

Mr & Mrs M Richards

24 Hay Green Lane
Birdwell
Barnsley
South Yorkshire

Planning Application

Arboricultural Survey

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1. Survey Details

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1.0 Instruction and Purpose of the Report

- 1.1 Site Address:- Land to the east of No 24 Hay Green Lane, Birdwell, Barnsley, South Yorkshire.
- 1.2 I have been instructed By Mr & Mrs M Richards to undertake a tree survey and qualify by statement, information required by the local authorities planning department, pertaining to national planning requirements and in accordance with BS 5837 : 2012 (Trees in relation to construction).
- 1.3 To provide the methodology and design details with recorded positions of the existing trees within the sites curtilage noted as T1 to T29 respectively situated within the plot area, as identified on plan CAD/QA/1500
- 1.4 To provide a tree constraints plan (TCP) in accordance with BS 5837 : 2012 (Trees in relation to construction – recommendations) showing the developable area on the site and the potential constraints that the existing trees pose, both above and below ground.
- 1.5 The details are in respect of a proposed planning application, to be submitted by Quill Architecture, who is the nominated agents acting on behalf of Mr & Mrs M Richards the current owners and potential developers of the site.
- 1.6 The proposed application relates to the erection of 1 No, residential dwelling. Due to the site constraints the dwelling, by design, has to be positioned with its frontage projecting no further towards Hay Green Lane than that of No 24 a dormer style bungalow which already exists and is also in the ownership of Mr & Mrs Richards.
- 1.7 The proposed positional tolerances, of the new building have been the subject of discussion with the both the local authority's area planning officer and negotiation with the authorities tree officer. (Drawing CAD/QA/1500)

2.0 Land Usage

- 2.1 In accordance with the LDF descriptive and the UDP maps the site currently is and will remain in an area allocated as private green space. At present the plot forms a large private but remote garden area for the existing bungalow, which occupies the adjoining plot. The division of the plot takes the form of a 2metre high concrete post and timber panelled fence. (Drawing CAD/QA/1500).

3.0 Topography

- 3.1 The site initially slopes in a gentle downward direction from the public highway adjacent to Hay Green Lane, before providing a level surface over the remaining area of the plot within the defined curtilage.

4.0 Methodology and Limitations

- 4.1 The design processes consisted of an above ground topographical visual inspection only. Soil type has not been assessed.
- 4.2 On visual inspection the trees have been divided into 2 distinct groups. Group 1 consists of 2 trees in total, (T1 & T2 drawing No CAD/QA/1500). Dispersed along the east boundary, the trees are set in close proximity to the boundary, and occupy the upper part of the site. Due to the current planning criteria and with regard to the sites classification, the tree species have been identified and categorized within section 5 of this report, (tree quality and survey details.)
- 4.3 Again to the north and west boundaries but mainly occupying a central position tree group 2, consists of 27 trees in total, (T3 to T29) each display similar ages of maturity. (Drg No CAD/QA/1500).
- 4.4 Both tree groups will be outside the boundary of the immediate construction exclusion zone (cez). Within tree group 2 a number of trees have been highlighted for removal. T7 on the eastern boundary displays an initial 45° list of its lower stem towards the east boundary, before vertical growth prevails. T7 & T8 have also suffered historic lower stem trauma allowing rotting of the cambium and phloem layers thus exposing the sapwood, in addition lower stem fungal attack is evident. T7 as identified poses the greatest singular threat, in particular due to its potential direction of fall, it is estimated that it would collapse within the area where people frequent ie within the public green space. T7 also has an asymmetric canopy and provides no singular or cumulative enhancement to the retained group. Further trees are highlighted for removal in tree group 2. These are T11, 16, 18, 25 & 27, all of which display asymmetric constricted canopy and stunted growth due to canopy density of more mature trees within the site. The collective number of retained trees within groups 1 & 2, with the addition of replacement planting will continue to provide a sustainable tree-scape within the site curtilage.
- 4.5 There are numerous trees existing outside the boundary of the plot which lie within the curtilage of the adjoining garden to No 24. In particular a single oak tree denoted as T32 on plan CAD/QA/1500. The theoretical root spread has been plotted and found to cause root penetration into the plot. Due to this the

protective fence so erected will afford protection to T32 with equal weight to those existing trees which occupy the plot. There are also a number of trees within the wooded area outside the east boundary of the site. These have not been recorded due to their positions which pose no threat or concern to inhibit the proposed development.

- 4.6 All measurements, during the survey have been carried out using three modes of instrument.

1. Steel measuring tape. 2. Leica electronic distance metre. 3. Pentax TH20 Theodolite.

5.0 Quality and survey details

Group 1 (All trees within group)

Tree No	Species	Height (m)	Stem Diameter	Crown Radius				Crown Ht (m)	Age Class	Remaining Contribution	Structural & Physiological Condition	Preliminary management Recommendations	Retention Category
				N	S	E	W						
T1	Oak	16	300	4.5	3.8	5.0	5.5	2.7	Y/MA	40+	Restricted crown growth to south	non	A
T2	Oak	15	430	5.4	6.0	5.0	5.5	2.6	Y	40+	Normal growth	non	A

Group 2 (All trees within group)

Tree No	Species	Height (m)	Stem Diameter	Crown Radius				Crown Ht (m)	Age Class	Remaining Contribution	Structural & Physiological Condition	Preliminary management Recommendations	Retention Category
				N	S	E	W						
T3	Oak	15	500	2.0	2.0	1.5	1.5	7.3	Y/MA	20+	Restricted canopy/crown growth	Para 6.1	B
T4	Oak	16	400	2.5	3.2	10.2	5.5	4.5	Y	20+	Restricted canopy/crown growth	Para 6.1	B
T5	Oak	16	500	4.7	2.2	8.0	5.3	4.8	Y/MA	20+	Restricted canopy/crown growth	Para 6.1	B
T6	Ash	16	380	1.7	2.0	2.0	2.0	5.2	Y	20+	Restricted canopy/crown growth. poor	Para 6.1	B
T7	Oak	13	280	2.3	1.6	1.5	4.5	6.8	Y	20+	Restricted canopy/crown growth Lower stem rotting/fungal attack.	Removal	R
T8	Oak	12	150	0.0	2.4	1.2	3.4	3.9	Y	20+	Restricted canopy/crown growth. Poor	Removal	R
T9	Oak	13	260	1.4	4.7	2.1	6.8	4.1	Y	20+	Restricted canopy/crown growth. Poor	Para 6.1	B
T10	Oak	12	260	1.8	1.8	0.7	7.1	3.4	Y	20+	Restricted canopy/crown growth. Poor	Para 6.1	B
T11	Oak	15	280	2.0	3.2	2.0	2.8	6.8	Y	10+	Restricted canopy/crown growth. Poor	Removal	R
T12	Oak	15	260	5.7	1.9	2.8	1.9	3.0	Y	20+	Restricted canopy/crown growth. Poor	Para 6.1	B
T13	Oak	15	330	6.0	3.0	5.3	6.6	6.3	Y	40+	Restricted canopy/crown growth. South	Para 6.1	B
T14	Oak	13	330	4.3	4.7	2.5	4.7	5.1	Y	40+	Restricted canopy/crown growth. East	Para 6.1	B
T15	Oak	11	220	1.5	6.3	3.5	5.5	4.6	Y	40+	Restricted canopy/crown growth. North, east	Para 6.1	B
T16	Oak	12	280	1.4	2.7	4.0	2.7	8	Y	40+	Restricted canopy/crown growth. Poor	Removal	R
T17	Oak	12	280	4.0	3.0	3.5	4.4	6	Y	40+	Restricted canopy/crown growth.	Para 6.1	B
T18	Silver Birch	10	140	1.0	1.0	2.4	1.7	5	Y	10	Rotting stem	Removal	R
T19	Oak	12	290	3.0	4.6	2.9	4.3	3.5	Y	40+	Restricted canopy/crown	Para 6.1	B

T20	Oak	12	400	3.9 5.1 4.6 4.3	6.5	Y	40+	Restricted canopy/crown growth	Para 6.1	B
T21	Oak	12	300	3.3 4.0 5.3 4.5	7.6	Y	40+	Restricted canopy/crown growth	Para 6.1	B
T22	Oak	12	380	3.9 4.3 3.9 4.5	5.9	Y	40+	Restricted canopy/crown growth	Para 6.1	B
T23	Oak	12	500	4.2 4.3 4.0 5.2	2.5	Y/MA	40+	Restricted crown growth to east	Para 6.1	B
T24	Oak	12	430	3.1 3.3 3.7 3.8	3.8	Y	40+	Restricted canopy/crown growth.	Para 6.1	B
T25	Oak	4.5	240	3.7 2.2 2.6 0.0	3	Y	20+	Restricted canopy/crown growth.	Removal	R
T26	Oak	12	560	3.7 8.8 4.1 4.3	1.9	Y/MA	40+	Restricted canopy/crown growth.	Para 6.1	B
T27	Oak	4	220	0.0 1.9 0.0 0.0	0	Y	10+	Stem rotting no canopy/crown	Removal	R
T28	Oak	4.5	200	3.7 2.7 2.7 2.8	3	Y	40+	Restricted canopy/crown growth	Para 6.1	B
T29	Oak	15	500	3.6 3.9 4.5 3.0	6.4	Y/MA	40+	Restricted canopy/crown growth, west	Para 6.1	B

6.0 Initial Recommendations (phase 1 preparatory work)

- 6.1 Due to the physiological or structural condition of a number of trees within the site there is a requirement for the removal of tree T7, T8, T11, T16, 18, 25 & 27 in group 2. (Drag No CAD/QA/1501).
- 6.2 The design of the dwelling takes into account the impact demonstrated by the existing retained tree group 1 & 2 which in accordance with BS 5837 : 2012 (cascade chart for tree quality assessment) provide a valuable contribution to the overall site and a softening effect to the built environment.
- 6.3 Before any work what so ever relating to the setting out, construction or general preparatory work required is carried out within the proposed site. Retained trees contained within group 1 & 2, highlighted in Para 6.1 are to be removed/undergo general remedial and deadwood pruning. This by its very nature will enhance and afford the maximum life expectancy of the retained trees to be achieved. This work is to be carried out by a suitably qualified person in accordance with BS3998 (recommendations for tree work)

- 6.4 The protection of trees within group 2 shall apply with equal weight, as the treatment afforded to the retained tree group 1 and must be maintained at all times. Identification of group 2 is shown on drawing No CAD/QA/1500 & 01.

7.0 Root protection Area Schedule

- 7.1 This is an assessment of the Root Protection Area, based on individual tree data collected during the recorded survey and BS5837 : 2012 . Root spread shown on drawing (CAD/QA/1500, 1501, 1502).

Group 1 (Retained trees within group)

TREE REF No	SPECIES	SINGLE/MULTI S/MS	STEM DIAMETER (mm)	INITIAL LINEAR ROOT PROTECTION DIST (LINEAR mm)	RPA m2
T1	Oak	S	500	6.000	113.09
T2	Oak	S	430	5.160	83.65

Group 2 (Retained trees within group)

TREE REF No	SPECIES	SINGLE/MULTI S/MS	STEM DIAMETER (mm)	INITIAL LINEAR ROOT PROTECTION DIST (LINEAR m)	RPA m2
T3	Oak	S	450	5.400	91.6
T4	Oak	S	400	4.800	72.38
T5	Oak	S	500	6.000	113.09
T6	Ash	M	380-380	6.462	131.18
T8	Oak	S	150	1.800	10.18
T9	Oak	S	260	3.120	30.58
T10	Oak	S	260	3.120	30.58
T11	Oak	S	280	3.360	35.46
T12	Oak	S	260	3.120	30.58
T13	Oak	M	250-300	4.680	68.80
T14	Oak	S	320	3.840	46.32
T15	Oak	S	330	3.960	49.26
T16	Oak	S	220	2.640	21.89
T17	Oak	S	280	3.360	35.46

T18	Silver birch	S	140	1.680	8.87
T19	Oak	S	290	3.480	38.04
T20	Oak	S	400	4.800	72.38
T21	Oak	S	300	3.600	40.72
T22	Oak	S	380	4.560	65.32
T23	Oak	S	500	6.000	113.09
T24	Oak	S	430	5.160	83.65
T25	Oak	S	240	2.880	26.05
T26	Oak	S	560	6.720	141.86
T27	Oak	S	220	2.640	21.89
T28	Oak	S	200	2.400	18.09
T29	Oak	S	500	6.000	113.09

- 7.2 Prior to commencement of any work what-so-ever on or adjacent to the site. The root protection area associated with the existing retained tree group 1 & 2 shall be protected from damage by the erection of a primary tree protection fencing, on a scaffold framework. All fences/barriers are to be in accordance with BS5837: 2012. These barriers shall be maintained in position at all times and kept in good condition during the course of the development of the site area.
- 7.3 No removal of the barriers must take place other than to be relocated or replaced.
- 7.4 The extent of the tree root protection area as shown on drawing CAD/QA/1501 in the tree protection plan is in accordance with BS 5837 : 2012 'calculating the RPA'. The calculations have been based upon the area equivalent to a circle radius 12 times the stem diameter for single stem trees taken at 1.5m above the immediate ground level). Or if a tree has more than 1 diameter value then it will add up the square of all the diameter values and use the square root of the result as a mean diameter. The stem diameter of the tree will be adjusted to match the total diameter count. Or if a tree has a single diameter and more than 1 stem then the square of the diameters will be multiplied by the stem count and the square root of the result used as a mean diameter value.
- 7.5 Due to the sites open boundaries, it is assumed that normal root development within the existing site has taken place and be expected to have developed symmetrically in accordance with BS 5837. 2012. Therefore to achieve the root protection area required the protection fence will be erected as shown in drawing CAD/QA/1501 & 1502.

8.0 Protection Fencing & Signage

- 8.1 Protective fencing/barriers shall be in strict accordance with BS5837 Tree protection fencing and placed in the positions shown on drg CAD/QA/ 1501.
- 8.2 Tree protection fencing to comprise of standard scaffold poles complete with clamps, Swivel couplers, double couplers and sleeve couplers. Providing a skeletal frame, the frame is to be well braced to resist lateral impact. Vertical steel tubes are to be spaced at a maximum of 3m intervals and set at a depth of 600mm into ground. Infill panels to be 2.3m high Heras steel galvanised panels or similar which are to be securely fixed to the frame using scaffold clamps or wired in position.
- 8.3 Details of protection fence required are shown in appendix 1 of this report.
- 8.4 All protective fencing shall be retained and maintained in good order/condition for the full duration of the construction period and considered sacrosanct unless otherwise agreed in writing with the LPA.
- 8.5 Site notices affixed to the fencing, are to be pre printed laminated waterproof signs a minimum of A3 in size and should be fixed securely to the fencing panels dividing the enclosure.
- 8.6 Signs should be securely attached to the fencing panels to be easily seen by any persons contracted or visiting the site. Signage to be fitted in appropriate positions shown CAD/QA/1501 and maintained throughout the duration of any demolition or construction phases.
- 8.7 Signs to read,
- Tree Protection Area
- Keep out
- (Town & Country Planning Act 1990)
- Trees enclosed by this fence are protected by
- Planning Conditions and/or are the subject of a
- Tree Preservation Order.
- Contravention of a tree preservation order May
- Lead to Criminal Prosecution.
- 8.8 Any incursion whatsoever into the tree protection area must be with written permission of the local planning authority.

9.0 Precautionary Measures taken within construction exclusion zone.

- 9.1 Fencing to be erected prior to any development commencing on site or any materials or machinery associated with the development are brought to or onto the site.
- 9.2 All exclusion zone fencing shall be properly maintained for the duration of the development unless otherwise agreed with the local planning department.
- 9.3 No materials, machinery, or chemicals of any sort shall be stored within the root protection zone for the duration of the development.
- 9.4 All ground levels within the root protection area shall not be lowered or raised without the consent of the local planning authority.
- 9.5 Where any new planting is to be carried out to the landscape then the area is to be treated with a translocated herbicide. All vegetation shall be removed once dead by the use of hand tools only.
- 9.6 The use of machinery is forbidden within the exclusion zone for the digging of trenches i.e. drainage runs or specific plantings.

10.0 Protective Measures outside the Root Protection Area.

- 10.1 All deliveries to the site must at all times enter/exit the site via the identified access/egress point.
- 10.2 At all times deliveries made to the site must be monitored to prevent damage or harm being caused to the tree or tree canopy by vehicular movement,
- 10.3 A banks man must be appointed to provide supervision for all vehicular movements, entering, within and leaving the site
- 10.4 Any materials likely to be injurious to the trees, such as the mixing of cement or the discharge of cement, oil, bitumen or other should not be permitted directly outside the protective fencing where contaminated fluids could drain towards the trees.
- 10.5 No fires should be lit in a position where their flames can extend to within 5m of any foliage, branches or stems.

- 10.6 Any notice boards, telephone cables or any other services temporary or permanent should not be attached to any part of the trees.
- 10.7 Exploratory excavations for root presence in tree group 1 (T1, & 2) will be carried out on the eastern side of the proposed dwelling in particular, prior to phase 2. This will identify if any substantial root systems exist in areas where foundations are to be laid.
- 10.8 The existing trees are not to be used as anchorages or for any other purpose.
- 10.9 No dumping of any spoil or rubbish or the placement of any temporary structure or storage of materials within the root protection areas is strictly prohibited.
- 10.10 No equipment, machinery or materials are to be brought on site for the purpose of development until written consent is obtained from the LA (Barnsley Metropolitan Borough Council.)
- 11.0 Tree Protection Plan**
- 11.1 Details of the tree protection plan as highlighted on drawing CAD/QA/1501/2.
- 12.0 Site entrance/new drive**
- 12.1 The use of the existing double entrance access point along Hay Green Lane is to be utilized providing unlimited access. This will allow vehicular site traffic to maintain a safe and measured distance outside the tree protection zones and remain within the construction exclusion zone of the site. This method is to be adopted at all times during the demolition and construction periods.
- 12.2 The new drive including any drop down kerbs, boundary walls or fences in connection with the dwelling are to be formed when the dwelling is complete.

13.0 Ground protection and scaffolding within any Root Protection Area

- 13.1 The proposed positioning of the dwelling lies outside the nearest tree group 1. Therefore no additional protective measures are required. However if the site conditions depict the dwelling or its foundations to be closer to the tree group than designed, then site specific proposals must be submitted to the local authorities forestry officer for approval. To afford maximum protection and minimise the risk of damage to the existing root systems of T1 & 2 during the construction phase of the dwelling.

14.0 Excavation and Foundation type (substructure dwelling)

- 14.1 New dwelling to be as Building regulations deposit. Concrete strip foundation. Foundations have been designed to be adequate if bearing on a sub-soil type 4 as defined in the current building regulations. If a sub-soil of this type is not found at normal levels, an alternative foundation design based on a geotechnical soil investigation report to BS5930, BS8002, BS8004 and Euro code 7 is to be submitted. For any abnormal ground conditions contact the local building control surveyor for advice.
- 14.2 The dwellings foundations lay outside the theoretical root spread of the nearest tree group 1. Therefore no root barrier is required. If however root systems are found to exist when carrying out proprietary excavations, then a site specific root barrier must be installed, to prevent potential future disturbance to the sub and superstructures of the proposed dwelling.

15.0 Excavation and Foundation type (method))

- 15.1 The initial method of excavation along the main dwellings eastern foundation (gable) is to be with hand tools “**only no**” mechanical machinery is to be used until primary test excavations are carried out along the length of the proposed foundation. Only then if no roots are visible a mechanical method of excavation will be considered and advice sought from the local authority’s tree officer.
- 15.4 During the foundation excavations any damage to the bark surface of exposed larger roots should be minimised. Exposed larger roots over 25mm in diameter should be wrapped in clean dry Hessian sacking to prevent desiccation and buffer temperature variation. Smaller roots less than 25mm in diameter may be pruned back using clean bypass secateurs. Severing any root that exceeds 25mm in diameter may have an adverse effect upon the health of the tree.

- 15.5 The severing of any root above 25mm in diameter is prohibited. The accidental severing of root exceeding 25mm within a RPA or within 1metre margin is to be noted and advice sought with appropriate action taken.

16.0 Schedule for Works (Phase 1 removal of trees)

16.1 Table 1

Task	Prep	Construction	Comments
1	x		It is the responsibility of the owners and developers of the site, to identify all licences required for the use of skips etc, and emergence of construction traffic both in and out of the site.
2	x		Identify site access off Hay Green Lane shown on drg CAD/QA/1500. No tree surgery is required to facilitate access into the site.
3	x		Provide temporary hard surfacing within the site to the west boundary for access parking and turning of construction vehicles.
4	x		Identify and establish an area to store and stock all spoil from excavation of the foundations.
5	x		Begin to import and erect protective fencing to all tree groups 1 & 2 with protection afforded to the ornamental trees denoted as T30 set to the front east & T31 set to the front west of the site.
6		x	Provide general tree maintenance to tree groups. 1 & 2. To be carried out by suitably qualified tree surgeons.
7		x	Prepare & remove all identified trees within tree group 2 & remove off site. (removal of trees to be by suitably qualified tree surgeons.)
8	x		Strictly no burning of removed trees is to take place within the site or near to any tree group identified on the plot.
9		x	All tree debris to be removed from the site by a licensed contractor.
10		x	Remove all demolition spoil from the site as required to continue with second phase
11		x	Reinstate all dislodged/damaged protective fencing complete with warning signs.

17.0 Schedule for Works (Phase 2 replanting of trees)

17.1 Table 1

Task	Prep	Construction	Comments
1	x		Identify areas where new planting of replacement trees is to take place. CAD/QA/1503
2	x		Negotiation with the local authorities planning dept and tree officer to take place for determination of tree type & species to be planted. (Suggested tree types and number 2 Oak, 2 Rowen, 3 Birch.)
3			Determine and agree projected planting season required by the local authorities planning department and tree officer. (Normally within first available planting season.)
3	x		Prepare ground to accept new trees, by hand within the existing tree groups.
4	x		Excavation of root pits to be performed by hand only. No mechanical/electrical digging equipment to be used within the protective fence area or existing known root system.
5	x		All new & replacement trees to be planted without exception within the local authorities specified planting season, as task 3.

18.0 Schedule for Works (Phase 3 sub/superstructure Dwelling)

18.1 Table 1

Task	Prep	Construction	Comments
1	x	x	Reposition protective fencing replace any damage panels as required after demolition works. To individual zones.
2	x		Treat all identified surfaces with glyphosate herbicide within the construction zone and prepare ground.
3		x	Identify site access off Hay Green Lane shown as prior schedule phase 1.
4	x		Identify and peg out area for Dwellings foundation.
5		x	Excavate foundations for dwelling as note 15.0 "excavations and foundation type".
			Locate and prepare site specific storage area. Storage area must not cause harm to the existing trees or materials placed on known root systems, or within the protective fencing.
6		x	Erect first lift scaffold as required.
7		x	Identify any drainage and service runs. Set out accordingly and excavate, Outside root Protection areas with mechanical machine. No new drainage to be inside the root Protection areas. Root barriers to be installed if required. Note all external rainwater gutters to be fitted with protective grilles to prevent blockages within the gutter system including down pipes.
8		x	Complete building process to dwelling.
9	x		Prepare to occupy main dwelling

19.0 Avoidance of tree root damage if trenching. (Informative group 1&2)

19.1 Particular attention should be paid to tree group 1 & 2, along the east gable of the main dwelling & to the north. Due to the location of the dwelling services, trenching operations will be, outside the periphery of the theoretical root spread and canopy of tree group 1 T1 & 2. However if incursion into the RPA is unavoidable, trenching will have to be carried out. By design it is not expected that trenching will be within the trees RPA. But care must be taken at all times when excavating any trench within this area and the following procedures adopted.

- 19.2 Any large roots discovered during trenching operations or exposed roots above 25mm in diameter are to be protected to avoid damage to the bark covering, and wrapped in dry clean hessian sacking to prevent desiccation and to protect from rapid temperature changes.
- 19.3 Any roots found within the excavation and less than 25mm in diameter may be pruned back, preferably to a side branch using an appropriate cutting tool such as bypass secateurs or hand saws and a root barrier installed.
- 19.4 If any root system is present and measures above 25mm in diameter the advice from a qualified arboriculturist must be sought as they may be essential to the trees health and stability.
- 19.5 Prior to any back filling any hessian sacking is to be removed and the retained root should be surrounded in sharp sand. (Standard building sand) is not to be used because of its high salt content which is toxic to tree roots.
- 19.6 All soils put back in the trench are to be free of contaminants or other foreign objects that could be injurious to the health of the tree root system.

20.0 Schedule for Works (Phase 4 trenching within a RPA to group 2)

20.1 Table 2

Task	Prep	Construction	Comments
1	x		Identify area within the calculated RPA from drawing CAD QA/1500,01,02.
2	x		Remove and adjust protective fence as required to protect tree groups.
3	x		Peg outline of the new drain, to existing IC shown on drawing CAD/QA/1501,2
4		x	Excavate trench for new private drain. The excavation is to be carefully done by hand within the RPA of group2. On no account must mechanical machinery be used within the predicted root protection area where theoretical root spread has been predicted.
5		x	Remove excavated debris to outside of RPA and store for re-use. Excavated material to be checked for contaminants and foreign objects. Minimum fall for foul drainage 1:40.
6		x	Provide pea gravel to excavation to the current building regulations Part H, drainage

7		x	Provide Hepworth pvc drainage in 6 metre single length with joints throughout RPA
8		x	For added protection flexible root barrier to be installed around pipe, "if applicable".
9		x	Re install clean excavated material to current building regulation standard and to category 18.0.
10		x	Remove all excess constructional materials from the site and re-establish protective fencing to original position to protect group 2

21.0 Schedule for Works (Phase 5 drive parking area)

21.1 Table 3

Task	Prep	Construction	Comments
1	x		Identify and peg out the new drive and parking areas for private vehicle
2		x	Excavate for drive and parking area for private vehicle. Excavation is to be by hand near the boundary of tree group 1 on no account must mechanical machinery be used within the predicted root protection area where root spread has been predicted.
3		x	Identify all/any drainage and service runs.
4		x	Complete construction process to drive & parking area.
5		x	Form permanent access.
6		x	Remove all constructional materials from the site and protective fencing

22.0 Schedule for Works (Phase 6 Landscaping)

22.1 Table 3

Task	Prep	Construction	Comments
1	x		Client to identify and establish all areas pertaining to the new landscaping.
2	x		Clear the area of any established weeds using chemical/hand removal method in critical areas. Any control product should be fit for purpose and not containing sodium chlorate.
3		x	Lightly rake area and Peg out new areas for soft landscaping on site.
4	x		Ground levels on the site side are not to be raised and must follow the natural topography of the land.
5		x	No edging, kerbs or associated foundations/haunching to be used within the projected RPA. Edge to be left in a natural/feathered state.
6		x	Provide soft non compacted surface to area identified
7		x	Finish with hand rake to provide a level and homogeneous finish
8	x		Advice to be sought from the LA tree officer if regarding replacement trees.

23.0 Considerations for new planting (General)

23.1 Trees generally form a dominant feature of long term landscape structures within a site. Careful consideration should be given to their:-

- Ultimate height.
- General crown spread.
- Shape.
- Colour.
- Foliage.
- Bulk.
- Maintenance.

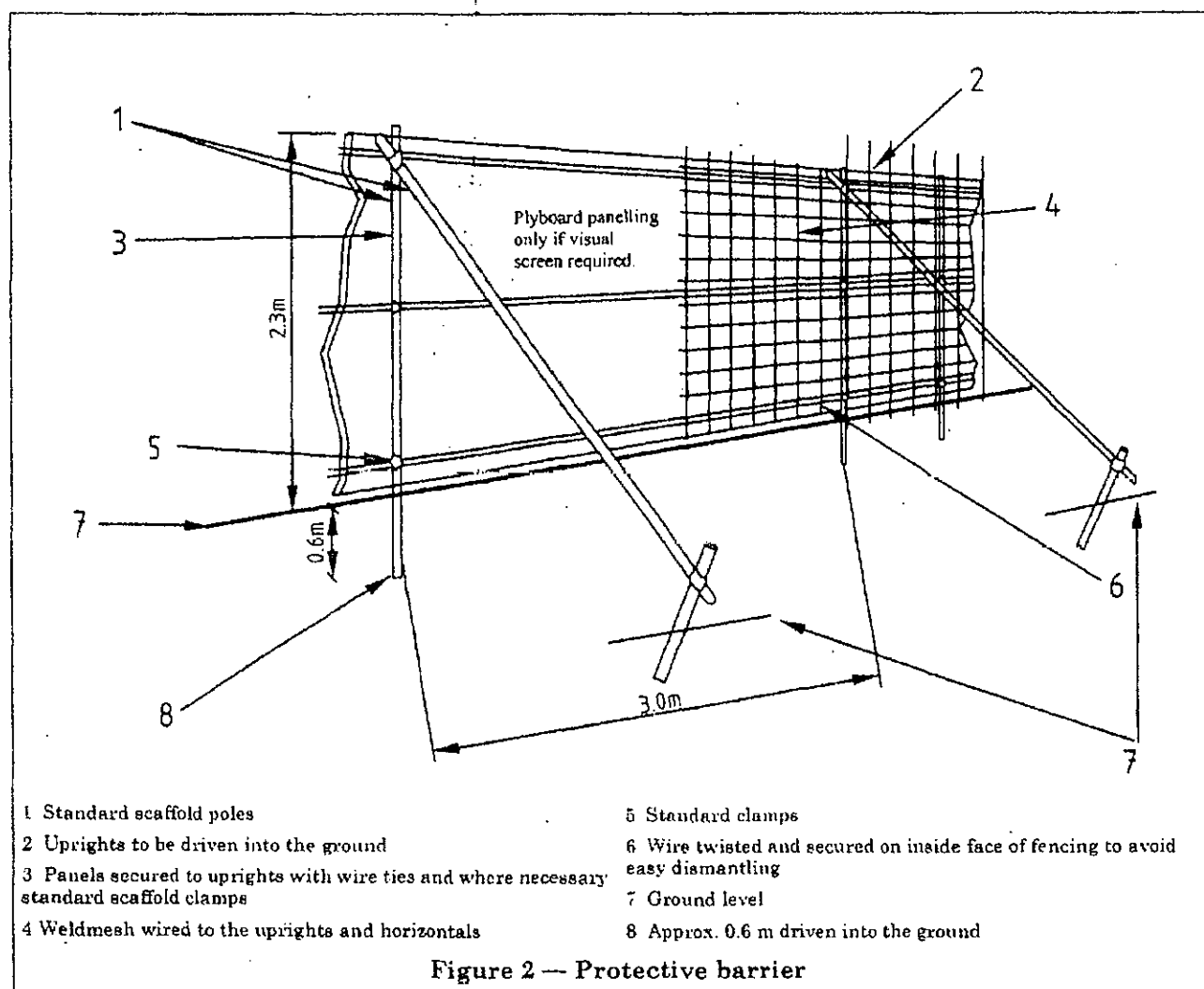
23.2 Trees also provide a range functions IE.

- Screening to provide privacy.
- Architectural effect to complement buildings.
- Inherent qualities.
- Aesthetic qualities, (shape, form, mass etc).
- Provide shade.
- Define spaces.
- Contribute to nature conservation and biodiversity etc.

24.0 APPENDIX 1

24.1 Tree Protection Fencing to BS 5837 : 2012

24.2 Note 4 refers to weldmesh panels; this will be substituted for Herras mesh panels.



25.0 APPENDIX 2

25.1 MANAGEMENT OF STORAGE.

- 25.2 The storage of any construction/building materials within the RPA is strictly prohibited at all times.
- 25.4 The construction/building materials shall be stored, on site within the construction zone as highlighted on drawing No CAD/QA/1501 or within the defined area to No 24 Hay Green Lane.
- 25.5 The storage area has to be in place before any deliveries or movement of constructional/building materials within the site takes place. All deliveries to the site are the responsibility of the house builder /owner of the site.
- 25.6 All materials shall be stacked in a secure and safe manner within the pre-defined storage area, adopting the current best building practices and codes of practice for building sites.
- 25.7 At no time must the access to the site or the public highway be infringed/ blocked by constructional/building materials/equipment etc allied to the site.
- 25.8 No stacked constructional/building or other materials are to be positioned in such a way to infringe/impede or block the public walkway to Hay Green Lane.

26.0 APPENDIX 3

26.1 ARCHITECTURAL DRAWINGS.

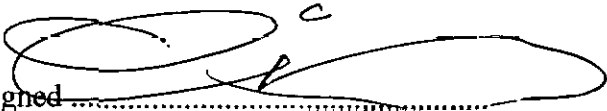
- CAD/QA/1500 drawing showing whole site, inclusive of identification of existing trees, tree groups and positions.
- CAD/QA/1501 site layout showing proposed trees to be removed.
- CAD/QA/1501/02 shows the proposed site layout with protection zones, protective fencing, placement of warning signs, storage area, construction zone etc and indicative replacement tree planting positions.

27.0 APPENDIX 4 (Informative)

- 27.1 General:- Trees in any location may be protected by legislation, where any development is proposed; additional legal protection may be appropriate and can be enforced by the local authority. Attention is drawn to legal controls under common law for consideration at the earliest stages of potential site development.
- 27.2 Legal protection of trees: The Town & Country Planning Act 1990 (as amended) require that, except in certain circumstances “no work will be carried out which will affect trees over a certain size which are situated in conservation areas/green belts. A min of six weeks’ notice has to be given to the local authority before the work is carried out. This provided an opportunity for the governing local authority to make a tree preservation order under this act, to protect the trees.
- 27.3 Tree preservation orders allow for trees to be protected either as individuals, groups, areas or woodlands. The orders have the effect of preventing the cutting down, topping, uprooting wilful damage of wilful destruction of trees, except in certain circumstances, other than with consent from the local authority.
- 27.4 Even when no specific legal protection exists, it may be necessary to obtain a felling licence. These apply if the volume of timber exceeds specific amounts; site clearance, even of small areas, before detailed planning permission has been granted could exceed the felling licence quota. The forestry commission under the forestry Act 1967 (as amended) administers a felling licence.
- 27.5 Section 197 of the Town and Country planning Act states “It shall be the duty of the local planning authority to ensure whenever it is appropriate, that in granting planning permission for any development adequate provision is made, by the imposing of conditions, for the preservation of the planting of trees”. It also states that “it shall be the duty of the local planning authority to make such orders under section 198 of the act as appear to the authority to be necessary in connection with the grant of such permission.

28.0 Wildlife (general)

- 28.1 It is the responsibility of the owners and developers of the site to ensure that no endangered species or their roosts are present within the existing structure or trees within the site area.
- 28.2 The presence of a protected species is a material consideration when a local planning authority is considering a development proposal which, if carried out, would be likely to result in harm to the species or its habitat,
(The Wildlife and Countryside Act 1981(as amended), the conservation (Natural Habitats etc) Regulations 1994 and the Countryside and Rights of way Act 2000 protect species of flora and fauna.
- 28.3 The protection of bats makes it illegal to intentionally injure or kill a bat, or cause damage, disturb or obstruct access to a roost. Under the Countryside and Rights of way Act 2000, it is an offence to recklessly disturb bats or recklessly damage or obstruct access to any structure or place that bats use for shelter or protection. Where any bats are found or evidence to suggest bat activity consultation with Natural England licence holder must be undertaken.

Signed 

On behalf of Quill Architecture

Date 11th February 2016

DO NOT SCALE DRAWING

ALL DIMENSIONS IN MILLIMETRES

IF IN DOUBT ASK

TREE DESIGNATION

T1 OAK SINGLE STEM DIA 500
 T2 OAK SINGLE STEM DIA 430
 T3 OAK SINGLE STEM DIA 450
 T4 OAK SINGLE STEM DIA 400
 T5 OAK SINGLE STEM DIA 500
 T6 ASH TWIN STEM EACH DIA 380
 T7 OAK SINGLE STEM DIA 280 LIST TO EAST
 T8 OAK SINGLE STEM DIA 150
 T9 OAK SINGLE STEM DIA 260

TREE DESIGNATION

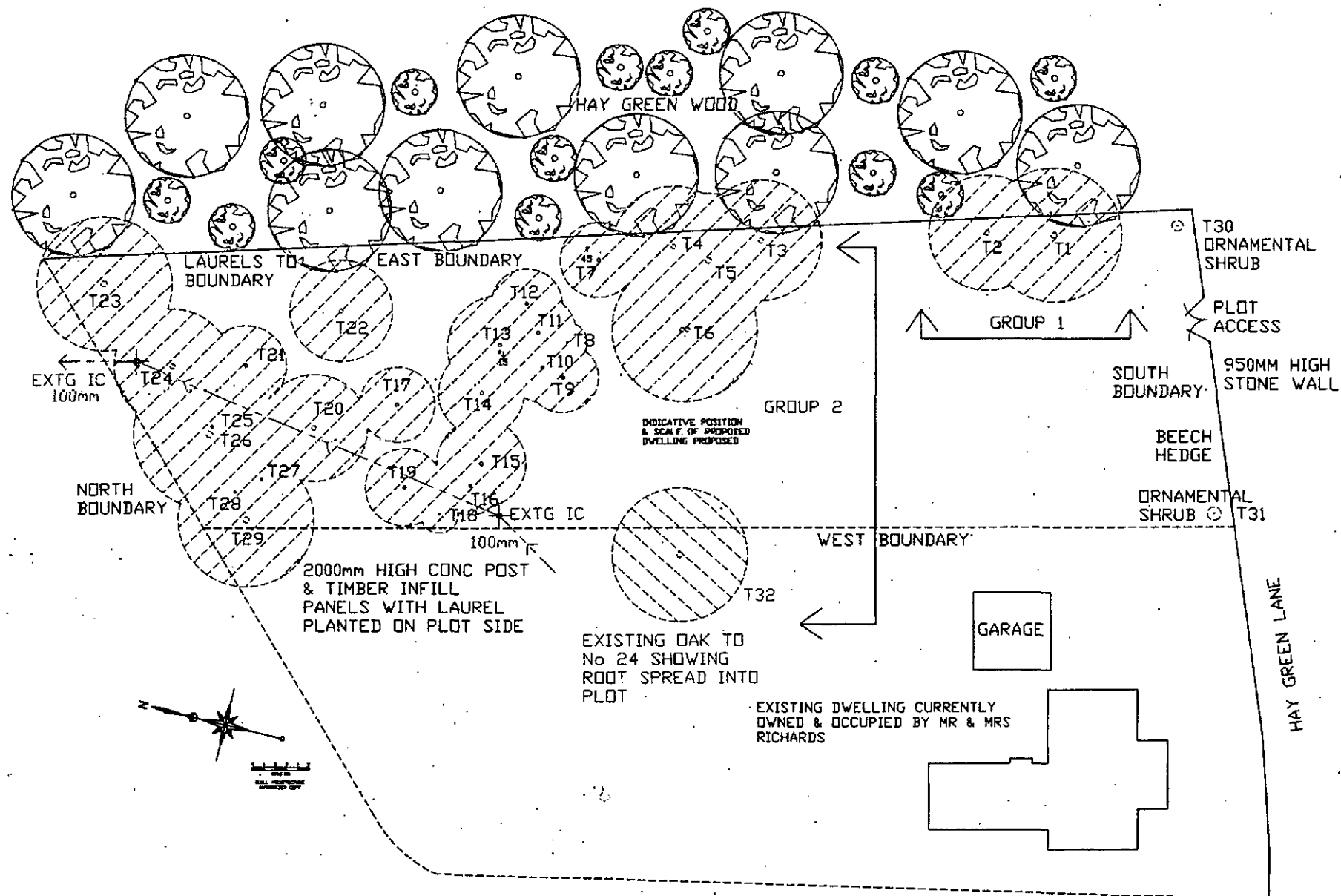
T10 OAK SINGLE STEM DIA 260
 T11 OAK SINGLE STEM DIA 280
 T12 OAK SINGLE STEM DIA 260
 T13 OAK TWIN STEM LIST TO WEST
 T14 OAK SINGLE STEM DIA 320
 T15 OAK SINGLE STEM DIA 330
 T16 OAK SINGLE STEM DIA 220
 T17 OAK SINGLE STEM DIA 280
 T18 SILVER BIRCH SINGLE STEM DIA 140
 T19 OAK SINGLE STEM DIA 290

TREE DESIGNATION

T20 OAK SINGLE STEM DIA 400
 T21 OAK SINGLE STEM DIA 300
 T22 OAK SINGLE STEM DIA 380
 T23 OAK SINGLE STEM DIA 500
 T24 OAK SINGLE STEM DIA 430
 T25 OAK SINGLE STEM DIA 240
 T26 OAK SINGLE STEM DIA 560
 T27 OAK SINGLE STEM DIA 220
 T28 OAK SINGLE STEM DIA 200
 T29 OAK SINGLE STEM DIA 500

TREE DESIGNATION (EXISTING SHRUBBERY)

T30 ORNAMENTAL SHRUB
 T31 ORNAMENTAL SHRUB
 BEECH HEDGE TO SOUTH BOUNDARY
 LAUREL HEDGE TO NORTH, WEST & EAST BOUNDARIES.



CLIENT
 MR & MRS M RICHARDS
 24 HAY GREEN LANE
 BIRDWELL, BARNSLEY

TITLE
 TREE SURVEY SHOWING POSITIONS OF EXISTING TREES

Quill
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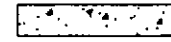
IF IN DOUBT ASK

TREE DESIGNATION (IDENTIFICATION OF TREES TO BE REMOVED)

T7 OAK SINGLE STEM DIA 280 LIST TO EAST
 T8 OAK SINGLE STEM DIA 150
 T16 OAK SINGLE STEM DIA 220

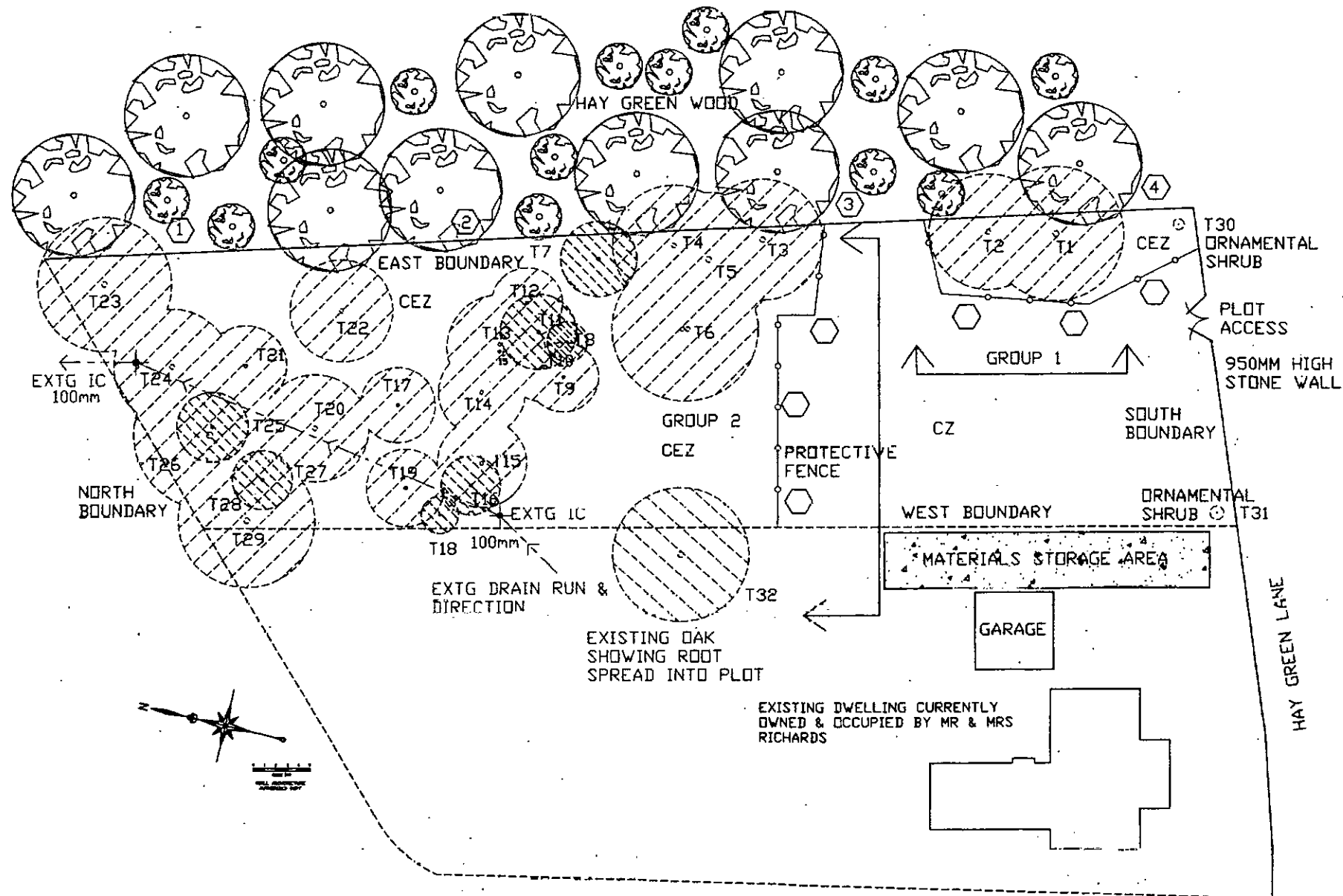
T11 OAK SINGLE STEM DIA 280
 T18 SILVER BIRCH SINGLE STEM DIA 140
 T25 OAK SINGLE STEM DIA 220

T27 OAK SINGLE STEM DIA 240

 DENOTES MATERIALS STORAGE AREA

 DENOTES WARNING SIGNS

 DENOTES WARNING SIGNS FACING PUBLIC GREEN SPACE



CLIENT
 MR & MRS M RICHARDS
 24 HAY GREEN LANE
 BIRDWELL, BARNSLEY

TITLE
 TREE SURVEY SHOWING TREES FOR REMOVAL &
 POSITION OF PROTECTIVE FENCING

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TREE DESIGNATION (RE-PLANTING)

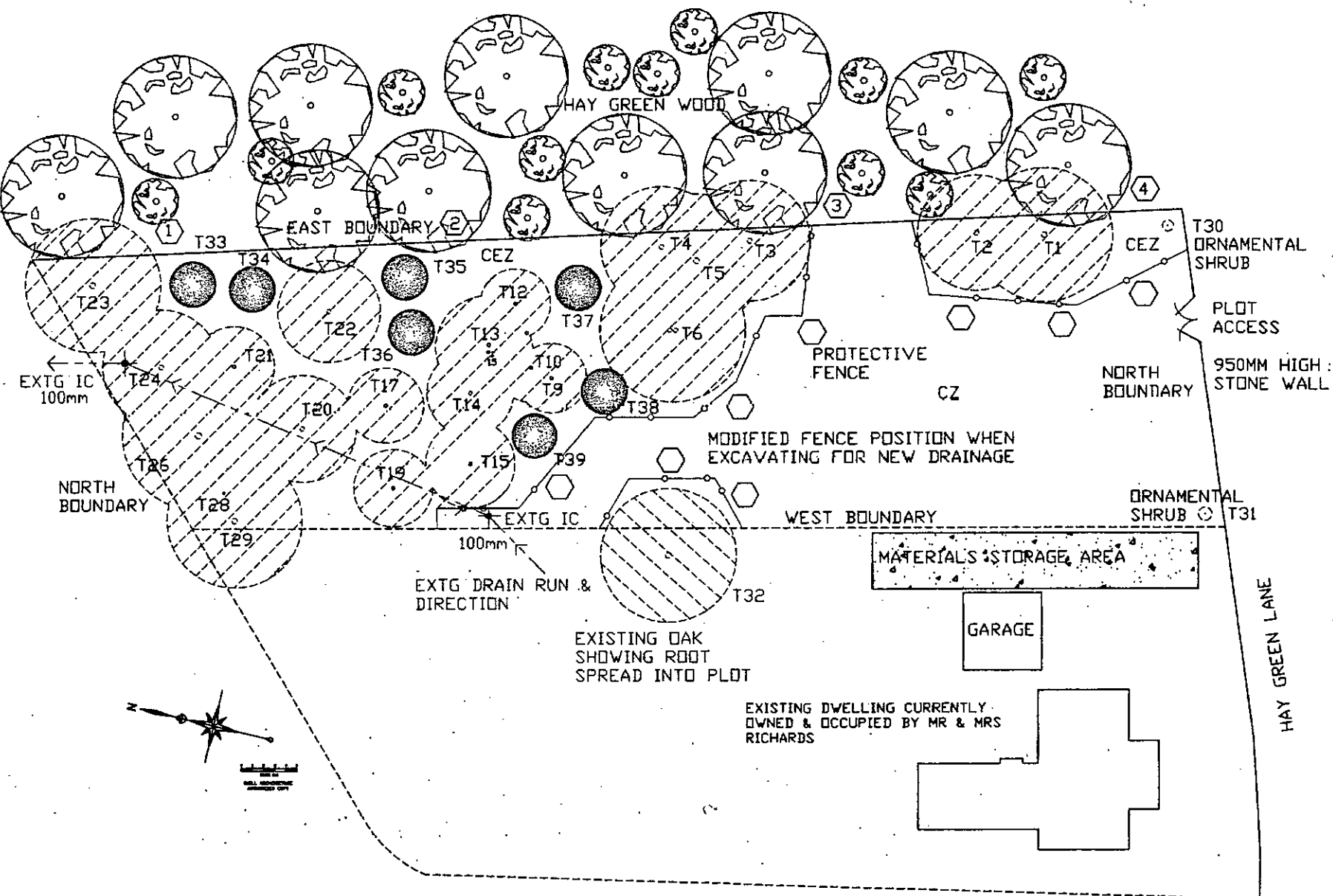
OAK	ROWAN	BIRCH
T33 OAK	T37 ROWAN	T34 BIRCH
T35 OAK	T39 ROWAN	T36 BIRCH
		T38 BIRCH

ALL REPLACEMENT TREES TO BE PLANTED WITHIN THE INDICATIVE AREA
SPECIFIED ON PLAN NO NEW PLANTING TO BE NEAR THE EXISTING
PRIVATE DRAIN WHICH RUNS THROUGH THE SITE.

● T DENOTES POSITIONS OF NEW TREES

○ DENOTES WARNING SIGNS

① DENOTES WARNING SIGNS
FACING PUBLIC GREEN SPACE



CLIENT
MR & MRS M RICHARDS
24 HAY GREEN LANE
BIRDWELL, BARNSELY

TITLE
TREE SURVEY SHOWING POSITION OF RE-PLANTING
OF NEW TREES & PROTECTIVE FENCING

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