

Senedd Petitions Committee
Chamber and Committee Service
National Assembly for Wales

Monday 8th February 2016

Dear Sirs

**RE: PETITIONS COMMITTEE 23.02.16
PETITION SUBMITTED BY MR MERVYN LLOYD JONES
THE BRIMMON OAK TREE
A483/A489 NEWTOWN BYPASS**

With regard to the above, I am writing with additional information that I wish to be considered at the petition committee meeting on the 23rd February 2016.

Whilst I appreciate that the Welsh Assembly Government have stated that they will adjust the carriageway away from the tree and only carry out minimal work within the 15 metre tree root protection zone, I do not feel that this is satisfactory or that the tree will be suitably safeguarded.

The Welsh Government report on the tree carried out by Jerry Ross (B.Sc. F.Arbor.A Arboricultural Association Registered Consultant) proposed the use of a 'geotextile reinforced solution' to ensure any compacting ground works were moved further away from the tree. This would obviously be of a certain benefit but I do not feel that the distance is sufficient and that the tree could still be endangered. The proposed solution suggested that the edge of the carriageway would be 15.31 metres from the centre of the tree. However, the kerb line would only be 14.31 metres from the centre of the tree and the toe of the earthworks would be 11.06 metres away. I understand that there was a suggestion not to have any soil stripping or ground excavation works but from the diagram included with the report (attached for your reference), even the subbase of the road would be less than 14 metres from the tree.

To add to this, the proposed fence line is a mere 5 to 6 metres from the tree. The fencing along the scheme is going to be badger proof fencing which requires a mesh to be buried into the ground. With the fence only being 5 to 6 metres from the centre of the tree, a critical part of the root system will be endangered.

Prior to the Public Inquiry for the proposed scheme, we had been informed that a tree survey had been undertaken by the WAG team. However, during the duration of the Inquiry it came to our attention that a sufficient report had not been carried out and I was requested to allow them access on to my land just 2 days before the end of the inquiry to allow for a suitable survey to be undertaken. I truly feel that no attention had been paid to the tree prior to this and feel the Inspector should have had this important information at an earlier stage.

During the inquiry, it was also mentioned that the tree had no designations or protection. However, the tree was registered with the Woodland Trust in 2009 as an 'ancient tree'. Local planning authorities would have an obligation to protect this and I feel that the Welsh Government should also do the same.

As part of the inquiry process, I had instructed the land agent acting on my behalf to prepare and submit an alternative route. The route proposed simply moved the carriageway no more than 20 metres north and consequently further away from the tree. There was no major realignment to the initial route. The WAG simply asked for no more than a sketch map of our alternative route and as we are not structural engineers, that is what was submitted. We were of course open to negotiation and had a realistic approach that a compromise could have been met. However, it would appear the design team took a very literal approach to our proposal and rejected it on the grounds of cost. I would have been very happy to discuss a suitable alternative with the designers. The ground the other side of the road is in my ownership so no other parties would have been affected. Even a realignment of 10 metres north would save this veteran oak tree for generations to come. I understand the restrictions of the gas pipe running to the north of the scheme but I fully believe that there is room to move the carriageway in order to protect the tree.

As I hope you can understand, I am by no means opposed to the bypass. Nevertheless, I am passionate that I protect the landscape that my family have farmed for generations. My family have been the caretakers of this farm, and the tree, since the 1600's and as the current occupier of the land, I intend to carry on protecting it for the future generations. The Brimmon Oak is an integral and stunning feature of the local landscape and I feel that the proposed alignment of the new bypass will put the tree in serious jeopardy. On a scheme that is approximately 5.6 kilometres long, I see moving the carriageway northbound by a matter of a few metres to be a rather minimal request with potentially minimal implications.

I would like to thank you for taking the time to deliberate the petition and this additional documentation from myself.

Yours faithfully

Mervyn Lloyd Jones

Enc.

The Brimmon Oak

The Brimmon Oak, Lower Brimmon Farm, Newtown, Powys

We, the undersigned, call upon the National Assembly for Wales to urge the Welsh Government to adhere to the recommendations of the appointed arboricultural specialist's report that it commissioned as part of the environmental assessment for the much needed A483 Newtown bypass.

This would result in the preservation of one of the most significant 'Natural Monuments' of Montgomeryshire, whilst facilitating the economic revival of the County Town. People from Montgomeryshire, across Wales and indeed the wider world are aware that sustainability has always been the 'central organising principle' of the Welsh Government since the National Assembly was created in 1999.

The safeguarding of the Brimmon Oak as part of the historic A483 Newtown Bypass will be a demonstration of the Welsh Government's commitment to preserving our birth right for the Wellbeing of Future Generations.

Dear Sirs,

With regards to the above joint petition (P-04-658) that was submitted to the WAG petitions committee on 2nd October 2015 and the recent reply from Edwina Harts office. (EH/00327/16)

I feel that it needs further clarification with regards to the 15 Metre tree root protection zone.

Where the wording is...

*The Inspector accepted the Welsh Govt's **proposal** to adjust the carriageway away from the tree and only carry out minimal work within the 15 metre tree root protection zone, as recommended by arboricultural specialists and British Standards. ...*

Is this a NEW proposal that was put to the inspector since the petition was launched?

Minimal work within the 15M RPZ:

I am also very concerned about the phrase 'minimal work' and what this means exactly? We would be very reluctant to have any work carried out within a 15 metre distance form the tree.

Badger proof fencing:

I am aware that a Badger proof fence is needed along the whole length of the bypass and we would have to have this fence taken well away from the 15 m mark as it would entail deep excavation which could if carried out closer damage the trees roots.

Soil spills & Heavy Plant:

It would be very desirable to ensure that there would be no soil heaps or heavy plant vehicles placed within a distance of say 25 metres or more from the tree, thus avoiding any chance of compaction of the roots/soils nearby. This again would need planning and close supervision once construction starts.

Secure fencing:

Needs to be of a more permanent construction than plain Heras fencing which can be moved. It needs to be permanent and have a locked access with keys held by land owner Mervyn Lloyd Jones

Water flow & Drainage:

Minimal disturbance and alteration to water flows need to be considered, which I am hoping they have been.

As has been stated on many occasions there is plenty of scope for the bypass to be slightly moved north of the tree and this presents the opportunity for positive reporting aswell as positive outcome for the tree and development.

Yours faithfully, Rob McBride

Trees are complex living organisms, which are susceptible to damage from a wide range of physical agents or activities. Trees do not heal, damage caused to a tree will remain for the rest of its life. Even minor damage may set up circumstances leading to serious long term decay (NJUG, 2007).

Existing trees are an important factor on construction sites, whether on or near the working areas, and trees are a material consideration in the UK planning system. This British Standard (BS 5837:2012) is intended to assist decision-making with regard to existing and proposed trees in the context of design, demolition and construction. Root systems, stems and canopies, with allowance for future movement and growth, need to be taken into account in all projects, including those that do not require planning permission (BSI, 2012).

Where tree retention or planting is proposed in conjunction with nearby construction, the objective should be to achieve a harmonious relationship between trees and structures that can be sustained in the long term. The good practice recommended in this British Standard (BS 5837:2012) is intended to assist in achieving this objective (BSI, 2012).

The tree survey might identify the presence of veteran trees on the site. The implications of their presence on the use of the surrounding land should be assessed at the earliest possible stage of the design process. Where such trees are to be retained, particular care should be taken in the design to accommodate them in a setting that aids their long-term retention (BSI, 2012). Whilst veteran trees typically provide a range of niche habitats, they are especially valuable if ancient, due to their scarcity and high habitat values for associated species of fungi, lichens and saproxylic invertebrates, including some which are rare or endangered and occur only where such trees have been continuously present for centuries. Particular care is needed regarding the retention of large, mature, over-mature or veteran trees which become enclosed within the new development. Where such trees are retained, adequate space should be allowed for their long-term physical retention and future maintenance. (BSI, 2012).

The Brimmon Oak is a veteran/ ancient tree with a very high historical and cultural value. From its girth the tree is estimated to be 500 years old. In accordance with British Standard 5837:2012, the Brimmon Oak is categorised as an 'A3' tree, which according to the Standard is "Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)" (BSI, 2012). British Standard 5837 states that "The constraints imposed by trees, both above and below ground should inform the site layout design" and that "Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification" (BSI, 2012). I would suggest that a 500-year-old tree (e.g. The Brimmon Oak) that is historically and culturally important to not just Wales, but also internationally, deserves to be accorded protection that is recognised as best practice in the UK e.g. British Standard 5837:2012.

As trees can affect and be affected by many aspects of site operations, during the conception and design process the project arboriculturist should be involved in ongoing review of layout, architectural, engineering and landscape drawings. All members of the design team should be made aware of the requirements for the successful retention of the retained trees and should make provision for these throughout the development process (BSI, 2012). This last paragraph is

taken directly from BS 5837:2012. It is disconcerting that for such an important tree, that the provision for the protection of the Brimmon Oak tree through the planning process including the inquiry has not happened and even now, after the Welsh Government has been made aware of the issues surrounding the Brimmon Oak tree through the submission of the petition, the tree is threatened by proposed works within the trees Root Protection Area (RPA).

A Root Protection Area (RPA) is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority (BSI, 2012). Note that I have highlighted the word minimum and protection of roots and soil structure. The British Standard recognises that tree roots very often extend much further than the RPA, but the RPA is the minimum area to be protected, not the maximum area. The Ancient Tree Forum, a charitable organisation comprised of the UK's leading experts in the management and protection of ancient and veteran tree, actually recommends a larger RPA than BS 5837:2012 for ancient and veteran trees, as old trees are much more susceptible to changes in their rooting environment than younger trees, including mature trees. I use the analogy that younger humans are more able to resist and cope with diseases and conditions than older people. The BS 5837:2012 recommends that trees RPAs are based on the size of the stem diameter multiplied by twelve, whilst specialist experts recommend that for ancient and veteran trees that the RPA is increased by three, resulting in a RPA of fifteen times the stem diameter.

Contrary to popular belief, the root system of a tree is not a mirror image of the branches, nor is there usually a 'tap root'. The majority of the root system of any tree is in the surface 600mm of soil, extending radially in any direction for distances frequently in excess of the tree's height. Excavation or other works within this area are liable to damage the roots (NJUG, 2007). Even roots less than 10mm in diameter may be serving the fine roots over a wide area. The larger the root severed, the greater the impact on the tree (NJUG, 2007).

Guidance for establishing and enforcing RPAs for trees on construction sites, as opposed to agricultural land, is given in British Standard 5837:2012). This represents a compromise, as construction would generally not be practicable if the entire rooting area of every tree were to be protected. There is, however, often scope for providing a larger RPA than would normally be provided under BS 5837. A radius of 15 times the stem diameter at breast height, or five metres beyond the edge of the tree's canopy, whichever is the greater, is recommended. The boundaries of an RPA for one or more veteran trees on a construction site should be decided according to the principle of erring on the side of caution. The rationale is that veteran trees have special value and are particularly vulnerable to the disturbance that inevitably results from a fundamental change of land use, such as construction (Lonsdale, D (Ed), 2013).

The Welsh Government statement on the on the effects of the A483/A489 Newtown Bypass on the ancient/ veteran Brimmon Oak includes the following statements from the projects arboriculturist Jerry Ross "Given the age of the tree and the results of the ground penetrating radar survey it is recommended that the full 15m root protection area is applied. The approach proposed above does not fully comply with this maximum distance for a root protection area but there

is some scope within the Scheme fenceline, as incorporated in the draft Orders, to marginally move the carriageway alignment further from the tree by approximately 1.2m by modifying the earthworks slopes to the north and south of the carriageway, therefore ensuring the full 15m root protection zone as stated in BS5837:2012 can be achieved” (Welsh Government, 2016). The revised plans, which reduces the encroachment of the earthworks within the tree’s minimum RPA of 15 m to 12.26 m is commented on by the project’s arboriculturist, Jerry Ross, who states that “I should emphasise that in view of the importance of this individual tree, my strong inclination would be to err on the side of caution by maintaining a complete construction exclusion zone of 15 metres. However, provided the implementation of the above proposals can be carried out under the terms of a detailed arboricultural method statement that will ensure that the operations required within the tree's nominal root protection area (RPA) of 15 metres can be accomplished with minimal impact on the rooting environment, it is my opinion that it is most unlikely that the well being of the veteran oak will be significantly affected”. It should be noted that project arboriculturist yet again wanted to keep the protection of the tree’s RPA to the minimum required by the British Standard and that he cannot discount that the wellbeing of the tree will not be significantly affected. This implies that the wellbeing of the tree will detrimentally affected and that significant harm cannot be 100% discounted.

The Welsh Government report shows an image of the Ground Penetrating Radar (GPR) image of the tree’s root system. It shows significant roots extending out to 14 m from the centre of the tree’s stem. It does not show many roots extending much further than this. However, the Welsh Government report does not give the whole picture with regards to GPR. Smaller roots of between 1 cm (www.treeradar.com) and 5 cm (www.treeradar.co.uk) are not picked up by GPR and for soils with a high clay content near the ground surface, GPR is not very effective (www.treeradar.com). Therefore, it would be expected that smaller feeder roots, which are essential for life, will extend beyond 14 m and in high probability, even further than the BS 5837:2012 15 m RPA.

Raising of soil levels within trees RPAs more often than not (depending on soil type) will lead to compaction damage to the underlying soil. Tree roots take in oxygen and dispose of carbon dioxide. This process is called the gas exchange process and it is essential for trees and other plants. When soil is compacted, for example by additional soil or other materials being placed over them, this usually causes soil compaction. Soil compaction prevents the gas exchange process and results in the death of affected roots, which eventually can lead to tree death or the tree blowing over in high winds. A recent high profile example of this is the Pontfadog Oak, which was one of the oldest oaks in Britain. This tree blew over, as a result of root death attributed to the compaction of the soil within its RPA. The Welsh Government report does mention compaction as being a result of the grade change in soil levels, however it does not say what the consequences are.

The revised proposed encroachment into the tree’s BS 5837:2012 RPA to the toe of the earthworks is 2.74 m and to the top of the earthworks is 1.99 m, with the larger incursion being the equivalent of 18% of the tree’s lateral RPA and to the

smaller encroachment being 13% of the lateral RPA in the direction of the road. Bearing in mind that the tree is highly likely to have feeder roots extending further than 15 m and that the minimum lateral BS 5837:2012 RPA length is 15 m, these encroachments will cause damage to the tree. Also bearing in mind the age of the tree and its inability to respond to damage and changes in its root environment, as with any ancient tree, I predict that not adhering to the British Standard RPA will be damaging to the tree. I cannot discount that this damage will not result in the tree's demise in the long term.

One item that is referenced in the Welsh Government report, but which has not been properly explained, despite requests for information on this, is the proposed installation of a fence even closer to the tree's stem than the other works already described. There is potential for significant harm to the tree's root system from installing a fence within the tree's RPA, from loss of roots from digging post holes to loss of an entire root system beyond the fence, if the fence is dug into the ground, such as is common with fencing used to prevent badgers from straying onto highways. I have grave concerns with regards to the proposed fence, especially so as no specification has been provided.

To summarise, the proposed ground works within the Brimmon Oak's Root Protection Area is in breach of both the British Standard Institute and Ancient Tree Forums recommendations and is likely to result in damage to the tree that could result in its long term decline and eventual demise. Therefore we urge the Welsh Government to ask its contractors to redesign the bypass so that the tree is protected by a root protection area of at least 15 m when measured from the centre of the tree's stem.

References

NJUG, 2007. Volume 4 - NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus. National Joint Utilities Group.

Lonsdale, D (Ed), 2013. Ancient and other Veteran Trees: Further Guidance on Management. Ancient Tree Forum/ Tree Council/ Woodland Trust.

BSI, 2012. Trees in Relation to Design, Demolition and Construction - Recommendations. The British Standards Institute.

Welsh Government, 2016. Welsh Government Statement on: Veteran Oak Tree, Lower Brimmon.

Moray Simpson M.Arbor.A, HND & HNC Arboriculture & Woodland Management, ND & NC Arboriculture

Professional Arboriculturist & Ancient Tree Forum Associate Board Member

09/02/2016

Note: I have assessed the Welsh Government report and have written this statement as an interested third party and as a volunteer. I have not received payment for doing so.

Please quote our reference when replying

Your Ref:
Our Ref: JN/AW/ New/Jon.R/1/CP



Date: 9th February 2016

Senedd Petitions Committee
Chamber and Committee Service
National Assembly for Wales

SENT BY EMAIL

Dear Sirs

**RE: PETITIONS COMMITTEE 23RD FEBRUARY 2016
THE BRIMMON OAK TREE
A483/489 NEWTOWN BYPASS**

Please note that we act on behalf of the owners of Lower Brimmon Farm with regard to all matters relating to the Newtown Bypass.

As you are aware, Mr Mervyn Jones has passionately submitted a petition to the Petitions Committee with regard to the protection of an ancient oak tree on his land. The Brimmon Oak, as it has become known, is a veteran oak tree that forms a significant historic feature on what is currently a stunning landscape and has a long standing association with both the family, and the farm. Our client and his family before him, have cared for the land and tree since the 1600's and quite rightfully, Mr Jones wants to continue to protect the landscape for the future generations of the family and for the benefit of the local population.

I understand you are aware of the situation with regard to the alignment of the bypass and so I won't repeat any correspondence already submitted by Mr Jones. However, as part of the Inquiry, I was instructed to submit an alternative route proposal with the intention of safeguarding the Brimmon Oak. My proposal consisted of moving the carriageway northbound by no more than 20 metres.

During the Public Inquiry, and after a last minute tree report was undertaken by the Welsh Government, it was proposed that advanced geo-technical engineering would be a practicable solution to restrain the extent of the ground works required for the construction of the new road. It is suggested that the nearest edge of the compacted sub-base and top soil strip would be the recommended 15 metres from the tree (as suggested by BS 5837). However, it is highly likely that contractors will have to work in an area less than 15 metres from the tree and thus increasing the risk of damage to the root system. In addition to this, a boundary fence for the scheme would have to be installed at a distance of no more than 6 metres from the tree. It is proposed that the boundary fence will be mammal proof and require a mesh to be buried into the ground. I would imagine that this would have a detrimental impact to the root system within the root protection area.

The alternative route proposal that we submitted would remove any risk of the roots being damaged and would require no work or construction traffic within the root protection area. The inspector commented in his final report that "*The alternative would pose no threat of disturbance to the roots of the veteran oak*

103 Beatrice Street / Oswestry / Shropshire / SY11 1HL
Tel 01691 659658 Fax 01691 676144 Email oswestry@dmpropertyconsultants.com
www.dmpropertyconsultants.com

Davis Meade Property Consultants is the trading name of
Davis Meade Property Consultants Limited a company incorporated in England No. 6897243

Regulated by RICS

CHARTERED SURVEYORS / LAND AGENTS / AUCTIONEERS & VALUERS



whilst the scheme would need to be engineered to fully avoid conflict with the roots". I understand that reduced engineering would be required had our alternative been accepted.

The inspector went on to say that the alternative proposal would meet the scheme objectives.

It is with these points in mind that I strongly believe that the very minimal realignment of the carriageway to the north would remove any risk to this ancient part of the landscape. Given the scale of the scheme, I believe that the alternative proposal would be a negligible change to the proposed scheme and feel that the Welsh Government dismissed it without either negotiation or discussion with the landowner.

Moving the bypass to the north would have also had a tangible benefit to Lower Brimmon Farmhouse, which is one of the nearest residential properties to the bypass.

Thank you for taking the time to acknowledge this letter and I dearly hope that full consideration will be given to the benefit of protecting this ancient tree for the future.

Yours faithfully

James Neame

James Neame
Davis Meade Property Consultants Ltd