# **Development Control Committee A – 6 April 2016**

ITEM NO. 3

WARD: Westbury-on-Trym CONTACT OFFICER: Andrew Cross

SITE ADDRESS: Southmead Police Station Southmead Road Bristol BS10 5DW

**APPLICATION NO:** 15/06605/F Full Planning

**EXPIRY DATE:** 4 April 2016

Demolition of the existing police station buildings and redevelopment of the site to provide a care home (Use Class C2), associated access, car parking and landscaping and the conversion of an existing building fronting Southmead Road to provide a single dwelling (Use Class C3).

**RECOMMENDATION:** Grant subject to Condition(s)

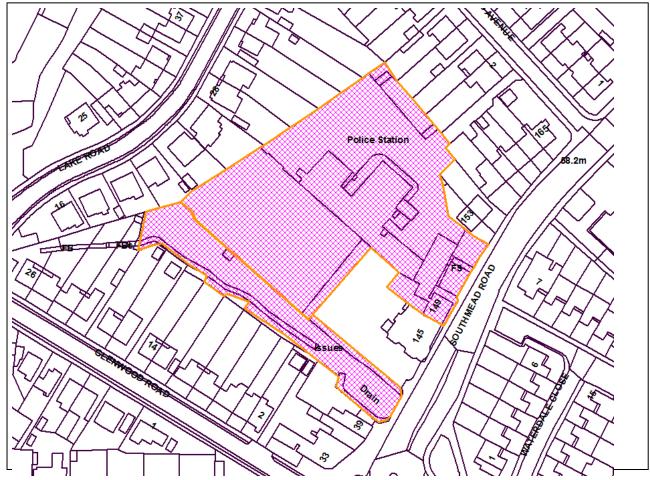
AGENT: Strutt & Parker LLP APPLICANT: Care UK Partnerships Ltd

Somerset House C/O Agent 222 High Street

Guildford GU1 3JD

The following plan is for illustrative purposes only, and cannot be guaranteed to be up to date.

#### **LOCATION PLAN:**



24/03/16 12:00 Committee report

#### SITE DESCRIPTION AND APPLICATION

The application relates to the Southmead Police Station site, accessed from Southmead Road. The site is surrounded by residential development on Southmead Road, Charis Avenue, Lake Road and Glenwood Road.

The application site currently comprises the police station building, which is up to three-storeys in height, outbuildings and hardstanding, all of which occupy the north-eastern part of the site. The south-western portion of the site comprises a registered park/garden, which is in a neglected condition, and includes a Grade II listed gazebo to its western corner.

The application proposes the demolition of the police station buildings, and the redevelopment to create a 66 bed residential care home (C2 use) specialising in dementia and Alzheimer's care, with associated parking and landscaping, along with the conversion of an existing building fronting Southmead Road to create a single dwelling (C3 use). The historic garden would be retained and integrated into the development.

See plans and photographs for full details.

#### **RELEVANT HISTORY**

Previous planning history primarily related to works associated with the existing police station use, which is not relevant to the current proposal.

Other history relates to refused residential developments on the registered park/garden, which is being retained as part of the current proposal.

#### RESPONSE TO PUBLICITY AND CONSULTATION

Consultation was undertaken via site notice along with letters sent to surrounding properties. Written responses were received from 12 parties, raising concerns that can be summarised as follows:

Residential Amenity (see key issue B)

- o Overshadowing
- o Overlooking
- o Light Pollution

Highways (see key issue C)

- o Access should be via the existing main entrance, not via the rear lane off Charis Avenue
- o Increased pressure for on-street parking
- o Impact of potential traffic increase
- o Parking during construction works

Design (see key issue D)

o Intent for stone boundary wall is unclear

Trees (see key issue E)

o The TPO Wellingtonia (T22) should not be felled

# Transport Development Management has commented as follows:-

#### Travel Plan

The Travel Plan submitted has clearly detailed the correct measures and procedures to promote sustainable transport to work, and to reduce the amount of alone vehicular trips by carrying out surveys and providing the relevant information to staff. This document will be approved if planning permission is granted.

#### **Transport Statement**

A comprehensive Transport Statement has shown there is not going to be a material impact to the existing highway network in relation to the TRIP rate. TDM is in agreement with this position.

# Access Arrangements

Existing vehicular cross-over along Charis Avenue cannot be reinstated as it also provides rear access for existing dwellings along Southmead Road. The proposal states the existing vehicular cross-over off Southmead Road leading into the site will be kept in situ. However, the proposed plans show a junction with give way markings and radi kerbs to be installed. TDM do not agree with these proposals, the vehicular access must be kept as a vehicle cross-over as it is currently.

#### Servicing and Deliveries

The submitted plans have not provided a dedicated bay for ambulances and servicing within the site, this must be shown. The TS (Transport Statement) has shown an area at the entrance to the building where the ambulance can wait within the swept path analysis, a hatched area must be drawn on the proposed site plan reflecting this.

TDM raise no objection with the proposed arrangement for the commercial refuse collection.

# Car Parking / Cycle Parking / Waste

The Bristol Local Plan: Site Allocations and Development Management Policies details the following car parking standard for a residential care home:

C2 - Residential Institutions

Standard

Cycles Staff - one space per 5 F/T staff

Visitor - one space per 10 bed spaces

Disabled people From a threshold of 500m<sup>2</sup>, 10% of the parking standard to be

provided in addition - minimum of one space

Provision should also be made for the storage of mobility scooters

Service Vehicles All developments will be expected to demonstrate how servicing will be undertaken.

At least one bay for ambulances, minibuses and general servicing.

Taxis Adequate pick up and drop off for taxis

Car parking One space per 2 F/T duty staff

Visitors: One space per 6 bed spaces

Please note: Vehicular parking provision is a maximum.

Cycle parking provision is a minimum.

TDM raise no objection to the level of vehicular parking bays and disabled bays shown on drawing no. PL03.

The cycle spaces shown on PL03 do not meet Bristol City Council's Policy. The development has to meet the minimum provision for cycle parking which are 7 for visitors which can be provided outside via sheffield stands. However, 12 spaces must be provided for staff (60 equivalent full time staff) within a secure and weather tight store.

With regards to the private dwelling on the site, a cycle store must be provided within the garden which is easily accessible. (1 bedroom= 1 cycle spaces, 2-3 bedroom= 2 cycle spaces, 4 + bedroom= 3 cycle spaces)

#### Waste

TDM raise no objection to the proposed bin store location for the C2 development due to the refuse being collected commercially.

Drawing no. PL03 has not shown a bin store for the proposed C3 dwelling within the site, this should be included within their private garden within 30m from the adopted highway. TDM expect the proposed C3 dwelling to have pedestrian access from Southmead Road leading into the site. This will allow future occupiers to easily take their bins out on collection day and return to the store, this will ensure no refuse will be left out on the footway causing an obstruction to passing pedestrians.

## Off-Site Highway Works

The development does not have to remove the yellow box junction which is directly outside the site, Bristol City Council will be resurfacing the carriageway in the near future which will remove the lining.

# **Construction Management**

Due to the impact this proposal will have on the highway network during the demolition/construction period the applicant would be required to produce and submit a construction management plan or construction method statement in writing for approval to the Local Planning Authority, before work commences. This would need to be adhered to throughout the construction period and should include details regarding:

- o Parking of vehicles of site operatives and visitors
- o Routes for construction traffic
- o Hours of operation
- o Method of preventing mud being carried onto the highway
- o Pedestrian and cyclist protection
- o Proposed temporary traffic arrangements
- o Arrangements for turning vehicles
- o Removal of debris from demolition and control of dust/debris Summary

As a result, the principle erecting a care home falling within Use Class C2 acceptable however, TDM require the following clarification:

- o Dedicated ambulance bay.
- o Policy compliant cycle parking provision for C2 use and C3.
- o Bin store for C3 and pedestrian access from Southmead Road.
- o Proposed site plan amended to show the existing vehicle cross-over not a junction with radi kerbs and give way lines.

#### Arboricultural Team has commented as follows:-

Following an arboricultural survey carried out by CBA Trees, 23 individual trees have been identified and 7 groups. 7 Trees and 3 groups have been identified for removal. These are: T3 Common Elder, T8 Sycamore, T16 Sycamore, T22 Wellingtonia, T23 Mulberry, T25 Holly & T28 Irish yew. Groups 1 Elder, G2 Sycamore and Elder & Group 8 Elder & Hazel.

Trees 3,8,16, 25, 28 & groups 1, 2 & 8 are of low value to the site and there removal will aid the development process without any significant detraction of the landscape.

T23 Black Mulberry is a mature specimen which is not commonly found. However the tree has been supressed and covered in ivy, leaving the tree with poor form for future growth.

T22 is a mature Wellingtonia within close proximity and leaning towards the rear wall of the police station. This tree is 1 of 3 Wellingtonia on site; Of the 3 it provides the lowest visual amenity from a public perspective and imposes the greatest constraints on the proposed development.

Although the gardens of this site have had very little maintenance for a number of years, the trees on the south western and north western boundaries provide a significant contribution to the visual amenity of the local surroundings. 2 of the 3 Mature Wellingtonia's T5 & T10 are visible from Lake Road and Greenwood Road along with a number of mature trees on these boundaries.

T22 is located in the centre of the site and provides little public amenity value and can only be viewed from a public perspective at the front vehicular entrance of the police station on Southmead Road. It is acknowledged that Tree 22 is a significant tree when viewed from within the site however its retention will have considerable constraints on the future development of the adjacent site currently occupied by the Police Station. Its limited public amenity value needs to be balanced considering other trees on site and the restrictions it will impose on the future development.

The root protection area of T22 is a 15m radius circle from the centre of the stem. This in turn would require either a significant change of design of the proposed development or a shift of the whole development northward towards houses on Southmead Road and Lake Road.

T22 is located within 2m of the rear wall of the proposed development, to retain the tree would therefore restrict the possibilities of developing the site as a whole. A large leaning tree within close proximity of this development would create shade on the southern face of the building and be an imposing feature to future residents.

The landscape proposal submitted is to recreate a formal garden with significant planting of trees and shrubs within this area, the management of the proposed landscape plan can lead to a garden of greater value than is currently on site. The future retention and improvement of this historic garden is a key objective to the proposed development. A number of well-considered tree replacements have already been suggested. The black Mulberry shows continuity with the current species of trees on site.

There are also a number of tree species that appear regularly on landscape plans such as Betula utilise 'Jacqmontii' & Tilia 'Green spire' that could be altered to provide better context to the historical garden. These are modern cultivars that are used frequently at the planning application stage. Further consideration of their use and a better historic context is needed.

Tree species that have a link to the age of this property could be Monkey puzzle (Araucaria aracana), Wellingtonia (Sequoiadendron giganteum), Black mulberry (Morus nigra), Chusan Palm (Tracycarpus fortunei). This is however not an exhaustive list, however species such as these should be incorporated in the final design to maintain the historical aspect of this site.

Having considered the proposed development, the species of tree on site, their visual amenity and the future implications of the development, the loss of trees 22 & 23 are reasonable, only if the development meets all other planning objectives and that the landscape and re planting plan adequately mitigate for the loss of trees on site. This should be reflected in a detailed landscape plan with a robust tree planting plan that enhances public amenity of the area.

The Tree Protection Plan "CBA10355.03 Construction TPP" appears to show a number of soil level changes adjacent to the North West wall of the proposed development. These soil level changes are within the root protection area of trees 2&4 and have not been defined within the arboricultural method statement.

Section 13.2 paragraph 3 states "CBA Trees have assessed the increase in levels and do not believe that it will have a detrimental impact on the retained trees"

What is the extent of the soil level changes within the root protection areas of Trees 1, 2 & 4? The increase in soil level of as little as 100-150mm can have a detrimental impact on the trees root zones. Further clarification of the depth of soil changes and mitigation is required.

Urban Design has commented as follows:-

#### Site/ Context

Backland in nature, the site is relatively well screened by mature landscaping to the north-west and south-west and fully enclosed by residential development to all boundaries, apart from the Southmead road frontage.

Most recently in use as a police station, the site is accessed primarily from Southmead Road. A setback 2 storey element serves to continue the building line, with the main mass of the building located behind. As such there are limited views of the extent of the site from this aspect.

The existing building is sited to the east of the plot with open space, designated Local Historic Park and Gardens, to the west.

CDG provided pre-application comments (ref: 15/03451/PREAPP) raising a number of concerns with the proposed scheme. While some concerns remain, it is clear the scheme has sought to respond to a number of issues raised.

# The Proposal

The scheme proposes the demolition of the existing police station buildings and redevelopment of a 3-storey residential care home.

Given the predominantly residential use in the immediate context, the proposed use is considered broadly appropriate.

Despite a number of design changes, including the form and layout of the building a number of concerns remain, related to the height and scale of the building and relationship with Southmead Road as set out below:

- o While the scheme seeks to enclose some second floor accommodation in the roof space, utilising dormers, the majority of the scheme is full 3-storey.
- The proposed 3-storey scale and large footprint of the development appears at odds with the surrounding context and the backland character of the site.
- o A development of this scale within a residential block is likely to raise concerns over amenity, overlooking and overbearing.
- o The location of the proposed development to the east of the site, broadly within the footprint of the existing building and car parking area, in order to maintain the open space to the west is supported.
- o However there are concerns over the loss of the TPO tree; could this not be accommodated within a revised layout?
- o The landscape scheme is comprehensive and well considered.
- o If the loss of the TPO'd Wellingtonia is found to be acceptable, it appears to be adequately compensated throughout the rest of the scheme.
- o The increased gap in the frontage to Southmead road serves to further erode the continuity of building line and frontage; combining the negative impact of the fragmented building line of the fire station and residential development perpendicular to the road opposite.
- The loss of built form on this frontage exposes the site, however it is noted the layout has been revised from the pre-application enquiry to reduce the visual impact of car parking and associated access.
- o What is the approach to the listed gazebo? Clarification related the refurbishment of this feature and integration with the landscaping is required.
- o While noting the constraints of this form of development, the internal corridors appear extensive and utilitarian. Have opportunities to use of light-wells or other methods been explored to bring more natural light into the circulation areas?

#### Conclusions/Recommendations

The scheme has sought to overcome some of the issues raised at preapp.

With regard to landscape design the scheme can be supported, though the view of the arboriculture officer should be sought in relation to impact on site trees.

However the nature of this form of development and quantum required, in conjunction with the site specific constraints, does not allow for an ideal design solution.

# Archaeology Team has commented as follows:-

The archaeological desk-based assessment submitted with this application sets out the major archaeological potential of this site. The manor house dates from the 14th century, although the present structure, which is not part of this site, is a rebuild of the early 20th century. There is also a less definable prehistoric potential with the assessment suggesting that the site could lie at the crossroads of ancient east-west and north-south routes. At the rear of the site is a listed gazebo, said to be of late 17th or early 18th date. Associated with the gazebo are the western boundary wall of the site and the wall separating the main garden and the lower 'wild' garden. It should be assumed that both walls are curtilage listed. The main and wild gardens, which are locally listed and thus protected under Core Strategy policy BCS22 and Local Plan policy DM31, were re-landscaped in the 19th century when the Manor House and its grounds were owned by Dr Stanley Badock.

The desk-based assessment recommends that an archaeological evaluation should be undertaken prior to the determination of this application. This is on the basis that the manor house may have been on a different alignment or site than the present building. It certainly could well have had further associated buildings that have disappeared before the earliest cartographic sources. The potential for much earlier, prehistoric settlement of the site, as suggested by the desk-based analysis, should also be assessed. The survival of early garden features, noted in an earlier study of the site in 1995, should also be assessed as part of a more comprehensive survey of the garden.

The gazebo is in a parlous condition. The incorporation and presumably stabilisation of this structure is welcomed. However, there is nothing in the submitted documents to indicate either the current state of the building or the methodology whereby the building will be stabilised. There will need to be a detailed appraisal of this structure, together with its associated boundary walls, and a subsequent strategy for its stabilisation and long term conservation.

# Environment Agency (Sustainable Places) has commented as follows:-

We have no objection to the proposal subject to the comments outlined in this letter and the inclusion of the following conditions in any grant of planning consent:

#### Groundwater and Contaminated Land

We have reviewed the Site Investigation, Land Quality Risk Assessment and Outline Geotechnical Assessment report by SLR dated October 2015. We note the recommendation in section 7.3.9 for further testing and assessment to inform a remediation strategy for the LNAPL contamination.

We agree that this should be carried out. Removal of the tanks combined with some form of in-situ treatment to enhance degradation would seem to be a reasonable approach to remediation, as suggested.

Given the site lies directly on a Principal Aquifer characterised by fracture flow and a swimming lake is located downhill of the site, we think it would be prudent to undertake further testing and assessment of the heavy metal contamination in groundwater.

Conditions recommended.

#### Nature Conservation Officer has commented as follows:-

Conditions are recommended in relation to site clearance; the protection of Slow-Worms, hedgehogs, and badgers; and the provision of bird and bat boxes.

#### Contaminated Land Environmental Protection has commented as follows:-

The site has a variety of contamination issues in the made ground that will require further investigation, alongside the removal of the underground storage tanks.

Given the site is on a principal aquifer and the contaminants encountered comments from the Environment Agency should be sought at this time. Please forward any comments onto me (you could include the following two paragraphs when contacting the EA)

Arsenic, Cadmium, Selenium, Chromium and Nickel were identified as being higher than the Water Quality Standard in the groundwater but the investigation of the adjacent stream did not show significant leaching of contaminants from the groundwater to the surface water.

In terms of hydrocarbons in the groundwater LNAPL was identified in the fractures of limestone on the first round of monitoring however this reduced in the second round of monitoring when the tests were undertaken in low flow conditions. Similar to the heavy metals there was no evidence of the surface waters being impacted by the presence of hydrocarbons. Further consideration to the risks is deemed necessary in the land quality risk assessment.

The Land Quality Assessment has identified certain areas requiring further assessment and the need for remediation.

Ideally the applicants would submit a remediation scheme prior to approval identifying the remediation/further investigation required in order for us to reduce the number of planning conditions.

At the moment (and this may change once I run the models on the screening criteria and following any input from the Environment Agency) we would anticipate recommending standard conditions B12 B13 and C1 to be included on any future planning consent.

# Flood Risk Manager has commented as follows:-

The submitted drainage strategy is acceptable in principle and we therefore have no objections to the proposals provided that the following condition is applied:

The development hereby approved shall not commence until a detailed design, management and maintenance plan of surface water drainage for the site using SuDS methods in accordance with the approved drainage strategy has been submitted to and approved in writing by the Local Planning Authority. The approved drainage system shall be implemented prior to the use of the building commencing and maintained thereafter for the lifetime of the development.

Reason: To prevent the increased risk of flooding by ensuring the provision of a satisfactory means of surface water disposal and that the principles of sustainable drainage are incorporated into this proposal and maintained for the lifetime of the proposal.

# Landscape has commented as follows:-

Comments forwarded to Conservation Officer as contribution to a joint response.

# City Centre Projects (Public Art) has commented as follows:-

The planning submission 15/06605/F is for a development of scale that triggers Policy BCS21 of the Bristol City Council Core Strategy which states Major Developments should deliver high quality urban design and: - enable the delivery of permanent and temporary public art, promoting a multi-disciplinary approach to commissioning artists in the design process (page 124).

The full planning application Design and Access Statement (D&AS) includes a statement on the provision of public art and a fully worked up public art strategy outlining how public art will be developed across the site.

The planning application should be conditioned at determination to secure public art as a post decision and pre occupation condition in line with the submitted public art strategy.

#### **RELEVANT POLICIES**

# National Planning Policy Framework - March 2012

# **Bristol Core Strategy (Adopted June 2011)**

|       | <b>5</b> 5 \ 1 \ <i>7</i>                 |
|-------|---|
| BCS9  | Green Infrastructure                      |
| BCS10 | Transport and Access Improvements         |
| BCS13 | Climate Change                            |
| BCS14 | Sustainable Energy                        |
| BCS15 | Sustainable Design and Construction       |
| BCS16 | Flood Risk and Water Management           |
| BCS20 | Effective and Efficient Use of Land       |
| BCS21 | Quality Urban Design                      |
| BCS22 | Conservation and the Historic Environment |
| BCS23 | Pollution                                 |

# **Bristol Site Allocations and Development Management Policies (Adopted July 2014)**

|      | · · · · · · · · · · · · · · · · · · ·                    |
|------|--|
| DM1  | Presumption in favour of sustainable development         |
| DM2  | Residential sub-divisions, shared and specialist housing |
| DM17 | Development involving existing green infrastructure      |
| DM22 | Development adjacent to waterways                        |
| DM23 | Transport development management                         |
| DM26 | Local character and distinctiveness                      |
| DM27 | Layout and form  |
| DM28 | Public realm   |
| DM29 | Design of new buildings                                  |
| DM31 | Heritage assets  |
| DM32 | Recycling and refuse provision in new development        |
| DM33 | Pollution control, air quality and water quality         |
| DM34 | Contaminated land  |

#### **KEY ISSUES**

# (A) IS THE REDEVELOPMENT OF THE SITE ACCEPTABLE IN LAND USE TERMS?

The south-western portion of the site is designated within the Site Allocations and Development Management Policies as Local Historic Parks and Gardens (this portion of the site is not being put forward for redevelopment, but rather renovation). The remainder of the site has no specific designation/allocation.

The loss of the existing Police Station use is not resisted in policy terms with the understanding that the facilities and services are being relocated within the vicinity. The site is located within a predominantly residential area, with nearby shops, services and transport links, such that the proposed C2 care home use is considered compatible, as is the proposed C3 element. The principle of change of use of the site is therefore considered acceptable.

Issues of residential amenity, design, transport, trees/landscape and sustainability must however be appropriately addressed, which will be discussed within the following key issues.

# (B) WOULD THE PROPOSAL CAUSE ANY UNACCEPTABLE HARM TO THE RESIDENTIAL AMENITY OF NEIGHBOURING OCCUPIERS?

The building proposed would be of a roughly L-shaped footprint, which would be cited in a similar position to the existing Police Station building to the centre of the site, with an additional 2 ½ storey wing projecting from it, extending north-eastwards.

This layout achieves good separation distances when considering existing surrounding residential properties on Southmead Road, Charis Avenue, Lake Road and Glenwood Road. At its nearest point to the site boundary, the proposed building would be set 9 metres away, and for the majority of the site the distances between the proposed building and the site boundary would be significantly greater than this.

When considering distances between proposed windows and adjacent residential windows, the minimum distance is approximately 30 metres, and generally significantly more. This represents good levels of separation between adjacent buildings, and well in excess of the recommended minimum of 21 metres.

The application submission is supported by a sunlight assessment. This assessment does detail some additional shading outside the site boundary when considering early morning and late evening sunlight, however the position of the proposed building within the site is such that in general terms the level of shading experienced outside the site boundary is limited, and is not considered of a degree to warrant refusal on this basis.

The relationship between the proposed care home building and existing surrounding residential development is therefore such that the proposed development would not be unacceptably overbearing, would not result in unacceptable overshadowing, and would not result in harmful levels of overlooking.

Potential impact from light pollution was raised within one public comment received. Given the distances of separation between existing and proposed buildings, light emanating from within the building is not considered problematic. A condition is recommended however in relation to the design of a scheme of external lighting, to ensure the residential amenity of neighbouring occupiers is not harmed.

The proposal is therefore considered acceptable in residential amenity terms.

# (C) DOES THE PROPOSAL ADDRESS MOVEMENT, TRANSPORT AND HIGHWAY SAFETY ISSUES?

Pedestrian and vehicular access to the site would be via the existing access from Southmead Road, with the rear lane access into the site (via Charis Avenue) being stopped up.

As can be seen from the Transport Development Highways comments set out above, no objection is raised in highways terms, subject to amendments to the proposed junction design (to retain a cross-over as at present); the provision of an ambulance bay; increased levels of cycle storage; and

refuse/recycling store details for the C3 dwelling proposed to the Southmead Road frontage.

At the time of writing the aforementioned amendments have been requested, although at present a condition is also recommended in this regard, in the event that these revisions are not received prior to the committee meeting.

Subject to the provision of appropriate planning conditions, the proposal is considered acceptable in relation to issues of movement, transport and highway safety.

# (D) WOULD THE PROPOSED DESIGN BE ACCEPTABLE?

Core Strategy policy BCS21 relates to overarching urban design principles to ensure high quality development acceptable within its context, with Development Management policies DM26 and DM29 relate specifically to local character and distinctiveness and the design of new buildings respectively. Policy DM26 requires development to contribute towards local character and distinctiveness, in relation to various factors including pattern and grain of development, scale, character, building lines and set-backs from the street. Policy DM27 is concerned with layout and form, including principles in relation to blocks and plots.

The application site at present comprises a Police Station building of up to three-storeys in height, the bulk of which is set relatively centrally within the site, with a two-storey wing that extends towards the Southmead Road frontage. To the north/east of the building is hardstanding with a workshop outbuilding beyond, while to the south-west is an area of registered park/garden, which is in a neglected condition.

The historic garden contains a Grade II listed gazebo, which would be retained. Historic stone walling to the site boundary would also be retained.

The immediately surrounding area is typically characterised by frontage development on Southmead Road, Charis Avenue, Lake Road and Glenwood Road, taking the form of predominantly semi-detached houses set within relatively spacious plots, with private rear gardens. Hipped roofs are characteristic for the area.

The application seeks the provision of a building of up to three storeys in height, with the main bulk located relatively centrally within the site, in a similar location to the existing police station. An additional two-storey wing is proposed, projecting to the north-east.

Comments received from Bristol City Councils City Design Group raised concern of the scale of the proposed building within the backland context. Sectional information has subsequently been submitted by the developer's agent, demonstrating that the increase in height/bulk to the central portion of the site is not significant when compared with existing. The two and a half-storey wing is of a lesser, although still significant scale, and is set well away from the site boundary.

It is acknowledged that the quantum of built form on the site is greater than existing, however the tallest part of the proposal is restricted to the centre of the site and is similar to existing, and the site is generally well screened from the public realm by existing surrounding development. These factors, combined with the spacious site, are such that the proposed development is considered of an acceptable layout and scale.

Variation in heights, set-backs and materials, along with variation in architectural features across the building proposed, provides visual interest and avoids a monotonous form, helping the building to sit comfortably within its context.

Subject to a condition requiring the agreement of external finishing materials, the design of the proposed building is therefore considered acceptable.

# (E) WOULD THE PROPOSAL BE ACCEPTABLE IN RELATION TO TREES AND LANDSCAPING?

As part of the development proposal 7 Trees and 3 groups have been identified for removal. These are: T3 Common Elder, T8 Sycamore, T16 Sycamore, T22 Wellingtonia, T23 Mulberry, T25 Holly & T28 Irish yew. Groups 1 Elder, G2 Sycamore and Elder & Group 8 Elder & Hazel.

Of particular note in this regard is the proposed removal of T22, a mature Wellingtonia which is subject to a TPO, set relatively centrally within the site directly alongside to the existing Police Station building. The proposed removal of this tree has given rise to strong objection locally, and through representation from the Bristol Tree Forum.

In relation to T22, the City Council Arboriculturalist has commented (full comments within the consultations section above) as follows:

T22 is located in the centre of the site and provides little public amenity value and can only be viewed from a public perspective at the front vehicular entrance of the police station on Southmead Road. It is acknowledged that Tree 22 is a significant tree when viewed from within the site however its retention will have considerable constraints on the future development of the adjacent site currently occupied by the Police Station. Its limited public amenity value needs to be balanced considering other trees on site and the restrictions it will impose on the future development.

The root protection area of T22 is a 15m radius circle from the centre of the stem. This in turn would require either a significant change of design of the proposed development or a shift of the whole development northward towards houses on Southmead Road and Lake Road.

T22 is located within 2m of the rear wall of the proposed development, to retain the tree would therefore restrict the possibilities of developing the site as a whole. A large leaning tree within close proximity of this development would create shade on the southern face of the building and be an imposing feature to future residents.

Having considered the proposed development, the species of tree on site, their visual amenity and the future implications of the development, the loss of trees 22 & 23 are reasonable, only if the development meets all other planning objectives and that the landscape and re planting plan adequately mitigate for the loss of trees on site. This should be reflected in a detailed landscape plan with a robust tree planting plan that enhances public amenity of the area.

While the removal of the TPO Wellingtonia (tree T22) is not ideal, it is acknowledged that its retention would be a significant constraint to the development of the site as a care home as proposed. Despite the removal of this tree being flagged as an issue of concern throughout the application process, the scheme put forward does indeed seek its removal, and as such the loss of the tree must be balanced against the public benefits of the proposal. The provision of a residential care home specialising in dementia and Alzheimer's care is indeed considered a public benefit, and the location is considered appropriate for this purpose. Further public benefit is the refurbishment and management of the Historic garden, which is currently in a neglected state. It should also be noted that other significant trees within the site with a greater presence when considering public realm views would be retained, which include Wellingtonia, and replacement tree planting is proposed to mitigate against those to be removed. When balancing all of these factors it is considered that the removal of the Wellingtonia (T22) can be accepted. It should be noted that this view has been reached following proper consideration, and is not a recommendation that has been reached lightly.

The proposed landscaping plan is considered of a good quality and incorporates the provision of 24 replacement trees across the site to mitigate against those to be removed. Following feedback from the City Council Arboricultural Officer, it is considered that the species of the replacement trees should be further considered, which could be secured by condition.

# (F) WOULD THE PROPOSAL BE ACCEPTABLE IN RELATION TO ISSUES OF SUSTAINABILITY AND FLOOD RISK MITIGATION?

Current planning policy within the adopted Bristol Development Framework, Core Strategy (2011) requires new development to be designed to mitigate and adapt to climate change and meet targets to reduce carbon dioxide emissions. This should be achieved, amongst other measures, through efficient building design, the provision of on-site renewable energy generation to reduce carbon dioxide emissions by at least 20% based on the projected residual energy demand of new buildings and extensions to existing buildings, and for new development to mitigate against the risk of flooding, including rainwater soak-away drainage. The approach proposed should also be supported by the provision of a sustainability statement and an energy strategy.

An efficient building design is proposed, with an integrated combined heat and power system. On site renewable energy generation is provided as part of the proposal, taking the form of solar PV panels to the roof, adequate to reduce CO2 emissions from the residual energy demand of the dwelling by in excess of 20%, in accordance with current policy requirements.

The area of the application site to be developed is set within flood zone 1 and as such is at low risk from tidal and fluvial flooding. The site area to be developed, at present, is predominantly covered by the existing buildings and hardstanding. A drainage strategy has been submitted as part of the application, and is found to be acceptable in principle. A detailed scheme of Sustainable Urban Drainage is recommended by condition.

Given the imposition of appropriate planning conditions, the proposal is found to be acceptable when considering issues relating to sustainability and flood risk.

# (G) ARE THERE ANY ISSUES IN RELATION TO CONTAMINATION ON THE SITE?

It has been expressed through consultation response from the Environment Agency and the Local Authority Contamination officer, that identified ground contaminants, including the underground storage tanks to be removed, can be adequately addressed through remediation, which can be secured by condition.

# (H) IS THE PROPOSAL ACCEPTABLE IN RELATION TO NATURE CONSERVATION?

Following consultation with the City Council Nature Conservation Officer, conditions are recommended in relation to site clearance; the protection of Slow-Worms, hedgehogs, and badgers; and the provision of bird and bat boxes. Subject to these, the proposal is considered acceptable in relation to nature conservation.

# COMMUNITY INFRASTRUCTURE LEVY

How much Community Infrastructure Levy (CIL) will the development be required to pay?

This development is liable for CIL, however the CIL rate for this type of development, as set out in the CIL Charging Schedule, is £nil and therefore no CIL is payable.

# RECOMMENDED GRANT subject to condition(s)

#### Time limit for commencement of development

#### 1. Full Planning Permission

The development hereby permitted shall begin before the expiration of three years from the date of this permission.

Reason: As required by Section 91 of the Town and Country Planning Act 1990, as amended by Section 51 of the Planning and Compulsory Purchase Act 2004.

# Pre commencement condition(s)

2. Site Specific Construction Environmental Management Plan

No development shall take place until a site specific Construction Environmental Management Plan has been submitted to and been approved in writing by the Council. The plan must demonstrate the adoption and use of the best practicable means to reduce the effects of noise, vibration, dust and site lighting. The plan should include, but not be limited to:

- \* Procedures for maintaining good public relations including complaint management, public consultation and liaison
- \* Arrangements for liaison with the Council's Pollution Control Team
- \* All works and ancillary operations which are audible at the site boundary, or at such other place as may be agreed with the Local Planning Authority, shall be carried out only between the following hours:

08 00 Hours and 18 00 Hours on Mondays to Fridays and 08 00 and 13 00 Hours on Saturdays and; at no time on Sundays and Bank Holidays.

- \* Deliveries to and removal of plant, equipment, machinery and waste from the site must only take place within the permitted hours detailed above.
- \* Mitigation measures as defined in BS 5528: Parts 1 and 2 : 2009 Noise and Vibration Control on Construction and Open Sites shall be used to minimise noise disturbance from construction works.
- \* Procedures for emergency deviation of the agreed working hours.
- \* Bristol City Council encourages all contractors to be 'Considerate Contractors' when working in the city by being aware of the needs of neighbours and the environment.
- \* Control measures for dust and other air-borne pollutants. This must also take into account the need to protect any local resident who may have a particular susceptibility to air-borne pollutants.
- \* Measures for controlling the use of site lighting whether required for safe working or for security purposes.

Reason: In the interests of the amenities of surrounding occupiers during the construction of the development.

3. Land affected by contamination - Site Characterisation

No development shall take place until an investigation and risk assessment, in addition to any assessment provided with the planning application, and has been completed in accordance with a scheme to assess the nature and extent of any contamination on the site, whether or not it originates on the site. The contents of the scheme should be submitted to and be approved in writing by the Local Planning Authority. The investigation and risk assessment must be undertaken by competent persons and a written report of the findings must be

produced. The written report is subject to the approval in writing of the Local Planning Authority. The report of the findings must include:

- (i) a survey of the extent, scale and nature of contamination;
- (ii) an assessment of the potential risks to:
- \* human health,
- \* property (existing or proposed) including buildings, crops, livestock, pets, woodland and service lines and pipes,
- \* adjoining land,
- \* groundwaters and surface waters,
- \* ecological systems,
- \* archaeological sites and ancient monuments;
- (iii) an appraisal of remedial options, and proposal of the preferred option(s).

This must be conducted in accordance with DEFRA and the Environment Agency's 'Model Procedures for the Management of Land Contamination, CLR 11'.

Reason: To ensure that risks from land contamination is understood prior to works on site both during the construction phase to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors

4. Land affected by contamination - Submission of Remediation Scheme

No development shall take place until a detailed remediation scheme to bring the site to a condition suitable for the intended use by removing unacceptable risks to human health, buildings and other property and the natural and historical environment has been prepared, submitted to and been approved in writing by the Local Planning Authority. The scheme must include all works to be undertaken, proposed remediation objectives and remediation criteria, timetable of works and site management procedures. The scheme must ensure that the site will not qualify as contaminated land under Part 2A of the Environmental Protection Act 1990 in relation to the intended use of the land after remediation.

Reason: To ensure that risks from land contamination is understood prior to works on site both during the construction phase to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors.

5. Land affected by contamination - Implementation of Approved Remediation Scheme

In the event that contamination is found, no development other than that required to be carried out as part of an approved scheme of remediation shall take place until the approved remediation scheme has been carried out in accordance with its terms. The Local Planning Authority must be given two weeks written notification of commencement of the remediation scheme works.

Following completion of measures identified in the approved remediation scheme, a verification report that demonstrates the effectiveness of the remediation carried out must be produced, and be approved in writing of the Local Planning Authority.

Reason: To ensure that risks from land contamination both during the construction phase and to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors.

# 6. Artificial Lighting (external)

No development shall take place until a report detailing the lighting scheme and predicted light levels at neighbouring residential properties has been submitted to and been approved in writing by the Local Planning Authority.

Artificial lighting to the development must conform to requirements to meet the Obtrusive Light Limitations for Exterior Lighting Installations for Environmental Zone - E2 contained within Table 1 of the Institute of Light Engineers Guidance Notes for the Reduction of Obtrusive Lighting, GN01, dated 2005.

Reason: In order to safeguard the amenities of adjoining residential occupiers

#### 7. SUDS

The development hereby approved shall not commence until a detailed design, management and maintenance plan of surface water drainage for the site using SuDS methods in accordance with the approved drainage strategy has been submitted to and approved in writing by the Local Planning Authority. The approved drainage system shall be implemented prior to the use of the building commencing and maintained thereafter for the lifetime of the development.

Reason: To prevent the increased risk of flooding by ensuring the provision of a satisfactory means of surface water disposal and that the principles of sustainable drainage are incorporated into this proposal and maintained for the lifetime of the proposal.

# 8. To ensure implementation of a programme of archaeological works

No development shall take place until the applicant/developer has secured the implementation of a programme of archaeological work, in accordance with a Written Scheme of Investigation which has been submitted by the developer and approved in writing by the Local Planning Authority.

The scheme of investigation shall include an assessment of significance and research questions; and:

- 1. The programme and methodology of site investigation and recording
- 2. The programme for post investigation assessment
- 3. Provision to be made for analysis of the site investigation and recording
- 4. Provision to be made for publication and dissemination of the analysis and records of the site investigation
- 5. Provision to be made for archive deposition of the analysis and records of the site investigation
- 6. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.

Reason: To ensure that archaeological remains and features are recorded.

#### 9. Gazebo

Prior to the commencement of any development on the site, a detailed appraisal of the listed gazebo together with its associated boundary walls, along with a subsequent strategy for its stabilisation and long term conservation, shall be submitted to and approved in writing by the Local Planning Authority.

Reason: In order to safeguard the listed structure within the site.

# 10. Landscape (Planting) Works

No development shall take place until there has been submitted to and approved in writing by the Local Planning Authority an amended scheme of hard and soft landscaping that details amended species of replacement tree planting in accordance with the recommendations of the City Council Arboricultural Officer (see officer report). Once approved, the planting proposals shall be carried out no later than during the first planting season following the date when the development hereby permitted is ready for occupation or in accordance with a programme agreed in writing with the council. All planted materials shall be maintained for five years and any trees or plants removed, dying, being severely damaged or becoming seriously diseased within 5 years of planting shall be replaced with others of similar size and species to those originally required to be planted.

Reason: To ensure that the appearance of the development is satisfactory and that appropriate replacement tree planting is provided.

# 11. Further details before development starts

No development shall take place until detailed drawings of an amended site layout detailing:

- i) provision of a dedicated ambulance bay within the site
- ii) Increased cycle parking provision in line with policy requirements
- iii) amended junction design to retain a pavement cross-over as existing
- iv) pedestrian access and refuse/recycling storage to the C3 unit

have been submitted to and been approved in writing by the Local Planning Authority. The details thereby approved shall be carried out in accordance with that approval prior to the occupation of the development approved, and retained as such thereafter.

Reason: In the interests of transport and access considerations

## 12. Public Art Plan

Prior to the commencement of development, the developer shall appoint a suitably qualified public art consultant/curator (in liaison with Bristol City Council's Public Art Officer) to prepare a Public Art Plan for the site.

The Public Art Plan shall set out the process to be used to commission and integrate public art into the proposed development.

The proposal shall thereafter be submitted to and approved in writing by the Local Planning authority prior to the commencement of development, unless otherwise agreed in writing with the Local Planning Authority.

The scope, programme and design of the public art proposed shall be agreed in writing with Local Planning Authority.

Reason: To ensure that public art is integrated into the design of the development.

# 13. Protection of Retained Trees During the Construction Period

No work of any kind shall take place on the site until the protective fences have been erected around the retained trees in the position and to the specification detailed within the approved Arboricultural Development Statement. The Local Planning Authority shall be given not less than two weeks prior written notice by the developer of the commencement of works on the site in order that the council may verify in writing that the approved tree protection measures are in place when the work commences. The approved fence(s) shall be in place before any equipment, machinery or materials are brought on to the site for the purposes of the development and shall be maintained until all equipment, machinery and surplus materials have been removed from the site. Within the fenced areas there shall be no scaffolding, no stockpiling of any materials or soil, no machinery or other equipment parked or operated, no traffic over the root system, no changes to the soil level, no excavation of trenches, no site huts, no fires lit, no dumping of toxic chemicals and no retained trees shall be used for winching purposes. If any retained tree is removed, uprooted or destroyed or dies, another tree shall be planted at the same place and that tree shall be of such size and species, and shall be planted at such time, as may be specified in writing by the council.

Reason: To protect the retained trees from damage during construction and in recognition of the contribution which the retained trees give and will continue to give to the amenity of the area

# 14. Details of ground level changes adjacent to retained trees

Prior to the commencement of any development on the site, detailed information shall be submitted to and approved in writing by the Local Planning Authority, regarding any proposed ground/soil level changes within the root protection areas of retained trees on site. Once agreed, the development shall be carried out in accordance with the agreed details.

Reason: To safeguard retained trees on the site.

# 15. Slow Worms

Prior to clearance of the site and/or commencement of development, a method statement shall be submitted to and approved in writing by the Local Planning Authority for the protection of slow-worms from killing or injury as a result of the development. The development shall be carried out in accordance with the statement or any amendment approved in writing by the Local Planning Authority. The method statement shall include the retention or provision of suitable tall vegetation on site for slow-worms and the creation of two reptile refugia/hibernacula and if possible, a compost heap.

Reason: To protect legally protected slow-worms and their habitats.

# 16. Hedgehogs

Prior to the commencement of development or vegetation clearance, full details of a mitigation scheme for hedgehogs shall be submitted to, and approved in writing by the Local Planning Authority. This shall include a Precautionary Method of Working method statement with respect to vegetation clearance and the potential presence of hedgehogs, measures to protect hedgehogs during construction works from features such as trenches, and the provision of three hedgehog nest boxes.

Reason: To conserve hedgehogs which are a priority species and therefore a material planning consideration.

## 17. Badgers

No development shall take place until measures to protect badgers from being trapped in open excavations and/or pipes and culverts are submitted to and approved in writing by the local planning authority. Measures shall include cover-plating, chain link fencing or the creation of sloping escape ramps for badgers by edge profiling of trenches/excavations or placing a plank in the bottom of open trenches at the end of each working day to allow any trapped badgers to escape. Open pipework larger than 150 mm outside diameter should be blanked off at the end of each working day.

Reason: To prevent harm to legally protected badgers.

#### 18. Bird and Bat Boxes

Prior to commencement of development details shall be submitted providing the specification, orientation, height and location for built-in bird nesting and bat roosting opportunities. This shall include twenty built-in bird and nine built-in bat boxes. These numbers of bird and bat boxes are as recommended in the Preliminary Ecological Assessment and Bat Survey dated December 2015. If built-in bird and bat boxes cannot be provided within built structures, they should be provided on trees (with no more than one bird box per tree).

Reason: To help conserve legally protected bats and birds which include priority species.

#### 19. Ecological re-survey

Should no development take place within twelve months from the date of the Preliminary Ecological Assessment and Bat Survey dated December 2015 then the site shall be resurveyed for legally protected and priority (Section 41) species and an updated survey submitted to and agreed by the Local Planning Authority. The development shall only take place in accordance with the recommendations and (if applicable) mitigation measures contained in the approved updated protected species survey, unless otherwise agreed in writing by the Local Planning Authority.

Reason: To provide up to date information to determine whether legally protected and priority species are present on the site.

#### 20. Sample Panels before specified elements started

Sample panels of all external finishing materials are to be erected on site and approved in writing by the Local Planning Authority before the relevant parts of the work are commenced. The development shall be completed in accordance with the approved details before the building is occupied.

Reason: In order that the external appearance of the building is satisfactory.

# Pre occupation condition(s)

# 21. Land affected by contamination - Reporting of Unexpected Contamination

In the event that contamination is found at any time when carrying out the approved development that was not previously identified it must be reported in writing immediately to the Local Planning Authority. An investigation and risk assessment must be undertaken in

accordance with the requirements of Condition and where remediation is necessary a remediation scheme must be prepared in accordance with the requirements of Condition \*\*\*\*, which is to be submitted to and be approved in writing by the Local Planning Authority.

Following completion of measures identified in the approved remediation scheme a verification report must be prepared, which is subject to the approval in writing of the Local Planning Authority in accordance with condition \*\*\*\*.

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors.

22. Implementation/Installation of Refuse Storage and Recycling Facilities - Shown on approved plans

No building or use hereby permitted shall be occupied or the use commenced until the refuse store, and area/facilities allocated for storing of recyclable materials, as shown on the approved plans have been completed in accordance with the approved plans. Thereafter, all refuse and recyclable materials associated with the development shall either be stored within this dedicated store/area, as shown on the approved plans, or internally within the building(s) that form part of the application site. No refuse or recycling material shall be stored or placed for collection on the public highway or pavement, except on the day of collection.

Reason: To safeguard the amenity of the occupiers of adjoining premises, protect the general environment, and prevent obstruction to pedestrian movement, and to ensure that there are adequate facilities for the storage and recycling of recoverable materials.

23. Completion and Maintenance of Car/Vehicle Parking - Shown on approved plans

No building or use hereby permitted shall be occupied or the use commenced until the car/vehicle parking area shown on the approved plans has been completed, and thereafter, the area shall be kept free of obstruction and available for the parking of vehicles associated with the development

Reason: To ensure that there are adequate parking facilities to serve the development.

24. Sustainability - Renewables

The scheme of on-site renewable energy generation shall be completed in accordance with the approved details prior to the occupation of the development hereby approved, and retained and maintained as such thereafter.

Reason: To ensure the provision of adequate on-site renewable energy generation.

#### Post occupation management

25. Travel plans - submitted

The Approved Travel Plan shall be implemented in accordance with the timescales specified therein, to include those parts identified as being implemented prior to occupation and following occupation, unless alternative timescales are agreed in writing with the Local Planning Authority. The Approved Travel Plan shall be monitored and reviewed in accordance with the agreed Travel Plan targets to the satisfaction of the Local Planning Authority.

Reason: To support sustainable transport objectives including a reduction in single occupancy car journeys and the increased use of public transport, walking and cycling.

# 26. Refuse and Recycling collections

Activities relating to the collection of refuse and recyclables and the tipping of empty bottles into external receptacles shall only take place between 08.00 and 20.00 Monday to Saturday and not at all on Sundays or Bank Holidays.

Reason: To safeguard the amenities of nearby occupiers

# List of approved plans

# 27. List of approved plans and drawings

The development shall conform in all aspects with the plans and details shown in the application as listed below, unless variations are agreed by the Local Planning Authority in order to discharge other conditions attached to this decision.

PL16 Proposed site section A-A, received 26 February 2016

Arboricultural Development Statement, received 4 January 2016

Energy statement, received 2 March 2016

Historic environment report, received 4 January 2016

Land quality assessment, received 4 January 2016

Planting plan, received 4 January 2016

Public art strategy, received 4 January 2016

Statement of community involvement, received 4 January 2016

Sunlight assessment, received 4 January 2016

Transport statement, received 4 January 2016

Travel plan, received 4 January 2016

Land quality assessment, received 4 January 2016

Flood risk assessment, received 4 January 2016

PL01 Site location plan, received 4 January 2016

PL02 Existing site plan, received 4 January 2016

PL03 Proposed site plan, received 4 January 2016

PL04 Proposed ground floor plan, received 4 January 2016

PL05 Proposed first floor plan, received 4 January 2016

PL06 Proposed second floor plan, received 4 January 2016

PL07A Proposed roof plan, received 20 March 2016

PL09 Proposed elevations - sheet 1, received 4 January 2016

PL09 Proposed elevations - sheet 2, received 4 January 2016

PL14 Elevations & floor plans for house, received 4 January 2016

PL15A Typical control section, received 2 March 2016

PL17 Proposed and existing site section B-B, received 11 March 2016

Reason: For the avoidance of doubt.

# **Advices**

# 1. Wales and West Utilities

Wales and West Utilities has pipes in the area, which may be at risk and affected during construction works. The developer must contact Wales and West Utilities directly to discuss their requirements in detail prior to the commencement of works on the site. Should diversion

works be required these will be fully chargeable.

2. Application for Listed Building Consent Needed

This permission does not act as Listed Building Consent and you are accordingly advised of the need to submit a separate Listed Building Consent application in respect any works to the grade II listed gazebo within the site.

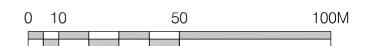
- 3. Nesting birds: Anyone who takes, damages or destroys the nest of any wild bird whilst that nest is in use or being built is guilty of an offence under the Wildlife and Countryside Act 1981 and prior to commencing work you should ensure that no nesting birds will be affected.
- 4. Bats and bat roosts: Anyone who kills, injures or disturbs bats, obstructs access to bat roosts or damages or disturbs bat roosts, even when unoccupied by bats, is guilty of an offence under the Wildlife and Countryside Act 1981, the Countryside and Rights of Way Act 2000 and the Conservation (Natural Habitats, &c.) Regulations Act. Prior to commencing work you should ensure that no bats or bat roosts would be affected. If it is suspected that a bat or bat roost is likely to be affected by the proposed works, you should consult English Nature (Taunton office 01823 283211).
- 5. Wessex Water requirements: It will be necessary to comply with Wessex Water's main drainage requirements and advice and further information can be obtained from http://www.wessexwater.co.uk.
- 6. Bird and Bat Boxes

Bird boxes should be installed to face between north and east to avoid direct sunlight and heavy rain. Bat boxes should face south, between south-east and south-west. Bird boxes should be erected out of the reach of predators and at least 3.5 metres high on publicly accessible sites. For small hole-nesting species bird boxes should be erected between two and four metres high. Bat boxes should be erected at a height of at least four metres, close to hedges, shrubs or tree-lines and avoid well lit locations. Bat boxes which are being placed on buildings should be placed as close to the eaves as possible.

## **BACKGROUND PAPERS**

Wales & West Utilities 29 January 2016 Environment Agency (Sustainable Places) 15 March 2016 **Nature Conservation Officer** 26 January 2016 Arboricultural Team 8 February 2016 Contaminated Land Environmental Protection 16 February 2016 Flood Risk Manager 2 February 2016 Transport Development Management 9 March 2016 Archaeology Team 28 January 2016 Urban Design 1 February 2016 Landscape 21 January 2016 City Centre Projects (Public Art) 16 February 2016







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Cllent CARE UK

PROPOSED 66 BEDROOM CARE HOME, SOUTHMEAD ROAD, BRISTOL

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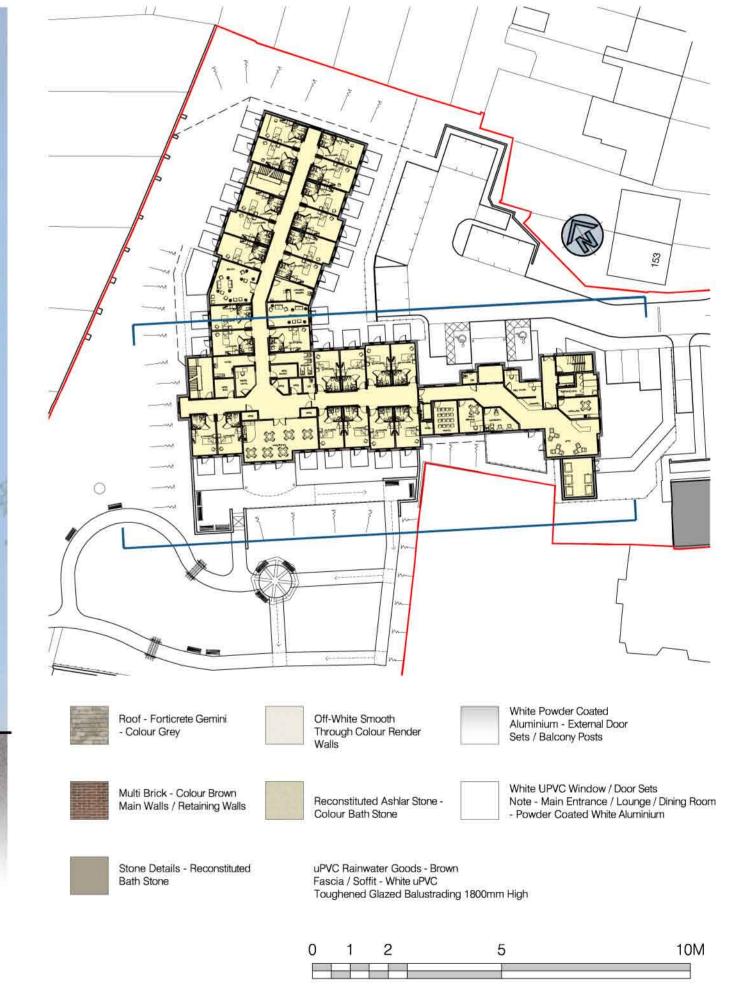
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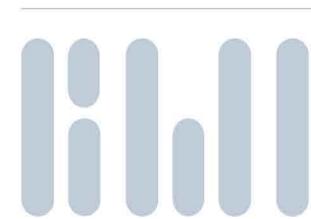












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PROPOSED 66 BEDROOM CARE HOME, SOUTHMEAD ROAD, BRISTOL Drawing

15.12.2015

PROPOSED ELEVATIONS - SHEET 1

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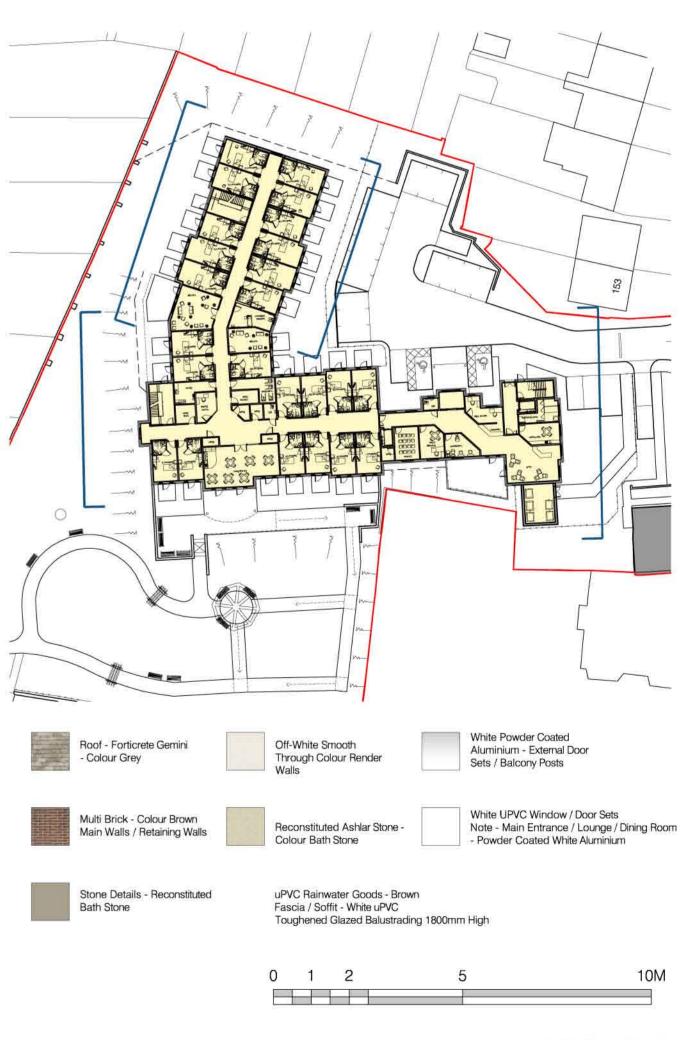
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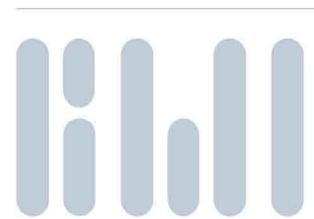












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PROPOSED 66 BEDROOM CARE HOME, SOUTHMEAD ROAD, BRISTOL

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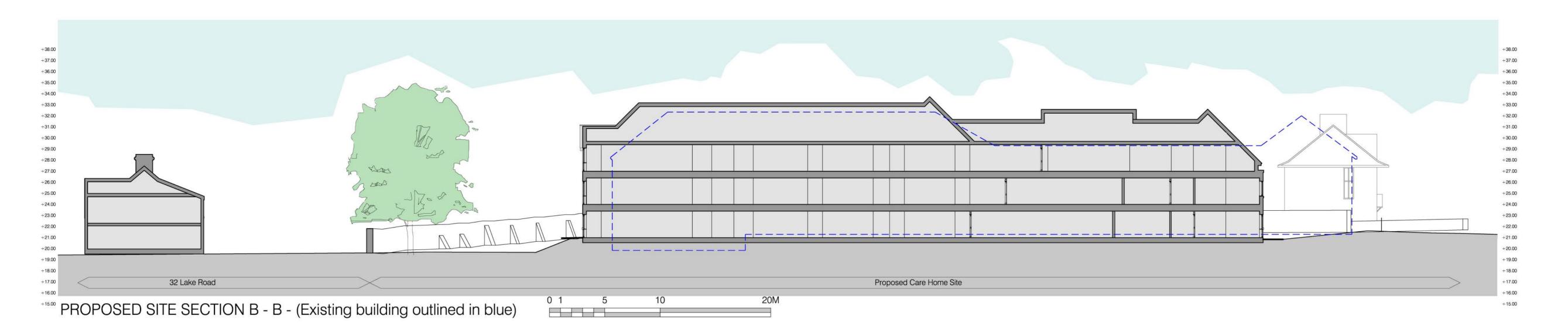
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Description

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Project

PROPOSED 66 BEDROOM CARE HOME, SOUTHMEAD ROAD, BRISTOL

Drawing

EXISTING AND PROPOSED SITE SECTION B-B

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Job No.

Dwg No.

Revision

Status

PLANNING

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SLR Consulting Ltd and Care UK Ltd

# ARBORICULTURAL DEVELOPMENT STATEMENT

Demolition of Existing Buildings and Redevelopment to Provide a Care Home and Associated Access, Car Parking and Landscaping as well as the Conversion of the Retained Frontage Building to form a Single Dwelling

Southmead Police Station, Southmead Road, Bristol, BS10 5DW



Russell House, Unit 20, Chalcroft Business Park, Burnetts Lane, West End, Southampton, SO30 2PA Tel: 023 8098 6229 Email: info@cbatrees.co.uk www: cbatrees.co.uk



# ARBORICULTURAL DEVELOPMENT STATEMENT

Arboricultural Implications Assessment and Method Statement guided by recommendations within BS5837:2012

Client:

SLR Consulting Ltd and Care UK Ltd

Site:

Southmead Police Station, Southmead Road, Bristol, BS10 5DW

Arboricultural

James Fuller FdSc.Arb, BTEC Nat.Dip.Arb, TechArbor.A

Consultant:

Date:

December 2015

#### SUMMARY

The proposal is for the demolition of the police station and associated buildings and the construction of a three storey 66 (sixty six) bed residential care home, reconfiguration of the remaining site to include landscaped gardens, parking bays and the conversion of 149 Southmead Road for use as a residential dwelling.

This Arboricultural Development Statement (ADS) demonstrates the protection measures for the retained trees and should be read in association with the Tree Protection Plans CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP. It follows the initial tree survey, implications assessment and on-going discussions to minimise the impact upon the existing tree stock.

The emphasis of the report is predominantly that of preservation and tree protection. It identifies methodologies to provide protection for trees, to ensure their healthy and safe retention during and post development, as guided by BS5837:2012 and current best practice.

A total of 23 (twenty three) individual trees and 7 (seven) groups of trees can be retained within the development as detailed within this report.

There are 6 (six) trees and 3 (three) groups of trees that will be removed to facilitate the proposed development.

There is 1 (one) tree (Tree 8) that will be removed for sound arboricultural management regardless of any development proposals.

CBA Trees believes that the trees highlighted for retention within this report can be retained without undue stress on their long-term health.

# PART 1 ARBORICULTURAL IMPLICATIONS ASSESSMENT

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| OBO          | Tree Protection Plan CBA10355.03 Construction TPP                              |
| CB4          | Tree Works Schedule  |
| GUIDING      | PRINCIPLES/APPENDICES:   |
|              | Tree Protection Guidance Leaflet   |
| CB5          | W 221 225 W 2260   |
|              | Construction Exclusion Zone Site Notice  |
|              | Common Causes of Damage During Construction Works                              |
| CB6          | Qualifications and Experience  |

#### 1.0 INTRODUCTION

- 1.1 In July 2015, SLR Consulting Limited (SLR) was appointed by Care UK Limited (CUK) to provide consultancy services to support a planning application for the demolition of buildings which currently form Southmead Police Station and erection of a care home at Southmead Road, Bristol, BS10 5DW as well as creation of a single dwelling. CBA Trees are working for Care UK as sub-consultants to SLR.
- 1.2 The police station at Southmead Road is closing and the police are planning to relocate to a new purpose-built station on Pen Park Road. Care UK is proposing to develop a state-of-the-art care home on the site of the old station. The proposed development comprises:
  - demolition of the police station and associated buildings (not including 149
     Southmead Road which will be retained and refurbished);
  - redevelopment of the site to comprise a three-storey 66 (sixty six) bed residential care home (use class C2) to include bedroom areas, treatment rooms, management and administration areas, communal dining and socialising areas including restaurant/cafe, hairdressers, cinema, and attractive terraces off the dining rooms on the first and second floors;
  - reconfiguration of the remaining site area to include landscaped gardens, parking and service areas
  - conversion of an existing building at 149 Southmead Road for use as a residential dwelling (Use Class C3) to include, private garden and separate parking places.

The care home and the residential dwelling will be accessed via the existing access off Southmead Road.

The new home will provide 24 hour support and care for the frail elderly. The care home will be registered with the Care Quality Commission (CQC) and the design and specification of the facility will reflect the latest way of thinking in relation to the care of older people suffering from conditions such as dementia and Alzheimer's. It is proposed that the new building be of a sustainable design and construction and that it is 'future-proofed' to meet future care needs and expectations.

The application follows a period of detailed pre-application discussion with Bristol City Council (15/03451/PREAPP).

- 1.3 Document disclosure provided:
  - Topographical Site Survey
  - Proposed site layout plan by KWL Architects (Ref SK10 E)
  - Proposed planting plan by SLR (Ref 02498.00011.29.002 Rev 1)
- 1.4 The police authority provided the original site plans and locations of the trees, and these have been the basis for the production of subsequent plans. Whilst CBA Trees has had a limited input in defining the contents of the development plan, it broadly conforms to the requirements of BS5837:2012 "Trees in Relation to Design, Demolition and Construction Recommendations" and current best practice advice.

1.5 Our advice has been sought on the principles of the development in relation to the potential impact on the existing tree stock, to inform and to facilitate the development layout that is acceptable in arboricultural terms.

# 2.0 CLIENT'S BRIEF

- 2.1 In line with our written quotation and verbal instructions, information has been compiled in accordance with BS5837:2012 and current best practice advice.
  - To undertake a Tree Survey (schedule including Root Protection Areas appended at CB1).
  - To produce a Tree Survey Plan that relies on the accuracy of the topographical survey provided (Plan CBA10355.01A TSP appended at CB2).
  - · To provide Tree Constraints advice.
  - To undertake an Arboricultural Implications Assessment (AIA) of the proposed development layout provided by the client to identify which trees will be lost, which can be retained and suggest mitigating build techniques in order to retain trees.
  - Based on the above and further on-going discussions, to provide an Arboricultural Development Statement detailing the methodologies for the retention of the tree stock where feasible, in relation to the proposed development layout including a Tree Protection Plan (CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP appended at CB3)
- 2.2 The advice provided is in support of the current planning application and has been formulated without discussion with the main construction contractors who at this stage have not been appointed. Once the main contractors are appointed, amendments to this Method Statement may be required for construction purposes. All amendments will be assessed by the retained arboricultural consultant and approved in writing by Bristol City Council.

#### 3.0 DESCRIPTION OF THE SITE

3.1 The site is currently occupied by and used as Southmead Police station, with associated buildings and hard standing. The site is accessed via an existing tarmac drive, which opens up into a large tarmac parking area. The tarmac parking area occupies the majority of the northern side of the site. The existing building is located centrally on the site with a number of out buildings located around the boundary. There is a large open, unmanaged green space to the southwest of the site.

# 3.2 **Photograph 1:** A view of the front of the site from Southmead Road



# 3.3 **Photograph 2:** A view of the northwest boundary



# 3.4 Photograph 3: A view of the open space



# 4.0 THE TREE STOCK

4.1 A tree survey was undertaken by CBA Trees on 21<sup>st</sup> May 2015 that identified 30 (thirty) individual trees and 10 (ten) groups of trees. The Tree Survey Schedule is appended at CB1 and Tree Survey Plan CBA10355.01A TSP is appended at CB2.

# 4.2 Tree Categorisation Method

Category U = Trees in such a condition that any value would be lost within 10 years, or should be removed for reasons of sound arboricultural management. There was 1 (one) 'U' grade tree on the site at the time of surveying (Tree 8).

Note: BS5837:2012 states -

"Category U trees are 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."

- Category A = Trees of high quality and value: in such a condition as to make a substantial contribution, (40 years or more is recommended). There were 4 (four) individual 'A' grade trees on the site at the time of surveying (Trees 5, 9, 10 and 22).
- Category B = Trees of moderate quality and value, capable of making a significant contribution for in excess of 20 years. There were 11 (eleven) individual 'B' grade trees on and adjacent to the site at the time of surveying (Trees 1, 2, 4, 6, 11, 12, 18, 24, 26, 29 and 30).

Category C = Trees of low quality and value which might remain for a minimum of 10 years or young trees with stems of less than 150mm diameter. There were 14 (fourteen) individual 'C' grade trees on and adjacent to the site at the time of surveying (Trees 3, 7, 13, 14, 15, 16, 17, 19, 20, 21, 23, 25, 27 and 28).

#### Note:

Trees under these categories are trees that should be a material consideration in the development process; the subcategories are intended to reflect arboricultural, landscape and cultural values respectively.

4.3 For more details of the existing tree stock, refer to the Tree Survey Schedule (appended at CB1).

#### 5.0 TREE PRESERVATION ORDER/CONSERVATION AREA

- 5.1 Following consultation with Bristol City Council CBA Trees has been made aware that the site is not located within a Conservation Area.
- 5.2 Following consultation with Bristol City Council, CBA Trees has been made aware that Trees 1, 2, 4, 5, 6, 7, 9, 10, 12, 15, 18, 20, 22, 23, 26 and 27 and Groups 4, 6 and 7 are protected by a Tree Preservation Order (Ref 264 (1988)). If it is intended to carry out works to these trees prior to the granting of Full Planning Consent and Discharge of Planning Conditions or in excess of the works described within this development statement it will be necessary to obtain written consent from Bristol City Council.

# 6.0 PROPOSED TREE RETENTION AND TREE LOSS

- 6.1 In accordance with the recommendations contained within BS5837:2012, an experienced arboriculturist has assessed the requirements for tree protection and the Root Protection Area (RPA). The implications of the proposed development are detailed below, along with any mitigating measures to ensure the retention of these trees.
- 6.2 As part of the assessment, dimensions have been scaled from the proposed development drawing (Ref PL03), which has now been prepared and modified, to include the relevant Tree Survey data and the information as shown on plans CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP, appended at CB3.
- 6.3 Tree 8 is advised for removal for reasons of sound arboricultural management, regardless of any approved development.
- 6.4 There are 6 (six) trees and 3 (three) groups of trees that will be removed to facilitate the proposed development.

#### 6.5 Table 1: Tree Removals

| Tree Number | Tree Species    | BS5837<br>Category | Mitigation  |
|-------------|-----------------|--------------------|-------------|
| 3           | Common Elder    | С                  | 3 new trees |
| 16          | Sycamore        | С                  | 3 new trees |
| 22<br>TPO   | Wellingtonia    | A                  | 8 new trees |
| 23<br>TPO   | Black Mulberry  | С                  | 3 new trees |
| 25          | Holly           | С                  | 3 new trees |
| 28          | Irish Yew       | С                  | 1 new tree  |
| Grp 1       | Common Elder    | С                  | 1 new tree  |
| Grp 2       | Sycamore, Elder | С                  | 1 new tree  |
| Grp 8       | Elder, Hazel    | С                  | 1 new tree  |

- The proposed planting plan has been designed through cooperation with CBA Trees, who provided an initial species pallet for the mitigation planting. The proposed planting plan by SLR (Ref 02498.00011.29.002 Rev 1) details the location, size and species of all the mitigation planting. The proposed planting will provide more than sufficient mitigation for the loss of the existing trees. Tree 22 is a high quality 'A' grade (TPO) tree and is being replaced by 8 new trees as detailed by Bristol City Council's Tree Replacement Standard (DM17).
- 6.7 Four of the new trees, Tilia cordata 'Greenspire' will be planted at the back of the pavement to Southmead Road to the left of the access road. For the avoidance of doubt, the land in which those trees sit will be owned by Care UK who will be responsible for their maintenance.

#### 7.0 SUMMARY OF ARBORICULTURAL IMPLICATIONS

7.1 The following summary of implications relates to only those trees that will require mitigation measures to allow for construction operations. Trees and groups not listed below can be fully protected in accordance with BS5837:2012 as indicated on Tree Protection Plans for Demolition and Construction; CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP.

## PART 1 ARBORICULTURAL IMPLICATIONS ASSESSMENT

| Tree<br>No. | Species     | BS<br>5837:2012<br>Cat | Potential cause of harm   | Implication   | Mitigation  |
|-------------|-------------|------------------------|---|---|---|
| 4.          | Atlas Cedar | B1+2                   | <ul> <li>Removal of existing wall and tarmac within RPA.</li> <li>Demolition and construction work within close proximity to tree.</li> </ul> | Retained     Damage to roots, trunk and branches causing bark wounds, which could be susceptible to the ingress of pathogens     Compaction within RPA causing an anaerobic growing condition for the roots | <ul> <li>Phased tree protection barriers as detailed in Section 10 of this report to be erected in the location specified on the Tree Protection Plans CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP, appended at CB3.</li> <li>Existing hard standing and wall to be retained for duration of demolition and construction works.</li> <li>Removal of wall and hard standing - to be removed by hand as detailed in Section 12 of this report.</li> </ul> |

## PART 1 ARBORICULTURAL IMPLICATIONS ASSESSMENT

| Tree<br>No. | Species              | BS<br>5837:2012<br>Cat | Potential cause of harm   | Implication   | Mitigation  |
|-------------|----------------------|------------------------|---|---|---|
| 2<br>4      | Common Yew<br>Walnut | B1+2<br>B1+2           | Demolition and<br>construction works<br>within RPA.                               | Retained     Damage to  | Phased tree     protection barriers as     detailed in Section  |
| 5           | Wellingtonia         | A1                     | Contractor and  | roots, trunk and<br>branches  | 10 of this report to be erected in the  |
| 6           | Common Yew           | B1+2                   | scaffolding required within RPA.  • Proposed footpath within RPA and under canopy | causing bark wounds, which could be susceptible to the ingress of pathogens  • Compaction within RPA causing an anaerobic growing condition for the roots | location specified on the Tree Protection Plans CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP, appended at CB3.  Scaffolding erected within RPA as detailed in section 10 of this report.  Proposed footpath within RPA will be of a 'No Dig' construction as detailed in Section 13 of this report.  Trees 2 and 6 will require facilitation pruning as detailed within the Tree Works Schedule (TWS) appended at CB4. |

## PART 1 ARBORICULTURAL IMPLICATIONS ASSESSMENT

| Tree<br>No. | Species             | BS<br>5837:2012<br>Cat | Potential cause of harm  | Implication   | Mitigation  |
|-------------|---------------------|------------------------|--|---|---|
| 24          | Sycamore            | B1<br>Interim          | Off site tree     Development works in close proximity to tree.     Removal of hard surfacing within theoretical RPA.                | Retained     Damage to roots, trunk and branches causing bark wounds, which could be susceptible to the ingress of pathogens     Compaction within RPA causing an anaerobic growing condition for the roots                               | Phased tree protection barriers as detailed in Section 10 of this report to be erected in the location specified on the Tree Protection Plans CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP, appended at CB3.  Existing hard standing and wall to be retained for duration of demolition and construction works.  Removal of wall and hard standing to be removed by hand as detailed in Section 12 of this report. |
| 26          | Monterey<br>Cypress | B1                     | <ul> <li>Demolition of existing building in close proximity to Tree.</li> <li>Proposed bin store and footpath within RPA.</li> </ul> | <ul> <li>Retained</li> <li>Damage to roots, trunk and branches causing bark wounds, which could be susceptible to the ingress of pathogens</li> <li>Compaction within RPA causing an anaerobic growing condition for the roots</li> </ul> | <ul> <li>Phased tree protection barriers as detailed in Section 10 of this report to be erected in the location specified on the Tree Protection Plans CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP, appended at CB3.</li> <li>Proposed bin store and footpath within RPA will be of a 'No Dig' construction as detailed in Section 13 of this report.</li> </ul>  |

#### 8.0 PRE-COMMENCEMENT SITE MEETING

8.1 It is recommended that a pre-commencement site meeting is held prior to any works commencing on site, to agree all approved processes with the arboricultural consultant, the construction personnel and Bristol City Council. This meeting could be used to formally agree the methods of work and tree protection measures prior to commencement of the development and the associated clearance work. It could also be used to confirm areas to remain free from material storage, construction parking, etc.

#### 9.0 ADDITIONAL ARBORICULTURAL ADVICE FOR SITE PERSONNEL

- 9.1 To provide site personnel with additional information regarding the requirements of Tree Protection, a leaflet (appended at CB5) shall be issued to all staff at the time of their site induction. Spare copies of this leaflet shall be available in the site office as replacements.
- 9.2 In order to inform site personnel of the purpose of the barriers, information notices shall be fixed to the barriers at 5m intervals. These notices shall be of all-weather construction and shall be substantially in the form of the specimen provided at appendix CB5 and replaced as and when necessary.

#### 10.0 TREE PROTECTION MEASURES

#### 10.1 Tree Protection

Before starting demolition works tree protection will be installed in accordance with the Tree Protection Demolition Plan (CBA10355.03 Demolition TPP, appended at CB3). This will occur immediately following the completion of tree works and prior to any site preparation works starting.

During the demolition process it will be necessary to install protective barriers and ground protection in such locations as to allow demolition of existing structures and the removal of hard surfacing. Several phases of barriers may be required to ensure retained trees are undamaged. Positioning and phasing of protection will be in accordance with Tree Protection Plans CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP.

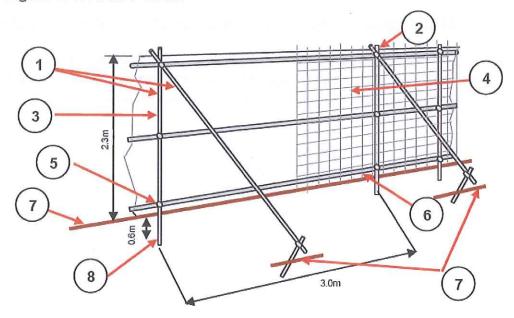
Once site preparation has been complete and all demolition and ground remediation works have been completed; tree protection for the construction phase will be implemented in accordance with the Tree Protection Construction Plan (CBA10355.03 Construction TPP, appended at CB3).

A copy of the Tree Protection Plans will be displayed in the site office and canteen as a point of reference for contractors.

#### 10.2 Tree Protective Barrier

All the retained trees and groups of trees that are adjacent to areas of significant construction activity or areas of minor or low risk demolition will be protected by installing the following protective barrier as indicated on Tree Protection Plans for Demolition and Construction (CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP. The barrier is to comprise of a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum interval of 3m. Onto this, weldmesh panels should be securely fixed with wire or scaffold clamps.

Figure 1: Protective Barrier



- 1. Standard scaffold poles
- 2. Uprights to be driven into the ground
- 3. Panels secured to uprights with wire ties and where necessary standard scaffold clamps
- 4. Weldmesh wired to the uprights and horizontals
- 5. Standard clamps
- 6. Wire twisted and secured on inside face of barriers to avoid easy dismantling
- 7. Ground level
- 8. Approximately 0.6m driven into the ground

Example of protective barrier:



Once the barriers are in place they must remain in-situ throughout the following:

- Contractor occupancy
- Plant and Materials delivery
- Construction works
- Installation of porous surfacing
- Utility installation
- · Completion of development
- Landscaping

The area within the Tree Protection Barrier shall be known as the Construction Exclusion Zone (CEZ) and will be regarded as **sacrosanct**, the tree protective barriers shall not be taken down or relocated at any time without the written approval of Bristol City Council. An example of a CEZ notice is appended at CB5.

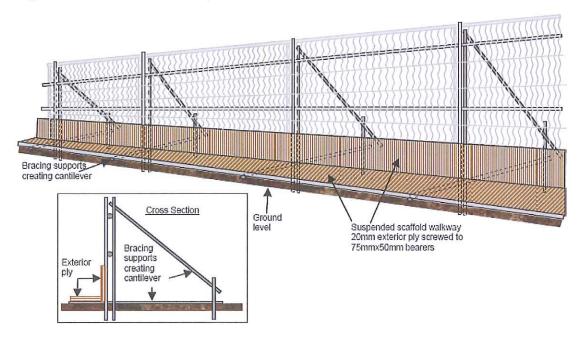
#### 10.3 Ground Protection

#### Pedestrian movements

Trees 2 and 26 require contractor access within the identified Construction Exclusion Zone (CEZ). Ground protection will be implemented for Trees 2 and 26 as per the Tree Protection Plans for Demolition and Construction (CBA10355.03 Demolition TPP and CBA10355.03 Construction TPP).

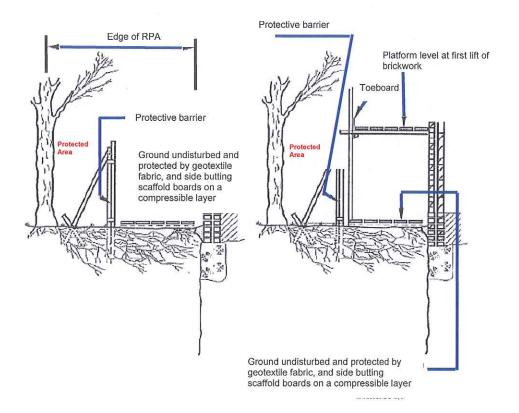
Ground protection will be constructed in accordance with Figure 2 below, and consist of a suspended walkway decked with 20mm exterior grade plyboard supported on 75 x 50mm bearers. The specification provides for pedestrian access only.

Figure 2: Pedestrian walkway within the Root Protection Area



An alternative approach is provided in Figure 3 below. The method will allow for construction and working space within the CEZ of retained trees. This method will consist of a single thickness of butt jointed scaffold boards supported on a 150mm thick layer of composted woodchip that is prevented from mixing with the underlying soil by geotextile separation layer.

Figure 3: Ground Protection Specification



#### 11.0 DEMOLITION

- 11.1 Demolition of existing surface structures will be carried out to prevent damage to existing retained trees.
- 11.2 Demolition of the structures in close proximity to the retained trees must be done with due care and attention, in order to adequately respect overhanging canopies of all retained trees. To this end, the following rules will apply:
  - Site personnel shall undergo an induction session prior to being allowed to work on site. The induction will introduce the contractors to the requirements of the Protection Method Statement. A copy of the Method Statement will be made available as a point of reference in respect of tree protection requirements. In addition, a copy of the Tree Protection Plan will be provided or pinned up in the site hut. During the induction, trees that are to be retained and protected will be highlighted to the demolition personnel and they will be physically shown which trees are to be protected on site. In this way, it is hoped that unnecessary damage by root disturbance and collision of machinery booms and operating arms with tree crowns can be avoided.

- All walls, foundations and basements are to be pulled in on themselves towards
  the centre of the site and away from retained trees. This will be done in a direction
  away from the tree protective barriers and all large machinery to be operated at
  least 2.5-3.0 metres outside the tree protective barrier line from where it is erected
  for the site preparation works.
- Any machinery used for this purpose is to stand and operate over existing hard surfaces wherever possible, but always outside the CEZ as defined by the protective barriers.
- Lightweight structures will be demolished and removed by hand. Work will be carried out from existing hard surface. If the structure is not served by existing hard surface ground protection will be laid in accordance with Tree Protection Plan for Demolition CBA10355.03 Demolition TPP.
- Where dust is created and deposited on adjacent retained trees, provision will be made to wash down the crowns of retained trees weekly to prevent excessive dust affecting the photosynthetic capacity of retained trees.

## 12.0 REMOVAL OF BUILT FORM AND HARD SURFACES IN CLOSE PROXIMITY TO RETAINED TREES

- 12.1 Removal of existing surfacing, built forms or other excavations within the CEZ of retained trees, must be undertaken by hand (where feasible and in line with Health and Safety polices) to avoid any surface root damage, and shall be supervised on-site by the retained arboricultural consultant.
- 12.2 Any removal of hard surfacing, built form or other excavations in close proximity to trees will be undertaken by working only from the existing hard surface or protected ground area. The required work should then be completed with hand operated tools or appropriate machinery, but under the supervision of an arboriculturist. Any machinery or equipment to be used will need to be lightweight and run on additional ground protection, or working from the existing hard standing only.
- 12.3 If the area of the zone of protection around the retained trees is to be left following the removal of the existing hard surface, and before a new hard surface is laid, or the area receives soft landscaping treatment, then ground/tree protection MUST be correctly re-established immediately following the completion of the hard surface removal work.
- 12.4 If there is a delay, for whatever reason, and the area that was previously protected by hard surfacing is left exposed awaiting a new surface, a temporary surface must be implemented, and/or Hessian sacking must be placed over any exposed roots.

## 13.0 INSTALLATION OF HARD SURFACING IN CLOSE PROXIMITY TO RETAINED TREES

#### 13.1 Introduction

This guidance describes the procedure required to undertake the construction of hard surfacing, i.e. footpath, whilst exerting no adverse effects on the roots of trees to be retained. It is essential to maintain adequate supplies of water and oxygen for trees through the soil. Porosity is important, particularly where the new hard surface covers an area of previously unmade ground, under which tree roots may have developed. Where hard surfacing passes beneath the tree's canopy, or where it encroaches upon the Construction Exclusion Zone (CEZ) of retained trees, a porous 'no dig' method of construction will be required. The construction will be engineer designed and consist of a non-clogging gas and water permeable surface and sub-base. This will incorporate a three-dimensional cellular confinement system to prevent future rutting and underlying ground compaction.

The Tree Protection Plan for Construction (CBA10355.03 Construction TPP, appended at CB3) outlines areas where hard surfacing will be installed using a 'nodig' specification.

#### 13.2 Method of working

#### Responsibilities:

- The Site Supervisor shall be responsible for the overall implementation of this Method Statement
- The Site Supervisor shall be responsible for ensuring the work area has been CAT scanned, and services identified on the ground by a responsible person using equipment within calibration. All relevant service drawings will be checked, and any necessary trial holes will be excavated, but only under arboricultural on site supervision.
- CBA Trees have assessed the increase in levels and do not believe that it will have a detrimental impact on the retained trees.
- Under no circumstances, shall there be a decrease in levels through excavation within the Root Protection Areas of the trees.
- The Site Supervisor shall be responsible for the safe handling and distribution of materials around the site.
- The Site Supervisor shall be responsible for providing a completed Quality Assurance document at the conclusion of the scheme.

#### Materials:

- · PPE as required by the Site Supervisor
- Cellular confinement system
- Stapler and staples
- Staking pins
- Separation geotextile membrane

- Edge restraints
- Infill aggregate (angular granular 40-20mm no fines)
- Wearing course to be confirmed

#### 13.3 Method of Preparation

- 13.3.1 The Site Supervisor along with CBA Trees will set out the exact location of the area to receive the new surfacing.
- 13.3.2 Following the CAT scan, the site supervisor will direct the implementation of the hard surfacing as per the following details.
- 13.3.3 The Site Supervisor shall ensure the prepared surface meets the necessary strength requirements prior to following works.
- 13.3.4 The Site Supervisor shall provide the setting out of any edging requirements.
- 13.4 Preparation of the surface for the cellular confinement system
- 13.4.1 Prior to the installation of a new ground surface, existing ground cover vegetation should be killed/destroyed using an appropriate herbicide (see Pesticide Handbook). Specialist advice should be sought in order to determine the most suitable herbicide treatment, due to the potential for leaching through the soil.
- 13.4.2 The soil surface will not be skimmed to establish new surfaces at the former ground level, as this has the potential to cause root damage. Therefore, loose organic matter and/or turf will be removed carefully using hand tools, and the new surface established above the former ground level, using a granular fill where required.
- 13.4.3 The ground levels are to be raised within the Root Protection Area (RPA). This will be achieved by the use of a granular material, which does not inhibit vertical gaseous diffusion. Examples of suitable granular materials include, no-fines gravel, washed aggregate, or cobbles.
- 13.4.4 No-fines granular materials should be used wherever fill or a sub-base is required, to ensure adequate gaseous diffusion.

#### 13.5 Edge Supports

13.5.1 Timber edge – 50mm x 50mm tanalised timber stakes shall be hammered into the ground along the setting out line, at 900mm centres and at changes in direction. The finished level of the stakes shall be 25mm below the finished level of the edging timbers. Tanalised 25mm x 125mm timber rails shall be fixed across the stakes with appropriate fixings. The finished top of timber level shall be approximately 25mm lower than the adjacent finished ground level.

#### 13.6 Construction

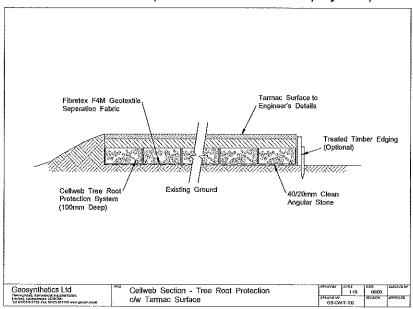
13.6.1 Lay geotextile membrane over prepared surface between edgings, ensuring overlaps of 300mm minimum. Temporarily retain geotextile with either stakes or weights.

- 13.6.2 Expand the cellular confinement system over the geotextile and anchor open with pins during infilling.
- 13.6.3 The expanded cellular confinement system panels shall be in-filled with the appropriate aggregate by hand, under the direction of the site supervisor. The cellular confinement system shall be overfilled by 50mm, to create a surcharge over the product, which protects the leading edges of the cells.
- 13.6.4 The infill aggregate shall be rolled or whacked to ensure cohesion of components.

#### 13.7 Finishes

- 13.7.1 The Site Supervisor shall conduct a visual inspection of the finished surface structure prior to the application of any wearing course.
- 13.7.2 Any chosen porous wearing course for the footpaths should be applied as per the instructions of the manufacturers involved.

Figure 4: Example specification drawing for cellular confinement system with tarmac finish (shown with 100mm deep system).



13.8 This conforms with design guidelines contained within the Home Zone Design Guidelines, which refers to the use of paving for road surfaces and also car parking.

#### 14.0 EXISTING SERVICES

14.1 No information has been provided on the location and size of existing services. However, existing services within the RPA and CEZ of retained trees will not be chased out, but cut at the edge of any structure and left in- situ.

#### 15.0 AVOIDING DAMAGE TO STEMS AND BRANCHES

15.1 Care shall be taken when planning site operations, to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact could result in serious damage to them, and might make their safe retention impossible. Consequently, any transit or traverse of plant in close proximity to trees, will be conducted under the supervision of a banksman, in order to ensure adequate clearance from trees is maintained at all times.

## 16.0 SITING OF TEMPORARY OFFICES, TOILETS AND MATERIAL STORAGE COMPOUNDS

- 16.1 It is anticipated that all storage of materials and deliveries shall make use of the existing access and hard surfaces within the site confines, in order to avoid unnecessary damage to tree roots.
- 16.2 The locations for the delivery, storage and movement of all essential facilities, as well as aspects such as temporary contractor vehicle parking and site location of chemical mixing (e.g. concrete) will be outside of the RPAs, and avoid areas where 'run off' of chemicals may flow down hill into RPAs of retained trees.

#### 16.3 Site Huts

All site huts (if required) that are to be situated on ground that is not existing hard surfacing, shall have appropriate footings or be situated on a temporary surface, which will aid in reducing the potential for compaction of the ground, where they are in close proximity to the existing tree protective barrier line. Site huts can be used as part of the protective barrier boundary, and in some cases, can be beneficial where installation does not conflict with the aerial parts of the tree.

#### 16.4 Material Storage

This shall be accommodated outside of the CEZ, particularly to avoid harmful spillages of fuel, or phytotoxic substances that may damage the health of retained trees.

## 17.0 GENERAL CONSIDERATIONS WITHIN AND OUTSIDE THE CONSTRUCTION EXCLUSION ZONE

- 17.1 Inside the CEZ formed by the protective barrier and ground protection measures, the following prohibitions shall apply:
  - No construction activity will occur within the CEZ unless otherwise stated in this
    report, or agreed in writing with Bristol City Council prior to the specific activity
    taking place.

- 17.2 In addition to the above, further precautions are necessary adjacent to trees outside the CEZ:
  - Materials, which will contaminate the soil e.g. concrete mixing, diesel, oil and vehicle washings, shall not be discharged within 10 metres of the tree stem, branches, foliage, RPA or watercourse. This should take into consideration the topography of the site, to avoid liquids such as concrete washings running down hill towards retained trees.
  - Notice boards, telephone cables or other services shall not be attached to any part of the tree. (See appendix CB5 Common Causes of Damage During Construction Works).

#### 18.0 UTILITY SERVICE CONNECTIONS

18.1 Details of service location proposals have not been forwarded to CBA Trees at the time of compiling this assessment. It is however assumed, given the location of the trees, that services will be installed outside the RPAs of retained trees, and connected to the existing where practicable, this will avoid disturbance of tree roots and ensure their healthy retention.

#### 19.0 REPORT DAMAGE TO TREES AND TREE PROTECTION BARRIERS

- 19.1 Should any damage be caused to trees noted for retention, either by the above works or as the result of any other action, the damage should be reported to the site supervisor immediately. The site supervisor shall report up the chain of responsibility to the retained arboricultural consultant, or in the absence of such an appointment, to an appropriately qualified arboriculturist, to enable remedial measures to be implemented as necessary and as agreed with Bristol City Council.
- 19.2 Should damage occur to a protective barrier to impair its function in protecting trees, all work will cease near the damage, until the barrier has been returned to standard.

#### 20.0 REMOVAL OF PROTECTIVE BARRIERS

- 20.1 When the development phase is complete, all drainage and service runs are in place, all site machinery has been removed and any landscaping for the principal area of the site has been implemented, the protective barriers will be dismantled.
- 20.2 This barrier dismantling must be undertaken with great care, and will need to be supervised to avoid heavy machinery being used within the Root Protection Areas. Hoarding, scaffolding and other barrier materials will need to be removed from site immediately.

#### 21.0 CONCLUSIONS

- 21.1 The development proposals for the demolition of the police station and associated buildings and the construction of a three storey 66 (sixty six) bed residential care home, reconfiguration of the remaining site to include landscaped gardens, parking bays and the conversion of 149 Southmead Road have been assessed broadly in accordance with BS5837:2012 "Trees in Relation to Design, Demolition and Construction Recommendations".
- 21.2 It is our opinion that the trees identified for retention can be afforded due respect and provided adequate protection, ensuring their safe and healthy retention during the development process.
- 21.3 A total of 23 (twenty three) individual trees and 7 (seven) groups of trees can be retained within the development as detailed within this report. There are 6 (six) trees and 3 (three) groups of trees that will be removed to facilitate the proposed development. There is 1 (one) tree (Tree 8) that will be removed for sound arboricultural management regardless of any development proposals.
- 21.4 It is our opinion that the loss of the 6 (six) trees and 3 (three) groups of trees will not have a detrimental effect on the local visual amenity or significantly alter the visual treed character of the local area, once the proposed landscaping scheme that includes 24 (twenty four) quality trees, selected to suit the site conditions and the space available, is implemented.
- 21.5 The mitigation planting detailed on the proposed planting plan provides sufficient replacement planting for the loss of the existing trees and is in accordance with Bristol City Council's Tree Replacement Standard (DM17).
- 21.6 Provided the recommendations included within this report are strictly adhered to, CBA Trees believes the trees highlighted for retention within this report can be retained without undue stress on their long-term health.

#### 22.0 CONTACT LIST

- 22.1 It is suggested that points of contact and lines of communication are established prior to commencement of the works on site including:-
  - Arboricultural Consultant
  - Project Architect
  - Highways Engineer
  - Structural Engineer
  - Drainage Engineer
  - Landscape Architects
  - · Bristol City Council's Tree Officer
  - Bristol City Council's Planning Case Officer
  - Site Supervisor and Foreman

22.2 It is advised that the site supervisor establishes their own listing of contact details at the pre-start site meeting, and displays this in their office for general use as necessary.

#### 23.0 BIBLIOGRAPHY

- British Standard 5837:2012 —
   "Trees in Relation to Design, Demolition and Construction Recommendations"
- British Standard 3998:2010 –
   "Recommendations for Tree Work"
- National Joint Utilities Group Publication Volume 4 –
   "Guidelines for the planning, installation and maintenance of utility services in proximity to trees"
- Wildlife and Countryside Act 1981
- Town and Country Planning Acts







#### TREE SURVEY NOTES

This Tree Survey has been undertaken within the recommendations of British Standards 5837:2012 and current arboricultural best practice.

- Each tree has been numbered and, where instructed, for future identification on site, has been tagged using small durable metal or plastic tags.
- Due to variations of existing ground levels through the site, height dimensions are estimated and are given in metres. Accurate heights, measured with the aid of optical instruments can be provided where instructed.
- > Trunk/stem diameters are measured in mm at 1.5 metres above ground level, using a standard measuring tape as defined by British Standards, unless otherwise stated.
- Estimated branch spread is taken in metres from the centre of the trunk, at the four cardinal points of a compass, to achieve an accurate representation of the crown shape which will be recorded on the tree survey plan.
- An assessment of a tree's age classification is made in terms of its maturity within the site's landscape and defined as:

Y voung trees

SM semi-mature trees

early mature trees

M mature trees

OM over-mature trees

An assessment of a tree's physiological condition is defined as:

Good fully functioning biological system showing average vitality i.e. normal bud growth, leaf size, crown density and wound closure

fully functioning biological system showing below average vitality i.e. reduced bud growth, smaller leaf size, lower crown density and Fair reduced wound closure

a biological system with limited functionality showing significantly below average vitality i.e. limited bud growth, small and chlorotic leaves, Poor

low crown density and limited wound closure

dead Dead =

An assessment of a tree's structural condition is defined as:

Good no significant structural defects

structural defects which could be alleviated through remedial tree surgery or management practices Fair

structural defects which cannot be alleviated through tree surgery or management practices Poor

Dead = dead

An assessment of a tree's future life expectancy is defined as: <10, 10+, 20+ or 40+ years.

#### Categorisation of Trees

The category for each tree is assessed using the recommendations of BS5837:2012. The assessment has not considered any site-specific development proposals, but will have considered any changes on or off-site which may have an effect on the conditions surrounding the surveyed trees.

The trees have been classified into one of the following categories (and one or more sub-categories [this will however not increase the value of the tree]) and are indicated on the associated drawings by colours as indicated.

| Category U  |  |   |  | Identification colour on plan |
|---|--|---|--|-------------------------------|
| Trees 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  | <ul> <li>Trees that have a serious, irremediable, structural de those that will become unviable after removal of oth companion shelter cannot be mitigated by pruning)</li> <li>Trees that are dead or are showing signs of significa</li> <li>Trees infected with pathogens of significance to the suppressing adjacent trees of better quality</li> </ul>                        | er category U trees (e.g. where, for vant, immediate, and irreversible over   | whatever reason, the loss of all decline   | DARK RED                      |
| Category A  | 1 - Mainly arboricultural values   | 2 - Mainly landscape values   | 3 - Mainly cultural values   | Identification colour on plan |
| Trees of high quality<br>with an estimated<br>remaining life expectancy<br>of at least 40 years   | Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue  | Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features  | Trees, groups or woodlands, of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture) | LIGHT GREEN                   |
| Category B  | 1 - Mainly arboricultural values   | 2 - Mainly landscape values   | 3 - Mainly cultural values   | Identification colour on plan |
| Trees of moderate quality with an estimated remaining life expectancy of at least 20 years  | Trees that might be included in category A, but are down-graded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation | Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality | Trees with material conservation value or other cultural value   | MID BLUE                      |
| Category C  | 1 - Mainly arboricultural values   | 2 - Mainly landscape values   | 3 - Mainly cultural values   | Identification colour on plan |
| Trees of low quality with<br>an estimated remaining<br>life expectancy of at least<br>10 years, or young trees<br>with a stem diameter<br>below 150mm | Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories  | Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits  | Trees with no material conservation or other cultural value  | GREY                          |

Clients are advised that Tree Surveys are a basic data collection exercise and record of tree condition at the time of survey. This will identify any visible signs of ill-health or major defects, advising a further detailed investigation where appropriate. This will most often take the form of a request for either "full ground level inspection" or "climbing inspection required". There may also be a further reference to the need for "decay detection equipment" to aid diagnosis. A tree survey does not include a comprehensive schedule or specification of remedial tree works, but may contain a guide to the work which might be undertaken by a prudent tree owner, purely for reasons of health and safety.

A Tree Survey should not be confused with a Tree Inspection or Arboricultural Implication Assessment, which are totally separate exercises.



|             | BS5837:2012 TREE SURVEY REPORT                       |
|-------------|--|
| Client:     | SLR Consulting Ltd and Care UK Ltd                   |
| Site:       | Southmead, Bristol, BS10 5DW                         |
| Date:       | 21st May 2015  |
| Consultant: | James Fuller FdSc.Arb, BTEC Nat.Dip.Arb, TechArbor.A |
| Tagged:     | No   |

#### Notes:

- 1. It may be advised that some trees should have the ivy removed to enable a re-survey to be carried out. This would also alleviate the tree from becoming suppressed; carrying additional weight that increases the chance of windthrow due to a larger dense crown area; and only receiving restricted light. Unless otherwise stated, in order to prevent regrowth, it is only necessary to remove a 300mm section of ivy and clear around the base.
- 2. It may be advised that it was only possible to estimate the diameter of some trees because of ivy smothering, dense vegetation, or trees located off-site with no access.
- 3. The estimated remaining contribution in years, and the tree grading category have been calculated for the current situation and may alter where further investigation works are advised.
- 4. Some trees or groups may have been given an interim grade. The reason for the interim grading is addressed in the timescales given as this may have a bearing on health and safety and/or any development proposals.
- 5. Tree Groups have been assessed with estimated and representative data.
- 6. This is not a Tree Works Schedule. Any preliminary management recommendations are listed in the interests of health and safety and should be carried out by a prudent tree owner.
- 7. Any management recommendations are suggested for reasons of health and safety only, regardless of development proposals at this stage. However, the defects requiring remedial tree surgery are by their very nature potential wildlife habitats, including protected species which needs consideration prior to any tree surgery works commencing.
- 8. a) At this stage the Root Protection Area (RPA) information is for your guidance and ongoing discussion purposes only as it assumes that all but the 'U' grade trees will be retained, which may not be the case.
  - b) For all single stem trees with a stem diameter greater than 1250mm, and multi-stem trees with a stem diameter greater than 1500mm, the calculated RPA has been capped at 707m2 in accordance with Section 4.6.1 of BS5837.2012.
- 9. Trees marked with \* are indicatively plotted on the associated Tree Survey Plan.

#### TREE PRESERVATION ORDER/CONSERVATION AREA:

CBA Trees has been instructed to investigate whether trees on or adjacent to the site are protected by a Tree Preservation Order or located within a Conservation Area.

A previous enquiry indicates that TPO 264 served in 1988 protects some of the trees on or adjacent to the site (see trees annotated in red). A further check with the Local Authority (May 2015) confirmed that this Order is still in force and has not been amended or altered. The Local Authority has confirmed that the site is not located within a Conservation Area.

| Tree<br>No      | Species                                     | H't<br>(m) | Single/<br>Multi-<br>Stemmed<br>(S or MS) | Stem<br>Diam<br>(mm)      | Root<br>Protection<br>Area<br>(m²) | Root<br>Protection<br>Distance<br>(m) | Branch<br>Spread<br>(m)    | H't of<br>Crown<br>AGL<br>(m) | Life<br>Stage   | Physio-<br>logical<br>Condition | Structural Condition and General Observations   | Preliminary<br>Management<br>Recommendations                          | Est.<br>Rem.<br>Contrib.<br>(Yrs) | Cat  |
|-----------------|---|------------|---|---------------------------|------------------------------------|---------------------------------------|----------------------------|-------------------------------|-----------------|---------------------------------|---|---|-----------------------------------|------|
| 1<br>TPO<br>T6  | Atlas Cedar<br>Cedrus atlantica             | 15         | S   | 820                       | 304                                | 9.8                                   | N 9<br>E 9<br>S 7<br>W 8   | N 5<br>E 3<br>S 5<br>W 5      | Mature          | Fair                            | Structural Condition - Good  Minor deadwood in crown Branch tear Dieback in crown to south- east side   | Remove deadwood and<br>monitor condition of canopy<br>every 12 months | 20+                               | B1+2 |
| 2<br>TPO<br>T7  | Common Yew<br>Taxus baccata                 | 15         | MS  | 580<br>640<br>300<br>1310 | 707                                | 15                                    | N 11<br>E 9<br>S 9<br>W 10 | N 2<br>E 1<br>S 0.5<br>W 0.5  | Early<br>Mature | Good                            | Structural Condition - Good  Crown shape distorted Low hanging branches Minor deadwood in crown Multi-stemmed at ground level Broken hanging branches in crown to north-east side hung up in canopy of T1   | Remove deadwood and damaged branches                                  | 40+                               | B1+2 |
| 3*              | Common or Black<br>Elder<br>Sambucas nigra  | 4          | S   | 140                       | 9                                  | 1.7                                   | N 0<br>E 0<br>S 1<br>W 3   | N 0<br>E 0<br>S 2<br>W 1.5    | Young           | Fair                            | Structural Condition - Fair  Trunk and crown shape distorted  Minor deadwood in crown Poor quality tree  Of limited value   | None required at time of survey                                       | 10+                               | C1   |
| 4<br>TPO<br>T11 | Common Walnut<br>Juglans regia              | 15         | S   | 730                       | 241                                | 8.8                                   | N 7<br>E 6<br>S 7<br>W 7   | N 1.5<br>E 4<br>S 3<br>W 1    | Early<br>Mature | Good                            | Structural Condition - Fair  Minor deadwood in crown Low hanging branches Multi-stemmed at 1.5m above ground level Trunk measured at 1m above ground level Bark wound on trunk to north side at 1m above ground level leading to multi- stemmed union | None required at time of survey                                       | 20+                               | B1+2 |
| 5<br>TPO<br>T8  | Wellingtonia<br>Sequoiadendron<br>giganteum | 28         | S   | 1700                      | 707                                | 15                                    | N 5<br>E 6<br>S 6<br>W 6   | N 3<br>E 5<br>S 5<br>W 3      | Early<br>Mature | Good                            | Structural Condition - Good  Ivy on trunk Major deadwood in crown Branch tear Boundary line tree  | Remove major deadwood   | 40+                               | A1   |

| Tree<br>No       | Species                                     | H't<br>(m) | Single/<br>Multi-<br>Stemmed<br>(S or MS) | Stem<br>Diam<br>(mm) | Root<br>Protection<br>Area<br>(m²) | Root<br>Protection<br>Distance<br>(m) | Branch<br>Spread<br>(m)  | H't of<br>Crown<br>AGL<br>(m) | Life<br>Stage   | Physio-<br>logical<br>Condition | Structural<br>Condition<br>and<br>General Observations  | Preliminary<br>Management<br>Recommendations | Est.<br>Rem.<br>Contrib.<br>(Yrs) | Cat  |
|------------------|---|------------|---|----------------------|------------------------------------|---------------------------------------|--------------------------|-------------------------------|-----------------|---------------------------------|---|--|-----------------------------------|------|
| 6<br>TPO<br>T10  | Common Yew<br>Taxus baccata                 | 15         | MS  | 630<br>560           | 321                                | 10.1                                  | N 6<br>E 6<br>S 6<br>W 6 | N 1<br>E 1<br>S 1<br>W 1      | Early<br>Mature | Good                            | Structural Condition - Good  Minor deadwood in crown Low hanging branches Epicormics in crown Bifurcated at 1.3m above ground level   | None required at time of survey              | 40+                               | B1+2 |
| 7<br>TPO<br>T9   | Common Ash<br>Fraxinus excelsior            | 16         | S   | 660                  | 197                                | 7.9                                   | N 5<br>E 5<br>S 8<br>W 8 | N 5<br>E 6<br>S 4<br>W 6      | Early<br>Mature | Fair                            | Structural Condition - Fair  Boundary line tree Old pruning wounds Major deadwood in crown Crown shape distorted Large dead stem in crown to east Excavations at base of tree on north side | Remove major deadwood<br>within 1 month      | 20+                               | C1+2 |
| 8                | Sycamore<br>Acer<br>pseudoplatanus          | 12         | S   | 400                  | -                                  | •                                     | N 1<br>E 7<br>S 7<br>W 6 | N 2<br>E 1<br>S 2<br>W 1      | Semi-<br>mature | Poor                            | Structural Condition - Fair  Growing on bank Crown shape distorted Ivy on trunk and in crown Major deadwood in crown Poor quality tree  | Advise removal                               | <10                               | υ    |
| 9<br>TPO<br>T20  | Sycamore<br>Acer<br>pseudoplatanus          | 17         | S   | 810                  | 297                                | 9.7                                   | N 8<br>E 9<br>S 8<br>W 6 | N 5 5 6 8 W 6                 | Early<br>Mature | Good                            | Structural Condition - Good Growing on bank Ivy on trunk Old pruning wounds Major deadwood in crown Ditch to west Retaining wall to east Bifurcated at 4m above ground level                | None required at time of survey              | 40+                               | A1+2 |
| 10<br>TPO<br>T19 | Wellingtonia<br>Sequoiadendron<br>giganteum | 26         | S   | 1520                 | 707                                | 15                                    | N 2<br>E 7<br>S 6<br>W 5 | N 6<br>E 4<br>S 4<br>W 5      | Early<br>Mature | Good                            | Structural Condition - Good  Ivy on trunk Major deadwood in crown Crown shape distorted due to group pressure Ditch to west Retaining wall to west  | None required at time of survey              | 40+                               | A1   |

| Tree<br>No       | Species                                       | H't (m) | Single/<br>Multi-<br>Stemmed<br>(S or MS) | Stem<br>Diam<br>(mm) | Root<br>Protection<br>Area<br>(m²) | Root<br>Protection<br>Distance<br>(m) | Branch<br>Spread<br>(m)    | H't of<br>Crown<br>AGL<br>(m) | Life<br>Stage   | Physio-<br>logical<br>Condition | Structural<br>Condition<br>and<br>General Observations  | Preliminary<br>Management<br>Recommendations | Est.<br>Rem.<br>Contrib.<br>(Yrs) | Cat             |
|------------------|---|---------|---|----------------------|------------------------------------|---------------------------------------|----------------------------|-------------------------------|-----------------|---------------------------------|---|--|-----------------------------------|-----------------|
| 11               | Common Yew<br>Taxus baccata                   | 7       | S   | 270                  | 33                                 | 3.2                                   | N 4<br>E 6<br>S 4<br>W 3   | N 1<br>E 1<br>S 1<br>W 1      | Young           | Good                            | Structural Condition - Good  Ditch line tree Low hanging branches Ditch to west Retaining wall to east  | None required at time of survey              | 40+                               | B1              |
| 12<br>TPO<br>T16 | Holm Oak<br>Quercus ilex                      | 14      | S   | 700                  | 222                                | 8.4                                   | N 5<br>E 5<br>S 9<br>W 8   | N 4<br>E 4<br>S 2<br>W 3      | Early<br>Mature | Good                            | Structural Condition - Good  Unable to verify health and safety due to no access Crown shape distorted due to group pressure Minor deadwood in crown Estimated data Bifurcated at 2m above ground level | Gain access and resurvey within 1 month      | 40+                               | B1+2<br>Interim |
| 13               | Lawson Cypress<br>Chamaecyparis<br>lawsoniana | 12      | S   | 340                  | 52                                 | 4.1                                   | N 1<br>E 3<br>S 1.5<br>W 3 | N 3<br>E 3<br>S 3<br>W 3      | Semi-<br>mature | Fair                            | Structural Condition - Fair Crown density reduced Minor deadwood in crown Poor quality tree Of limited value  | None required at time of survey              | 10+                               | C1              |
| 14               | Lawson Cypress<br>Chamaecyparis<br>lawsoniana | 12      | MS  | 200<br>100           | 23                                 | 2.7                                   | N 2<br>E 1.5<br>S 1<br>W 1 | N 2<br>E 2<br>S 2<br>W 2      | Semi-<br>mature | Fair                            | Structural Condition - Fair  Crown shape distorted due to group pressure Boundary line tree Minor deadwood in crown Bifurcated at ground level  | None required at time of survey              | 10+                               | C1              |
| 15<br>TPO<br>T15 | Robinia<br>Robinia<br>pseudoacacia            | 7       | S   | 900                  | 366                                | 10.8                                  | N 1<br>E 1<br>S 1<br>W 1   | N 2<br>E 2<br>S 2<br>W 2      | Mature          | Fair                            | Structural Condition - Fair  Boundary line tree Epicormics in crown Multi-stemmed at 1.6m above ground level Previously topped at 4m above ground level   | None required at time of survey              | 10+                               | C1              |

| Tree<br>No       | Species   | H't<br>(m) | Single/<br>Multi-<br>Stemmed<br>(S or MS) | Stem<br>Diam<br>(mm) | Root<br>Protection<br>Area<br>(m²) | Root<br>Protection<br>Distance<br>(m) | Branch<br>Spread<br>(m)  | H't of<br>Crown<br>AGL<br>(m)    | Life<br>Stage   | Physio-<br>logical<br>Condition | Structural<br>Condition<br>and<br>General Observations  | Preliminary<br>Management<br>Recommendations | Est.<br>Rem.<br>Contrib.<br>(Yrs) | Cat             |
|------------------|---|------------|---|----------------------|------------------------------------|---------------------------------------|--------------------------|----------------------------------|-----------------|---------------------------------|---|--|-----------------------------------|-----------------|
| 16               | Sycamore<br>Acer<br>pseudoplatanus                | 9          | S   | 310                  | 43                                 | 3.7                                   | N 5<br>E 5<br>S 5<br>W 5 | N 4<br>E 3<br>S 4<br>W 5         | Semi-<br>mature | Fair                            | Structural Condition - Fair  Ivy on trunk Old pruning wounds Bark wound Minor deadwood in crown Squirrel damage in crown                | None required at time of survey              | 20+                               | C1              |
| 17*              | Common Ash<br>Fraxinus excelsior                  | 10         | MS  | 200<br>180           | 33                                 | 3.2                                   | N 4<br>E 4<br>S 4<br>W 4 | N 1.5<br>E 1.5<br>S 1.5<br>W 1.5 | Semi-<br>mature | Good                            | Structural Condition - Good  Offsite tree Unable to verify health and safety due to no access Bifurcated at ground level Estimated data | Gain access and resurvey within 1 month      | 40+                               | C1<br>Interim   |
| 18<br>TPO<br>T12 | Common Holly<br>llex aquifolium                   | 11         | S   | 500                  | 113                                | 6.0                                   | N 5<br>E 5<br>S 5<br>W 5 | N 1.5<br>E 1.5<br>S 1.5<br>W 1.5 | Early<br>Mature | Good                            | Structural Condition - Good  Offsite tree Unable to verify health and safety due to no access   | Gain access and resurvey within 1 month      | 40+                               | B1+2<br>Interim |
| 19               | Sycamore<br>Acer<br>pseudoplatanus                | 8          | S   | 200                  | 18                                 | 2.4                                   | N 3<br>E 3<br>S 3<br>W 1 | N 2<br>E 2<br>S 2<br>W 2         | Semi-<br>mature | Fair                            | Structural Condition - Fair  Bark wound Offsite tree Unable to verify health and safety due to no access Dieback in crown               | Gain access and resurvey within 1 month      | 20+                               | C1+2<br>Interim |
| 20*<br>TPO<br>T3 | Common or Black<br>Mulberry<br><i>Morus nigra</i> | 4          | S   | 150                  | 10                                 | 1.8                                   | N 3<br>E 1<br>S 1<br>W 3 | N 1<br>E 1<br>S 1<br>W 1         | Semi-<br>mature | Good                            | Structural Condition - Good  Offsite tree Unable to verify health and safety due to no access Boundary line tree                        | Gain access and resurvey within 1 month      | 20+                               | C1<br>Interim   |
| 21*              | Lawson Cypress<br>Chamaecyparis<br>Iawsoniana     | 12         | S   | 350                  | 55                                 | 4.2                                   | N 3<br>E 3<br>S 3<br>W 3 | N 2<br>E 2<br>S 2<br>W 2         | Semi-<br>mature | Fair                            | Structural Condition - Poor Offsite tree Unable to verify health and safety due to no access Minor deadwood in crown                    | Gain access and resurvey within 1 month      | 20+                               | C1<br>Interim   |

| Tree<br>No      | Species                                     | H't<br>(m) | Single/<br>Multi-<br>Stemmed<br>(S or MS) | Stem<br>Diam<br>(mm)            | Root<br>Protection<br>Area<br>(m²) | Root<br>Protection<br>Distance<br>(m) | Branch<br>Spread<br>(m)  | H't of<br>Crown<br>AGL<br>(m) | Life<br>Stage   | Physio-<br>logical<br>Condition | Structural<br>Condition<br>and<br>General Observations   | Preliminary<br>Management<br>Recommendations | Est.<br>Rem.<br>Contrib.<br>(Yrs) | Cat             |
|-----------------|---|------------|---|---------------------------------|------------------------------------|---------------------------------------|--------------------------|-------------------------------|-----------------|---------------------------------|--|--|-----------------------------------|-----------------|
| 22<br>TPO<br>T4 | Wellingtonia<br>Sequoiadendron<br>giganteum | 24         | S   | 1300                            | 707                                | 15                                    | N 7<br>E 8<br>S 7<br>W 7 | N 4<br>E 5<br>S 4<br>W 4      | Early<br>Mature | Good                            | Structural Condition - Good  Ivy on trunk Blackbird nesting on east side of trunk at 1.5m above ground level Large old pruning wound at 2m above ground level on west side of trunk Minor deadwood throughout crown Old pruning wounds | None required at time of survey              | 40+                               | A1              |
| 23<br>TPO<br>T5 | Black Mulberry<br><i>Morus nigra</i>        | 8          | S   | 900                             | 366                                | 10.8                                  | N 3<br>E 3<br>S 3<br>W 5 | N 2<br>E 2<br>S 2<br>W 1      | Over<br>Mature  | Fair                            | Structural Condition – Fair  Ivy on trunk and in crown Trunk and crown shape distorted Bifurcated at 2m above ground level Ivy suppresses crown Poor quality tree Of limited value   | None required at time of survey              | 10+                               | C1+2            |
| 24*             | Sycamore<br>Acer<br>pseudoplatanus          | 14         | мѕ  | 200<br>200<br>300<br>300<br>300 | 163                                | 7.2                                   | N 7<br>E 7<br>S 4<br>W 6 | N 2<br>E 1.5<br>S 4<br>W 4    | Early<br>Mature | Good                            | Structural Condition – Good  Offsite tree Unable to verify health and safety due to no access Multi-stemmed at ground level Boundary edge tree Minor deadwood in crown 2m tall boundary wall between tree and site                     | Gain access and resurvey within 1 month      | 20+                               | B1<br>Interim   |
| 25*             | Holly<br>llex spp.                          | 12         | S   | 300                             | 41                                 | 3.6                                   | N 3<br>E 3<br>S 3<br>W 3 | N 2<br>E 6<br>S 2<br>W 2      | Semi-<br>mature | Good                            | Structural Condition – Good<br>Offsite tree<br>Grows next to building<br>Unable to verify health and<br>safety due to no access  | Gain access and resurvey within 1 month      | 20+                               | C1+2<br>Interim |

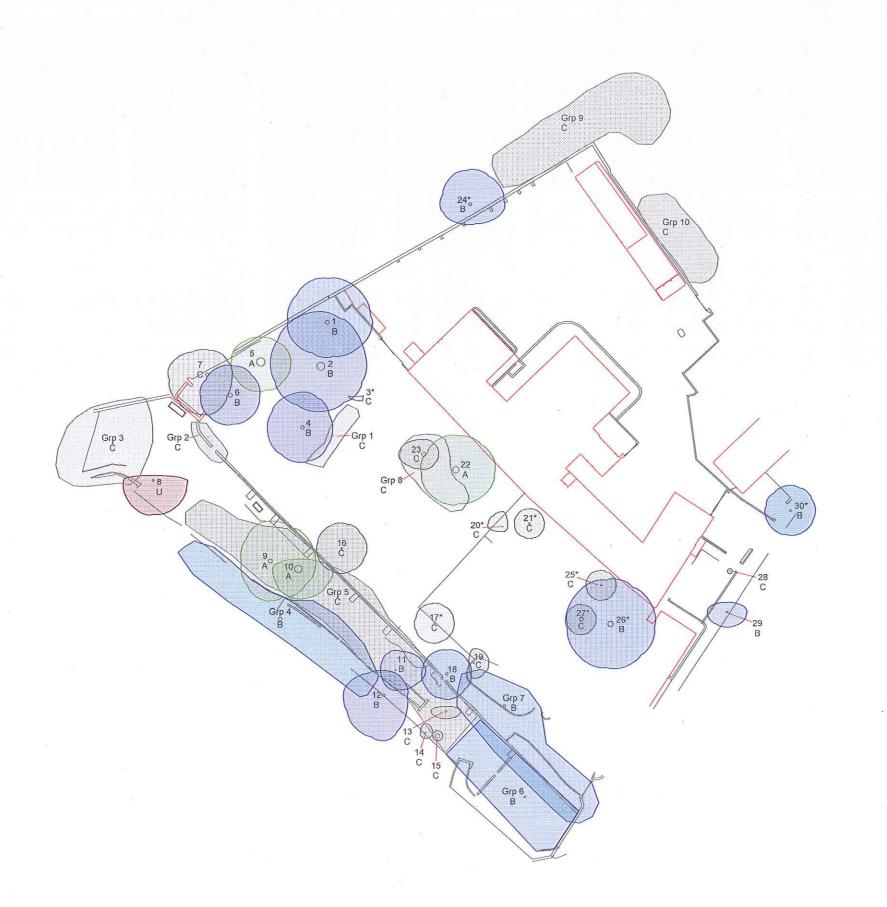
| Tree<br>No       | Species                                     | H't<br>(m) | Single/<br>Multi-<br>Stemmed<br>(S or MS) | Stem<br>Diam<br>(mm) | Root<br>Protection<br>Area<br>(m²) | Root<br>Protection<br>Distance<br>(m) | Branch<br>Spread<br>(m)          | H't of<br>Crown<br>AGL<br>(m)    | Life<br>Stage   | Physio-<br>logical<br>Condition | Structural<br>Condition<br>and<br>General Observations   | Preliminary<br>Management<br>Recommendations | Est.<br>Rem.<br>Contrib.<br>(Yrs) | Cat           |
|------------------|---|------------|---|----------------------|------------------------------------|---------------------------------------|----------------------------------|----------------------------------|-----------------|---------------------------------|--|--|-----------------------------------|---------------|
| 26*<br>TPO<br>G1 | Monterey Cypress<br>Cupressus<br>macrocarpa | 20         | S   | 1100                 | 547                                | 13.2                                  | N 9<br>E 9<br>S 9<br>W 9         | N 2<br>E 2<br>S 2<br>W 2         | Mature          | Good                            | Structural Condition – Good  Offsite tree Unable to verify health and safety due to no access  | Gain access and resurvey within 1 month      | 20+                               | B1<br>Interim |
| 27*<br>TPO<br>T2 | Common Yew Taxus baccata                    | 5          | S   | 800                  | 290                                | 9.6                                   | N 3<br>E 3<br>S 3<br>W 3         | N 2<br>E 2<br>S 2<br>W 2         | Early<br>Mature | Fair                            | Structural Condition – Fair  Offsite tree Unable to verify health and safety due to no access Previously topped at 4m above ground level Poor quality tree | Gain access and resurvey within 1 month      | 20+                               | C1<br>Interim |
| 28               | Irish Yew<br>Taxus baccata<br>'Fastigiata'  | 4          | MS  | 80<br>80<br>80<br>80 | 12                                 | 1.9                                   | N 0.5<br>E 0.5<br>S 0.5<br>W 0.5 | N 0.5<br>E 0.5<br>S 0.5<br>W 0.5 | Semi-<br>mature | Good                            | Structural Condition – Good  Multi-stemmed at ground level Good shape and form   | None required at time of survey              | 20+                               | C1            |
| 29               | Sycamore<br>Acer<br>pseudoplatanus          | 9          | S   | 410                  | 76                                 | 4.9                                   | N 2<br>E 4<br>S 3<br>W 4         | N 4<br>E 3<br>S 4<br>W 4         | Semi-<br>mature | Fair                            | Structural Condition – Good  Offsite tree Grows in footpath Bifurcated at 2m above ground level Previously pollarded Epicormics make up crown              | None required at time of survey              | 20+                               | B1            |
| 30*              | Sycamore<br>Acer<br>pseudoplatanus          | 9          | S   | 370                  | 62                                 | 4.4                                   | N 5<br>E 5<br>S 5<br>W 5         | N 4<br>E 4<br>S 4<br>W 4         | Semi-<br>mature | Good                            | Structural Condition – Good  Offsite tree Grows in footpath Bifurcated at 2m above ground level Previously pollarded Epicormics make up crown              | None required at time of survey              | 20+                               | B1            |

| Tree<br>No                        | Species                           | H't (m) | Single/<br>Multi-<br>Stemmed<br>(S or MS) | Stem<br>Diam<br>(mm) | Root<br>Protection<br>Area<br>(m²) | Root<br>Protection<br>Distance<br>(m) | Branch<br>Spread<br>(m)  | H't of<br>Crown<br>AGL<br>(m) | Life<br>Stage   | Physio-<br>logical<br>Condition | Structural<br>Condition<br>and<br>General Observations  | Preliminary<br>Management<br>Recommendations | Est.<br>Rem.<br>Contrib.<br>(Yrs) | Cat           |
|-----------------------------------|-----------------------------------|---------|---|----------------------|------------------------------------|---------------------------------------|--------------------------|-------------------------------|-----------------|---------------------------------|---|--|-----------------------------------|---------------|
| Grp 1                             | Common or Black<br>Elder          | 3       | S   | 100                  | 5                                  | 1.2                                   | N -<br>E -<br>S -<br>W - | N -<br>E -<br>S -<br>W -      | Young           | Fair                            | Structural Condition - Fair Trunks and crown shapes distorted Some stems leaning south side   | None required at time of survey              | 20+                               | C2            |
| Grp 2                             | Sycamore<br>Elder                 | 8       | S   | 140                  | 9                                  | 1.7                                   | N -<br>E -<br>S -<br>W - | N -<br>E -<br>S -<br>W -      | Young           | Fair                            | Structural Condition - Fair  Bark wounds Crown shapes distorted due to group pressure Growing out of old wall Poor quality group of limited value   | None required at time of survey              | 10+                               | C2            |
| Grp 3                             | Elder<br>Yew                      | 7       | S   | 250                  | 28                                 | 3.0                                   | N -<br>E -<br>S -<br>W - | N -<br>E -<br>S -<br>W -      | Semi-<br>mature | Good                            | Structural Condition - Good  Crown shapes distorted due to group pressure Minor deadwood in crowns Low hanging branches Mainly Elder with a single Yew to the north of the group Some trees multi-stemmed at ground level Scrubby group of limited value Provides partial screening into and out of site Dead tree in group to west | Remove dead tree - 1 month                   | 20+                               | C2            |
| Grp 4<br>TPO<br>T17<br>T18<br>T21 | Ash<br>Sycamore<br>Lawson Cypress | 18      | S   | 700                  | 222                                | 8.4                                   | N -<br>E -<br>S -<br>W - | N -<br>E -<br>S -<br>W -      | Mature          | Good                            | Structural Condition - Good  Off site group Ditch located between site and group Estimated data Provides screening into and out of site   | Gain access and resurvey within 1 month      | 40+                               | B2<br>Interim |

| Tree<br>No                      | Species  | H't (m) | Single/<br>Multi-<br>Stemmed<br>(S or MS) | Stem<br>Diam<br>(mm) | Root<br>Protection<br>Area<br>(m²) | Root<br>Protection<br>Distance<br>(m) | Branch<br>Spread<br>(m)  | H't of<br>Crown<br>AGL<br>(m) | Life<br>Stage   | Physio-<br>logical<br>Condition | Structural Condition and General Observations   | Preliminary<br>Management<br>Recommendations  | Est.<br>Rem.<br>Contrib.<br>(Yrs) | Cat           |
|---------------------------------|--|---------|---|----------------------|------------------------------------|---------------------------------------|--------------------------|-------------------------------|-----------------|---------------------------------|---|---|-----------------------------------|---------------|
| Grp 5                           | Elder<br>Hawthorn<br>Laurel, Cypress<br>Sycamore | 9       | S   | 250                  | 28                                 | 3.0                                   | N -<br>E -<br>S -<br>W - | N -<br>E -<br>S -<br>W -      | Semi-<br>mature | Good                            | Structural Condition - Fair  Crown shapes distorted due to group pressure Low hanging branches Minor deadwood in crowns Provides good visual separation Mixed species group Creates understorey to larger trees Ditch to west Retaining wall to east Self set trees within group Some trees growing out of retaining wall | None required at time of survey               | 20+                               | C2            |
| Grp 6<br>TPO<br>T13<br>&<br>T14 | Sycamore<br>Laurel<br>Cypress<br>Yew<br>Oak      | 12      | S   | 400                  | 72                                 | 4.8                                   | N -<br>E -<br>S -<br>W - | N -<br>E -<br>S -<br>W -      | Early<br>Mature | Good                            | Structural Condition - Good  Unable to verify health and safety due to no access Crown shapes distorted due to group pressure Minor deadwood in crowns Low hanging branches Provides good visual separation Dense understorey - limited access  | Clear around base and resurvey within 1 month | 20+                               | B2<br>Interim |
| Grp 7<br>TPO<br>T22<br>G3       | Cypress<br>Sycamore                              | 17      | S   | 500                  | 113                                | 6.0                                   | N -<br>E -<br>S -<br>W - | N -<br>E -<br>S -<br>W -      | Early<br>Mature | Good                            | Structural Condition - Good  Crown shapes distorted due to group pressure Minor deadwood in crowns Unable to verify health and safety due to no access Off site group No access to group due to being located in childrens nursery garden   | Gain access and resurvey within 1 month       | 20+                               | B2<br>Interim |

| Tree<br>No | Species                                   | H't<br>(m) | Single/<br>Multi-<br>Stemmed<br>(S or MS) | Stem<br>Diam<br>(mm) | Root<br>Protection<br>Area<br>(m²) | Root<br>Protection<br>Distance<br>(m) | Branch<br>Spread<br>(m)  | Htof<br>Crown<br>AGL<br>(m) | Life<br>Stage   | Physio-<br>logical<br>Condition | Structural<br>Condition<br>and<br>General Observations  | Preliminary<br>Management<br>Recommendations | Est.<br>Rem.<br>Contrib.<br>(Yrs) | Cat           |
|------------|---|------------|---|----------------------|------------------------------------|---------------------------------------|--------------------------|-----------------------------|-----------------|---------------------------------|---|--|-----------------------------------|---------------|
| Grp 8      | Eider<br>Hazel                            | 8          | S   | 150                  | 10                                 | 1.8                                   | N -<br>E -<br>S -<br>W - | N -<br>E -<br>S -<br>W -    | Semi-<br>mature | Fair                            | Structural Condition – Fair  Trunks and crown shapes distorted Suppressed by larger trees lvy on trunks Poor quality trees  | None required at time of survey              | 10+                               | C2            |
| Grp 9      | Holly<br>Apple<br>False Acacia<br>Zelkova | 9          | S   | 300                  | 41                                 | 3.6                                   | N -<br>E -<br>S -<br>W - | N -<br>E -<br>S -<br>W -    | Early<br>Mature | Good                            | Structural Condition – Good  Offsite group Unable to verify health and safety due to no access Boundary edge group Mixed species 2m tall boundary wall between group and site | Gain access and resurvey within 1 month      | 20+                               | C2<br>Interim |
| Grp<br>10  | Sycamore<br>Purple Leaved<br>Plum         | 7          | S   | 200                  | 18                                 | 2.4                                   | N -<br>E -<br>S -<br>W - | N -<br>E -<br>S -<br>W -    | Semi-<br>mature | Good                            | Structural Condition – Good  Offsite group Unable to verify health and safety due to no access Boundary edge group Mixed species 2m tall boundary wall between group and site | Gain access and resurvey within 1 month      | 20+                               | C2<br>Interim |







### **CBA TREES**

Russell House Unit 20 Chalcroft Business Park Burnetts Lane, West End, Southampton, SO30 2PA 02380 986229

Southmead, Bristol, BS10 5DW Tree Survey Plan

SCALE: 1:750 @ A3 DATE: 29/05/2015

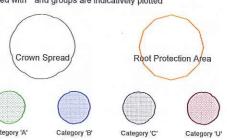
#### MAP FILENAME: CBA10355.01A TSP

Pear Technology Services Ltd; Email info@peartechnology.co.uk

Maps based on Ordnance Survey MasterMap or 1:25000 Mid-scale data with the permission of the Controller of HMSO. © Crown Copyright



Root Protection Areas not shown on this plan Trees marked with \* and groups are indicatively plotted



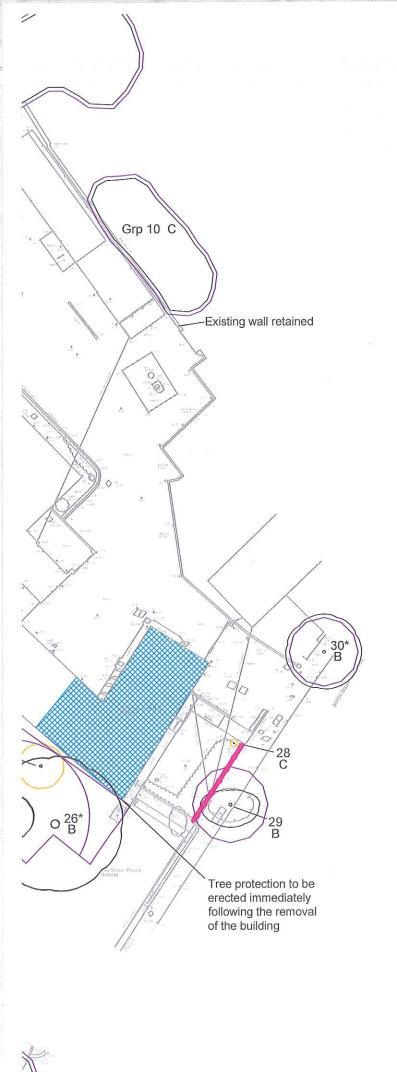
60m

#### TPO INFORMATION:

A previous enquiry indicates that TPO 264 served in 1988 protects some of the trees on or adjacent to the site. A further check with the Local Authority (May 2015) confirmed that this Order is still in force and has not been amended or altered.

TPO 264: T1, T2, T4, T5, T6, T7, T9, T10, T12, T15, T18, T20, T22, T23, T26, T27, Grp 4, Grp 6, Grp 7









TREES TO BE REMOVED TO FACILITATE PROPOSED DEVELOPMENT LAYOUT SUBJECT TO BRISTOL CITY COUNCIL'S APPROVAL



'U' GRADE TREE (TREE 8) TO BE REMOVED REGARDLESS OF ANY PROPOSED DEVELOPMENT LAYOUTS



LOCATION OF TREE PROTECTION BARRIER DURING CONSTRUCTION WORKS

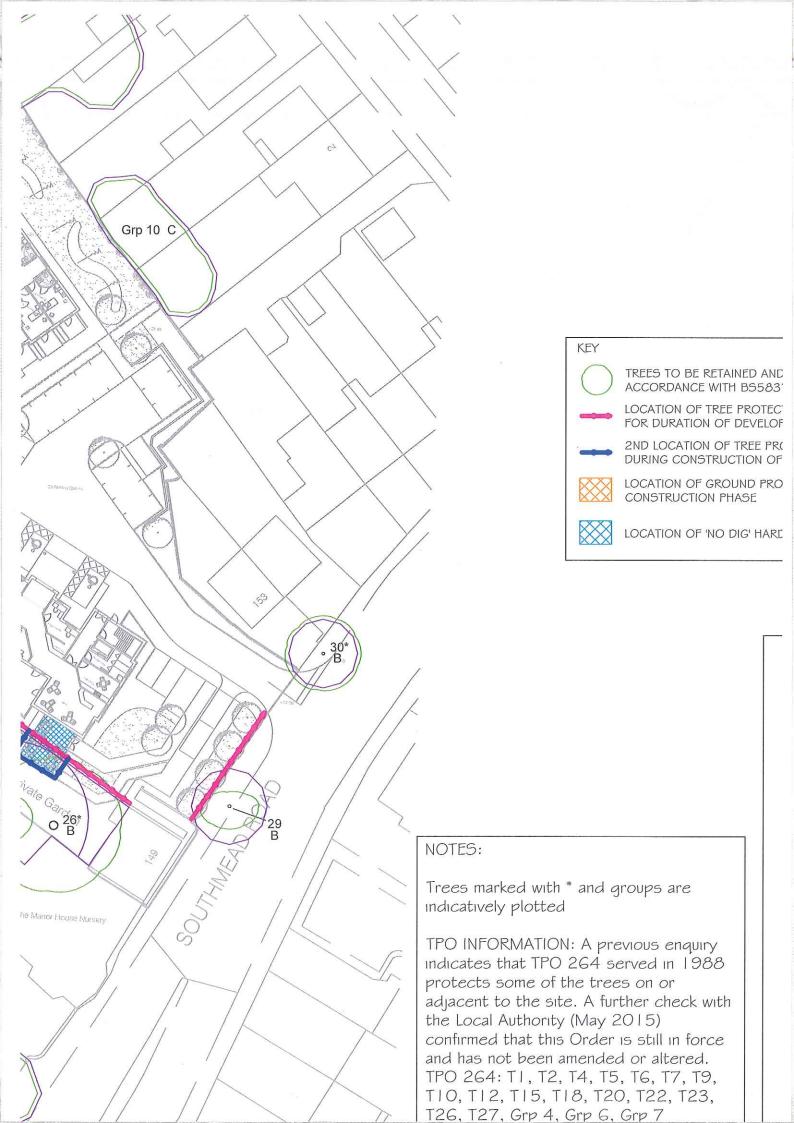


EXISTING SECTIONS OF BUILDING TO BE DEMOLISHED WITH DUE CARE \$ CONSIDERATION TO AVOID INVOLUNTARY COLLAPSE

#### NOTES:

Trees marked with \* and groups are indicatively plotted

TPO INFORMATION: A previous enquiry indicates that TPO 264 served in 1988 protects some of the trees on or adjacent to the site. A further check with the Local Authority (May 2015) confirmed that this Order is still in force and has not been amended or altered. TPO 264: T1, T2, T4, T5, T6, T7, T9, T10, T12, T15, T18, T20, T22, T23, T26, T27, Grp 4, Grp 6, Grp 7







| TREE WORKS SCHEDULE |                                    |             |   |  |  |  |  |
|---------------------|------------------------------------|-------------|---|--|--|--|--|
| Client:             | SLR Consulting Ltd and Care UK Ltd | Site:       | Southmead Police Station, Southmead Road, Bristol, BS10 5DW |  |  |  |  |
| Date:               | December 2015                      | Consultant: | James Fuller FdSc.Arb, BTEC Nat.Dip.Arb, TechArbor.A        |  |  |  |  |

| Tree No. | Species        | Recommended Works   |
|----------|----------------|---|
| 1        | Atlas Cedar    | • N/A   |
| 2        | Common Yew     | Crown lift to 2.5m on south side by removing as small diameter branches as possible                                   |
| 3        | Common Elder   | Remove  |
| 4        | Common Walnut  | • N/A   |
| 5        | Wellingtonia   | • N/A   |
| 6        | Common Yew     | <ul> <li>Crown lift to 2.5m on south and southwest side by removing as small diameter branches as possible</li> </ul> |
| 7        | Common Ash     | • N/A   |
| 8        | Sycamore       | Remove  |
| 9        | Sycamore       | • N/A   |
| 10       | Wellingtonia   | • N/A   |
| 11       | Common Yew     | • N/A   |
| 12       | Holm Oak       | • N/A   |
| 13       | Lawson Cypress | • N/A   |
| 14       | Lawson Cypress | • N/A   |
| 15       | Robinia        | • N/A   |
| 16       | Sycamore       | Remove  |
| 17       | Common Ash     | • N/A   |
| 18       | Common Holly   | • N/A   |
| 19       | Sycamore       | • N/A   |
| 20       | Mulberry       | • N/A   |
| 21       | Lawson Cypress | • N/A   |
| 22       | Wellingtonia   | Remove  |
| 23       | Mulberry       | Remove  |

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| Tree No. | Species           | Recommended Works |  |
|----------|-------------------|-------------------|--|
| 24       | Sycamore          | • N/A             |  |
| 25       | Holly             | Remove            |  |
| 26       | Monterey Cypress  | • N/A             |  |
| 27       | Common Yew        | • N/A             |  |
| 28       | Irish Yew         | Remove            | District Control of the Control of t |
| 29       | Sycamore          | • N/A             |  |
| 30       | Sycamore          | • N/A             |  |
| Grp 1    | Elder             | Remove            | '  |
| Grp 2    | Sycamore<br>Elder | Remove            |  |
| Grp 3    | Elder             | • N/A             |  |
| ·        | Yew               |                   |  |
| Grp 4    | Ash               | • N/A             |  |
|          | Sycamore          |                   |  |
|          | Lawson Cypress    |                   |  |
| Grp 5    | Elder             | • N/A             |  |
|          | Hawthorn          |                   |  |
|          | Laurel            |                   |  |
|          | Cypress           |                   |  |
|          | Sycamore          |                   |  |
| Grp 6    | Sycamore          | • N/A             |  |
|          | Laurel            |                   |  |
|          | Cypress           |                   |  |
|          | Yew               |                   |  |
|          | Oak               |                   |  |
| Grp 7    | Cypress           | • N/A             |  |
|          | Sycamore          |                   |  |
| Grp 8    | Elder             | Remove            |  |
|          | Hazel             |                   |  |
| Grp 9    | Holly             | • N/A             |  |
|          | Apple             |                   |  |
|          | False Acacia      |                   |  |
|          | Zelkova           |                   |  |

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CBA10355

| Tree No. | Species                     | Recommended Wor | Andre et l |
|----------|-----------------------------|-----------------|------------|
| Grp 10   | Sycamore Purple Leaved Plum | • N/A           |            |

- All tree works are advised to be carried out between July and September or November and February. Tree works should also avoid the season for nesting birds.
- All tree works should be carried out in accordance with current best practice guidelines and BS3998 Tree Works. Only natural target pruning method to be used.
- We recommend the use of an Arboricultural Association Approved Contractor or an ISA Certified Arborist/Tree Worker suitably insured and experienced to carry out the tree works.

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TREES AT\_\_\_\_\_

## SUMMARY OF TREE PROTECTION MEASURES

#### Introduction

This leaflet shall be issued to all site personnel as part of their induction briefing.

It describes in summary form the precautions that site personnel shall at all times follow, to ensure that the existing trees on the site come to no harm.

The precautions described are neither arbitrary nor reducible and must be adhered to in full.

These precautions are necessary because unprotected trees are very vulnerable to damage during demolition and construction works.

Furthermore, many of the trees on the site are under LEGAL PROTECTION and damaging them can result in heavy fines.

Two common misconceptions about trees:

MYTH: Trees have deep taproots and so shallow excavations will not harm the tree.

FACT: 90% of all tree's roots are found in the top 600mm of soil; all excavations near to trees are likely to cause root damage which can kill the tree.

MYTH: Trees will quickly heal over any bark wound, with no ill effect.

FACT: Bark wounds take years to heal and larger ones never do; missing bark can lead to disease and even the death of the tree.

#### Tree Protection

All trees adjacent to unsupervised work areas have been protected by tree protection barriers.

These barriers must be respected at all times and no attempts shall be made to damage, bypass or ignore them.

In areas designated for supervised working, no works shall be undertaken without the supervisor being present or without him/her issuing a "carry on" chit.

#### Prohibitions Adjacent to Trees

Inside the exclusion area of the tree protection, the following prohibitions shall apply.

- No digging or scraping
- No storage of plant or materials
- No vehicular access
- No fire lighting
- No handling, discharge or spillage or any chemical substance
- No water-logging

In addition to the above, further precautions shall be taken near to trees.

- A 10m separation distance shall be observed between trees and any substance injurious to their health, including fuels, oil, bitumen, cement (including washings) builders' sand, concrete mixing and other chemicals.
- No fire shall be lit such that flames come within 5m of any foliage; this shall be taken to mean a fire separation distance to the leaved of 20m.

#### Avoiding Damage to Stem and Branches

Care shall be taken when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights, can operate without coming into contact with trees.

Consequently, any transit or traverse of plant in proximity to trees shall be conducted under the supervision of a spotter to ensure that adequate clearance is at all times maintained.

In some circumstances, it may be impossible to achieve this, necessitating the pruning of the tree.

If this is necessary, a specialist team shall be called in following referral to the project Arboriculturist.

No tree pruning shall be undertaken by demolition or construction personnel.

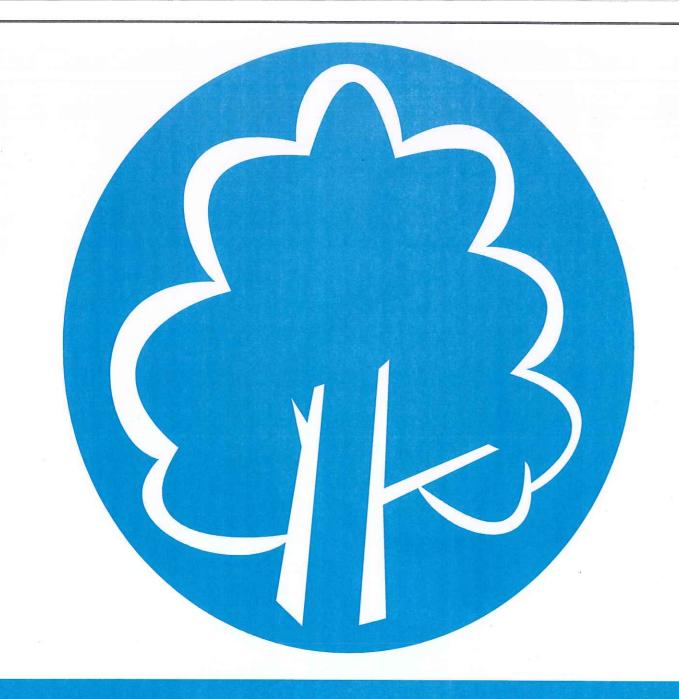
#### Asking for Help

If you see any damage to a tree or its protective fencing, or if you need a tree pruning for plant clearance, contact CBA Trees as follows:

Office Telephone: 020 8098 6229

#### REMEMBER:

ALL TREE DAMAGE IS AVOIDABLE – SO AVOID IT!



PROTECTIVE BARRIERS.
THESE BARRIERS MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.



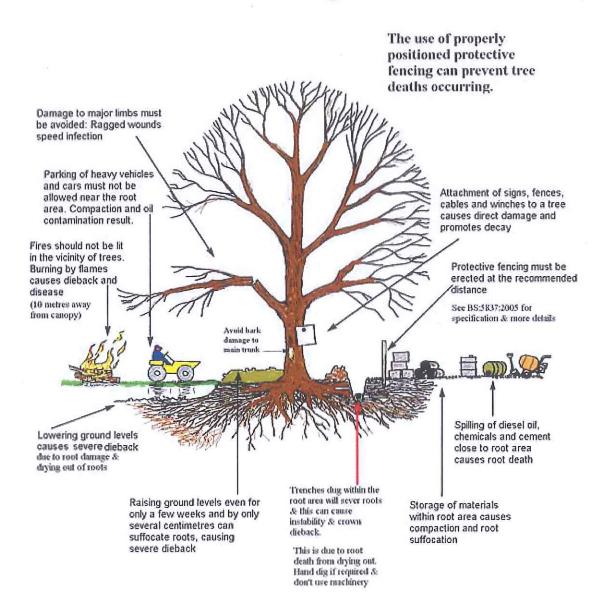
## TREE PROTECTION AREA KEEP OUT!

(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.

CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

## Common causes of Tree Death



Please use copies of this as an on-site poster for personnel

(Source: Arboricultural Information Exchange website, 2005)





# Qualifications of James Fuller Senior Consultant

James Fuller FdSc.Arb, BTEC Nat.Dip Arb, TechArbor.A joined CBA Trees in 2007 as a gap-year junior surveyor/arborist having attained the Foundation Degree in Arboriculture at Sparsholt College near Winchester and has more recently acquired the Professional Tree Inspector's Certificate.

Over the years James has gained experience in every field of our work, undertaking all elements of consultancy including large BS5837:2012 tree surveys using the latest data capture equipment to produce Implication Assessments and Method statements for planning applications.

Having broadened his knowledge and gained considerable experience, James is now a retained Senior Consultant, undertaking site assessments, site monitoring, and provision of advice to prominent development companies for large and complex projects.