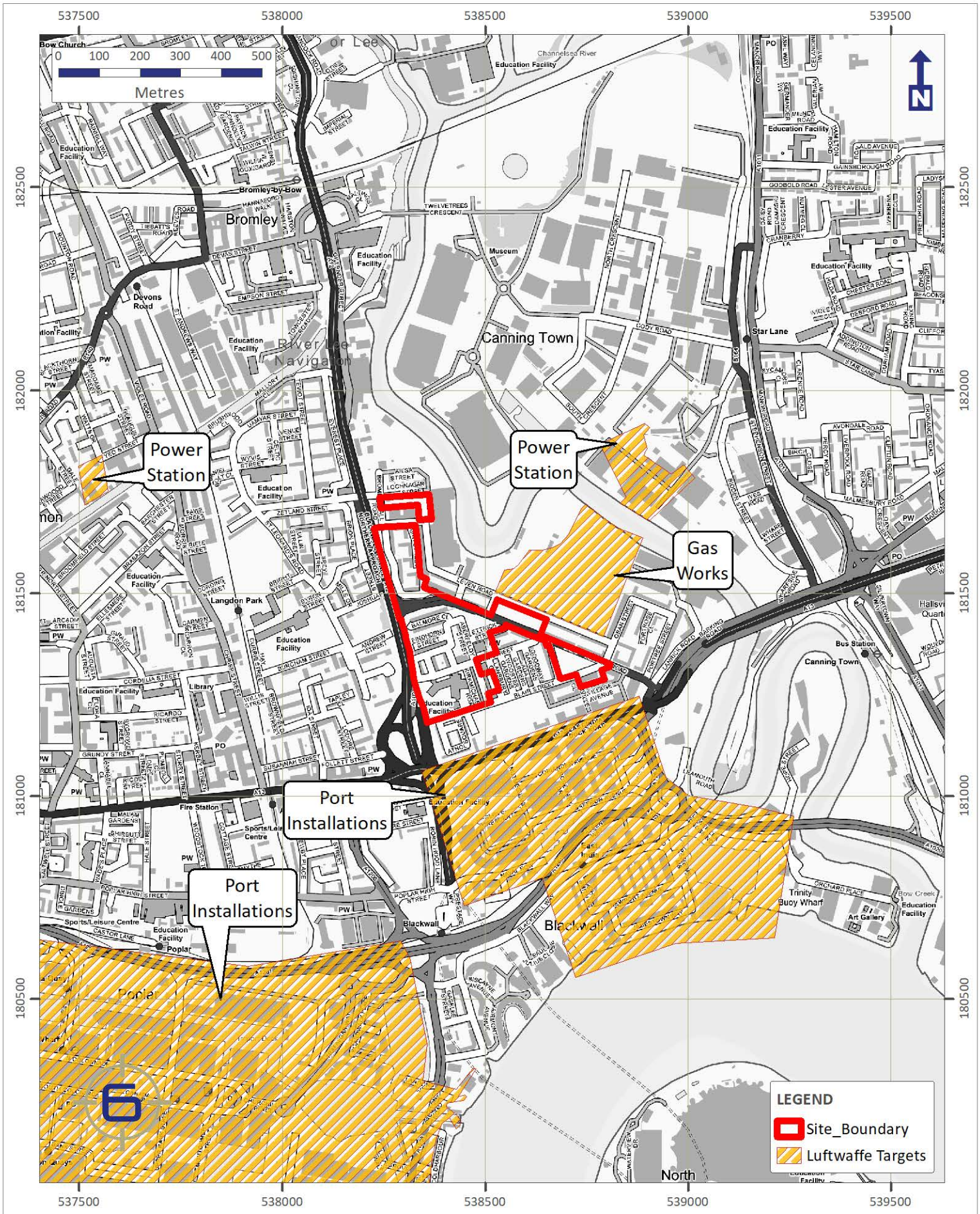
Figure Six - WWII Luftwaffe Bombing Targets

BRITISH NATIONAL GRID

ABERFELDY NEW VILLAGE

WWII Luftwaffe Bombing Targets

BOMB SEARCH
WWW.6ALPHA.COM



PROJECT NO.	FIGURE	DRAWN	CHECKED	DATE			
8557	6	CC	LG	09 February 2021	Contains Ordnance Survey data © Crown copyright and database right 2017	Produced by and Copyright to 6 Alpha Associates Ltd. Users noting any errors please notify 6 Alpha.	alpha ASSOCIATES

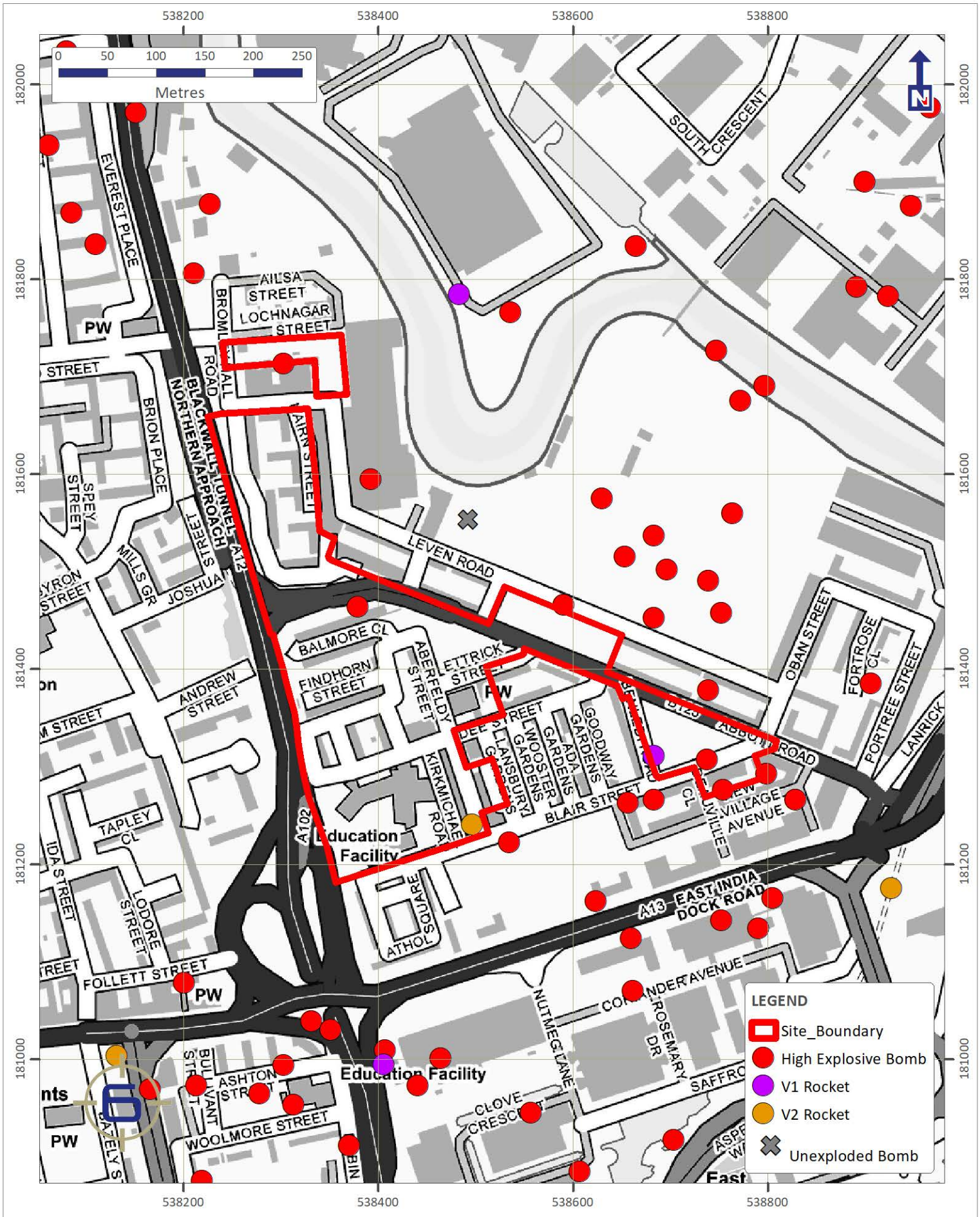
Figure Seven - WWII Consolidated Bomb Strikes

BRITISH NATIONAL GRID

ABERFELDY NEW VILLAGE

WWII Consolidated Bomb Strikes

BOMB SEARCH
WWW.6ALPHA.COM



PROJECT NO.	FIGURE	DRAWN	CHECKED	DATE
8557	7	CC	LG	10 February 2021

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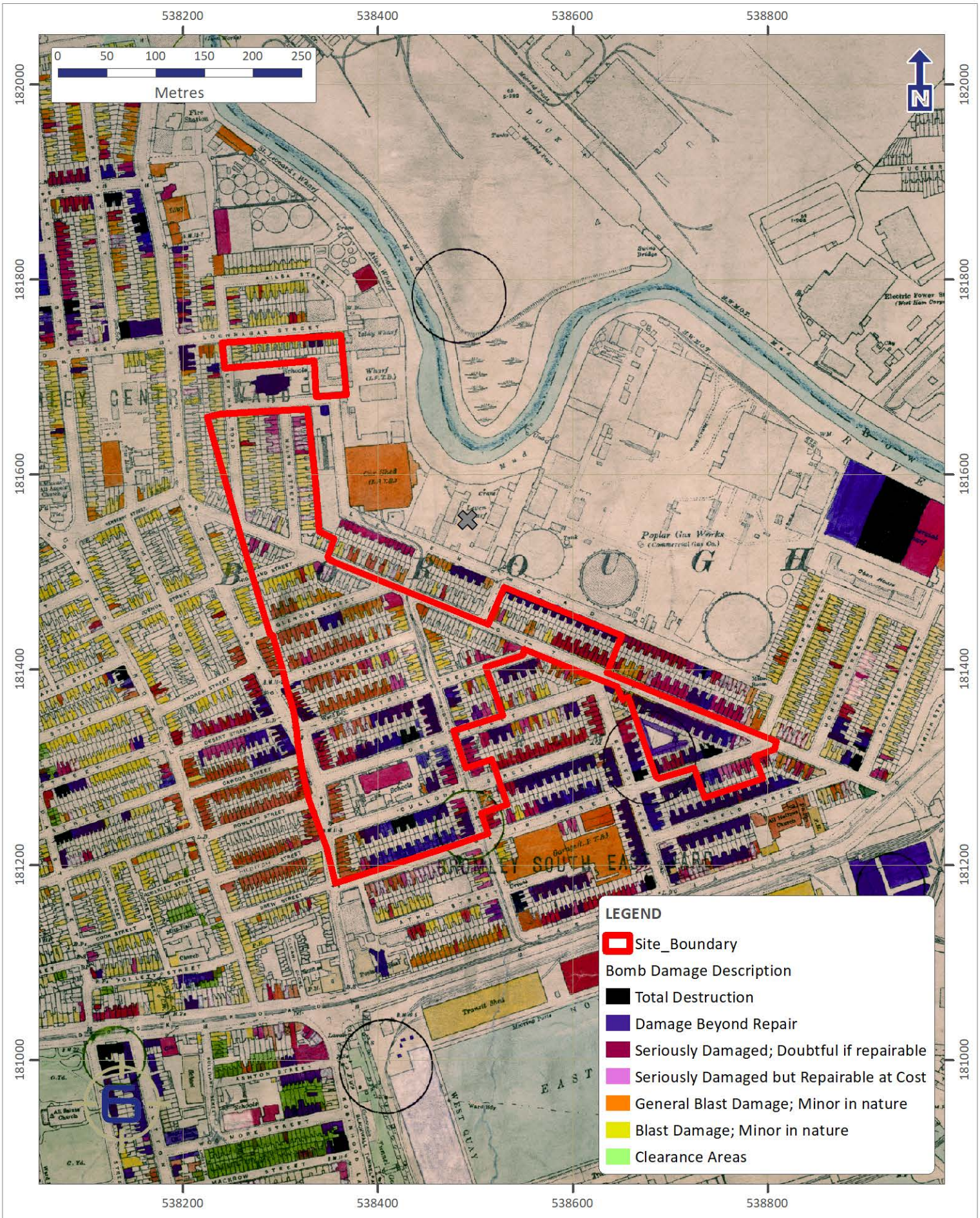
Figure Eight – London County Council WWII Bomb Damage Map

BRITISH NATIONAL GRID

ABERFELDY NEW VILLAGE

London County Council WWII Bomb Damage Map

BOMB SEARCH
WWW.6ALPHA.COM



PROJECT NO.	FIGURE	DRAWN	CHECKED	DATE
8557	8	CC	LG	10 February 2021

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APPENDIX J - PROPOSED DEVELOPMENT APPRAISAL SUMMARY

Aberfeldy Application Scheme

Development Appraisal
DS2 LLP
27 October 2021

APPRAISAL SUMMARY — DS2 LLP

Aberfeldy Application Scheme

Appraisal Summary for All Merged Phases

Currency in £

REVENUE

Sales Valuation	Units	ft²	Sales Rate ft²	Unit Price	Gross Sales
H Social Rent	66	62,420	175.00	165,508	10,923,500
H Intermediate	7	5,791	400.00	330,914	2,316,400
H Market Residential	31	21,528	675.00	468,755	14,531,400
F Market Residential	102	73,044	675.00	483,379	49,304,700
I Market Residential	49	34,897	675.00	480,724	23,555,475
I Intermediate	3	3,617	400.00	482,267	1,446,800
J Social Rent	19	26,684	175.00	245,774	4,669,700
B3 Market Residential	182	132,700	675.00	492,157	89,572,500
B1 Intermediate	42	26,989	400.00	257,038	10,795,600
B2 Market Residential	183	118,836	675.00	438,330	80,214,300
A1 Social Rent	88	62,841	175.00	124,968	10,997,175
A2 Social Rent	39	37,462	175.00	168,099	6,555,850
A3 Social Rent	9	10,655	175.00	207,181	1,864,625
B4 Social Rent	6	7,915	175.00	230,854	1,385,125
E1 Market Residential	109	64,917	675.00	402,009	43,818,975
E3 Social Rent	39	33,415	175.00	149,939	5,847,625
E2 Social Rent	3	2,846	175.00	166,017	498,050
E2 Market Residential	42	29,895	675.00	480,455	20,179,125
C1 Market Residential	183	119,982	675.00	442,557	80,987,850
C2 Social Rent	13	12,707	175.00	171,056	2,223,725
C2 Intermediate	24	15,572	400.00	259,533	6,228,800
C2 Market Residential	31	20,447	675.00	445,217	13,801,725
C4 Market Residential	99	55,882	675.00	381,014	37,720,350
C3 Social Rent	5	6,709	175.00	234,815	1,174,075
C3 Market Residential	42	30,813	675.00	495,209	20,798,775
D1 Social Rent	51	41,665	175.00	142,968	7,291,375
D2 Market Residential	60	40,738	675.00	458,303	27,498,150
D3 Social Rent	2	2,707	175.00	236,863	473,725
D3 Market Residential	62	41,757	675.00	454,613	28,185,975
D4 Social Rent	4	4,564	175.00	199,675	798,700
Totals	**1,595**	**1,149,995**			**605,660,150**

Rental Area Summary	Units	ft²	Rent Rate ft²	Initial MRV/Unit	Net Rent at Sale	Initial MRV
H Retail	1	8,084	30.00	242,520	242,520	242,520
F Retail	1	2,099	30.00	62,970	62,970	62,970
B3 Retail	1	3,160	30.00	94,800	94,800	94,800
B1 Workspace	1	822	30.00	24,660	24,660	24,660
B2 Workspace	1	569	30.00	17,070	17,070	17,070
A1 Workspace	1	1,322	30.00	39,660	39,660	39,660
B5 Workspace	1	4,405	30.00	132,150	132,150	132,150
E1 Workspace	1	3,876	30.00	116,280	116,280	116,280
C1 Workspace	1	2,978	30.00	89,340	89,340	89,340
C6 Workspace	1	1,038	30.00	31,140	31,140	31,140
C4 Workspace	1	3,422	30.00	102,660	102,660	102,660
C5 Workspace	1	1,970	30.00	59,100	59,100	59,100
D1 Retail	1	3,913	30.00	117,390	117,390	117,390
D3 Retail	1	3,012	30.00	90,360	90,360	90,360
Totals	**14**	**40,670**			**1,220,100**	**1,220,100**

Investment Valuation

H Retail					
Market Rent	242,520	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	3,813,208
F Retail					
Market Rent	62,970	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	990,094
B3 Retail					
Market Rent	94,800	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	1,490,566
B1 Workspace					

Aberfeldy Application Scheme

Market Rent	24,660	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	387,736
B2 Workspace					
Market Rent	17,070	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	268,396
A1 Workspace					
Market Rent	39,660	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	623,585
B5 Workspace					
Market Rent	132,150	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	2,077,830
E1 Workspace					
Market Rent	116,280	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	1,828,302
C1 Workspace					
Market Rent	89,340	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	1,404,717
C6 Workspace					
Market Rent	31,140	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	489,623
C4 Workspace					
Market Rent	102,660	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	1,614,151
C5 Workspace					
Market Rent	59,100	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	929,245
D1 Retail					
Market Rent	117,390	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	1,845,755
D3 Retail					
Market Rent	90,360	YP @	6.0000%	16.6667	
(1yr Rent Free)		PV 1yr @	6.0000%	0.9434	1,420,755
Total Investment Valuation					**19,183,962**
GROSS DEVELOPMENT VALUE				**624,844,112**	
Purchaser's Costs		6.80%	259,298		
Purchaser's Costs		6.80%	67,326		
Purchaser's Costs		6.80%	101,358		
Purchaser's Costs		6.80%	26,366		
Purchaser's Costs		6.80%	18,251		
Purchaser's Costs		6.80%	42,404		
Purchaser's Costs		6.80%	141,292		
Purchaser's Costs		6.80%	124,325		
Purchaser's Costs		6.80%	95,521		
Purchaser's Costs		6.80%	33,294		
Purchaser's Costs		6.80%	109,762		
Purchaser's Costs		6.80%	63,189		
Purchaser's Costs		6.80%	125,511		
Purchaser's Costs		6.80%	96,611		
Effective Purchaser's Costs Rate		6.80%			
				1,304,509	
NET DEVELOPMENT VALUE				**623,539,603**	
Grant Funding					
Grant Funding			7,004,000		
Grant Funding			14,149,200		
				21,153,200	
NET REALISATION				**644,692,803**	

APPRAISAL SUMMARY — DS2 LLP

Aberfeldy Application Scheme

OUTLAY

ACQUISITION COSTS				
Phase A EUV		8,684,476		
Phase B EUV		23,686,476		
Phase C EUV		16,503,614		
Phase D EUV		2,740,648		
Total Acquisition			51,615,214	
				51,615,214
Stamp Duty		5.00%	2,580,761	
Agent Fee		1.00%	516,152	
Legal Fee		0.80%	412,922	
				3,509,835
CONSTRUCTION COSTS				
Construction	**ft²**	**Build Rate ft²**	**Cost**	
H Build Costs	127,733	254.37	32,491,860	
F Construction Costs	101,965	253.96	25,895,020	
I Construction Costs	53,407	279.01	14,901,120	
J Construction Costs	30,696	286.02	8,779,560	
Phase B Construction Costs	561,869	266.34	149,647,413	
Phase C Construction Costs	583,516	240.67	140,432,186	
Phase D Construction Costs	182,026	241.88	44,028,512	
Totals	**1,641,212 ft²**		**416,175,671**	
Contingency		5.00%	20,808,784	
S106 (est only)			4,400,000	
Phase A Total CIL			1,801,991	
Phase B Total CIL			3,292,404	
Phase C Total CIL			3,406,666	
Phase D Total CIL			1,140,041	
				451,025,557
Other Construction Costs				
CPO & VP consultant costs			925,000	
Equity gift			1,000,000	
Home loss and removal costs payment			2,520,000	
UXO			250,000	
JKW			48,000	
Asbestos			1	
Off-site utility			13,635,000	
Placemaking			1	
Other Development Costs			4,104,900	
				22,482,902
PROFESSIONAL FEES				
Professional Fees		10.00%	41,617,567	
				41,617,567
MARKETING & LETTING				
Residential Marketing		1.50%	7,952,540	
Commercial Marketing			10,000	
Letting Agent Fee		10.00%	122,010	
Letting Legal Fee		5.00%	61,005	
				8,145,555
DISPOSAL FEES				
AH Sales Agent Fee			50,000	
Commercial Sales Agent Fee		1.00%	178,795	
Residential Sales Agent Fee		1.50%	7,952,540	
Residential Sales Legal Fee	1,595 un	1,000.00 /un	1,595,000	
Commercial Sales Legal Fee		0.50%	90,453	
				9,866,787
TOTAL COSTS BEFORE FINANCE				**588,263,415**
FINANCE				
Debit Rate 6.500%, Credit Rate 0.000% (Nominal)				
Total Finance Cost				56,553,995
TOTAL COSTS				**644,817,410**
PROFIT				
				124,607

Aberfeldy Application Scheme

Performance Measures

Profit on Cost%	0.02%
Profit on GDV%	0.02%
Profit on NDV%	0.02%
IRR% (without Interest)	6.27%