Initial Arboricultural Impact Assessment

in Relation to Proposed Construction of Extension & Two Garages with Associated Vehicular Access & Barn Conversion at

Cowley Brook Farm, Higher Road, Longridge, Lancashire, PR3 2YX

Prepared by:

Bowland Tree Consultancy Ltd

July 2014

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TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT APPRAISAL			
Site:	Cowley Brook Farm, Higher Road, Longridge, Lancashire, PR3 2YX	Survey Date:	24 June 2014
Agent for Client:	Avalon Town Planning	Job Ref:	BTC689

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
T1	Common Oak	17	900	N E S W	10 10 9 9	5-SE 4	M	G	▪ Located in hedgerow on opposite side of road. ▪ Moderate amount of deadwood up to approximately 100mm diameter.	▪	40+	A1/2	366	10.8
T2	Common Oak	15.5	900	N E S W	10 7.5 10 10	4-SE 2	M	G	▪ Located in hedgerow on opposite side of road. ▪ Stem bifurcates at a height of approximately 2.5m. ▪ Small amount of deadwood up to approximately 100mm diameter.	▪	40+	A1/2	366	10.8
T3	Common Oak	16	800	N E S W	8 8 8 8	6-E 3	M	G	▪ Located in hedgerow on opposite side of road. ▪ Small amount of deadwood up to approximately 50mm diameter.	▪	40+	A1/2	290	9.6
T4	Lawson Cypress 'Stewartii'	8	2x160 (ts)	N E S W	2 2 2 2	0.1-E 0.1	SM	G	▪ Stem bifurcates at a height of approximately 0.4m with a very tight fork and evidence of included bark. ▪ Overhead telephone cable passes through crown.	▪ Remove in order to implement development as proposed.	10+	C1	23	2.72
T5	Apple	4	1x60 1x50 (ts)	N E S W	2 2 1 2	1.5 E 1.5	EM	G	▪ Stem bifurcates at a height of approximately 0.8m. ▪ Multiple pruning cuts from past management. ▪ Dieback on majority of branch tips	▪ Remove in order to implement development as proposed.	10+	C1	3	0.94
T6	Apple	5	1x90 2x50 (ms)	N E S W	2.5 2.5 2.5 2.5	1.5-E 1.5	EM	G	▪ Bifurcates at a height of approximately 0.4m. ▪ Multiple pruning cuts from past management. ▪ Dieback on majority of branch tips.	▪ Remove in order to implement development as proposed.	10+	C1	6	1.37
T7	Apple	5	1x70 1x60 (ts)	N E S W	2 3 1.5 2	0.5-E 0	EM	G	▪ Stem bifurcates at a height of approximately 0.8m. ▪ Multiple pruning cuts from past management. ▪ Dieback on majority of branch tips	▪ Remove in order to implement development as proposed.	10+	C1	4	1.11

Headings and Abbreviations:

No.	Allocated sequential reference number - Tree ('T'), Group ('G'), Woodland ('W') or Hedge ('H') reference number - refer to plan and to numbered tags where applicable
Species:	Common name
Height:	In metres, to nearest half metre – where possible approximately 80% are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree
Stem Diam.:	Stem diameter in millimetres, to nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed
Branch Spread:	Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown
Branch & Canopy Clearances:	Existing height above ground level, in metres, of first significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point – to inform on crown to height ratio, potential for shading, etc.
Life Stage:	Estimated age class - Y = young, SM = semi-mature, EM = early-mature, M = mature, PM = post-mature
PC:	Physiological Condition - a measure of the tree'(s)' overall vitality, i.e. D = Dead, MD = Moribund, P = Poor, M = Moderate, G = Good
General Observations and Comments:	Comments relating to the tree'(s)' overall condition and any other pertinent factors including structural defects, current and potential direct structural damage, physiological decline, poor form, etc.
Management Recommendations:	Either Preliminary or In Consideration of the Proposal - In the case of Arboricultural Constraints Surveys the recommended management works only take exiting site and tree circumstances and conditions into account and not proposed developments. Arboricultural Impact Assessment and Method Statement related Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate
ERC:	Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)
Cat. Grade:	Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1
RPA m^2:	Root Protection Area in m^2 - calculated area around the tree that must be appropriately protected throughout the development process in order avoid root damage
RPA Radius (m):	Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection
# (Estimated Dimensions):	Where trees are located off-site, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a "#" symbol

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT APPRAISAL		Surveyor:	Kendall Rigg HND	Page: 2 of 3
Site:	Cowley Brook Farm, Higher Road, Longridge, Lancashire, PR3 2YX	Survey Date:	24 June 2014	
Agent for Client:	Avalon Town Planning	Job Ref:	BTC689	

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
T8	Apple	4	1x130 1x100 (ts)	N E S W	1.5 1.5 2.5 2	1-E 1	SM	G	▪ Stem bifurcates at a height of approximately 0.5m. ▪ Multiple pruning cuts from past management. ▪ Dieback on majority of branch tips	▪ Remove in order to implement development as proposed.	10+	C1	12	1.97
T9	Damson	4	210	N E S W	1 4 4 4	2-W 2	M	M	▪ Crown is heavily biased to south.	▪ Remove in order to implement development as proposed.	<10	U	20	2.52
T10	Damson	6	1x180 1x120 (ts)	N E S W	2 2 2 4	1.8-E 1.5	SM	M/G	▪ Crown biased to south.	▪ Remove in order to implement development as proposed.	10+	C1	21	2.6
T11	Damson	6	190	N E S W	2 2 2 4	1.5-E 1	SM	G	▪ Poor past pruning cuts. ▪ Crown is biased to west.	▪ Remove in order to implement development as proposed.	10+	C1	16	2.28
T12	Sycamore	3	1x180 1x170 2x150 (ms)	N E S W	1.5 1.5 1.5 1.5	0.1-S 0	SM	MD	▪ Stem severely topped a height of approximately 2m. ▪ Large amount of basal suckering / epicormic growth.	▪ Remove in order to implement development as proposed.	<10	U	48	3.91
T13	Norway Spruce	8	360	N E S W	3.5 3.5 3.5 3.5	1.5 S 1	SM	M	▪ Stem in contact with drystone wall. ▪ Growing within 0.3m of boundary wall. ▪ Roots at base exposed.	▪ Remove in order to implement development as proposed.	10+	C1	59	4.32
T14	Norway Spruce	9	250	N E S W	3 3 3 3	N/A 2	SM	G	▪ No visible structural defects.	▪ Retain in context of proposed development. ▪ Ensure protection of Root Protection Area (RPA) throughout development process in accordance with Temporary Protective Fencing Specification.	20+	B1	28	3
G1	Mock Orange	≤ 5	≤ 9x40 (ms)#	N E S W	≤ 2 ≤ 2 ≤ 2 ≤ 2	0.1 ≥ 0	M	G	▪ Large shrub group located just outside front gate.	▪ Remove in order to implement development as proposed.	10+	C1	≤ 7	≤ 1.44
G2	6no. Sycamore, 4no. Damson, 1no. Common Oak	≤ 12	≤ 290	N E S W	≤ 4.5 ≤ 4.5 ≤ 4.5 ≤ 4.5	3.5-SE ≥ 2.5	SM	G	▪ Linear group within highway verge. ▪ Stems all very close to stone boundary wall, with subsequent high potential to cause structural damage on growth.	▪ Remove Damsons to east of group in order to implement development as proposed.	10+	C1/2	≤ 38	≤ 3.48

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No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
G3	approx. 15no.Leyland Cypress	≤ 9	≤ 270	N E S W	≤ 2 ≤ 3.5 ≤ 3.5 ≤ 2	N/A ≥ 1.5	SM	G	▪ Very closely spaced linear group formed from outgrown hedge, that is now unmanaged. ▪ All have multiple reduction points and included bark unions of branches.	▪ Remove in order to implement development as proposed.	<10	U	≤ 92	≤ 5.4
G4	2no. Norway Spruce	≤ 9	≤ 270	N E S W	≤ 2 ≤ 3.5 ≤ 3.5 ≤ 2	N/A ≥ 1.5	SM	G	▪ Very closely spaced group.	▪ Retain in context of proposed development. ▪ Ensure protection of RPA throughout development process in accordance with Temporary Protective Fencing Specification.	10+	C1	≤ 33	≤ 3.24
G5	Cypress, Elder, Lilac, etc.	≤ 5	≤ 1x180 1x120 (ts)	N E S W	≤ 2 ≤ 2 ≤ 2 ≤ 2	N/A ≥ 0	Y-SM	M-G	▪ Very closely spaced group, made up mainly of shrubs.	▪ Remove in order to implement development as proposed.	10+	C1	≤ 21	≤ 2.6

BS5837:2012 Table 1 – Cascade Chart for Tree Quality Assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U 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	▪ Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) ▪ Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline ▪ Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *Note: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see BS5837:2012 paragraph 4.5.7.*			Red
	1 **Mainly arboricultural qualities**	**2** **Mainly landscape qualities**	**3** **Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy 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)	Green
Category B **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 downgraded 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 or other cultural value	Blue
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	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

DISCLAIMER

Survey Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques. The disclosure of hidden crown and stem defects, in particular where they may be above a reachable height or where trees are ivy clad or in areas of ground vegetation, cannot therefore be expected. All obvious defects, however, are reported. Detailed tree safety appraisals are only carried out under specific written instructions. Comments upon evident tree safety relate to the condition of said tree at the time of the survey only.

Unless otherwise stated all trees should be re-inspected annually in order to appraise their on-going mechanical integrity and physiological condition. It should, however, be recognised that tree condition is subject to change, for example due to the effects of disease, decay, high winds, development works, etc. Changes in land use or site conditions (e.g. development that increases access frequency) and the occurrence of severe weather incidents are also significant considerations with regards tree structural integrity and trees should therefore be re-assessed in the context of such changes and/or incidents and inspected at intervals relative to identified and varying site conditions and associated risks.

Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters of trees located on such land are estimated. Any subsequent comments and judgments made in respect of such trees are based on these restrictions and are our preliminary opinion only. Recommendations for works to neighbouring third-party trees are only made where a potentially unacceptable risk to persons and/or property has been identified during our survey. Where significant structural defects of third-party trees are identified and associated management works are considered essential to negate any risk of harm and/or damage then we will first attempt to inform the site occupier of the issues and, if not possible, then inform the relevant Council. Where a more detailed assessment is considered necessary then appropriate recommendations are set out in the Tree Survey Schedule.

Where tree stem locations are not included on the plan(s) provided then they are plotted at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these respects are detailed in the report.

The tree survey and any report information provided is intended as a guide to identify key tree related constraints to site development only. As such, the potential influence of trees upon existing or proposed buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The tree survey information in its current form should not therefore be considered sufficient to determine appropriate foundation depths for new buildings. Accordingly, an updated survey, with reference to the current NHBC Standards Chapter 4.2 - Building Near Trees, must therefore be prepared for the specific purpose of informing suitable foundation depths subsequent to planning approval being granted. The advice of a structural engineer must also be sought with regard to appropriate foundation depths for new buildings.

Third Parties: Any disclosure of this document to a third party is subject to this disclaimer. The report was prepared by Bowland Tree Consultancy Ltd at the instruction of and for use by our client, as named. This report does not in any way constitute advice to any third party who is able to access it by any means. Bowland Tree Consultancy Ltd excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage arising from reliance on the contents of this report.

- TEMPORARY PROTECTIVE FENCING SPECIFICATION -

Construction Exclusion Zones (CEZs), enclosed by **Temporary Protective Fencing**, as detailed below and to be agreed with the Local Planning Authority (LPA), shall:

1. be retained in place throughout the development process, as specified in the 'Temporary Protective Fencing Construction' section below and detailed in BS5837:2012 Figure 2 (overleaf);
2. be sited in the area(s) defined by the Root Protection Areas or, if applicable, the Construction Exclusion Zones, as detailed on the associated Tree Plan;
3. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
4. preclude any delivery of site accommodation and/or materials and/or plant machinery;
5. preclude all construction related activity, with the sole exception of specified arboricultural works and any other works to be carried out under supervision that have been agreed by all parties; and
6. preclude the storage of all development related materials and substances including fuels, oils, additives, cement and/or any other deleterious substance.

Any incursion into CEZs must be by prior arrangement, following consultation with the LPA.

Temporary Protective Fencing Construction

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall butt together and be securely fixed to a scaffold framework, as per 3 to 5 below.
3. The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights, as per 4 to 5 below.
4. The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with 3 no. clamps to each joint.
5. The diagonal scaffold pole struts be clamped to the top rail of the scaffold framework at a 45º angle and extend back into the CEZ and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1, below) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the LPA shall inspect and approve the Temporary Protective Fencing.

Figure 1: CEZ Warning Sign

– TREE PROTECTION AREA –
KEEP OUT!

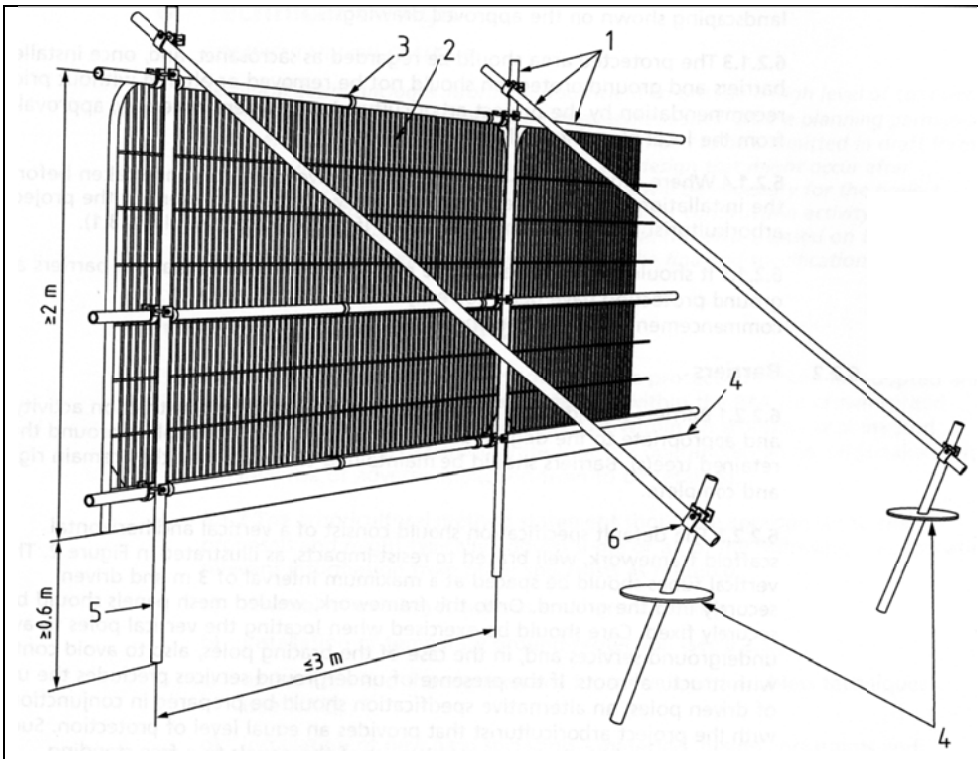
(TOWN & COUNTRY PLANNING ACT 1990)
THE TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR SUBJECTS OF A 'TREE PRESERVATION ORDER', THE CONTRAVENTION OF WHICH MAY LEAD TO CRIMINAL PROSECUTION

THE FOLLOWING MUST BE OBSERVED BY ALL PERSONNEL:

- **THE PROTECTIVE FENCING MUST NOT BE MOVED**
- **NO PERSON SHALL ENTER THE CONSTRUCTION EXCLUSION ZONE**
- **NO MACHINE, PLANT OR VEHICLES SHALL ENTER THE EXCLUSION ZONE**
- **NO MATERIALS SHALL BE STORED IN THE EXCLUSION ZONE**
- **NO SPOIL SHALL BE DEPOSITED IN THE EXCLUSION ZONE**
- **NO EXCAVATION SHALL OCCUR IN THE EXCLUSION ZONE**
- **NO FIRES SHALL BE LIT IN THE EXCLUSION ZONE**

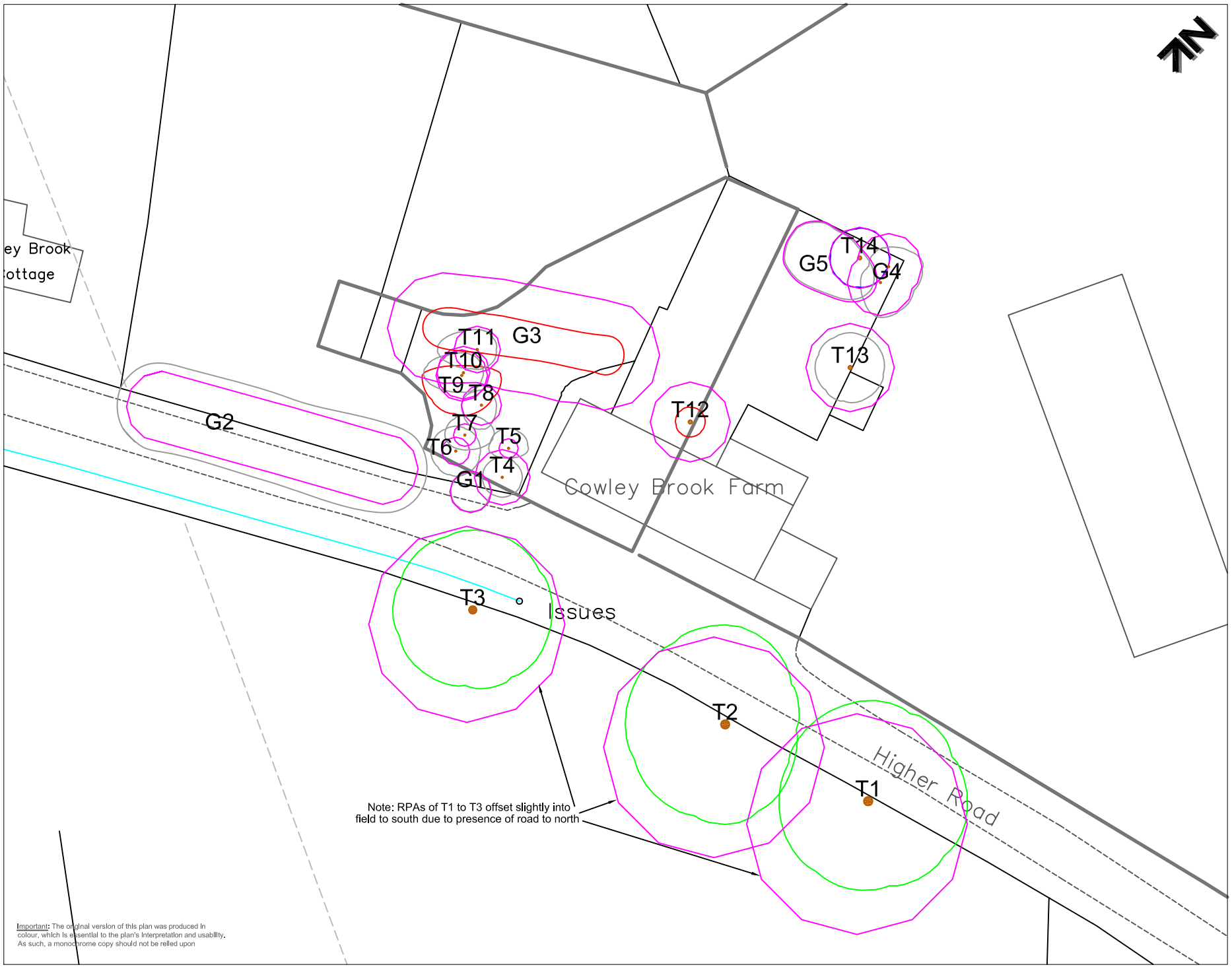
ANY INCURSION INTO THE EXCLUSION ZONE MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

Figure 2: BS5837:2012 Default specification for protective barrier



Key

1. Standard scaffold poles.
2. Heavy gauge 2 metre tall galvanised tube and welded mesh infill panels
3. Panels secured to uprights and cross members with wires ties
4. Ground level
5. Uprights driven into the ground until secure (minimum depth 0.6 metres)
6. Standard scaffold clamps



Important: The original version of this plan was produced in colour, which is essential to the plan's interpretation and usability. As such, a monochrome copy should not be relied upon

KEY

T = Individual Tree
G = Group of Trees

Please refer to associated Tree Survey Schedule for specific details in respect of items below:

Tree Categorisations:

Those to be Considered for Retention:

Category 'A' Tree/Group
Those of a High Quality with an Estimated Remaining Life Expectancy of at Least 40 Years

Category 'B' Tree/Group
Those of a Moderate Quality with an Estimated Remaining Life Expectancy of at Least 20 Years

Category 'C' Tree/Group
Those of Low Quality with an Estimated Remaining Life Expectancy of at Least 10 Years, or Young Trees

Those Considered Unsuitable for Retention:

Category 'U' Tree/Group
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

Note: The stem locations of the surveyed trees were not included on the OS based site plans provided, and were subsequently plotted by the arboricultural surveyor at the time of the survey by a combination of GPS and triangulation from existing site features. As such, their locations cannot therefore be considered to be exact, and this should be taken into consideration when planning for tree retention within the context of the design proposal.

Root Protection Areas (RPAs):

RPAs
Area(s) of Ground Around Trees that Should be Protected Throughout Development Works with Protective Fencing to form a Construction Exclusion Zone - see Temporary Protective Fencing Specification

Project:
COWLEY BROOK FARM
HIGHER ROAD
LONGRIDGE
LANCASHIRE
PR3 2YX

Agent for Client:
AVALON TOWN PLANNING

Title:
TREE CONSTRAINTS PLAN
in Relation to Proposed Construction of Extension & Two Garages with Associated Vehicular Access & Barn Conversion

Scale: 1:500@A4
Date: June 2014
Drawn by: PH

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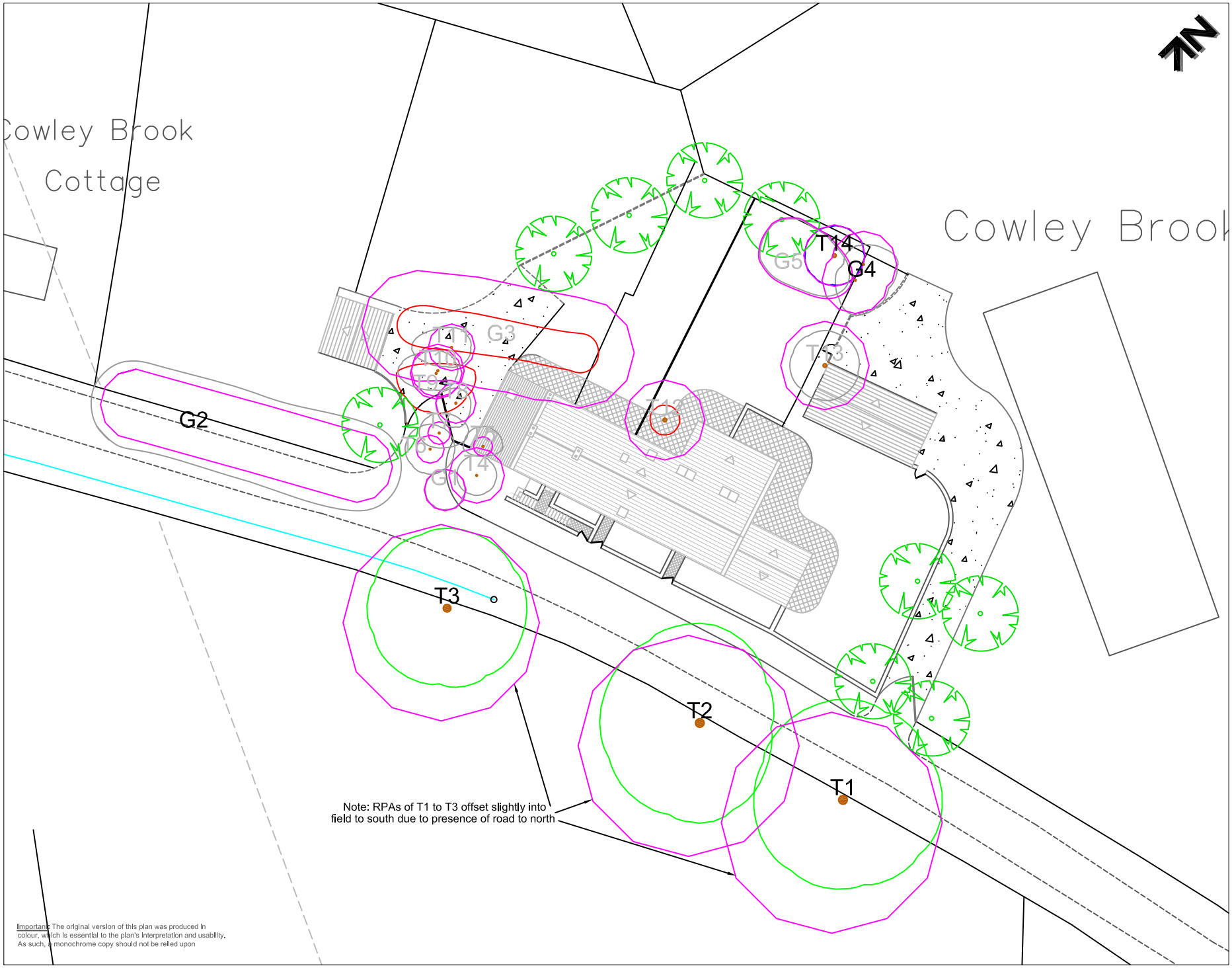

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T = Individual Tree
G = Group of Trees

Please refer to associated Tree Survey Schedule for specific details in respect of items below:

Tree Categorisations:

Those to be Considered for Retention:

Category 'A' Tree/Group
Those of a High Quality with an Estimated Remaining Life Expectancy of at Least 40 Years

Category 'B' Tree/Group
Those of a Moderate Quality with an Estimated Remaining Life Expectancy of at Least 20 Years

Category 'C' Tree/Group
Those of Low Quality with an Estimated Remaining Life Expectancy of at Least 10 Years, or Young Trees

Those Considered Unsuitable for Retention:

Category 'U' Tree/Group
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

Note 1: The stem locations of the surveyed trees were not included on the OS based site plans provided, and were subsequently plotted by the arboricultural surveyor at the time of the survey by a combination of GPS and triangulation from existing site features. As such, their locations cannot therefore be considered to be exact, and this should be taken into consideration when planning for tree retention within the context of the design proposal
Note 2: Trees with their numbers detailed in grey are proposed for removal in the context of the proposed development

Root Protection Areas (RPAs):

RPAs
Area(s) of Ground Around Trees that Should be Protected Throughout Development Works with Protective Fencing to form a Construction Exclusion Zone - see Temporary Protective Fencing Specification

Suggested Tree Planting:

Approximate Locations Considered Suitable for New Tree Planting with Appropriate Locally Native Deciduous Broadleaf Species (e.g. Oak, Alder & Birch) as Part of Site Landscaping, in Agreement with LPA

Project:
COWLEY BROOK FARM
HIGHER ROAD
LONGRIDGE
LANCASHIRE
PR3 2YX

Agent for Client:
AVALON TOWN PLANNING

Title:
TREE IMPACT PLAN
in Relation to Proposed Construction of Extension & Two Garages with Associated Vehicular Access & Barn Conversion

Scale:	1:500@A4
Date:	July 2014
Drawn by:	PH

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Ref: BTC689-TIP Rev: