



Visual Tree Assessment Report (VTA)

At:

**LAND AT MONTEREY DRIVE,
HAVANT, HAMPSHIRE**

For:

PERSIMMON HOMES SOUTH COAST

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This report is the responsibility of Arbor-Eco Consultancy
It should be noted that whilst every effort is made to meet the client's brief,
no site investigation can ensure complete assessment
or prediction of the natural environment.

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1. INTRODUCTION

1.1 Project Brief

Arbor-Eco Consultancy was commissioned by Persimmon Homes South Coast to carry out a tree survey of six individual Monterey Cypress trees (*Cupressus macrocarpa*) and to undertake a ground level visual tree assessment of these trees growing on land adjacent to 26 Monterey Drive, Havant and within an area of open space.

The purpose of the report was primarily to determine the condition and health and safety of these selected trees at this site to further inform management recommendations. The survey produced a Tree Survey Report to further inform management recommendations.

In the absence of a topographical survey of trees, the indicative locations of the trees are identified on a plan, Arbor-Eco Consultancy drawing number MB221111-01, in Section 9.

1.2 Site Description

The site comprised of narrow section of shelterbelt planting sandwiched between a play area and the rear gardens of residential properties accessed off Farrington Drive, minor trunk road and adjacent to number 26 Monterey Drive, minor trunk road. The site is within the administrative boundary of Havant Borough Council and in the county of Hampshire.

The topography of the site was generally flat. The trees surveyed are centred at Ordnance Survey Grid Reference SU 72373 07779.

The indicative location of the trees surveyed are shown on Drawing Number MB210605-01, in Section 9.

1.3 Limitations and Constraints

COVID-19 Government Rules on social distancing has reinvigorated many to spend more time outdoors. The action of pedestrian traffic walking over the roots of trees and compacting the ground may have a longer-term impact as the roots require oxygen, nutrients and water to survive. The air pockets are squeezed out of the soil and this will encourage water run-off in favour of soaking the water. Planting additional trees, aerating the soil, adding mulch rings around the trees will all combat the effects of extreme weather events. The unpredictability of the trees reactions to these vectors is becoming increasingly apparent. Drought can cause reactions in a tree that include branch drop or early wilt or even sudden death.

A number of trees were shrouded with ivy or within dense vegetation that restricted full survey access. An appraisal of the trees condition has been made visually from a distance. Fly-tipped material was also located around the base of a number of trees with unknown contents and this also meant that trees were not fully inspected at ground level.

2. ARBORICULTURAL SURVEY

2.1 Methodology

A tree survey conducted by a suitably qualified arboricultural consultant will ensure that there will be an accountable process, available for scrutiny that would satisfy the courts that reasonable and practicable measures have been taken to reduce the risk of injury to person or property.

To determine the status of the trees within the site a full ground level visual tree assessment survey has been undertaken, assessing the species and status of all trees present. This survey has been carried out in accordance with the guidance from the National Tree Safety Group – Common Sense Risk Management of Trees (2011).

The trees were visually assessed and a schedule prepared listing tree number, species, stem diameter (measured at 1.5 m above ground level), tree height, crown spread (within a range), and age class. Any specific observations or recommendations with regard to management were also noted. All these observations and measurements are summarised in Table 4.2.

The emphasis of the report is predominantly that of tree management and preliminary recommendations for tree works as a result of a health and safety inspection. It identifies naturally occurring defects within the tree due to inhibited growth or naturally related vectors that have caused what would otherwise be a tree of good form and vitality as guided by current best practice. The survey also considered managed man-made structures.

The inspection was carried out with use of binoculars where necessary. No climbing inspection was conducted. No analysis of soil samples was undertaken and the condition of trees' root system was only investigated by way of a surface visual inspection, light excavation around the buttress and assessment of the trees' overall vitality. Acoustic resonance impact testing utilising a Thor 710 nylon hammer was used, in conjunction with a metal probe, to determine the presence, depth and extent of decay found at the surface of the bark.

In order to assist with the identification of the trees due to the absence of a survey drawing, a unique numbered corrosive metal disc has been attached to the stem as shown in Plate 1.



Plate 1: Tag nailed to stem.

2.2 Weather Conditions

The survey was completed on 1st November 2022 by Marco Bartolini, Arboricultural Consultant. The weather conditions at the time of the survey are shown in Table 2.1.

Conditions	Result
Temperature (°C)	13
Cloud Cover (%)	100
Precipitation (%)	44
Wind Speed (Beaufort)	F7-8

Table 2.1: Weather Conditions at Time of Survey

2.3 Condition Status

Each tree was inspected from ground level and no other equipment has been used to determine the health and safety of the tree other than knowledge, experience and training. Measurements are recorded in accordance with National Housing Federation DBH Banding.

2.3.1 The tree stem circumference was measured at 1.5 m above ground level and given the following range of diameter;

<150	less than 150 mm
150-300	between these two measurements
300-450	between these two measurements
450-600	between these two measurements
600-1000	between these two measurements
1000+	greater than 1000 mm

2.3.2 Crown spread was measured across the complete face of the crown and given incremental figures. Tree height was measured optically from ground level.

2.3.3 Works required to be carried out are weighted in monthly timescales.

2.3.4 Trees are 'aged' through periods of their anticipated life subject to location, soil structure and other external influences compared to that of an open grown tree in ideal conditions for that species;

Y: Young = tree within first third of average life expectancy
SM: Semi-Mature = tree within second third of average life expectancy
M: Mature = tree within final third of average life expectancy
OM: Over mature = tree beyond average life expectancy
V: Veteran status (in decline and a historically or culturally valuable tree)
D: Dead

2.4 Risk Zones

The Location of a tree should be categorised as High (Red), Medium (Orange), Low (Green) and be dependent on the accessibility to the general public and on-site frequency of use. If client has not provided risk zones maps specific to each site, then categorisation is based solely on the Arboriculturist/Surveyor's discretion from observations gained during the site visit only. Guidelines for this subject come from Common Sense Risk Management Of Trees - National Tree Safety Group (NTSG). Due consideration will be given to the principles set out below:

Public impact - Numbers of public using site
Site usage - Location of roads, footpaths, buildings
Business Risk - Risk of damage to property

Risk Zone/Hazard Class	Work Priority	Time Limits (as detailed on survey schedule)	Details
HIGH Adjacent property including gardens, parks or schools, public roads and footpaths, car parks. Buildings, infrastructure or plant. Any internal access roads or footpaths leading to buildings or infrastructure used on a regular basis	High	Immediate/Urgent Within 1- 3 months Within 3-6 months	Covers trees likely to cause an immediate nuisance, imminent failure, hanging deadwood or major deadwood in a place of high frequency use or a public space. Additionally, infrastructure, public property or a public health is a consideration. Weighted in timescales appropriate for the risk and target.
MEDIUM Open Areas such as tree groups or grassland with limited usage	Medium	Within 6 months Within 12-18 months	Covers trees within target distance of High-Risk Zone likely to cause an inconvenience such as pruning to clear buildings or phone lines. Covers trees within target distance of Medium Risk Zone likely to cause injury or damage.
LOW Woodlands or areas where there is no access and would not require any work	Low	Within 2-7 Years	Covers trees within target distance of High or Med Risk Zones with regard to tree works that are necessary to be programmed to promote the future health and well-being of tree stock, such as re-reductions whereby higher categories aren't necessary.

Table 2.2: Risk Zone Table

Due to the location of the trees to residential property and a highway, the following has been considered;

- Adjacent to public property and public open space; **HIGH-RISK** zone.

3. STATUTORY LEGISLATION AND GUIDANCE

3.1 Protected Trees

Examination of the Havant Borough Council (2022) Tree Preservation Order Interactive Mapping (<http://maps.havant.gov.uk/havant.aspx>), accessed on 1st November 2022, indicated that at the time of the survey, all of the trees surveyed are the subject of a Tree Preservation Order.

Tree Preservation Order G2 1499 refers.

The Town and Country Planning (Tree Preservation) (England) Regulations 2012, Part 4 – Applications for Consent under Tree Preservation Orders states that an application for consent to the cutting down, topping, lopping or uprooting of any tree in respect of which an order is for the time being in force shall be made in writing to the authority on a form published by the Secretary of State for the purpose of proceedings under these Regulations.

Until such time as the application has been granted no works must be undertaken on the trees identified as being subject to TPOs that contravene the order. Works include pruning, topping, lopping, uprooting or wilfully damaging these trees. Any proposed pruning works will need to be fully specified and agreed within any planning application. If works are not included within the planning application, a separate TPO application will be required to be submitted to the Local Authority for permission to undertake any works (approximately an 8-week process).

Apart from [limited exceptions](#), permission must be sought from the local planning authority by submitting a standard application form. The form is available from the Local Authority [Planning Portal](#). It is important that the information on the form makes clear what the proposed work is and provides adequate information to support the case.

Further examination of the Havant Borough Council (2022) Tree Preservation Order Interactive Mapping (<http://maps.havant.gov.uk/havant.aspx>), accessed on 1st November 2022, indicated that at the time of the survey the site is not situated within a Conservation Area.

3.2 Legislation

The tree health and safety audit has been carried out with consideration to the following guidelines and current legislation;

- *Occupiers' Liability Act 1957 & 1984*
- *Management of Health and Safety at Work Regulations 1999 and the associated ACoP (guidance is contained in HSG 65 Successful health and safety management and INDG 163 Five steps to risk assessment)*
- *HSE's "Reducing Risks Protecting People" 2001*
- *National Tree Safety Group - Common sense risk management of trees 2011*
- *The Health & Safety Executive (HSE) (decision –making framework, known as the Tolerability of Risk (ToR) framework)*
- *Section 41(1) of the Highways act 1980, a duty "to maintain the highways"*
- *Section 154 (2) of the Highways Act 1980*
- *National Planning Policy Framework, Trees and Forestry Commission, Crown or local authority land, churchyards, aerodromes and scheduled monuments, Government Planning Practice Guidance.*

3.3 Protected Species

Bats: A bat survey must be performed on the relevant roost potential prior to demolition. If bats are found to be present, a Natural England licence will be required prior to demolition. Bats and the places they use for shelter or protection (i.e., roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017, as amended. They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process. As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present. The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on public bodies to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. A number of bat species are listed on Section 41 (England) and Section 42 (Wales) of the NERC Act 2006.

Nesting Birds: The removal of relevant features must be undertaken outside of the bird nesting season (this generally extends between March and August but is weather dependent). If this is not possible the area concerned should be checked immediately prior to removal by a suitably qualified ecologist. Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.

3.4 Common Law

Where there are trees overhanging the site and in particular trees growing within third party land adjacent to the site it is the landowner's responsibility to manage the overhanging vegetation unless a safety issue arises.

The following relates to common laws regarding trees only;

Under common law, a person may cut back any branch (or root) from a neighbour's tree that overhangs or encroaches onto their property. In cutting back any overhanging branches (or encroaching roots) the following must be observed:

- The person must not trespass onto the land on which the trees are growing.
- Branches or roots must not be cut back beyond the boundary in anticipation of them overhanging.
- Any branches, fruit or roots that are removed must be carefully returned to the tree owner unless they agree otherwise.
- All work must be carried out carefully. For example, avoid damaging property or carrying out work that would leave the tree unsafe or dangerous to avoid any complaint from the tree owner.
- The person must not alter the height of trees or hedges on neighbouring land. While not required under common law, it would be courteous to notify the tree owner of your intentions to help allay any misunderstanding.
- Common law rights are intended to allow the person to carry out the minimum amount of work.
- If extensive works are carried out and in so doing make the tree unsafe, the tree owner may have a case for criminal damage. The person should be especially careful if pruning roots. Obtain qualified arboricultural advice before carrying out any such work. If the tree owner agrees to works that are in addition to your common law rights, or if they give permission to enter their land to undertake the work, it would be prudent to obtain their written consent.

If the trees in question are subject to a tree preservation order or are growing in a conservation area then an application (in the case of tree preservation orders) or 'Notice of Intent' (in the case of trees growing in a conservation area) may be required and the following points will apply.

- The person intending to submit an application or notice must inform the owner of the land on which the trees are growing that an application or notice is to be made.
- The granting of consent in the case of a tree preservation order or the raising of no objection in the case of trees in a conservation area means that the tree work applied for is acceptable in arboricultural and planning terms only. It does not give the person submitting the application or notice an automatic legal right to carry out the work. The question of ownership is a civil rather than a planning issue and the landowner's permission must be obtained in addition to any planning approval.

3.5 Occupiers' Liabilities Act 1957 and 1984

An occupier of premises owes the same duty, the "common duty of care", to all his visitors whether by invite or otherwise. The common duty of care is a duty to take such care as in all the circumstances of the case is reasonable to see that the 'visitor' will be reasonably safe in using the premises for the purposes for which he is invited or permitted by the occupier to be there or for purposes other than that which they have been invited (trespassers).

Should the site occupants have any concerns about the trees overhanging their boundary then they would be best advised to write to the landowner and remind them of their responsibilities to ensure that public health and property are managed around trees.

4. TREE STOCK ASSESSMENT

4.1 Tree Condition

The individual trees selected by the client have been inspected and remedial works recorded in accordance with National Tree Safety Group Guidelines (2011). In addition, a visual inspection of neighbouring trees had also been carried out due to Storm Claudio passing across the south of England the previous night with wind speeds of over 80 mph.

4.1.1 The trees surveyed were located adjacent to properties off Farringdon Way, minor trunk road and within falling distance of the residential properties off both Farringdon Way and Monterey Drive, minor trunk roads. The trees were recorded as previously managed; however, storm damage was obvious at the time of the survey and further urgent management was required which has been recorded in Table 4.1 below.

4.1.2 Environmental Benefits of Trees.

It is worthwhile noting that the trees can intercept many of the hostile elements humans and animals need shelter from. Trees provide shading and offer significant humidity regulation and a cooling effect felt at ground level. All trees will consume a considerable amount of ground water that will regulate the local hydrology and may assist with the removal of local flooding issues. A mature tree will consume tens of thousands of litres of water during a year. A group of trees can provide an element of acoustic dampening effect at ground level and growing next to a road many tree species have been linked with the sequestration of impurities from the atmosphere. Finally, the trees will provide some shelter from prevailing winds and inclement weather. Therefore, it can be seen that the trees will benefit, rather than hinder, the landscape in which they are growing.

4.1.3 Extreme Weather Events

The confirmed heatwave and drought of 2018 combined with the hottest year on record for the month of July in 2019 and 2022, has meant that the ground has been baked, water has evaporated and the water table lowered. This has meant that many trees have been left with little or no water to survive through (at least) three growing years. Tropical nights in 2020 and 2022 added to an already water starved ground. A record number of frosts over the month of April, 2021, killed emerging buds and reduced the photosynthetic opportunity to many trees and plants. In addition, the early on-set of spring 2019 and 2021 meant that trees were already rooted in warm soils with little water. The hottest year on record was also announced for 2022. The autumn months of 2022 have seen a number of extreme weather events with Storm Claudio being the latest.

When rain has fallen, the ground is so hard that the water cannot percolate to lower depths, or even soak the upper soil levels, but has run-off towards rivers, land-drains and water courses that collect the rain-water. Shallow rooted trees such as Silver Birch (*Betula pendula*), Scots Pine (*Pinus Sylvestris*) and Ornamental Cherry (*Prunus* spp.) have suffered from wilt and consequently been unable to recover meaning that within two years the trees have been killed by lack of water. This is a common theme throughout the areas surveyed in the south of UK and according to Kew Gardens, the effects will be felt for the following 10 years.

4.1.4 A number of the trees across the site were recorded to have had ivy (*Hedera helix*) growing on the stem and in the crown. The wildlife benefits of ivy out-weigh its' removal however, where trees are growing in close proximity to a hazard (footpath, highway or building) it is advisable to maintain a clear stem for survey and inspection access. Ivy does not directly harm a tree as it uses the tree stem to gain height in order to maximise photosynthetic opportunity. Once growing within a crown of a tree it can shade out the parent tree leaves causing dieback. In addition to this, the ivy

creates an additional sail that catches the wind and the weight of this is not compensated for by the tree and it can cause branch failure.

Ivy is a relatively simple plant to eradicate on tree. It can be done cutting a ring from the stem of the ivy plant leaving a gap between broken or cut parts of about 100 mm. These ivy rings will prevent water and nutrients from reaching the leaves and the leaves and stems will eventually fall from the tree from where they were attached.

4.1.5 A number of Monterey Cypress trees had recently shed limbs due to the storm of the previous night.

In calmer situations, branch shedding is a normal phenomenon. Cladogenesis is a process in which trees shed their branches or “self-prune” as part of their normal physiology or in response to stress through the formation of an abscission layer at the branch base. Sources of stress which may contribute to this shedding include drought, soil and root compaction, or presence of disease. In the case of certain tree species, however, none of these factors need be present in order for Cladogenesis to occur. For some tree species, including Larch, Pine, Poplar, Willow, Maple, Walnut, Ash, and Oak, shedding of branches is normal, often occurring annually in the autumn, similar to the shedding of leaves from deciduous trees. Additionally, as trees get older, the number of branches which will be “self-pruned” often increases. Research aimed at gaining an understanding of the advantage to the tree that this process would offer has yielded a wide range of results which suggest that it depends greatly upon the tree species. There is evidence that cladogenesis may occur due to a need to remove less vigorous foliage or foliage which is disadvantaged in its resource availability, and these issues are likely more prominent in mature, older trees and in trees under stress. In other cases, cladogenesis may have a reproductive benefit or promote a more advantageous growth habit.

4.1.6 All of the trees exhibited storm damage with stress fractured branches, suspended branches and major hanging deadwood. In addition, one tree was observed to have shed bark and a stress fracture of the stem was recorded. Two trees have been identified for removal due to their condition. The remaining trees all require remedial work to remove the dead, and dangerous branches. A montage at Plate 2 indicates some of the work required.



Plate 2: Montage of storm damage.

The works to make these trees safe are exempt a Planning Application for trees that are subject of a Tree Preservation Order as they are deemed dangerous.

4.1.7 A cursory inspection of the trees surrounding the park recorded a windthrown tree that was obstructing a footpath. This should be removed. It is deemed safe and not urgent.



Plate 3: Windthrown tree.

4.1.8 All of the trees were within a public open space and subjected to soil compaction. In addition, artificial structures were within the rooting zone which can restrict the percolation of water, nutrients and oxygen reaching the feeding roots. In addition, detritus around the roots that may be causing distress to the tree was also noted.

4.2 Tree Survey Results

The results of the tree survey inspection are detailed within Table 4.1.

Tree (tag) No	Species	Age Class	Height (m)	Stem Diameter (mm)	Crown Spread (m)	Physio-logical Cond	Struct Cond	Defects and other Relevant Comments	Recommended Works	Priority (months)	Recommended Re-Inspection Interval (Months)
1* 1095	Monterey Cypress	M	20+	750-1000	5-10	F	F	- Artificial structures within RPA. - Asymmetrical crown due to group pressure. - Storm damage evident. - Part of a linear group. - Branch tear-out wounds in crown. - Suspended sheared branches in crown. - Major deadwood in crown.	Crown clean deadwood. Remove all suspended and broken branches.	Imm	22-26
2* 1096	Monterey Cypress	M	20+	750-1000	5-10	F	F	- Artificial structures within RPA. - Asymmetrical crown due to group pressure. - Storm damage evident. - Part of a linear group. - Branch tear-out wounds in crown. - Suspended sheared branches in crown. - Major deadwood in crown.	Crown clean deadwood. Remove all suspended and broken branches.	Imm	22-26
3* 1097	Monterey Cypress	M	20+	1000+	5-10	F	F	- Artificial structures within RPA. - Asymmetrical crown due to group pressure. - Storm damage evident. - Part of a linear group. - Branch tear-out wounds in crown. - Suspended sheared branches in crown. - Major deadwood in crown.	Crown clean deadwood. Remove all suspended and broken branches.	Imm	22-26
4* 1098	Monterey Cypress	M	20+	750-1000	5-10	P	F	- Artificial structures within RPA. - Asymmetrical crown due to group pressure. - Storm damage evident. - Part of a linear group. - Branch tear-out wounds in crown. - Sheared stem. - Bark shedding. - Major deadwood in crown.	Fell.	1	22-26

Table 4.1: Tree Survey Schedule (continues)

Tree (tag) No	Species	Age Class	Height (m)	Stem Diameter (mm)	Crown Spread (m)	Physio-logical Cond	Struct Cond	Defects and other Relevant Comments	Recommended Works	Priority (months)	Recommended Re-Inspection Interval (Months)
5* 1099	Monterey Cypress	M	20+	1000+	5-10	F	F	- Artificial structures within RPA. - Asymmetrical crown due to group pressure. - Bifurcated at 2.0 m above ground level. - Ivy on stem. - Storm damage evident. - Part of a linear group. - Branch tear-out wounds in crown. - Suspended sheared branches in crown. - Major deadwood in crown.	Crown clean deadwood. Remove all suspended and broken branches. Sever ivy at base of stem.	Imm	22-26
6* 2000	Monterey Cypress	EM	5-10	450-600	5-10	P	P	- Apical stem dead. - Sheared stem and hanging over public space. - Ivy on stem. - Storm damage evident. - Part of a linear group. - Branch tear-out wounds in crown. - Suspended sheared branches in crown. - Major deadwood in crown.	Fell.	Imm	22-26
Key <u>Age Class</u> Y: Young = tree within first third of average life expectancy EM: Early Mature = tree within second third of average life expectancy M: Mature = tree within final third of average life expectancy OM: Over mature = tree beyond average life expectancy V: Veteran = Historical or culturally important tree (in decline) D: Dead <u>Physiological Condition</u> G: Good = no health problems F: Fair = symptoms of ill health that may be remedied P: Poor = poor health D: Dead <u>Structural Condition</u> G: Good = no structural defects F: Fair = remedial structural defects P: Poor = significant structural defects D: Dead Major deadwood: branches in excess of 50 mm diameter Minor deadwood: branches/twigs less than 50 mm diameter NI: By next inspection. RPA: Root Protection Area (Calculated in accordance with BS5837:2012 Appendix D, Table D.1) *: Trees subject to TPO.											

Table 4.1: (cont'd) Tree Survey Schedule

5. RECOMMENDATIONS

- Trees that are the subject of a Tree Preservation Order will not require a Planning Application to be submitted to the Local Authority for work to make the trees safe.
- Carry out tree works as detailed within Table 4.1.
- Remove windthrown tree adjacent to play park.
- Monitor T3 due to the loss of T4 over the following 12 months for stability issues. The loss of a companion tree can render the retained tree vulnerable to wind-loading.
- All tree works should be carried out in accordance with BS3998:2010 Recommendations – Tree works.
- This Arboricultural Survey is valid for a period of 12 months. If works are not commenced within this time period, then it is advised that the trees are re-inspected to ensure no significant defects have developed since the original survey.

6. INSPECTION PERIOD

National Tree Safety Group (NTSG) recommends that;

- Schools and park trees – inspected every 2 years.
- Highway trees – inspected every 3 years.
- Domestic dwelling trees - inspected every 4 years.

It is recommended that the trees are surveyed is inspected every 22-26 months as recommended by NTSG as the trees are growing within a public space, adjacent to a footpath and properties with High Risk. This will permit the surveyor to review the tree during each of the seasons over time.

7. ENVIRONMENTAL ENHANCEMENTS

There is an opportunity to install bat boxes and bird boxes on the stems of trees within the site boundaries.

8. DISCLAIMER

Arbor-Eco Consultancy accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared. This report has not been compiled as part of an insurance claim and should not be used in conjunction with any such activity.

It should be noted that trees are dynamic living organisms that are subject to natural changes as they age or are influenced by changes in their environment. As such following any significant meteorological event or changes in the growing environment of the trees they should be re-assessed by a suitably qualified and experienced arboriculturist.

9. DRAWING

Drawing Number MB221111-01 Tree Location Drawing

Monterey Drive, Havant

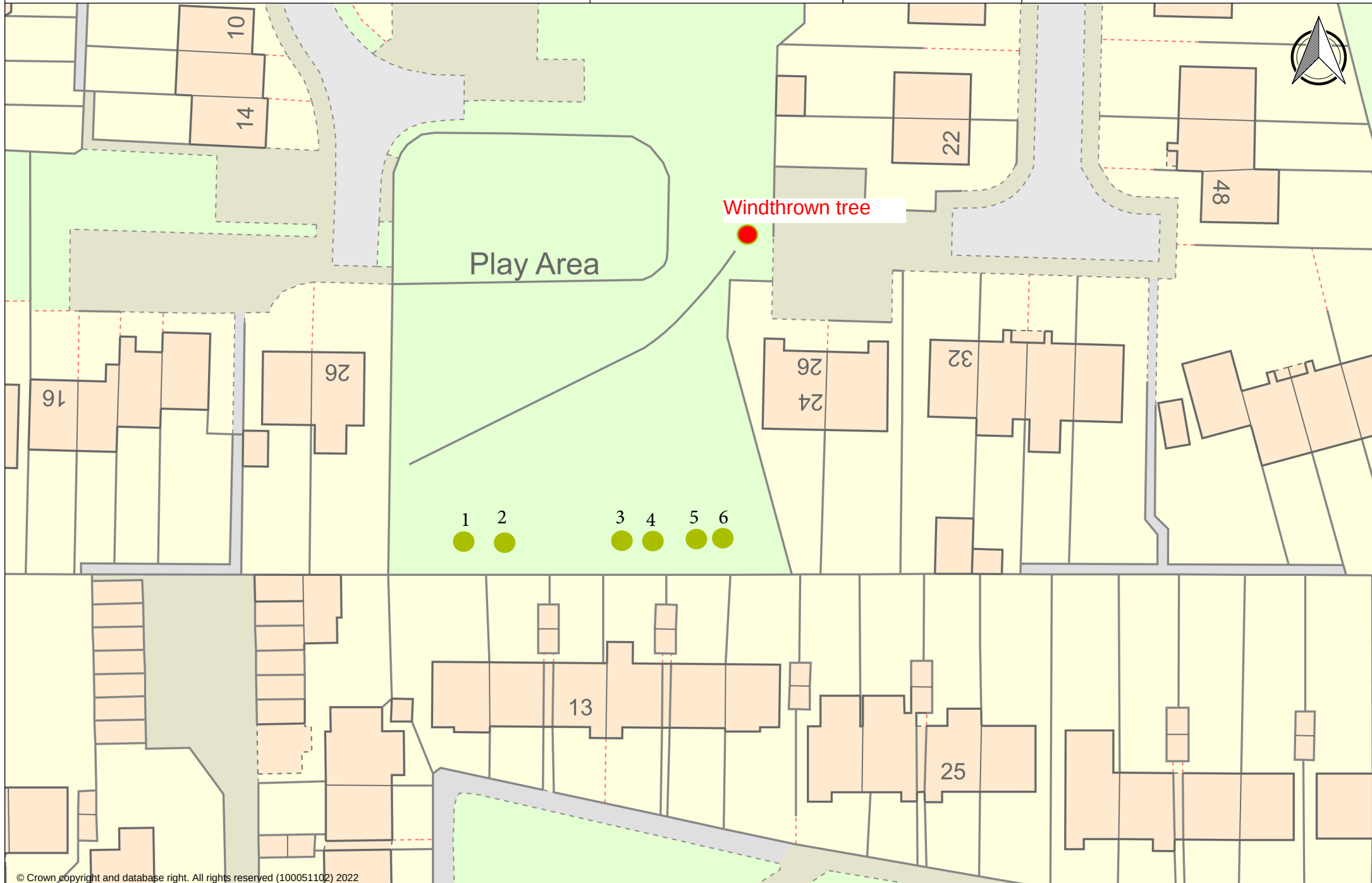
Persimmon Homes South Coast

MB221111-01 Tree Location Plan

Author: MB

Date: 01/11/2022

0 2 4 6 8m
Scale: 1:500



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