TOTAL ERADICATION OF KNOTWEED • GUARANTEED





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PROPOSAL FOR ERADICATION OF JAPANESE KNOTWEED

Ref: 6083 Date: 14/08/2015

Company Name: Re-mine

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Site Address: Walton Hospital, Rice Lane, Liverpool, Merseyside, L9 1AE

Prepared by: Zac Lowens

Proposal Date: 24/08/2015

Japanese Knotweed is the UK's no 1 most invasive plant. We specialise in the rapid eradication of Japanese Knotweed and have a dedicated in-house team working nationally to provide our clients with optimised site specific solutions. In fact, that's all we do, so we make sure we do it well!

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1.0 EXECUTIVE SUMMARY

A site survey has found the presence of Japanese knotweed, in multiple locations at Walton Hospital, Rice Lane, Liverpool, Merseyside, L9 1AE. Japanese knotweed is an extremely invasive species. We therefore recommend that the knotweed is professionally treated and an insurance back guarantee (IBG) provided. In the unlikely event that the knotweed produces regrowth, and further work is required, it will be covered under the terms of the guarantee.

We have presented below our recommended treatment plan for the eradication of all knotweed found within phases 1 & 2. Due to site conditions and knotweed location we believe our ExtractTM approach will be the most effective method.

2.0 Introduction

Thank you for your valued enquiry and for giving us the opportunity to provide our proposals for eradication of the Japanese knotweed.

We have based this proposal on existing site conditions and our understanding of your requirements as defined in section 4.0.

Our aim is to guarantee complete eradication, quickly and efficiently, whilst providing our clients with value for money.

3.0 SITE CONDITIONS

The site comprises 2 proposed development phases infested with JK. Proposed phases 1 & 2 are found to be moderately infested with JK. Phases 1 & 2 are moderately overgrown with acceptable access, Where there are too many JK stands to be shown a representative sample is provided below:







Visible extent of Japanese knotweed as per table 1 $\,$















Phase 1: JK 1 – Walton Hospital, Liverpool



Phase 1: JK 7 – Walton Hospital Liverpool



Phase 1: JK8 – Walton Hospital, Liverpool















Phase 1: JK 9 – Walton Hospital, Liverpool



Phase 2: JK2 – Walton Hospital, Liverpool



Phase 2: JK6 – Walton Hospital, Liverpool















Phase 2: JK9 – Walton Hospital, Liverpool



Phase 2: JK20 – Walton Hospital, Liverpool













Table 1 - Extent of identified Japanese knotweed

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Ref	Visible Dims	Visible Area	Est. lateral rhizome spread	Infestation Area (On site)	Est. average rhizome depth	Est. Volume (On site)	Any relevant comments	
	Length x width (m)	(m²)	(m)	(m²)	(m)	(m³)		
Phase 1 Stands								
JK1	3x1	3	2	15	1.5	22.5		
JK2	3X1	3	2	15	1.5	22.5		
JK3	1X1	1	1	10	1.5	15		
JK4	2X4	8	1	24	1.5	36		
JK5	4X3	12	1	25	1	25	fragmentary	
JK6	1X2	2	1	12	1.5	18		
JK7	2X5	10	2	54	2	108	Very mature	
JK8	25X75	1875	1	2079	0.1	208	100ml scrape	
JK9	2x5	10	0	10	2	20	Extracted and moved by resident	
JK10	10x5	50	0	50	2	100	Extracted and moved by resident	
JK11	5x4	20	0	20	2	40	Extracted and moved by resident	
JK12	2x1	2	1	13	1.5	20		
	Total	1996		2327		635		
Phase 2 Stands								
JK1	1x5	5	2	21	1.5	31.5	Along wall	
JK2	1X4	4	2	18	1.5	27		
JK3	1X2	2	2	12	1.5	18		
JK4	1X1	1	1	8	1	8		
JK5	1X2	2	2	12	1.5	18		
JK6	3X4	12	2	54	1.5	81		
JK7	1X1	1	1	8	1	8		
JK8	3X4	12	2	54	1.5	81		
JK9	10X4	40	2	112	1.5	168		
JK10	4X3	12	2	54	1.5	81		











JK12	1X5	5	1	21	0.1	2	100ml scrape
JK13	6X2	12	2	54	1.5	81	
JK14	1X1	1	1	8	1	8	
JK15	2X1	2	2	12	1.5	18	
JK16	2X2	4	2	18	1.5	27	
JK17	3X3	9	2	25	1.5	37.5	
JK18	2X2	4	2	18	1.5	27	
JK19	1X1	1	1	8	1	8	
JK20	12X4	48	2	128	1.5	192	
JK21	3X4	12	2	54	1.5	81	
	Total	199		719		952	

Phase 1 & 2 total = **1,587 m**³













Table 2 - Site Specific Constraints affecting treatment options

Site Specific Constraint		Comments (where applicable)		
Any identified watercourse (controlled water) in close proximity of the knotweed?	No			
Is groundwater assumed to be deeper than 3m below ground level?	Yes			
Has the presence of rare or protected species/habitats been identified or reported to us?	No			
Is there a risk of knotweed encroachment across site boundaries now or in foreseeable future?	Yes	JK is growing along multiple boundaries		
Is there any evidence of, or any reported previous ground disturbance within theoretical area of infestation;	Yes	A third party has been extracting JK from phase 1 using an excavator		
Is there any evidence of previous herbicide treatment to the knotweed, or has any been reported to us?	Yes	Inefectual spraying around June each year		
Is the knotweed in close proximity of buildings/structures?	Yes	Boundary walls		
Is the soil type/conditions known?	No	Y		
Is the knotweed on sloped ground?	Yes	Phase 2 has several stands on sloped ground		
Are there any known underground obstructions?	No	TBC		
Is access available for the required machinery?	Yes			

4.0 CLIENT REQUIREMENTS

We understand the plans for the site include the development of a retail store.

The target date for completion of the treatment programme is TBC

Eradication of the knotweed is necessary in order to prevent;

- 1) delays to development/construction works, and associated increased cost
- spread of knotweed (encroachment) onto adjoining land resulting in risk of neighbour dispute and ultimately legal action under private nuisance
- 3) criminal sanctions under the Wildlife & Countryside Act 1981, by permitting the spread of Japanese knotweed into the wild, or under the Environmental Protection Act 1990 Part 2 "duty of care" relating to controlled waste
- 4) problems with land sale/purchase due to nil/low valuations for lending purposes
- 5) knotweed damaging existing or future buildings, hard surfaces, drains etc.

The photos below show typical damage caused by knotweed that has not been managed correctly.















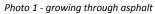




Photo 2 - growing through concrete floor



Photo 3 - growing through concrete hardstanding













5.0 RECOMMENDATIONS

The pros and cons of the various methods for controlling or eradicating Japanese knotweed are explained on our website www.environetuk.com. Generally the options are as per the table below, which are further detailed in section 11.0 of this report.

Comparison Table	for Knotweed Eradic	ation Methods			
Method	Cost	Time	Track Record	Environmental Impact	Comments
Chemical methods					
In situ herbicide treatment (foliar spray)	Generally least expensive method	At least one season required, possibly more	WARNING Not suitable where ground is to be disturbed	Medium impact, risk of harm from herbicide use	Generally used where ground is not to be disturbed and some re- growth is tolerable
In situ herbicide treatment (stem injection)	Generally least expensive method	At least one season required, possibly more	WARNING Not suitable where ground is to be disturbed	Medium impact, risk of harm from herbicide use	Generally used where ground is not to be disturbed. Risk of dormancy and future regrowth.
Physical methods					
Xtract™ - on site soil processing	Approx 50% saving compared to Dig & Dump	A matter of just days depending on volumes	★★★★ High level of certainty	Low impact, no herbicide use, zero waste to landfill	A very cost effective solution suited to development sites
Dig & Dump - landfill disposal	* Extremely expensive	A matter of just days depending on volumes	★★★★ High level of certainty	High impact. EA method of "last resort"	The method of last resort where soils need to be removed from site
Cell burial – on site disposal	Approx 50% saving compared to Dig & Dump	Major earthworks taking weeks or months	Control measure, not eradication, reliant on cell membrane	High impact to site due to earthworks	Not recommended as better options exist. A method we will not employ.
Stockpile & Herbicide Treatment	Generally least expensive physical removal method	A matter of days to move soils from construction critical areas	High certainty where excavated but not in stockpile area	Medium impact from use of herbicides	An economical option but space constraints often make it impractical

Our Recommendations

Having considered site conditions and the client's requirements we recommend the following:

Employing our EXTRACT[™] approach













Mobilisation Timescale

We are used to rapid deployment and will use our best endeavours to fit in with your programme requirements, subject to reasonable notice.

Health, Safety, Environment

We take our health, safety and environmental responsibilities very seriously. We are certificated under CHAS and Constructionline. We are committed to CSCS, with all site operatives holding an appropriate CSCS card. Our Site Managers are SSSTS trained. All projects are risk assessed and method statements produced upon request.

All herbicide treatment work is carried out by employees holding the correct NPTC PA1 and PA6 certificates of competence.

6.0 Insurance Backed Guarantees



Insurance backed guarantee

We offer insurance backed guarantees (IBGs) underwritten by **Lloyd's of London** on all of our eradication projects. We have provided guarantees since 2004. Rest assured we always honour our guarantee obligations. Having the backing of **Lloyd's of London** means that if your knotweed returns, and we don't due to insolvency, then Lloyd's of London will meet those guarantee obligations on our behalf. We are the first and only UK Japanese knotweed remediation company able to offer this unrivalled level of security from a world class "A" rated insurer. A growing number of funders now insist on this level of security.

For full details of Environet's **LLOYD'S OF LONDON** IBG please ask for a sample document.

We offer two types of guarantee;

- 1. Standard guarantee that covers the area of infestation plus a buffer zone
- 2. Platinum guarantee that covers the entire property/site.

Either type can be for 5 years, or can be extended to a maximum of 10 years.

WARNING - Beware of misleading information relating to insurance backed guarantees

Some knotweed contractors claim their guarantees to be "insurance backed", when evidently they are not. The insurance they claim relates to their Professional Indemnity (PI) insurance or their Public Liability (PL) insurance which clearly would not pay out for knotweed regrowth, especially where the insured (the knotweed company) was insolvent.

There are others who do provide insurance backed guarantees but these are underwritten by non-rated insurers. The policy small print would make a successful claim highly unlikely, but even if you could the limit of liability is set low and excess charge set high. That is why the insurance is cheap.

If you are comparing quotations please check that the organisation has the resources to honour the guarantee, has a long track record in the specialist niche of knotweed eradication, has a strong financial background, and the backing of a reputable insurer. Lloyd's of London would not back us if we failed on any of those counts. See <u>Guarantee information</u> on our website.













8.0 WHY CHOOSE ENVIRONET?

Simply because we;

- offer the most robust insurance backed guarantees available in the UK
- have patented equipment and methods designed specifically for removing Japanese knotweed
- specialize solely on eradication of knotweed and therefore have a vast wealth of experience and expertise
- have a long track record having been established in 1996
- have a strong balance sheet and are financially secure
- are easy to work with.

9.0 ACCEPTANCE & INSTRUCTION

If you have any queries regarding the content of this proposal or require a quote for an alternative method please contact us on 01932 868700. We may be able to engineer a lower cost solution that still meets your needs.

To accept this quotation, please email your confirmatory instructions to sales@environetuk.com with the following information:

- a. Name of instructing party:
- b. Contact name, tel and email:
- c. Address of instructing party:
- d. Billing Address (if different):
- e. Order Value:
- f. Any other special instructions:

Please note a non-refundable deposit payment of 25 % of the Contract Price shall be payable upon issuance of the Company's written acceptance of the Customer's order. We reserve the right to delay commencement on site until in receipt of the deposit payment.













11.0 APPENDIX

11.1 Terms & Conditions

This quotation is subject to our Standard Terms and Conditions (version Jan 2014) which can be found on our website at: http://www.environetuk.com/Standard-quotation-appendices.aspx.

11.2 Explanatory Notes

In-situ herbicide treatment

In situ herbicide treatment is suited to situations where the ground is not to be disturbed in the foreseeable future. There is always a risk following in situ herbicide treatment that viable rhizome remains in the ground and just because growth is not evident that does not mean that ALL rhizome is dead. For this reason utmost care must be exercised if works that cause ground disturbance within treated areas is undertaken, as this could easily cause further spread.

The advantages of in situ treatment are that it is generally less disruptive and less expensive than other physical removal methods. The disadvantages are the lengthy treatment programme (typically 1-3 years) and the potential for viable but dormant rhizome to remain.

An Environet herbicide treatment programme typically consists of 3 to 4 applications of DEFRA approved herbicide applied using a foliar spray technique over the growing season, with the aim of achieving complete eradication. The method has been refined over the years on both commercial and residential property and has a proven track record. The secret of success lies in ensuring that the herbicide is translocated throughout the rhizome system so that all parts above and below ground receive a lethal dose. Particular care is taken to ensure that dormancy is not induced, as dormancy results in future regrowth.

Xtract™ - complete eradication in a matter of days, guaranteed

Xtract™ is the optimum solution where knotweed lies in an area that is to be disturbed (e.g. by proposed construction or landscaping works), where in-situ herbicide treatment is inappropriate.

Xtract™ is typically 50% of the cost of dig and dump, and is the better environmental option as it avoids the transport and disposal of huge quantities of infested soil to landfill. It does not involve considerable earthworks or rely upon containment, such as in the case of cell burial, and does not render large areas of the site unusable as is the case for the stockpile and treat option.

Xtract™ involves the physical excavation of all the knotweed infested soils. The infested soils are then processed using our purpose built and patented machinery to separate the viable rhizome/root material from the soil. The clean processed soil is then re-used on site. The rhizome is bagged up and taken off site in accordance with all of the EPA 1990 "duty of care" requirements to leave your site clear of knotweed, ready for you to commence construction.

For a short video clip see <u>Xtract™ in action</u> on our website.

Dig & Dump

Dig & Dump is considered the option of last resort (see Environment Agency Code of Practice) but may be appropriate where small volumes of infested soil are encountered, or where other factors require the soils to be taken off site for disposal.

Dig & Dump involves the physical excavation of all infested soil, loading into 8 wheeler tipper lorries, haulage and finally disposal at a registered landfill site.

Excavation, stockpiling and herbicide treatment

Where knotweed lies in an area that is to be disturbed, and space is available on site for permanent stockpiling and subsequent herbicide treatment Stockpile & Treat is a viable option.

Stockpile & Treat involves the physical excavation of the infested soils from construction critical areas, to free up the land ready for development. The excavated infested soils are then stockpiled in an appropriate location on site, ready for subsequent herbicide treatment on any emerging knotweed growth over a period of one year or possibly more.













This method does require considerable areas of land for the stockpiled material, so where land values are at a premium is seldom a viable option.











