



**TREE SURVEY,  
ARBORICULTURAL IMPACT ASSESSMENT,  
TREE PROTECTION PLAN &  
ARBORICULTURAL METHOD STATEMENT IN  
ACCORDANCE WITH BS5837:2012:  
Rev:10,**

with regard to the approved:

**Botley Bypass,  
Phase 3 Section,  
Including  
Botley Fields Noise Bund Phase**

for:

**Hampshire County Council.**

Job no. MJC-22-0165

19<sup>th</sup> December 2024.

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## 1.0 Instruction

1.1 MJC Tree Services Limited have been instructed by Hampshire County Council as follows:

***“Re: Development Site Tree Surveys & Reports in Accordance With BS5837:2012 at Botley Bypass Phase 3.***

*To carry out the following works in respect of the above:*

- *To carry out additional tree surveying in accordance with BS5837:2012 in order to ensure complete coverage of the phase 3 development area, and to update the Tree Constraints Plan (TCP) we have on file accordingly:*
- *To discuss the arboricultural impact of the proposed bypass works with the client and design team using the Tree Constraints Plan Report, and a proposed bypass layout plan that must include details of all construction access routes, underground service plans, and ground level changes, that will need to be supplied, via email, as a .dwg (AutoCAD) file to the above office before the discussion can be started:*
- *To draw up a draft Arboricultural Impact Assessment (AIA) for the proposed bypass works that will identify the following:*
  - o *The areas within this site where proposed works are to be carried out in close proximity to established trees:*
  - o *Whether the proposed works can be carried out successfully without adversely affecting the trees both in the short and long term:*
  - o *Whether the trees will have adverse effects on the proposed development both in the short and long term:*
  - o *Ways to mitigate any conflicts that may arise between the trees and the proposed development and to offer recommendations relating to the protection of the trees prior to commencement of the necessary clearance construction works:*
  - o *The trees to be removed and retained as a result of the proposed bypass works.*
- *To supply the draft AIA to the client as a .pdf file, with a copy of the plan(s) used in the report supplied as .dwg (AutoCAD) files, for comment and discussion as necessary:*
- *To make necessary amendments to the AIA in the light of the comments received and discussion had:*
- *To draw up a draft and combined TCP, AIA, Tree Protection Plan and Arboricultural Method Statement (TPP & AMS) as a .pdf file, with a copy of the plan(s) used in the report supplied as .dwg (AutoCAD) files:*
- *To supply the draft TCP, AIA, TPP & AMS to the client as a .pdf file, with a copy of the plan(s) used in the report supplied as .dwg (AutoCAD) files, for comment and discussion as necessary:*
- *To make necessary amendments to the TCP, AIA, TPP & AMS in the light of the comments received and discussion had and to issue the final TPP & AMS as a .pdf file, with a copy of the plan(s) used in the report supplied as .dwg (AutoCAD) files.”*

- 1.2 In addition and subsequent to the above instructions, we have been instructed to include in this report the construction of noise bunds to the south of the bypass in the site termed Botley Fields.

## **2.0 Qualifications and Caveats**

- 2.1 The author of this report is a:
- Fellow of the Institute of Chartered Foresters:
  - Chartered Arboriculturist:
  - Chartered Surveyor:
  - Registered Consultant of the Institute of Chartered Foresters.
  - Professional Member of the Arboricultural Association:
- He also holds the Royal Forestry Society's Professional Diploma in Arboriculture and has over 30 years' experience in UK arboriculture. A full CV and CPD record is available as a .pdf file upon request to the above office.
- 2.2 The tree survey was preliminary in nature and was carried out from ground level using visual techniques only. No trees were climbed or internally investigated. Should a more detailed inspection be required then this will be highlighted in the recommendations.
- 2.3 Trees are living organisms whose health and condition can change rapidly. The health, condition and safety of trees should be checked on a regular basis, preferably at least once every 18 months. The conclusions and recommendations in this report are based only on the observations made by the author during the tree survey.
- 2.4 This report is for the sole use of the above-named client and refers only to those trees identified within. It may not be reproduced in whole or in part, or sold, lent, hired out or divulged to any third party not directly involved in the subject matter, without our consent. Use by any other person(s) in attempting to apply its contents for any purpose other than stated in this report renders the report invalid for that purpose.
- 2.5 This report is supplied subject to our terms and conditions in force at the time of our instruction by the Client.

### **3.0 Introduction**

- 3.1 A bypass around the town of Botley has been granted conditional planning approval. Phases 1 and 2 of this bypass are well advanced in their construction, and Phase 3 has now been designed.
  - 3.1.1 The Phase 3 section of this bypass involves the construction of a new highway between the B3354 and the A334, with road junctions, a bridge over the Hamble river, and extensive drainage arrangements. In addition, a temporary bridge structure will be constructed over the Hamble river to facilitate construction works, and the field titled Holmesland North will be used to store soil spoil from the Phase 3 works.
  - 3.1.2 The currently proposed Phase 3 layout has been modified since the grant of conditional planning permission for the whole bypass, and the currently proposed Phase 3 layout and construction access arrangements are illustrated in the Arboricultural Impact Assessment plans forming Appendix 3 of this report.
- 3.2 Planning permission reference O/18/83698 has also been granted to build the noise bunds shown within the Botley Bypass Phase 3 works.
  - 3.2.1 Planning condition no. 7 has been attached to this grant of planning permission, and states the following:

“Prior to the commencement of each phase of development, an updated Arboricultural Impact Assessment, Method Statement, Tree Survey and a Tree Protection Plan shall be submitted to, and approved in writing by, the Local Planning Authority. The development must accord with the approved details. No excavation, demolition or development-related works shall commence until evidence has been submitted and approved by the LPA that the tree protection measures have been installed, as per the approved tree protection plan. Once approved, no access by vehicles or placement of goods, chemicals, fuels, soil or other materials shall take place within the fenced area, nor shall any ground levels be altered or excavations made without the written consent of the Local Planning Authority, beyond that which is agreed in the arboricultural documentation. Tree protection measures shall be retained in their approved form for the duration of the work. This tree condition may only be fully discharged on completion of the development subject to satisfactory written evidence of monitoring and compliance by the pre-appointed tree specialist during construction.”
  - 3.2.2 The layout of the proposed noise bunds is illustrated in the Arboricultural Impact Assessment plans forming Appendix 3 of this report, and the Tree Protection Plan & Arboricultural Method Statement at section 6.0 below and drawings forming Appendix 5 of this report is designed to fulfil the requirements of this planning condition.

- 3.3 The tree survey data used in this report is illustrated graphically in the Tree Constraints Plans, forming Appendix 1 of this report, and the data is also provided in tabular form in the Tree Survey Schedule forming Appendix 2 of this report.
- 3.3.1 The tree survey data used in this report is based on the original tree survey for the whole bypass carried out by Mark Carter of MJC Tree Services Limited between the 10<sup>th</sup> and 20<sup>th</sup> of October 2016.
- 3.3.2 A check and update tree survey was carried out by Mark Carter of MJC Tree Services Limited on the 4<sup>th</sup> August 2022 in order to ensure that the tree survey was sufficiently extensive to cover the entire area of the currently proposed layout, and to confirm the veracity of the original tree survey data. The original Tree Constraints Plans and Tree Survey Schedules were updated following this tree survey.
- 3.4 The tree works recommended on the schedule are based on the context of the site at the time of the tree survey, they are not works required as a result of the proposed bypass. This is to comply with section 4.4.1.1 of BS5837:2012 that states **"...the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for the development"**. The tree works required as a result of the proposed bypass are detailed in the Schedule of Tree Works forming Appendix 8 of this report, and are illustrated graphically in the Arboricultural Impact Assessment plans forming Appendix 3 of this report.
- 3.5 The tree protection measures required and arboricultural methodologies to be used are represented graphically in the Tree Protection & Arboricultural Method Statement plans, forming Appendix 5 of this report, and are detailed in section 6.0 below. It is intended that this report, and in particular the tree protection measures and arboricultural methodologies, will be submitted to the Local Planning Authority (LPA) for approval before any works commence on site. Following approval, the tree protection measures and arboricultural methodologies will be followed exactly by the construction teams engaged to carry out the project.

#### 4.0 Tree Survey

- 4.1 The tree survey data used in this report is illustrated graphically at Appendix 1 of this report, and the individual tree survey data is provided at Appendix 2. Both of these have been produced in compliance with British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations' (BS5837:2012).
- 4.2 A check was made with the online interactive mapping system provided by Winchester City Council on the 8<sup>th</sup> September 2022 in order to establish whether any of the surveyed trees are covered by statutory protection enforced by Winchester City Council. This check revealed that none of the trees surveyed are protected by a Tree Preservation Order or Conservation Area enforced by Winchester City Council.

- 4.3 A check was made with the online interactive mapping system provided by Eastleigh Borough Council on the 23<sup>rd</sup> November 2022 in order to establish whether any of the surveyed trees are covered by statutory protection enforced by Eastleigh Borough Council. This check revealed the following.
- 4.3.1 None of the trees surveyed are protected by a Tree Preservation Order enforced by Eastleigh Borough Council.
- 4.3.2 The surveyed trees immediately to the west of the Hamble river are protected by a Conservation Area enforced by Eastleigh Borough Council. Specifically, this Conservation Area protects group no. G5 (i.e. tree nos. T11 to T222 inclusive), tree nos. T436 to T439 inclusive, and group no. G446.
- 4.3.2.1 Therefore, no works can be carried out on any of these trees with a stem diameter of 75mm or greater at 1.5m above ground level without first issuing a written notice of intent to carry out those works to the LPA and waiting for the LPA to respond. The LPA can respond to this notice in one of only four ways.
- 4.3.2.1.1 Firstly they can do nothing, in which case after six weeks have elapsed since the LPA received the notice the works can be carried out.
- 4.3.2.1.2 Secondly, the LPA can write a letter to the notifier informing them that they have no objection to the notified works, in which case the works can be carried out upon receipt of that letter.
- 4.3.2.1.3 Thirdly, the LPA can write a letter to the notifier asking them to withdraw the notice as the LPA have concerns regarding the works, but the notifier is not obliged to do this.
- 4.3.2.1.4 Fourthly, and only if the tree qualifies for such protection, the LPA can place the tree under a Tree Preservation Order, in which case an application for the works will need to be made.
- 4.3.2.1.5 N.B. The LPA cannot grant permission, be that subject or not to planning conditions, and nor can they refuse permission under the Conservation Area legislation.

4.3.2.2 There is no legal requirement for the notice of intent to be made in any particular form, but it must accurately identify the trees concerned, and specify the tree works proposed. Therefore, an application to the LPA for planning condition discharge that contains a tree report that identifies the location of, and the works proposed for, specific trees, qualifies as a notice of intent served on that LPA. It therefore logically follows that if the LPA approve that application for condition discharge, the LPA is also confirming that they have no objection to the proposed tree works.

4.4 The tree survey has identified tree nos. T443 and T444 as ancient and/or veteran trees.

4.4.1 Paragraph 186c) of the 2023 National Planning Policy Framework (NPPF) states: '*development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists;*' Therefore, tree nos. T443 and T444 should be regarded as sacrosanct in respect of any proposed development of the site.

4.4.2 In the guidance published jointly by Natural England and the Forestry Commission '*Ancient woodland, ancient trees and veteran trees: advice for making planning decision*' (dated 14<sup>th</sup> January 2022), it is recommended that a **minimum** buffer zone around ancient or veteran trees should be maintained that is at least 15 times larger than the diameter of the tree, or 5m from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter. This buffer zone is illustrated in this drawing with blue hexagonal hatching.

## 5.0 Arboricultural Impact Assessment

5.1 The final proposed layout plan for the Phase 3 section of the Botley Bypass, including construction access arrangements and completed soft landscaping works in the Holmesland North field, are illustrated in the Arboricultural Impact Assessment plans, forming Appendix 3 of this report.

5.2 In the Arboricultural Impact Assessment plans forming Appendix 3 of this report, the trees, groups, and hedges to be removed as a consequence of the currently proposed Phase 3 layout are illustrated with red crowns. The areas of scrub growth and thickets to be removed as a consequence of the currently proposed Phase 3 layout are illustrated with a red hexagonal hatching area.

5.2.1 The tree works required by the currently proposed Phase 3 layout are detailed in the tree works schedule forming Appendix 8 of this report and the tree, group, areas of scrub/thicket, and hedge removals are summarised in Table 1 below.

- 5.2.2 In Table 1 below, those trees, groups, areas of scrub/thicket, and hedges whose removal has already been approved by the previous grant of conditional planning permission for the whole bypass are listed in black text. Those trees, groups, areas of scrub/thicket, and hedges whose removal was not approved by the previous grant of conditional planning permission for the whole bypass, but require removal as a consequence of the currently proposed Phase 3 layout are listed in red text in order to highlight that this is an additional loss in comparison to the original grant of conditional planning permission for the entire bypass.
- 5.2.3 The trees and groups of trees to be removed will be treated differently depending on their location. Those trees and groups of trees within the footprints of the proposed construction works and associated earth works will be felled close to ground level and the resulting stumps will be grubbed out during the construction works. Those trees that are outside the footprints of the proposed construction works and associated earth works will be coppiced i.e. felled close to ground level and the resulting stumps retained in the hope that they will regrow in the future. This difference in treatment is set out in Table 1 below. The majority of the trees to be coppiced are Alder or Willow and both these types of tree recover well from coppicing, therefore it is anticipated that the majority of the coppiced trees will successfully regrow.
- 5.3 In Table 1 below, the trees, groups, areas of scrub/thicket and hedges to be removed have been grouped into their quality assessment grading, arrived at using the process set out in Table 1 of BS5837:2012 i.e. A, B, C and U.

Table 1.

| BS5837:2012 grade.                                                                                                                                           | 'A' grade.                                                                                                                                                                                                                                                                                  | 'B' grade.                                                                                                                                                                                                                                                                                                                                        | 'C' grade.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 'U' grade.                                                                                                                                                                                                                                                                                                                                                      | Total.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Individual trees (T), groups (G), areas of scrub/thicket and hedges (H) to be removed. Additional removals beyond those already approved in red text.</b> | <p>Trees to be felled and their stumps grubbed out:<br/>T37, T41, T82 &amp; T188.</p> <p>Trees to be coppiced and allowed to regrow:<br/><b>T192.</b></p>                                                                                                                                   | <p>Trees to be felled and their stumps grubbed out:<br/><b>T3</b>, T29, T30, T32, T38, T40, T43, T44, T46, T47, T48, T49, T54, T55, T150, T158, T159, T162, T166, T169, T176, T177, T187 T190 &amp; <b>T442</b>. G1, G2 &amp; part of G5</p> <p>Trees to be coppiced and allowed to regrow:<br/><b>T87, T99, T122, T157, T193 &amp; T194.</b></p> | <p>Trees to be felled and their stumps grubbed out:<br/><b>T2, T4, T5</b>, T31, T33, T34, T35, T36, T39, T42, T45, T50, T51, T52, T53, T56, T57, T58, T59, T60, T61, T83, T85, T92, T94, T96, <b>T98, T100, T102, T103, T104, T110, T149, T154, T155, T156, T161, T163, T164, T165, T167, T167A, T168, T170, T171, T172, T173, T174, T175, T179, T180, T181, T182, T189, T191 &amp; T203</b>. G4. 3 sections of hedges. One large area of scrub/thicket within the footprints.</p> <p>Trees to be coppiced and allowed to regrow:<br/><b>T88, T89, T90, T97, T101, T142, T146, T153, T195</b>. One large area of scrub/thicket outside the footprints.</p> | <p>Trees to be felled and their stumps grubbed out:<br/><b>T84, T151</b>, T160, <b>T183 &amp; T184</b>. 1 moribund and dying Alder next to T85. 1 dead Oak near T84.</p> <p>Trees to be coppiced and allowed to regrow:<br/><b>T91, T93, T95, T109 &amp; T178.</b></p>                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Summary &amp; Totals.</b>                                                                                                                                 | <p>4 individual trees to be felled and their stumps grubbed out.</p> <p>1 individual tree to be coppiced.</p> <p>The above includes <b>1</b> individual tree to be removed or coppiced in excess of those already approved by the conditional grant of permission for the whole bypass.</p> | <p>25 individual trees, 2 groups, and 1 part of a group to be felled and their stumps grubbed out.</p> <p>6 individual trees to be coppiced.</p> <p>The above includes <b>7</b> individual trees to be removed or coppiced in excess of those already approved by the conditional grant of permission for the whole bypass.</p>                   | <p>56 individual trees, 3 sections of hedges and 1 large area of scrub/thicket within the footprints to be felled and their stumps grubbed out.</p> <p>9 individual trees and 1 large area of scrub/thicket outside the footprints to be coppiced.</p> <p>The above includes <b>17</b> additional individual trees to be removed or coppiced in excess of those already approved by the conditional grant of permission for the whole bypass.</p>                                                                                                                                                                                                          | <p>5 individual trees, 1 moribund Alder next to T85, and 1 dead Oak near T84 to be felled and their stumps grubbed out.</p> <p>5 individual trees to be coppiced.</p> <p>The above includes <b>6</b> additional individual trees to be removed or coppiced in excess of those already approved by the conditional grant of permission for the whole bypass.</p> | <p><b>90</b> individual trees, <b>2</b> groups, <b>1</b> part of a group, <b>3</b> sections of hedges and <b>1</b> large area of scrub/thicket within the footprints, 1 moribund Alder next to T85 and 1 dead Oak near T84 to be felled and their stumps grubbed out.</p> <p>21 individual trees and <b>1</b> large area of scrub/thicket outside the footprints to be coppiced.</p> <p>The above includes including <b>31</b> individual trees to be removed or coppiced in excess of those already approved by the conditional grant of permission for the whole bypass.</p> |

- 5.4 The additional tree, hedge, group and scrub/thicket removals required by the currently proposed Phase 3 layout and highlighted in Table 1 above have been identified following the production of more detailed layout and design plans, and input regarding practical construction access and other matters from the appointed contractor.
- 5.4.1 These more detailed layout, design and access plans have allowed a more thorough assessment of the arboricultural impact to be carried out. This has identified that it is necessary to remove a limited number of additional trees, groups and hedges that were identified for retention in the original grant of planning permission for the whole bypass.
- 5.4.2 These additional removals or part removals are made up of 1 'A' grade tree, 7 'B' grade trees, 17 'C' grade trees and 6 'U' grade trees. As such, these additional removals are not considered significant in arboricultural planning terms given the overall scale of the project and the already approved tree removals.
- 5.4.2.1 'U' grade trees are described by the quality assessment process set out in Table 1 of BS5837:2012 as 'Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years'. Such trees cannot be considered to be of high public amenity value, either individually or collectively. Therefore, the removal of an additional 6 'U' grade trees should not form a legitimate arboricultural planning reason for the Local Planning Authority (LPA) to object to the currently proposed Phase 3 layout.
- 5.4.2.2 'C' grade trees are described by the quality assessment process set out in Table 1 of BS5837:2012 as 'Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm'. Such trees cannot be considered to be of high public amenity value as individuals, although they may collectively accrue some public amenity value if they are present in sufficient numbers. Therefore, the removal of an additional 17 'C' grade trees should not form a substantive arboricultural planning reason for the LPA to object to the currently proposed Phase 3 layout, but they are likely to require specific mitigation planting of new trees as part of the proposed works to compensate for the loss of these additional 'C' grade trees.

5.4.2.3 'B' grade trees are described by the quality assessment process set out in Table 1 of BS5837:2012 as 'Trees of moderate quality with an estimated remaining life expectancy of at least 20 years'. The required removal of 'B' grade trees can form a substantive arboricultural planning reason for the LPA to object to the currently proposed Phase 3 layout if the trees are of high public amenity value and their removal would have a significant detrimental impact on the public amenities of the locality. However, the additional 'B' grade trees to be removed as a consequence of the currently proposed Phase 3 layout are all located in the vicinity of the Hamble river crossing. As such they are not readily visible from any public vantage points, so their removal would not have a significant detrimental impact on the public amenities of the locality. Therefore, the removal of an additional 7 'B' grade trees should not form a substantive arboricultural planning reason for the LPA to object to the currently proposed Phase 3 layout, but they are very likely to require specific mitigation planting of new trees as part of the proposed works to compensate for the loss of these additional 'B' grade trees.

5.4.2.4 'A' grade trees are described by the quality assessment set out in Table 1 of BS5837:2012 as 'Trees of high quality with an estimated remaining life expectancy of at least 40 years'. The required removal of 'A' grade trees can form a substantive arboricultural planning reason for the LPA to object to the currently proposed Phase 3 layout if the trees are of high public amenity value and their removal would have a significant detrimental impact on the public amenities of the locality. However, the 1 additional 'A' grade tree to be removed as a consequence of the currently proposed Phase 3 layout is located in the vicinity of the Hamble river crossing. As such it is not readily visible from any public vantage points, so its removal would not have a significant detrimental impact on the public amenities of the locality. Therefore, the removal of one additional 'A' grade tree should not form a substantive arboricultural planning reason for the LPA to object to the currently proposed Phase 3 layout, but they are very likely to require specific mitigation planting of new trees as part of the proposed works to compensate for the loss of this additional 'A' grade tree.

5.5 The proposed Phase 3 layout encroaches over the Root Protection Area (RPA) of several trees to be retained. The nature, extent and any tree protection measures required for these encroachments are as follows.

5.5.1 In several places a small encroachment over the RPA is required for construction access where the encroached tree has access to ample additional soil rooting volume that is not encroached to compensate for such a small loss of RPA. Therefore, these encroachments are considered acceptable in arboricultural planning terms.

5.5.2 The RPA of tree nos. T7 to T28 inclusive will experience a build up of ground levels over small percentage of their total RPA. This is considered acceptable in arboricultural planning terms for the following reasons.

5.5.2.1 During December 2022, trial excavations were carried out along the edge of the proposed build up of ground levels over the RPA of these trees. These trial excavations were carried out with a pneumatic air displacement tool operated under the supervision of the author of this report. A photographic record of the results of these trial excavations form Appendix 4 of this report.

5.5.2.2 These trial excavations revealed that an earlier road was still in place close to the trees, and that this had been covered over by a shallow layer of topsoil at some time in the past. They also revealed that the tree roots present had predominantly grown under this earlier road.

5.5.2.3 The proposed Phase 3 layout does not require the removal of this earlier road and it is proposed to retain the earlier road in its current and subterranean condition. As the tree roots have grown predominately under this earlier road, the retained earlier road will form a protective layer over the RPA. Therefore, the proposed build up of ground levels will not adversely impact on the RPA of these trees, and the proposed build up is acceptable in arboricultural planning terms.

5.5.3 Carriageway and similar construction will take place over the RPA of tree nos. T6, T427, T428, T429, T430, T443, T444 and T445. The areas of these encroachments are illustrated as the 'Precautionary area 1' with yellow hexagonal hatching in the Arboricultural Impact Assessment plans, forming Appendix 3 of this report. These encroachments are considered acceptable in arboricultural planning terms for the following reasons.

5.5.3.1 These areas of RPA encroachment take place where the existing carriageway and pavement already exist. The presence of these structures is likely to have promoted asymmetric rooting of these trees away from the carriageway and pavement, and to have promoted deep rooting of these trees where they have grown towards the carriageway and pavement i.e. below the level of the compacted subbase of the existing carriageway and pavement. There, the encroached RPA in the 'Precautionary area 1' areas is very likely to contain fewer tree roots than other parts of the RPA, and what roots are present will be below the level of the existing carriageway and pavement structure.

5.5.3.2 The construction of the new carriageway and pavement will take place within the depth of the existing carriageway and pavement, and will therefore not impact on tree roots to any significant degree. Therefore, the construction of the new carriageway and pavement is acceptable in arboricultural planning terms.

5.5.3.3 The installation of drainage elements and services may require excavation below the level of the existing carriageway and pavement structures, and this could potentially have an impact on underlying tree roots. In order to address this potential impact on the tree roots, all and any excavations carried out in the 'Precautionary area 1' areas to a greater depth than the existing carriageway and pavement structures will be supervised by the Project Arboriculturist. If it becomes apparent that tree roots are present in the areas to be so excavated, the excavations will be carried out either by hand, or by pneumatic air displacement, or vacuum excavation. The tree roots will be retained undamaged, and the drainage elements and services fed in around the roots as necessary, thereby retaining and protecting the tree roots.

5.6 The proposed Phase 3 layout encroaches over the ancient/veteran tree buffer zones around tree nos. T443 and T444. However, these areas of encroachment are currently occupied by the existing carriageway and pavement, and the proposed Phase 3 layout will not devalue these areas of buffer zone compared to their existing condition. Therefore, this encroachment into the buffer zone is considered acceptable in arboricultural planning terms.

## **6.0 Tree Protection Plan & Arboricultural Method Statement**

- 6.1 The currently proposed Phase 3 construction works will be carried out in accordance with the following Arboricultural Method Statement, and in the following sequence of events (see separate and specific notes for each heading below, and the plans forming Appendix 5 of this report).
- 6.1.1 Establishment of responsibility for implementation of the Tree Protection Plan and Arboricultural Method Statement (see Section 6.2 below).
  - 6.1.2 Agreement of the arboricultural monitoring timetable (see Section 6.3 below).
  - 6.1.3 Distribution of Tree Protection Plan and Arboricultural Method Statement (see Section 6.4 below).
  - 6.1.4 General measures, including access, site hoarding/fencing, storage of materials etc. (see Section 6.5 below).
  - 6.1.5 Tree works (see Section 6.6 below).
  - 6.1.6 Tree protection barrier and site boundary hoarding/fencing erection (see Section 6.7 below).
  - 6.1.7 Stump grubbing out (see Section 6.8 below).
  - 6.1.8 Drainage elements and services installation in the 'Precautionary area 1' areas (see section 6.9 below).
  - 6.1.9 Soft landscaping and fencing works in the RPA of retained trees (see Section 6.10 below).

### **6.2 Establishment of responsibility for implementation of the Tree Protection Plan and Arboricultural Method Statement.**

- 6.2.1 Before any site works, including site clearance, take place, the overall project manager or overall project management team will appoint a person (the Responsible Person) who will be made responsible for the correct and full implementation of the Arboricultural Method Statement. The Responsible Person will typically be the site manager, but whoever is appointed will be responsible for the full and correct implementation of this plan and statement, and will be deemed liable for any failure to correctly and fully implement this Arboricultural Method Statement.
- 6.2.2 When appointed, the Responsible Person will inform the Local Planning Authority, the Client, and the Project Arboriculturist of their appointment and will supply both with a full set of contact details.

### **6.3 Agreement of the arboricultural monitoring timetable.**

- 6.3.1 If specifically requested by either Eastleigh Borough Council or Winchester City Council, before any site works, including site clearance, take place, a site meeting will be held with the Responsible Person, the site/project manager, the Local Planning Authorities' Tree Officer and the Project Arboriculturist. The purpose of this meeting will be to confirm the tree protection measures required by the Tree Protection Plans & Arboricultural Method Statements, and to agree a timetable of ongoing site monitoring and reporting to be carried out by the Project Arboriculturist.
- 6.3.2 Further arboricultural monitoring and reporting will be carried out by the Project Arboriculturist in accordance with the timetable agreed at the above meeting.
- 6.3.3 A brief letter report will be produced by the Project Arboriculturist following each site visit and a copy of this letter supplied to the responsible person and the Local Planning Authority's Tree Officer.

### **6.4 Distribution of Tree Protection Plan and Arboricultural Method Statement.**

- 6.4.1 It is the responsibility of the Responsible Person to ensure that all staff and contractors working on the development are aware of and abide by this Arboricultural Method Statement.
- 6.4.2 Scale copies of the plans forming Appendix 5 of this report will be attached to the site office notice board. A copy of this Arboricultural Method Statement will always be kept available in the site office at all times. Scale copies of the plans forming Appendix 5 of this report will always be available in the site office for taking out on site as necessary.
- 6.4.3 Reference to this Tree Protection Plan & Arboricultural Method Statement will form part of the standard induction briefing for all personnel coming onto site.

## **6.5 General measures, including access, storage of materials etc.**

6.5.1 The following tree protection measures will apply at all times and across the whole site.

6.5.1.1 After the tree works and vegetation clearance works have been completed, but before any site construction or ground works commence, and before any construction equipment, vehicles and materials, other than those necessary for the erection of the tree protection barriers and the site boundary hoarding/fences, are delivered to or have access to the site, the tree protection barriers must be erected and the site boundary line securely defined by site boundary hoarding/fencing (see section 6.7 below).

6.5.1.2 When any large and/or tall and/or jibbed vehicles/equipment are operating or manoeuvring close to the crowns of trees to be retained, a specific banksperson will be appointed to supervise the movement and ensure that no damage is caused to the crowns of these trees through impact.

6.5.1.3 All activities usually carried out in the compound area, e.g., the storage of materials and equipment (but excluding the storage of oils, fuel or chemicals), the mixing of concrete and mortar, the siting of rest cabins and the site office etc., will take place outside and down slope from the construction exclusion zones created by the tree protection barriers, and the 'Precautionary area 1' areas.

6.5.1.4 Any facilities for the storage of oils, fuels or chemicals shall be sited at least 5 metres outside and down slope from the construction exclusion zones formed by the tree protection barriers and the 'Precautionary area 1' areas, on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%. If there is a multiple tankage, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipework shall be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund.

6.5.1.5 No fires will be permitted on site.

## 6.6 Tree works.

- 6.6.1 Before any demolition or construction works are carried out, and before any demolition and construction equipment, materials and vehicles are delivered to site, the tree works detailed in the Schedule of Tree Works forming Appendix 8 of this report and illustrated in the Tree Protection & Arboricultural Method Statement plan forming Appendix 5 of this report, will be carried out.
- 6.6.2 All tree works will be carried out in accordance with the following requirements.
  - 6.6.2.1 All tree works will be carried out in accordance with British Standard 3998:2010 'Tree works – Recommendations' (BS3998:2010).
  - 6.6.2.2 All tree works will be carried out in such a way that no unintended collateral harm is caused to trees to be retained.
  - 6.6.2.3 All arisings will be disposed of in an approved manner and off site unless otherwise instructed by the Client or site manager.
  - 6.6.2.4 All tree works will be carried out in accordance with all current and applicable health and safety legislation and regulations, and industry best practice.
  - 6.6.2.5 All tree works will be carried out in accordance with all current and applicable environmental and wildlife protection legislation and regulations, and industry best practice.
  - 6.6.2.6 The resulting stumps will either be coppiced in the hope that they will regrow, or be cut off close to ground level and their stumps grubbed out, see the enclosed Schedule of Tree Works forming Appendix 8 of this report for details. **N.B. Any grubbing out of stumps may only take place after the tree protection barriers have been erected.**

## 6.7 Tree protection barrier and site boundary hoarding/fencing erection.

- 6.7.1 After the tree works are completed, but before any stumps are grubbed out, and before any demolition or construction works commence, and before any demolition or construction vehicles, equipment and materials, other than only those necessary for the erection of the tree protection barriers and the operational site boundary hoarding/fencing, are delivered to site, the tree protection barriers and the operational site boundary hoarding/fencing will be erected at the positions illustrated in the plans forming Appendix 5 of this report.

- 6.7.1.1 The only exception to this requirement is where the tree protection barrier crosses an existing path, track, haul road or other road that is to remain open, where the tree protection barrier will be omitted.
- 6.7.1.2 Where the operational site boundary line coincides with the line of the tree protection barrier, the tree protection barrier design detailed at section 6.7.2 below will be used.
- 6.7.2 The tree protection barrier will either comply with the illustration forming Appendix 6 of this report, or will comply with the following specification.
  - 6.7.2.1 The barrier will comprise a minimum 2 metres' tall, welded mesh fence panels on rubber or concrete feet secured with ground pins.
  - 6.7.2.2 The fence panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence.
  - 6.7.2.3 The distance between the fence couplers should be at least 1 metre and should be uniform throughout the fence.
  - 6.7.2.4 The panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins.
  - 6.7.2.5 Where the fencing is to be erected on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g., due to the presence of underground services, the stabilizer struts should be mounted on a block tray.
  - 6.7.2.6 The barrier will have an A3 size and laminated informative/warning notice attached on the construction site side, at approximately 1.6 metres above ground level, and at no more than 6 metres intervals. An example of a suitable notice is provided at Appendix 7 of this report.
  - 6.7.2.7 No construction access whatsoever will be permitted in the construction exclusion zones formed by the tree protection barriers.
  - 6.7.2.8 The tree protection barriers will be retained in place and intact until all demolition and construction activities have been completed and all demolition and construction materials, equipment and vehicles have been removed from the site.

6.7.3 The design of the operational site boundary hoarding/fencing to be used is at the discretion of the Responsible Person, but the design must be capable of preventing absolutely all construction access beyond the site boundary. The only exception to this requirement is where the site boundary line crosses an existing path, track, haul road or road other that is to remain open, where the boundary line will be unfenced.

6.7.3.1 Where the operational site boundary line coincides with the line of the tree protection barrier, the tree protection barrier design detailed at section 6.7.2 above will be used.

6.7.3.2 Absolutely no construction access beyond the operational site boundary hoarding/fencing will be permitted at any time.

6.7.3.3 Where the operational site boundary line coincides with the line of the tree protection barrier, the tree protection barriers will be retained in place and intact until all demolition and construction activities have been completed and all demolition and construction materials, equipment and vehicles have been removed from the site.

## **6.8 Stump grubbing out.**

6.8.1 After the tree protection barriers have been erected, the stumps of felled trees that are identified to be grubbed out may be grubbed out if required (see section 6.6.2.6 above).

6.8.2 No access into the construction exclusion zones formed by the tree protection barriers will be permitted as part of this work.

## **6.9 Drainage elements and services installation in the 'Precautionary area 1' areas.**

6.9.1 The 'Precautionary area 1' areas are illustrated with yellow hexagonal hatching in the Tree Protection Plan & Arboricultural Method Statement plans forming Appendix 5 of this report.

6.9.2 All and any excavations in the 'Precautionary area 1' areas that extend below the depth of the existing carriageway and pavement's compacted subbase, and the subsequent installation of drainage elements and services, and the backfilling of the excavations, will be supervised by the Project Arboriculturist. If it becomes apparent that significant tree roots, i.e. tree roots of 25mm or greater in diameter, are present in the location of the drainage or service trenches, the excavation of these trenches will be carried out as follows.

- 6.9.2.1 The drainage or service trench will be excavated to the required depth either by hand using hand tools only, or a pneumatic air displacement tool, or a vacuum excavation tool.
- 6.9.2.2 Any woody roots encountered with a diameter of 25mm or greater will be carefully excavated round and left in place and undamaged.
- 6.9.2.3 Any woody roots encountered with a diameter of less than 25mm will be cut off cleanly at the edge of the trench using a pair of sharp and clean secateurs.
- 6.9.2.4 When they are fully exposed, all the exposed woody roots will be covered by three layers of Hessian or similar material to avoid desiccation or frost damage.
- 6.9.2.5 The drainage elements, services, or service ducts, will be installed under and around the roots as necessary.
- 6.9.2.6 The trench will be backfilled using either the excavated soil or a proprietary structural soil designed to bear loads without compacting. The soil will be put down in thin layers that are each lightly tamped in turn.
- 6.9.2.7 As the backfill reaches retained roots, the Hessian or similar covering will be removed.
- 6.9.2.8 Once the trench has been backfilled to the depth of the existing carriageway and pavement's compacted subbase, construction works may proceed in a conventional manner.

## **6.10 Soft landscaping and fencing works in the RPA of retained trees.**

- 6.10.1 Where fences are to be erected across the RPA of retained trees, they will be erected as follows.
  - 6.10.1.1 The erection of fences in the RPA of retained trees will be carried out as part of the post construction soft landscaping works, i.e., after the tree protection barriers have been removed.
  - 6.10.1.2 Post holes will be excavated by hand. If a significant root is encountered i.e., a root over 25mm in diameter, the post hole must be re-positioned so that it avoids the root.
  - 6.10.1.3 Any roots encountered that are less than 25mm in diameter will be carefully cut back to the edge of the excavation using either a sharp pruning saw or a sharp pair of loppers.

- 6.10.1.4 The upright can be secured with either rammed earth or concrete. If concrete is to be used, the post hole must first be lined with an impermeable and continuous membrane to prevent the leaching of toxic compounds into the root zone.
- 6.10.1.5 Mechanical augers and excavators will not be used within the RPA of retained trees.
- 6.10.1.6 No vehicular access across the RPA of retained trees will be permitted as part of these works beyond the existing or new hard surfaces.
- 6.10.2 Soft landscaping works in the RPA of retained trees will be carried out as follows.
  - 6.10.2.1 The soft landscaping works in the RPA of retained trees will be carried out as part of the post construction soft landscaping works, i.e., after the tree protection barriers have been removed.
  - 6.10.2.2 Excavations for landscaping works within the RPA of retained trees will be carefully carried out with hand tools only to the required depths. If significant roots are encountered i.e., roots over 25mm in diameter, these will be dug around and accommodated by the soft landscaping works, and left in place and undamaged.
  - 6.10.2.3 Powered cultivators will not be used in the RPA of retained trees.
  - 6.10.2.4 No vehicular access across the root protection areas will be permitted as part of these works beyond the existing or new hard surfaces.

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