

**BS 5837 tree report for:  
Maes Y Dderwen, Cardigan.**

This survey has been carried out with reference to: Common sense risk management of trees produced by National tree safety group 2011, and BS 5837-2012: Trees in relation to design, demolition, and construction. Please note that this report is only valid at the time of inspection, and does not take into account accidental harm, severe weather, pests and diseases that will effect changes to the trees

Tree one (see map)				
Species	Oak		Age Class	Mature
Stem diameter	77cm		Physiological Condition	Average
Branch spread:	N: 6.3m	S: 9.4m	Structural condition	Average
	E: 8.9m	W: 7.2m		
Tree height	14.7m		Remaining years	>40
Category grading: B2 (see page nine of BS 5837-2012 for definition)				

**Preliminary recommendations:** This is a reasonable example of the mature Oak, that adds to the site aesthetes, and provides a natural backdrop for the proposed development.

**Therefore this tree should be retained.**

**Below ground constraints:** The RPA (Root Protection Area) for this tree will extend 9.24m from the centre of the tree, see annex one for formula. However due the ditch on the north side of the tree, which will have created a natural root barrier, the RPA can be reduced to the edge of the ditch.

**Above ground constraints:** There is more than expected amounts of dead wood in the canopy, which may indicate an underlying issue. However I could find no obvious cause during my visual inspection. I would recommend that this tree is inspected every two years to monitor the die back.

Furthermore the ground within the RPA has been made up, which will have a detrimental effect on this tree. This made up ground will have to be removed, and the ground returned to its original level as soon as possible.

**Arboricultural implications assessment:**

- Work carried out to return the ground to its original level, must only be carried out with a digger no bigger than 2.5 tonnes, to minimise root compaction.
- The area within the RPA should be dressed with a 50mm layer of woodchip, and allowed to rot into the ground. This will naturally solve any root compaction.
- A clearly defined barrier such as weld mesh panels securely fixed to the ground during construction as per BS 1722-18; this barrier must be around the perimeter of the RPA before construction starts. These panels must be no less than 2m in height. The RPA will have to be adjusted to the edge of the ditch on the north side of the tree.



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Tree two (see map)				
Species	Turkey Oak		Age Class	Young
Stem diameter	18cm		Physiological Condition	Good
Branch spread:	N: 1.8m	S: 2.4m	Structural condition	Good
	E: 3.6m	W: 2.1m		
Tree height	11.6m		Remaining years	>40
Category grading: B2 (see page nine of BS 5837-2012 for definition)				

**Preliminary recommendations:** This is a good example of a young Turkey Oak, however Turkey Oaks grow to a very large size, and cast dense shade, which will cause future light and leaf issues. Furthermore this tree is under the proposed road for the site.

**Therefore this tree will have to be removed before construction starts.**

**Below ground constraints:** N/A

**Above ground constraints:** N/A

**Arboricultural implications assessment:** N/A

Tree three (see map)				
Species	Turkey Oak		Age Class	Young mature
Stem diameter	32cm		Physiological Condition	Good
Branch spread:	N: 1.9m	S: 4.9m	Structural condition	Good
	E: 2.8m	W: 3.2m		
Tree height	12.9m		Remaining years	>40
Category grading: B2 (see page nine of BS 5837-2012 for definition)				

**Preliminary recommendations:** This is a good example of a young Turkey Oak, however Turkey Oaks grow to a very large size, and cast dense shade, which will cause future light and leaf issues. Furthermore this tree is under the proposed road for the site.

**Therefore this tree will have to be removed before construction starts.**

**Below ground constraints:** N/A

**Above ground constraints:** N/A

**Arboricultural implications assessment:** N/A

Tree four (see map)				
Species	Oak		Age Class	Mature
Stem diameter	58cm		Physiological Condition	Good
Branch spread:	N: 5.4m	S: 6.2m	Structural condition	Good
	E: 7.4m	W: 6.1m		
Tree height	11.9m		Remaining years	>40
Category grading: B2 (see page nine of BS 5837-2012 for definition)				

**Preliminary recommendations:** This is a good example of the mature Oak, that adds to the site aesthetes, and provides a natural backdrop for the proposed development.

**Therefore this tree should be retained.**

**Below ground constraints:** The RPA for this tree will extend 6.96m from the centre of the tree, see annex one for formula. The ditch on the north side of the tree is much shallower, and will not provide a natural root barrier. The line of the proposed road will have to be kept outside the RPA of



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this tree, the use of 3 dimensional cellular confinement such a Cellweb will not suitable due the likely increased amounts of tree roots within the hedgebank.

**Above ground constraints:** Plots 4 & 5 of the proposed development, provided that any building work is kept outside the RPA, then there will be little impact. However there may be future light and leaf issues in the back garden, as the current canopy cover approx. 50%. Oaks respond well to pruning, and I would recommend that this tree has a crown reduction of around 20%.

**Arboricultural implications assessment:**

- All pre-construction pruning work to be carried out to BS 3998.
- A clearly defined barrier such as weld mesh panels securely fixed to the ground during construction as per BS 1722-18; this barrier must be around the perimeter of the RPA before construction starts. These panels must be no less than 2m in height.

**Annex one.**

The formula for working out the Root Protection Area RPA, as per 4.6.1 of BS 5837:

RPA = A circle with a radius of 12 times the stem diameter.

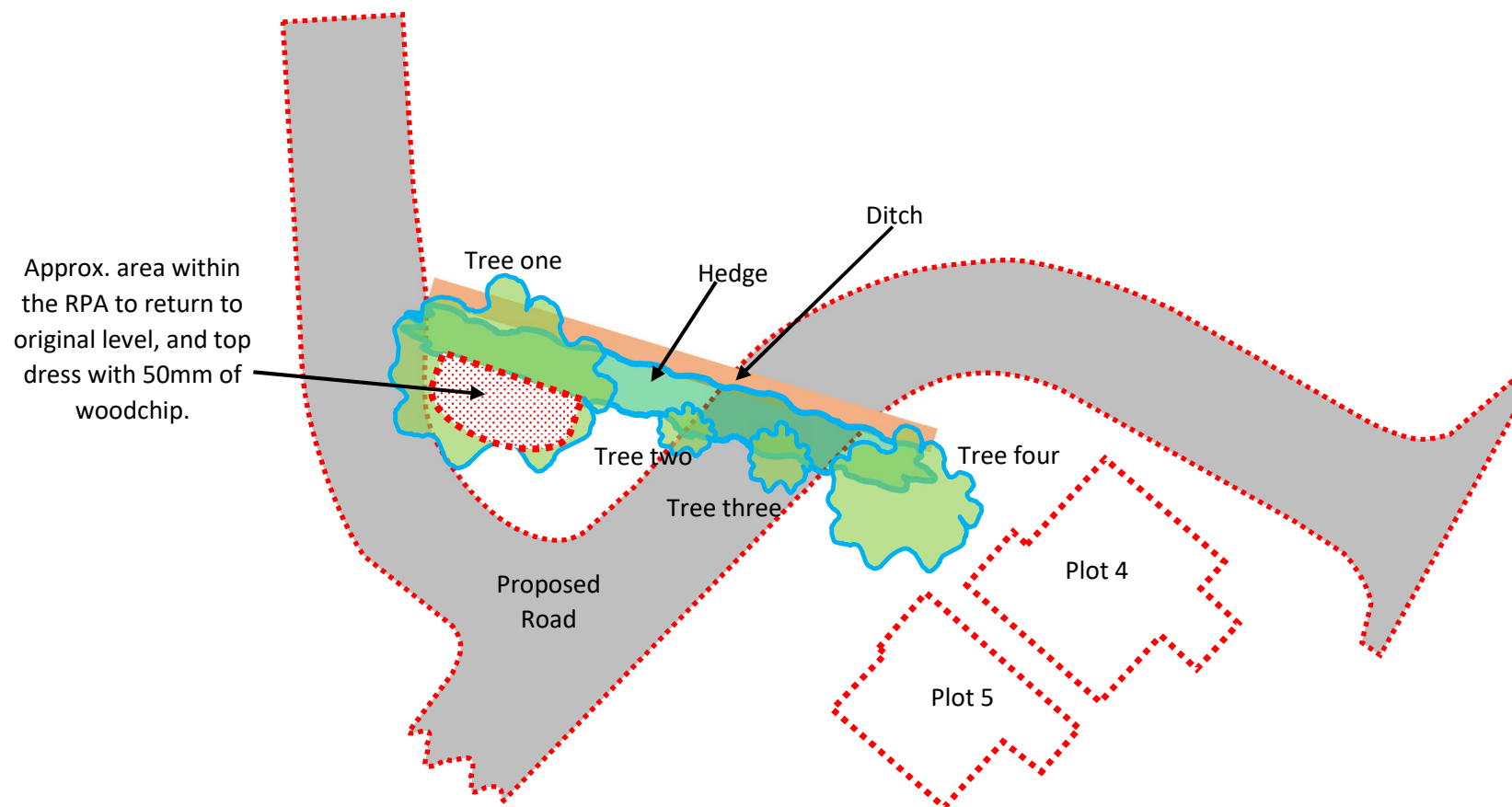
	Tree diameter (cm)	RPA (cm)	RPA (m)	RPA area (m2)
Tree one	77	924	9.24	268
Tree two	18	216	2.16	15
Tree three	32	384	3.84	46
Tree four	58	696	6.96	152



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## Proposed development: Maesydderwen, Cardigan.



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