

GEOSPHERE ENVIRONMENTAL

REPORT TYPE: Arboricultural Impact Assessment

REPORT NUMBER: 8280,AR,AIA,TC,TA,KL,25-03-24,V2

SITE: Hinckley & District Hospital, Mount Road, Hinckley,
LE10 1AE

DATE: 25/03/2024



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VERSION RECORD

Version:	Date:	Details:	Author(s):	Reviewed By:	Authorised By:
V1	04-03-24	Original version	Tom Cox Senior Ecological and Arboricultural Consultant	Tracy Amies Ecological and Arboricultural Consultant	Katie Linehan Technical Director of Ecology
V2	25-03-24	New development plan	Tom Cox Senior Ecological and Arboricultural Consultant	Tracy Amies Ecological and Arboricultural Consultant	Katie Linehan Technical Director of Ecology

Executive Summary

Report Description	Geosphere Environmental Limited was commissioned by Darwin Group to undertake an Arboriculture Impact Assessment of the land at Hinckley & District Hospital, Mount Road, Hinckley, LE10 1AE. The site is located at National Grid Reference (NGR) SP 4294693756. The report relates to the redevelopment of the site as shown on the Proposed Site Plan, Drawing ref. DBC1782-DBC-ENB-00-DR-A-0650 P03 and is included within Appendix 6. The site covers an area of approximately 0.40 hectares (ha). This and the immediate surrounding area were surveyed.
Arboricultural Impact Assessment	The impacts of the proposed development are outlined below. • T8, G4, G5, G6 and part of G7 – Category C – These trees will need to be removed to facilitate the development. • T10 – Category B – This tree is immediately adjacent to the building that is to be demolished, as such it will need to be surrounded by tree protection barriers and care must be taken not to damage the tree during the demolition works. • T1-T7, T9, T11-T19, G1-G3, G7-G11 – Category A, B, C – The remaining trees onsite, these are either far enough away from the development or able to be entirely protected by tree protection barriers and therefore are unlikely to be impacted by the development.
Conclusions	Providing the recommendations within Section 4 and the Arboricultural Method Statement included within Appendix 7 are adhered to, then impacts to trees should be kept to a minimum.

This Executive Summary only provides a summary of the site data and its assessment. It is recommended that the reader reviews the report in its entirety and any material referenced therein.

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1.2 Aims

The Arboricultural Impact Assessment has been undertaken based upon information provided by an arboricultural survey undertaken by Geosphere Environmental Ltd and reported in July 2023, (ref.**R.1**). The Tree Survey Schedule from the initial survey has been included in Appendix 3, with a description of the schedule in Appendix 4, and a key to the scientific names in Appendix 5.

A tree Retention and Removal Plan has been designed based upon the tree survey to highlight trees which are planned to be removed during development. A tree protection plan has been included to detail the protection measures which are to be put in place to protect the trees retained throughout the development. An Arboricultural Impact Assessment, Tree Management Plan, and Arboricultural Method Statement has been included within this report.

2. TECHNICAL APPROACH

2.1 Personnel

This report was produced by Tom Cox HND TechArborA, who is experienced in arboricultural consultancy including surveys and impact assessments. This report was reviewed by Tracy Amies BSc (Ecological and Arboricultural Consultant) and approved by Katie Linehan BSc (Hons) MSc PIEMA MCIEEM (Technical Director), who is experienced in both ecological and arboricultural consultancy including the production of reports and impact assessments.

2.2 Arboricultural Survey

The arboricultural survey has been undertaken in general accordance with BS 5837:2012 (ref. **R.2**). The recommendations for tree remediation works are in accordance with current legislation and guidance, including BS 3998: 2010, 'Tree work – Recommendations' (ref. **R.3**).

The data collected during this survey is based entirely upon arboricultural grounds and reflects the condition of the trees on the day the survey was undertaken. The locations of the trees were detailed on a topographical survey provided by the Client. All locations of trees are assumed to be correct. Any trees not noted on the topographical plan have been added where appropriate during the tree survey.

Scientific names and common names of plant species identified are as they appear in Stace (ref. **R.4**). For species not listed in Stace, scientific and common names were taken from Johnson and More (ref. **R.5**).

2.3 Site Specific Limitations

Trees were surveyed without undertaking vegetation clearance.

Some trees were covered with ivy which limited the visibility of the stem size and structure. This may have increased the margin of error when recording measurements and assessing the quality of the trees. In cases where the trees were obscured or inaccessible, the parameters which could not be accurately measured were estimated as per BS 5837: 2012 (ref. **R.2**).

3. ARBORICULTURAL IMPACT ASSESSMENT

3.1 Council Restrictions

The Hinckley & Bosworth Borough Council online planning map (ref.**R.8**) was checked on the 21 February 2024 and confirmed that there were no Tree Preservation Orders onsite. The north and part of the western ownership boundaries are adjacent to a Conservation Area; however, the designated development site boundaries do not abut the Conservation Area. This is shown on the Tree Preservation Order Plan, Drawing ref 7257,EC,AR/002/Rev0 in Appendix 6.

It is advisable to contact the local authority regarding Tree Preservation Orders and Conservation Areas before any tree works are carried out, as new Tree Preservation Orders can be made subsequent to the issuing of this report.

3.2 Proposed Development

A Proposed Site Plan, Drawing ref. DBC1782-DBC-ENB-00-DR-A-0650 P03 has been supplied by the Client and is included within Appendix 6. The proposed development involves demolition of existing buildings and construction of new buildings and car parks. The proposals indicate that trees will be included within the landscaping of the proposed development.

3.3 Proposed Impact on Trees

The potential impacts of the proposed development on the existing trees are listed within Table 1 below. Tree Constraints Plan, Drawing ref. 7257,EC,AR/001/Rev0, shows the locations of the trees present onsite at the time of the survey. The Tree Removal plan, Drawing ref. 8280,EC,AR/001/Rev1 shows which trees will be removed and which trees will be retained. The Tree Protection Plan, Drawing ref. 8280,EC,AR/002/Rev1, shows the protection measures required for the retained trees. All plans are included within Appendix 6.

Table 1 – Proposed Impact of Construction on Trees

Tree Number	Category	Impact on Tree
T8, G4, G5, G6 and part of G7	C	These trees will need to be removed to facilitate the development.
T10	B	This tree is immediately adjacent to the building that is to be demolished, as such it will need to be surrounded by tree protection barriers and care must be taken not to damage the tree during the demolition works.
T1-T7, T9, T11-T19, G1-G3, G7-G11	A, B, C	The remaining trees onsite, these are either far enough away from the development or able to be entirely protected by tree protection barriers and therefore are unlikely to be impacted by the development.

3.3.1 Tree Removals

T8, G4, G5, G6 and part of G7 will need to be removed to facilitate the development.

4. TREE MANAGEMENT PLAN

4.1 Tree Construction Method Statement

The Arboricultural Method Statement has been included in Appendix 7.

4.2 Tree Protection Barriers

Tree Protection Plan, Drawing ref. 8280,EC,AR/002/Rev1 in Appendix 6, shows the location of protective barriers which will need to be put in place, prior to demolition / construction works. The type of barriers that will be required is detailed within the Arboricultural Method Statement in Appendix 7.

4.3 Arboricultural Supervision

A pre-commencement meeting should be held between the Local Authority Tree Officer, the Consultant Arboriculturist and the Site Manager to ensure that roles and responsibilities are understood and that appropriate tree protection measures are put in place. Arboricultural monitoring should be implemented throughout the development to ensure tree protection measures are sufficient throughout development as per the Arboricultural Method Statement in Appendix 7.

4.4 Works Within Root Protection Areas

No works are anticipated to be carried out within the root protection areas of any of the trees to be retained.

However, T10 is immediately adjacent to the demolition works proposed and as such must be protected as highlighted on the Tree Protection Plan, Drawing Ref. 8280,EC,AR/002/Rev1. Arboricultural supervision will be required for demolition around this tree to ensure roots are not damaged during works, as per the Arboricultural Method Statement in Appendix 7.

4.5 Services and Drainage

It is not anticipated that any excavations for services or drainage will be necessary within root protection areas of trees to be retained to facilitate this development.

4.6 Tree Pruning

Remedial tree works should be undertaken following the completion of construction works. This will include removing any branches which have become hazardous as a result of accidental damage during construction works. If any unforeseen tree work becomes necessary during the construction phase, written consent must be sought from the Arboricultural Consultant and the LPA before any further pruning works can commence.

All specified tree work is to be carried out in general accordance with BS 3998:2010 Tree work – Recommendations (ref. **R.3**) by a professional and specialist Arboricultural Contractor, who carries the appropriate experience and insurance cover.

4.7 Tree Planting

The proposal indicates that trees will be planted to the north and west of the proposed building. An appropriate after-care scheme should be implemented to ensure the newly planted trees reach maturity.

5. CONCLUSIONS

The Hinckley and Bosworth Borough Council online planning map (ref. **R.8**) confirmed that there are no Tree Preservation Orders onsite. The north and part of the western ownership boundaries are adjacent to a Conservation Area; however, the designated development site boundaries do not abut the Conservation Area.

T8, G4, G5, G6 and part of G7 will need to be removed to facilitate the proposed development.

T10 is immediately adjacent to the proposed demolition works and special care must be taken to ensure it is protected throughout the project.

No works are anticipated within the root protection areas of any of the trees to be retained.

APPENDICES

Appendix 1 – Report Limitations and Conditions

General Limitations and Exceptions

This report was prepared solely for our Client for the stated purposes only and is not intended to be relied on by any other party or for any other use. No extended duty of care to any third party is implied or offered. Third parties should not rely on the facts, matters or opinions set out in this report without the express written permission of Geosphere Environmental Ltd.

Geosphere Environmental Ltd does not purport to provide specialist legal advice.

The Executive Summary, Conclusions and Recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon until considered within the context of the whole report.

Interpretations and recommendations contained within the report represent our professional opinions, which were arrived at in accordance with currently accepted industry practices at the time of reporting and based upon current legislation in force at that time.

Arboricultural Limitations and Exceptions

This report is prepared and written in the context stated in the introduction to this report and should not be used in a differing context. Furthermore, new information, improved practices and legislation may necessitate an alteration to the report in whole or in part after its submission. Therefore, with any change in circumstances or after the expiry of one year from the date of the report, the report should be referred to us for re-assessment and, if necessary, re-appraisal.

The trees were not climbed but surveyed from ground level. The survey recorded any defects which were observed, but a full tree health and safety inspection for the site is beyond the scope of this survey.

Any physical changes that happen to the site after the tree survey was undertaken have the potential to invalidate or change the findings of this report. Therefore, the consultant shall not be responsible for any event that may happen after the survey was undertaken due to factors that were not apparent at the time.

Any hazards that were visible on the day of the survey have been noted in the tree management recommendations section of the tree survey schedule. However, this report should not be considered a substitute for a tree risk assessment or management plan, which would be required to minimise the risk and liability associated with the trees found onsite

Appendix 2 – References

- R.1.** Geosphere Environmental Ltd 2023 Arboricultural Survey Report, Report reference number: 7257,EC,AR,ARB,TC,KL,26-07-23.V2
- R.2.** BSI (2012). BS 5837:2012 Trees in relation to design, demolition, and construction - Recommendations.
- R.3.** BSI (2010). BS 3998:2010 Tree work- Recommendations.
- R.4.** Stace, C. A. (2010). New Flora of the British Isles (third edition), Cambridge University Press.
- R.5.** Johnson and More (2006). Tree Guide, Harper Collins Publishers Ltd.
- R.6.** British Geological Survey (accessed 26 February 2024) Geology of Britain Viewer website: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>.
- R.7.** National House-Building Council, Standards, Chapter 4.2, 2021 'Building Near Trees'.
- R.8.** Hinckley & Bosworth Borough Council Online Planning Map website: <https://www.hinckley-bosworth.gov.uk/tpomap>

Appendix 3 – Tree Survey Schedule

TREE SURVEY SCHEDULE

Project Number: 7257,EC,AR

Project Name: Hinckley & District Hospital, Mount Road, Hinckley, LE10 1AE

Date: 29/02/2024

1	2	3	4	5	6				7	8	9	10	11	12	13	14	15	16
Tree No.	Species	Height (m)	Stem Diameter (mm)	No. of Stems	Branch Spread (m)				First Branch Height (m)	Canopy Height (m)	Life Stage	Physiological Conditions	Structural Conditions	Remaining Contribution (years)	Category Grading	RPA (m2)	RPA Radius (m)	Tree Work Recommendations / Comments
					N	E	S	W										
# Denotes estimated values due to lack of access																		
T1	Large leaved Lime	10	450	1	1	1	1	1	6	5	M	G	G	40+	B	91.61	5.40	Pollarded
T2	Large leaved Lime	10	450	1	1	1	1	1	6	5	M	G	G	40+	B	91.61	5.40	Pollarded
T3	Large leaved Lime	10	450	1	1	1	1	1	6	5	M	G	G	40+	B	91.61	5.40	Pollarded
T4	Large leaved Lime	10	450	1	1	1	1	1	6	5	M	G	G	40+	B	91.61	5.40	Pollarded
T5	Large leaved Lime	10	450	1	1	1	1	1	6	5	M	G	G	40+	B	91.61	5.40	Pollarded
T6	Large leaved Lime	12	500	1	1	1	1	1	4	6	M	G	G	40+	B	113.10	6.00	Pollarded
T7	Large leaved Lime	12	500	1	1	1	1	1	4	6	M	G	G	40+	B	113.10	6.00	Pollarded
T8	Cedar	15	627.55	4	2.5	2.5	2.5	2.5	8	10	SM	F	F	20+	C	178.16	7.53	
T9	Fir sp	15	370	1	2.5	2.5	2.5	2.5	8	10	SM	G	G	20+	C	61.93	4.44	
T10	Red Maple	11	260	1	3	3	3	3	4	4	SM	G	G	20+	B	30.58	3.12	Memorial Tree
T11	Sycamore	15	500	1	5	5	5	5	10	10	M	G	G	40+	A	113.10	6.00	
T12	Sycamore	15	500	1	5	5	5	5	10	10	M	G	G	40+	A	113.10	6.00	
T13	Copper Beech	12	560	1	4	4	4	4	6	6	M	G	G	40+	B	141.87	6.72	
T14	Copper Beech	12	560	1	4	4	4	4	6	6	M	G	G	40+	B	141.87	6.72	

TREE SURVEY SCHEDULE

Project Number: 7257,EC,AR

Project Name: Hinckley & District Hospital, Mount Road, Hinckley, LE10 1AE

Date: 29/02/2024

1	2	3	4	5	6				7	8	9	10	11	12	13	14	15	16
Tree No.	Species	Height (m)	Stem Diameter (mm)	No. of Stems	Branch Spread (m)				First Branch Height (m)	Canopy Height (m)	Life Stage	Physiological Conditions	Structural Conditions	Remaining Contribution (years)	Category Grading	RPA (m2)	RPA Radius (m)	Tree Work Recommendations / Comments
					N	E	S	W										
# Denotes estimated values due to lack of access																		
T15	Maple	7	310	1	2	2	2	2	2	2	SM	G	G	20+	C	43.47	3.72	
T16	Maple	8	360	1	2.5	2.5	2.5	2.5	1.5	1.5	SM	G	G	20+	C	58.63	4.32	
T17	Maple	8	360	1	2.5	2.5	2.5	2.5	1.5	1.5	SM	G	G	20+	C	58.63	4.32	
T18	Maple	8	360	1	2.5	2.5	2.5	2.5	1.5	1.5	SM	G	G	20+	C	58.63	4.32	
T19	Maple	8	360	1	2.5	2.5	2.5	2.5	1.5	1.5	SM	G	G	20+	C	58.63	4.32	
G1	Laurel	2	100	1	1	1	1	1	0	0	SM	G	G	20+	C	4.52	1.20	
G2	Leyland Cypress	3	100	1	1	1	1	1	0	0	SM	G	G	20+	C	4.52	1.20	
G3	Introduced Shrubs, Holly, Privet, Ash	5	250	1	2	2	2	2	0	0	SM	G	G	20+	C	28.27	3.00	
G4	Holly, Laurel, Introduced Shrub, Hawthorn, Fir	10	300	1	2	2	2	2	0	0	SM	G	G	20+	C	40.72	3.60	
G5	Box, Laurel, Introduced Shrub	2	150	1	1	1	1	1	0	0	SM	G	G	20+	C	10.18	1.80	
G6	Field Maple, Holly, Box	1.5	100	1	1	1	1	1	0	0	SM	G	G	20+	C	4.52	1.20	
G7	Fir, Leyland Cypress	12	300	1	2	2	2	2	0	0	SM	G	G	20+	C	40.72	3.60	
G8	Holly	1.5	150	1	1	1	1	1	0	0	SM	G	G	20+	C	10.18	1.80	
G9	Box, Leyland Cypress, Holly	1.5	150	1	1	1	1	1	0	0	SM	G	G	20+	C	10.18	1.80	

TREE SURVEY SCHEDULE

Project Number: 7257,EC,AR

Project Name: Hinckley & District Hospital, Mount Road, Hinckley, LE10 1AE

Date: 29/02/2024

1	2	3	4	5	6				7	8	9	10	11	12	13	14	15	16
Tree No.	Species	Height (m)	Stem Diameter (mm)	No. of Stems	Branch Spread (m)				First Branch Height (m)	Canopy Height (m)	Life Stage	Physiological Conditions	Structural Conditions	Remaining Contribution (years)	Category Grading	RPA (m2)	RPA Radius (m)	Tree Work Recommendations / Comments
					N	E	S	W										
# Denotes estimated values due to lack of access																		
G10	Oak, Hornbeam, Leyland Cypress, Copper Beech	16	400	1	3	3	3	3	5	5	SM	G	G	40+	B	72.38	4.80	
G11	Copper Beech, Field Maple, Introduced Shrub, Cherry	8	200	1	1.5	1.5	1.5	1.5	0	0	SM	G	G	20+	C	18.10	2.40	

Appendix 4 – Survey Schedule Descriptions

TREE SURVEY SCHEDULE DESCRIPTIONS



Tree Survey Schedule Description		
Column Number	Heading	Description
1	Tree No.	Sequential reference number (as recorded on the tree constraints plan).
2	Species	Species listed by common name.
3	Height (m)	Total height of the tree.
4	Stem Diameter (mm)	Stem diameter measured at 1.5 m above ground level in accordance to BS 5837:2012.
5	No of stems	Total number of stems of a tree.
6	Branch spread (m)	Branch spread, taken at the four cardinal points, to derive an accurate representation of the crown (plotted on the tree constraints plan).
7	First branch hgt (m)	Existing height above ground level of first branch measured at the union with the stem.
8	Canopy hgt (m)	Existing height of the average clearance of the canopy above ground level.
9	Life stage	The age of the tree determined by life stage category: Y- young, SM- semi-mature, EM- early mature, M- mature, OM- over mature, V- veteran.
10	Physiological condition	The physiological condition of a tree based on a tree health assessment: G- good, F- fair, P- poor, D- dead.
11	Structural condition	The structural condition of a tree based on structural integrity and signs of structural defects which may cause failure: G- good, F- fair, P- poor, D- dead.
12	Remaining contribution (yrs)	Estimated remaining contribution in years that the trees will have on the landscape in their current context. A tree will not necessarily remain safe for the entirety of the remaining years. The remaining contribution has been categorised as follows: <10, 10+, 20+ and 40+.
13	Category grading	The trees have been graded as per BS 5837: 2012 recommendations. The grading is formed by a letter and a number. The letter denotes the quality grading of the tree, the number represents one of three sub categories. Sub categories 1, 2 and 3 reflect arboricultural, landscape and cultural qualities respectively. The primary letter grading is as follows: 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. A- Trees of high quality with an estimated remaining life expectancy of at least 40 years. B- Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. 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.
14	RPA radius (m)	The root protection area radius calculated following BS 5837: 2012.
15	RPA (m ²)	The root protection area calculated following BS 5837: 2012.
16	Tree work recommendations/ comments	Work which is recommended for a tree to improve its longevity and safety in its present context. The recommendations are recorded primarily to assist with the categorisation of the trees. Please see Section 6, Tree Management for further limitations.

TITLE
Tree Survey Schedule Descriptions

DATE
29/02/2024

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Appendix 5 – Key to Scientific Names

SCIENTIFIC NAMES KEY

Common Name	Scientific Name
Fir sp.	<i>Abies sp.</i>
Field Maple	<i>Acer campestre</i>
Sycamore	<i>Acer pseudoplatanus</i>
Red Maple	<i>Acer rubrum</i>
Maple	<i>Acer sp.</i>
Box	<i>Buxus sempervirens</i>
Hornbeam	<i>Carpinus betulus</i>
Cedar	<i>Cedrus sp.</i>
Hawthorn	<i>Crataegus monogyna</i>
Copper Beech	<i>Fagus sylvatica Purpurea</i>
Ash	<i>Fraxinus excelsior</i>
Holly	<i>Ilex aquifolium</i>
Garden Privet	<i>Ligustrum ovalifolium</i>
Cherry Laurel	<i>Prunus laurocerasus</i>
Cherry	<i>Prunus sp.</i>
Pedunculate Oak	<i>Quercus robur</i>
Common Lime	<i>Tilia x europaea</i>
Leyland Cypress	<i>Cupressus x leylandii</i>

REFERENCE

Common and scientific names based on Stace (2010) New flora of the British Isles (3rd Edition), Cambridge University Press. For species not present in Stace, scientific and common names were taken from Johnson and More (2006). Tree Guide, Harper Collins Publishers Ltd.

TITLE
Scientific Names Key

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Appendix 6 – Drawings

Proposed Site Plan – Drawing Ref. DBC1782-DBC-ENB-00-DR-A-0650 P03

Tree Constraints Plan – Drawing ref. 7257,EC,AR/001/Rev0

Tree Preservation Order Plan – Drawing ref. 7257,EC,AR/002/Rev0

Tree Removal Plan – Drawing ref. 8280,EC,AR/001/Rev1

Tree Protection Plan – Drawing ref. 8280,EC,AR/002/Rev1



Secure Utilities Compound:

- Sub Station
- Bin & Gas Store
- Generator
- Fuel Tank

Refer to sepearte drawings.

Electrical Vehicle Spaces

- Refer to M&E proposals

Electrical Vehicle Space

- Refer to M&E proposals

New Pedestrian Crossing:

- Extract location to be confirmed following a site survey.
- New crossing to link with existing path to nearby Sports Centre.

External Works Key

120.450

Existing Level:
Taken from Topographical Survey

122.550

Proposed Level:
To be co-ordinated with Structural Engineer

120.300

Proposed Ground Floor FFL:
To be co-ordinated with Structural Engineer

Hardstanding Key

P 1

Pedestrian Asphalt: Refer to NBS Q22
Colour: Black

P 2

Pedestrian Modal X Paving Block Paving: Refer to NBS Q24
Colour: Mix of 'Silver Grey Granite', 'Light Grey Granite' and 'Oatmeal'

P 3

Blister Tactile Flag Paving: Refer to NBS Q25
Colour: Buff

V 1

Vehicular Asphalt: Refer to NBS Q22
Colour: Black

V 2

Vehicular Modal X Paving: Refer to NBS Q24
Colour: Grey

G 1

Gravel Permeable Drainage: Refer to NBS Q23
Colour: Green Basalt.

Kerbs, Channels & Edgings

K 1

Road Kerb: Refer to NBS Q10
Colour: Granite Aggregate

K 2

Drop Kerb: Refer to NBS Q10
Colour: Granite Aggregate

E 1

Edging to Paving: Refer to NBS Q10
Colour: Granite Aggregate

Aco

Aco Drainage Channel: Refer to NBS Q10
Colour: Black

Ancillary Items

RW 1

Retaining Wall: Refer to NBS F10 & S.Engs Details
Colour: Red Brick (to match Darwin Group Proposals)

Cyc

Cycle Stand: Refer to PLANT168-ZZ-XX-DR-L-001
Material: Galvanized Steel, Timber Cladding

Bo l

Bollard: Refer to PLANT168-ZZ-XX-DR-L-001
Material: Stainless Steel

Ben

Outdoor Bench: Refer to PLANT168-ZZ-XX-DR-L-001
Broxap LTD Litchard Bench

TS 1

Vehicular Paint Demarcation: Refer to NBS Q10
Colour: Yellow

TS 2

Pedestrian Paint Demarcation: Refer to NBS Q10
Colour: White

F 1

Fencing: Refer to NBS Q40
Material: Steel Security Fencing inc. Gates

Planting

Plant

Planting: Refer to Drawing:
PLANT168-ZZ-XX-DR-L-002

Hedge

Hedging: Refer to Drawing:
PLANT168-ZZ-XX-DR-L-002

Lawn

Lawn: Refer to Drawing:
PLANT168-ZZ-XX-DR-L-002

Proposed Tree

Proposed Tree: Refer to Drawing:
PLANT168-ZZ-XX-DR-L-002

All planting and landscaping to be reviewed by landscape architect

Status	Purpose For Issue
S2	For Information
Client	

Job	Hinckley Daycase & CDC Business Case Support
Title	Proposed Site Plan

Drawn By	Date
RJA	November 2023
Checked By	Date
NH	November 2023

Scale Size	1:200 @ A1
Drawing Number	Revision
DBC1782-DBC-ENB-00-DR-A-0650	P03

P03	21/02/2024	Amended to reflect feedback and tie in with Plantology proposals.	BCP
P02	22/01/2024	Updated to combine Darwin Group and Design Buro's External Work plan.	BCP
P01	xx.xx.2023	Tender Issue.	RJA
Rev	Date	Description	Author

Notes:

This drawing is to be read in conjunction with all other consultants engineers and specialist sub contractors drawings. All items are to be cross referenced throughout design, tender & construction.

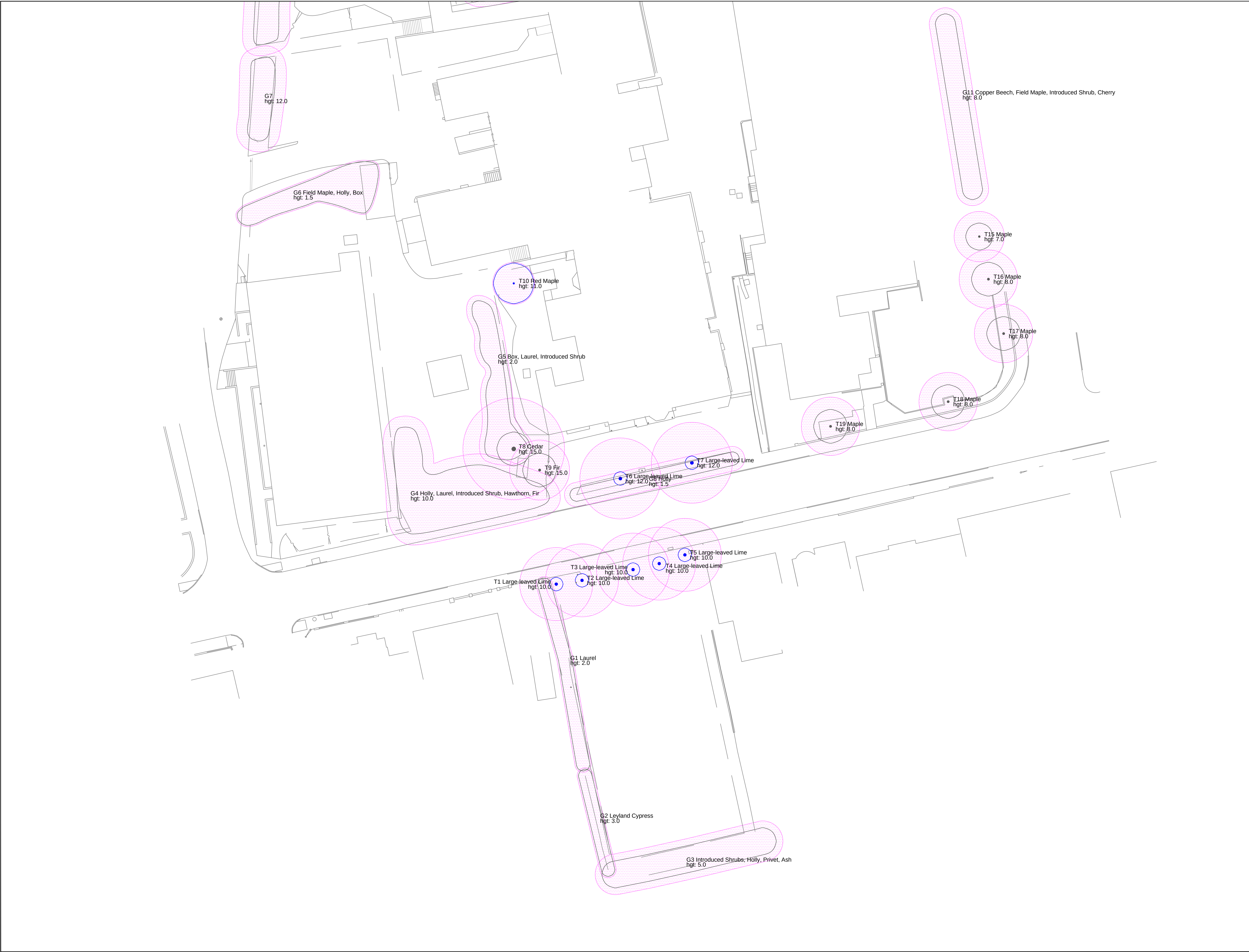
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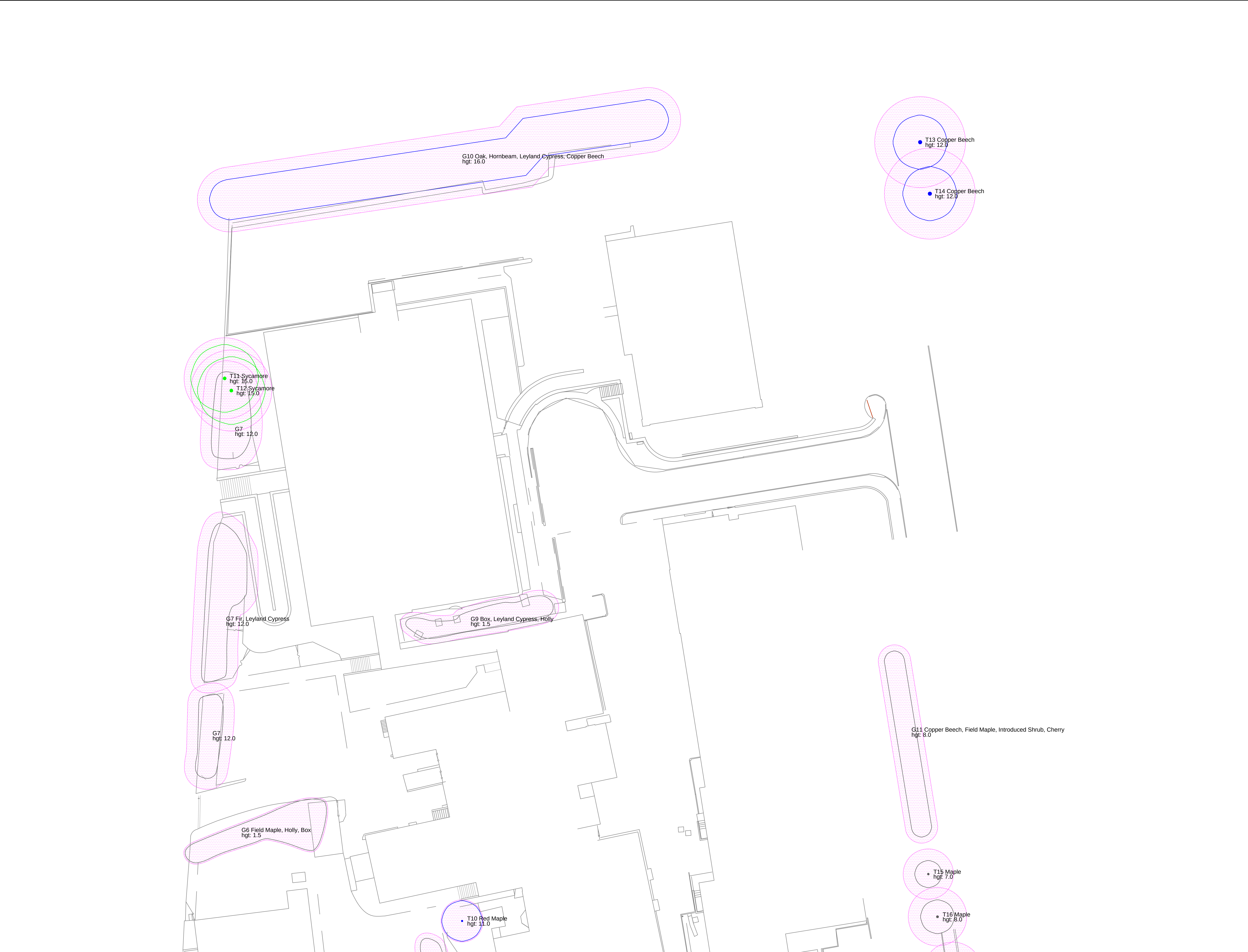
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All structure shown on these drawings is based on structural philosophy & is to be fully designed, detailed & dimensioned by 'Others'. Refer to Structural Engineers plans for current structural design.

All drawings are to be read in conjunction with project specific NBS (national building specification)



REV	DATE	DESCRIPTION
LEGEND		
	Category U	
	Category A	Trees of high quality
	Category B	Trees of moderate quality
	Category C	Trees of low quality
	RPA using formula in accordance with BS5837:2012	
# denotes estimated values due to lack of access		
Trees categorised in accordance with BS5837:2012 "Trees in relation to design, demolition and construction 1 Recommendations"		
The original of this drawing was produced in colour i a monochrome copy should not be relied upon		
LOCATIONS ARE APPROXIMATE.		
PROJECT Hinckley & District Hospital, Mount Road, Hinckley, LE10 1AG		
TITLE Tree Constraints Plan		
DRAWING NUMBER 7257,EC,AR/001-1/Rev0		
CLIENT NHS Property Services Ltd		
SCALE 1:250 @ A1 DATE 15/05/23		



REV	DATE	DESCRIPTION
LEGEND		
	Category U	
	Category A	Trees of high quality
	Category B	Trees of moderate quality
	Category C	Trees of low quality
	RPA using formula in accordance with BS5837:2012	
# denotes estimated values due to lack of access		
Trees categorised in accordance with BS5837:2012 "Trees in relation to design, demolition and construction 1 Recommendations"		
The original of this drawing was produced in colour if a monochrome copy should not be relied upon		
LOCATIONS ARE APPROXIMATE.		
PROJECT Hinckley & District Hospital, Mount Road, Hinckley, LE10 1AG		
TITLE Tree Constraints Plan		
DRAWING NUMBER 7257,EC,AR/001-2/Rev0		
CLIENT NHS Property Services Ltd		
SCALE	1:250 @ A1	DATE 15/05/23



LEGEND

- Indicative Site Boundary
- Conservation Area
- Tree Preservation Orders

SOURCE

<https://www.hinckley-bosworth.gov.uk/tpomap>

PROJECT

Hinckley & District Hospital, Mount Road, Hinckley, LE10 1AE

TITLE

Tree Preservation Orders

DRAWING NUMBER

7257,EC,AR/002/Rev0

SCALE

As marked

DRAWN BY

TA

DATE

26/04/2023

CHECKED BY

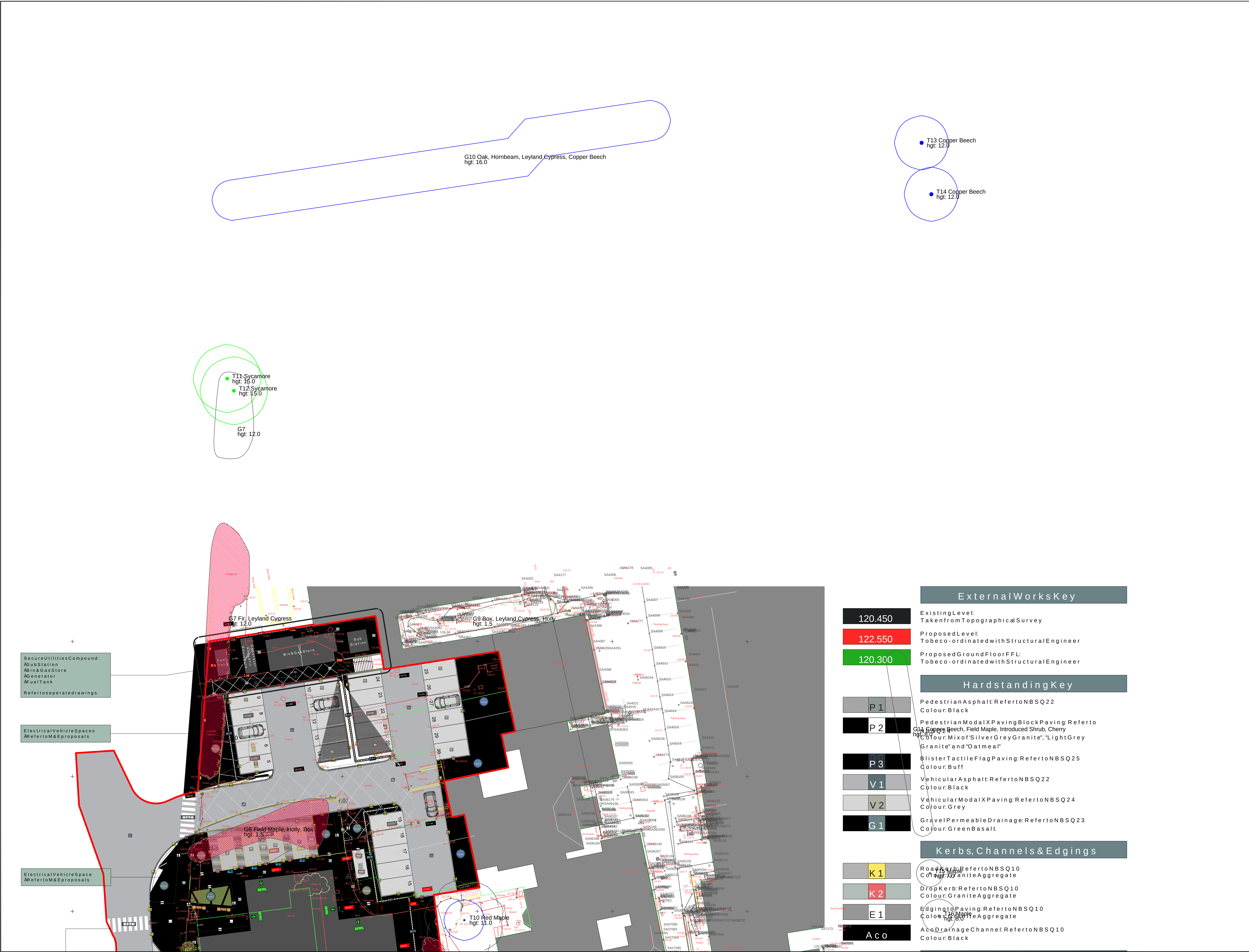
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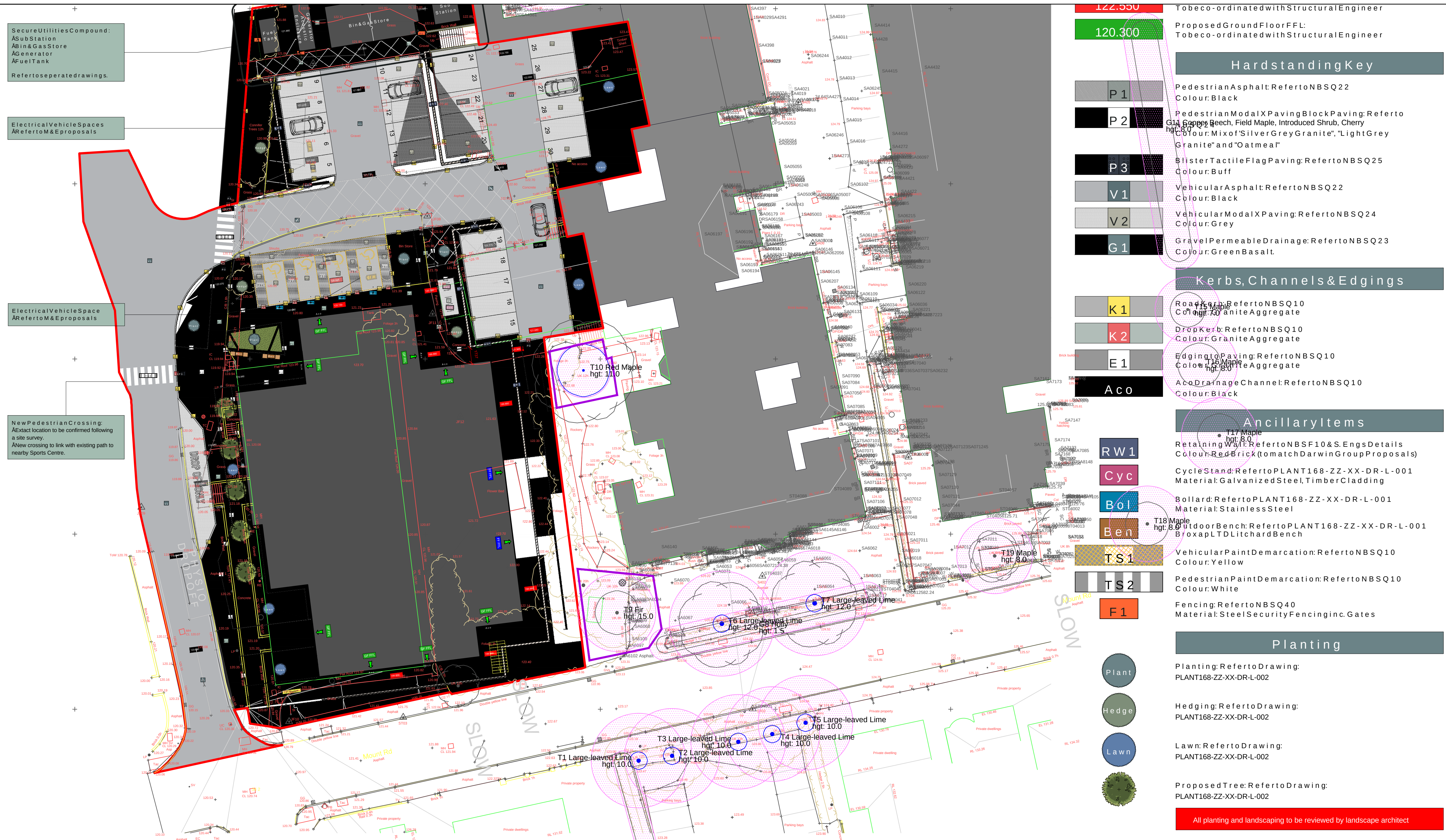


The floor plan shows a complex layout with multiple rooms and corridors. The legend on the right lists the following rooms:

- 1. Eingang (Entrance)
- 2. Foyer (Foyer)
- 3. Aula (Aula)
- 4. Bibliothek (Library)
- 5. Musikraum (Music Room)
- 6. Turnsaal (Gymnasium)
- 7. Cafeteria (Cafeteria)
- 8. Küche (Kitchen)
- 9. Speisesaal (Dining Hall)
- 10. Verwaltung (Administration)
- 11. Lehrerzimmer (Teachers' Room)
- 12. Schulleitung (School Administration)
- 13. Elternbeirat (Parents' Council)
- 14. Schülerrat (Students' Council)
- 15. Schülerversammlung (Students' Assembly)
- 16. Schülerratskammer (Students' Council Chamber)
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REV	DATE	DESCRIPTION
LEGEND		
	Category U	
	Category A	Trees of high quality
	Category B	Trees of moderate quality
	Category C	Trees of low quality
	Trees to be removed	
# denotes estimated values due to lack of access		
Trees categorised in accordance with BS5837:2012 "Trees in relation to design, demolition and construction - Recommendations"		
The original of this drawing was produced in colour. If a monochrome copy should not be relied upon.		
LOCATIONS ARE APPROXIMATE.		
PROJECT Hinckley & District Hospital, Mount Road, Hinckley, LE10 1AG		
TITLE Tree Removal Plan		
DRAWING NUMBER 8280,EC,AR/001-2/Rev1		
CLIENT Darwin Group		
SCALE 1:250 @ A1 DATE 27/02/24		



The Design Buro (Coventry) Ltd
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Leamington Spa,
Warwickshire,
CV32 4LN
01788 555350
www.thedesignburo.co.uk

Status Purpose For Issue	
S2	For Information
Client	

Job	Hinckley Daycase & CDC Business Case Support
Title	Proposed Site Plan

Drawn By	C1 Laurel	Date	November 2023
Checked By	NH	Date	November 2023

Scale	1:200 @ A1
Drawing Number	DBC1782-DBC-ENB-00-DR-A-0650
Revision	P03

P03 21/02/2024	Amended to reflect feedback and tie in with Plantology proposals.	BCP
P02 22/01/2024	Updated to combine Darwin Group and Design Buro's External Work plan.	BCP
P01 xx.xx.2023	Tender Issue.	RJA
Rev	Date	Description
		Author

Notes:
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122.350

120.300

P 1

P 2

P 3

V 1

V 2

G 1

K 1

K 2

E 1

A c o

RW 1

Cyc

Bo l

Ben

TS 1

TS 2

F 1

Plant

Hedge

Lawn

Tobeco-ordinatedwithStructuralEngineer

ProposedGroundFloorFFL:
Tobeco-ordinatedwithStructuralEngineer

HardstandingKey

PedestrianAsphalt:RefertoNBSQ22
Colour:Black

PedestrianModalXPavingBlockPaving:Referto
G16SageBeech,FieldMaple,IntroducedShrub,Cherry
Colour:MixofSilverGreyGranite",LightGrey
Graniteand"Oatmeal"

BlisterTactileFlagPaving:RefertoNBSQ25
Colour:Buff

VehicularAsphalt:RefertoNBSQ22
Colour:Black

VehicularModalXPaving:RefertoNBSQ24
Colour:Grey

GravelPermeableDrainage:RefertoNBSQ23
Colour:GreenBasalt.

Kerbs,Channels&Edgings

RoadKerb:RefertoNBSQ10
Colour:GraniteAggregate

DropKerb:RefertoNBSQ10
Colour:GraniteAggregate

EdgingtoPaving:RefertoNBSQ10
Colour:GraniteAggregate

AcDrainageChannel:RefertoNBSQ10
Colour:Black

AncillaryItems

T17Maple
hgt:8.0

RetainingWall:RefertoNBSF10&S.EngsDetails
Colour:RedBricktomatchDarwinGroupProposals

CycleStand:RefertoPLANT168-ZZ-XX-DR-L-001
Material:GalvanizedSteel,TimberCladding

Bollard:RefertoPLANT168-ZZ-XX-DR-L-001
Material:StainlessSteel

T18Maple
hgt:8.0

OutdoorBench:RefertoPLANT168-ZZ-XX-DR-L-001
BroxapLTDLitchardBench

VehicularPaintDemarcation:RefertoNBSQ10
Colour:Yellow

PedestrianPaintDemarcation:RefertoNBSQ10
Colour:White

Fencing:RefertoNBSQ40
Material:SteelSecurityFencinginc.Gates

Planting

Planting:RefertoDrawing:
PLANT168-ZZ-XX-DR-L-002

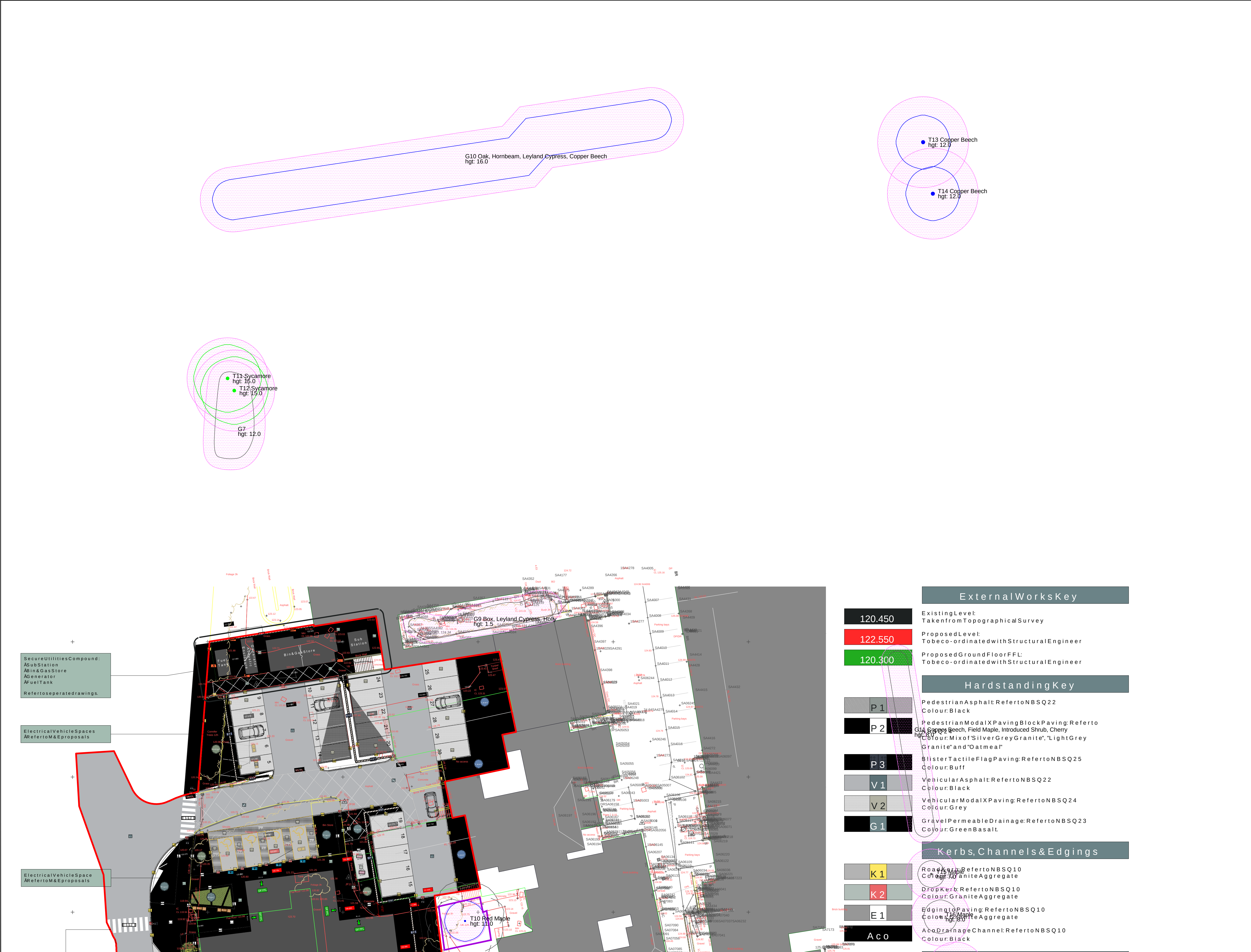
Hedging:RefertoDrawing:
PLANT168-ZZ-XX-DR-L-002

Lawn:RefertoDrawing:
PLANT168-ZZ-XX-DR-L-002

ProposedTree:RefertoDrawing:
PLANT168-ZZ-XX-DR-L-002

All planting and landscaping to be reviewed by landscape architect

REV	DATE	DESCRIPTION
LEGEND		
	Category U	
	Category A	Trees of high quality
	Category B	Trees of moderate quality
	Category C	Trees of low quality
	RPA using formula in accordance with BS5837:2012	
	Location of Protective Fencing	
# denotes estimated values due to lack of access		
Trees categorised in accordance with BS5837:2012 "Trees in relation to design, demolition and construction" Recommendations"		
The original of this drawing was produced in colour if a monochrome copy should not be relied upon		
LOCATIONS ARE APPROXIMATE.		
PROJECT Hinckley & District Hospital, Mount Road, Hinckley, LE10 1AG		
TITLE Tree Protection Plan		
DRAWING NUMBER 8280,EC,AR/002-1/Rev1		
CLIENT Darwin Group		
SCALE 1:250 @ A1 DATE 04/03/24		



REV

DATE

DESCRIPTION

LEGEND

Category U

Category A
Trees of high quality

Category B
Trees of moderate quality

Category C
Trees of low quality

RPA using formula in accordance with BS5837:2012

Location of Protective Fencing

denotes estimated values due to lack of access

Trees categorised in accordance with BS5837:2012 "Trees in relation to design, demolition and construction" Recommendations"

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LOCATIONS ARE APPROXIMATE

PROJECT
Hinckley & District Hospital,
Mount Road, Hinckley, LE10 1AG

TITLE
Tree Protection Plan

DRAWING NUMBER
8280,EC,AR/002-2/Rev1

CLIENT
Darwin Group

SCALE 1:250 @ A1 DATE 04/03/24

GEO
GEOSPHERE ENVIRONMENTAL

Appendix 7 – Arboricultural Method Statement

ARBORICULTURAL METHOD STATEMENT

FOR A PROPOSED DEVELOPMENT AT HINCKLEY & DISTRICT HOSPITAL, MOUNT ROAD, HINCKLEY LE10 1AE

1. INTRODUCTION

1.1 Aim

The aim of this Arboricultural Method Statement is to outline working practices to ensure that planning conditions are fulfilled during the construction works at the site located at Hinckley & District Hospital, Mount Road, Hinckley LE10 1AE.

1.2 Root Protection Area

The root protection area refers to an area of ground around a tree which needs to be protected to comply with planning conditions. It is calculated as the area a tree will need to be sufficiently rooted to the ground in order to survive and remain safe. If any damage is caused to the roots within this area, a tree will suffer health consequences and may become a hazard.

The root protection area is plotted on the Tree Constraints Plan, Drawing ref. 7257,EC,AR/001/Rev0. The Tree Protection Plan, Drawing ref. 8280,EC,AR/002/Rev0 details the type of protection that is suitable, for example protective barriers to limit access to an area, or ground protection to protect the roots under the ground.

1.3 Construction Exclusion Zones

Barriers will be erected to protect tree canopies and root protection areas. These barriers will remain in place until construction works are complete. Once the barriers are erected, they delineate the boundary between the construction zone and the construction exclusion zone. No construction activities will be undertaken within the construction exclusion zones, unless written authorisation is granted by the local planning authority.

The Project Arboriculturist can authorise the movement of the construction exclusion zone at stages of development, where specified on the Tree Protection Plan, Drawing ref. 8280,EC,AR/002/Rev0, for example to allow specified work to commence within the root protection areas, under specific circumstances as outlined below in Section 3.2 – Works within the root protection area.

1.4 Schedule Of Arboricultural Supervision

Table 1 below details the development phases and the required arboricultural supervisory input:

Table 1 - Development Phases and Arboricultural Input	
Phase of Development	Arboricultural Input
Phase 1 - Preconstruction	• Planning. • Tree pruning. • Install tree protection fencing. • Install ground protection. • Inspect site to ensure tree protection is installed correctly.
Phase 2 - Construction Process	• Monthly monitoring to ensure protective barriers are in place, and appropriately maintained. • Supervision of any works within root protection areas. • Recording evidence for submission to the local authority.
Phase 3 - Post Construction	• Post development inspection. • Removal of protective fencing. • Remedial tree pruning or other works. • Signing off and closing report.

2. PHASE 1- PRECONSTRUCTION

2.1 Appoint a Project Arboriculturist

A Project Arboriculturist will be appointed to oversee all the arboricultural aspects of the development project outlined in this method statement. It is recommended that the arboriculturist takes an active role in the development from the beginning of the project to advise in the planning stage, and supervise site works throughout development. The arboriculturist will be appropriately qualified and experienced.

2.2 Tree Pruning

If any unforeseen tree work becomes necessary during the construction phase, written consent must be sought from the Arboricultural consultant and the LPA before any further pruning works can commence.

Any trees which are removed in the development process will have a replacement tree replanted to mitigate against its loss. Consideration should be taken to ensure that a suitable tree species is selected for the space available. Species and varieties local to the area of development should be considered first when selecting suitable species.

All tree works undertaken will comply with BS 3998:2010 Tree work- Recommendations.

2.3 Potential Damage to Stems and Limbs

The trees will be pruned prior to the beginning of construction to allow adequate clearance for construction work to commence. Beyond this, care must be taken to ensure that all activities onsite are planned so that no plant or materials come into contact with the remaining trees.

In the event of damage to trees, the project arboriculturist must be contacted, in order that they may assess any hazards that may have arisen from the damage.

2.4 Protective Barriers

Temporary protective barriers will be erected as detailed within the Tree Protection Plan, Drawing ref. 8280,EC,AR/002/Rev0. The designs for barriers are specified within BS 5837: 2012. The barriers must be fit for the purpose of excluding construction activity and be appropriate to the degree and proximity of the work to the protected tree.

Where construction activities are limited, and there is a low risk of incursions into the protected area it is acceptable to use 2m high weldmesh panels, with rubber or concrete supports and back stay supports as shown in Figure 1 overleaf.

In cases where construction activities provide a higher risk than in low-risk situations, more sturdy barriers will be required. BS 5837: 2012 stipulates that in such situations a scaffolding frame should be driven at least 0.6m into the ground with mesh panels attached, as shown in Figure 2 overleaf. This type of barrier should be used around T10 during the demolition phase to ensure that the tree is protected.

Once the exclusion zone has been protected by barriers and / or ground protection, construction can commence. All weather notices will be fixed to the barriers with the words: "Construction exclusion zone – Keep out" or similar.

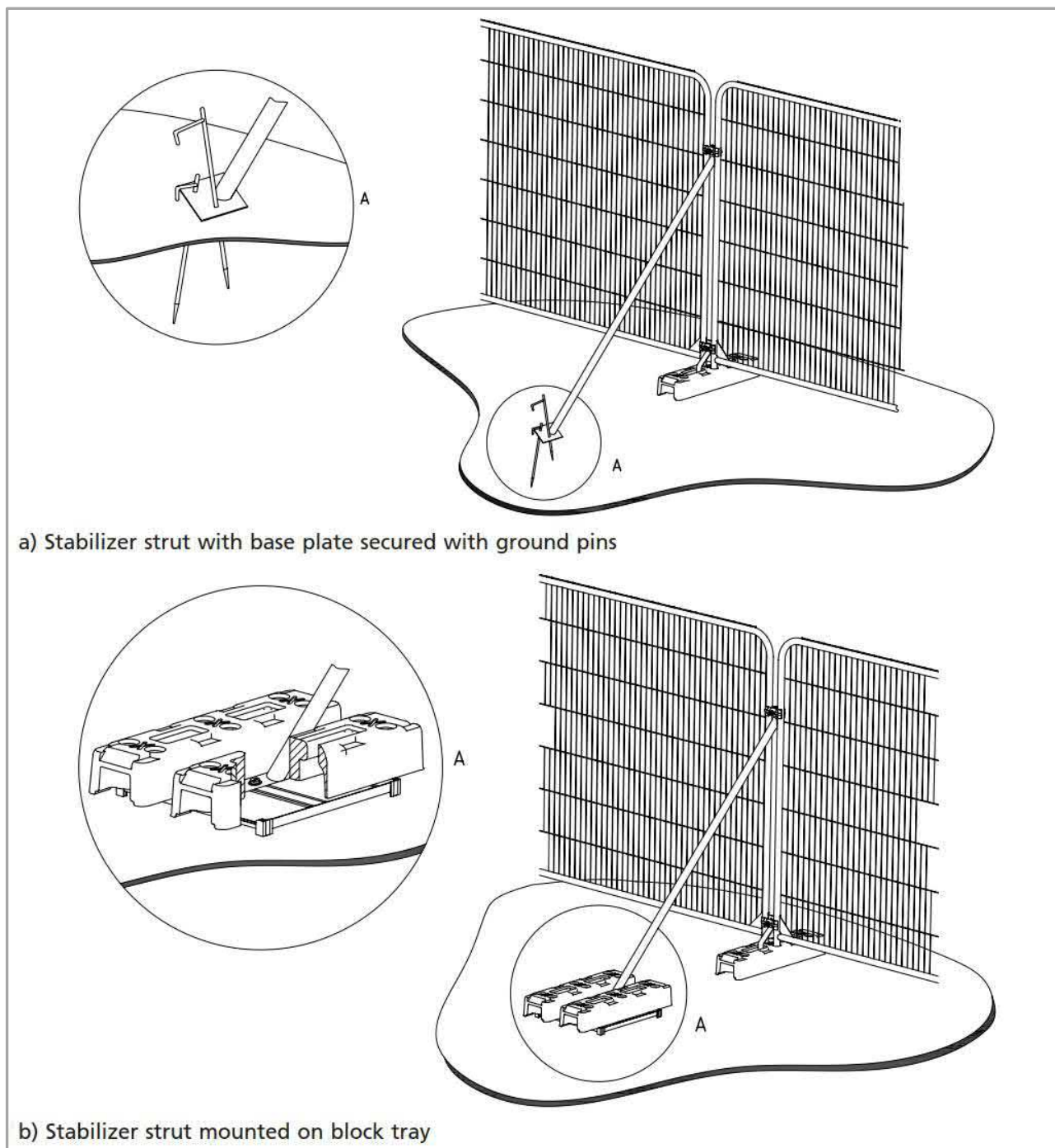


Figure 1 – Low risk fencing solution from BS 5837: 2012

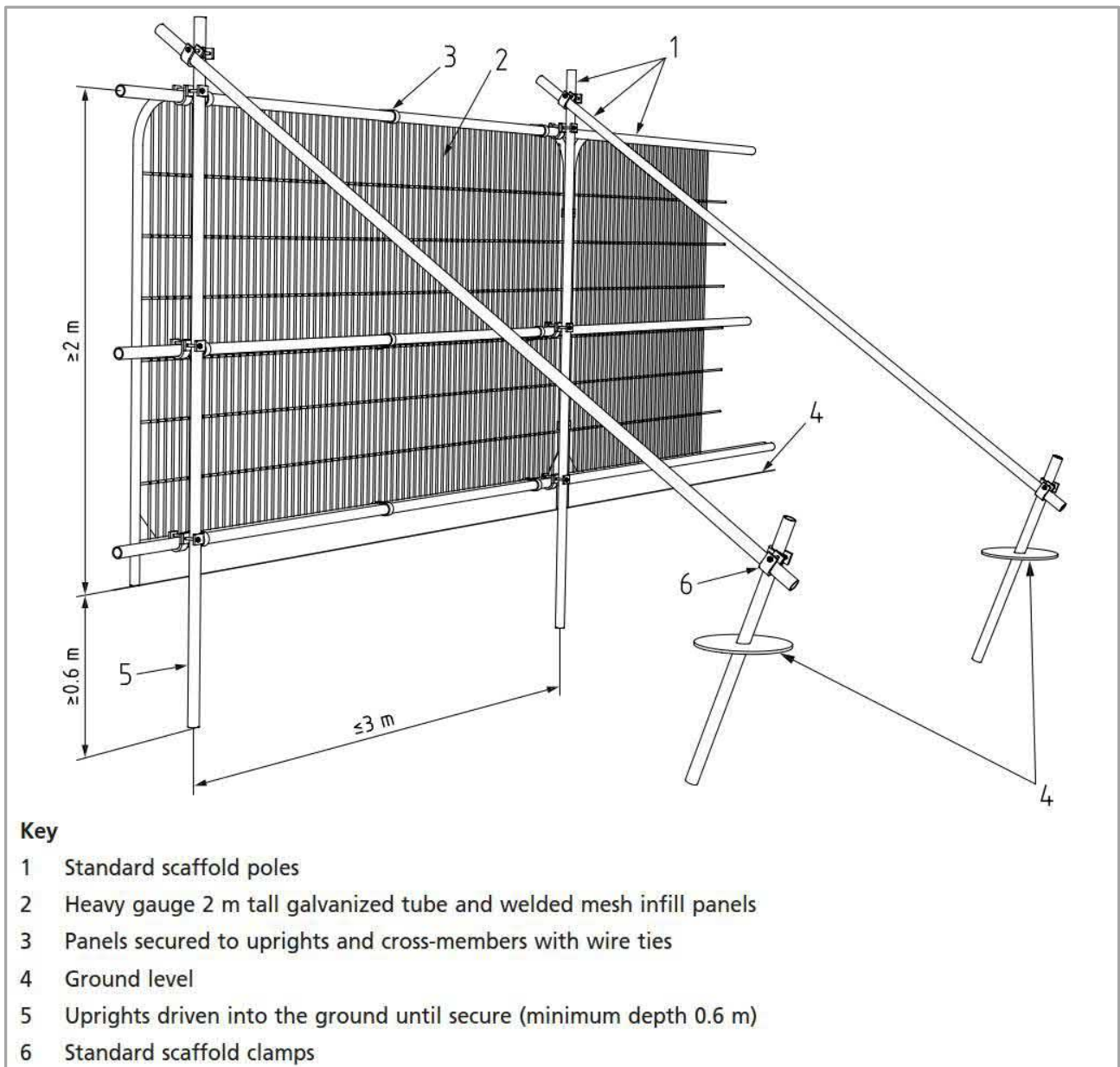


Figure 2 – Standard fencing solution from BS 5837:2012

2.5 Ground Protection

Where access through the root protection area or construction working space is required within a root protection area, the protective barrier will be set back and adequate protection for the roots will be provided. These areas are detailed in the Tree Protection Plan, Drawing ref. 8280,EC,AR/002/Rev0 and described in more detail below.

The ground protection must be suitable for the type of traffic, which is expected to enter the root protection area, without causing any compaction of the underlying soil.

Areas of hard surfacing should be retained during construction works to function as temporary ground protection as far as practicable. New surfaces which are laid as part of the development such as driveways and roads can be laid to form ground protection within the root protection areas, as long as they are constructed following the guidance in Section 3.2.4 below.

Where retention of old surfaces or creation of new surfaces is not required, any areas of unmade ground which are exposed must be protected by additional precautions.

For pedestrians it is acceptable to lay woodchip over a geotextile membrane with scaffolding boards placed on top, or a plastic / rubber Grass Protection Mat System (such as EnduraMat®) shown in Figure 3 below:



Figure 3 - EnduraMat protection system

Vehicles, and plant will be excluded from the root protection areas for the duration of the works.

For light traffic of less than 2 t, it is acceptable to create a temporary ground barrier by laying a non-compressible material over a geotextile membrane, with interlocking ground protection boards placed on top.

For traffic of over 2 t it is required to use a system designed to engineering specifications capable of handling the expected loads, without causing any compaction to the soil beneath.

A cellular confinement system (such as Cellweb®) will be installed in the areas where an alternative engineering solution is not required, using the following methodology:

- Rocks and other debris will be removed from the area.
- Excavations will be kept to a minimum. When excavation cannot be avoided, works will be supervised by the Project Arboriculturist. Excavations must be made following the methods detailed above.

- Major hollows will be filled with sharp sand.
- A permeable membrane will be laid on the ground. A cellular confinement system (such as Cellweb®) will be laid on the membrane and pegged into position.
- Aggregate will be spread into the cellular confinement system (Cellweb®). The aggregate will be spread ahead of any machinery, so machinery is supported by sub-base rather than the cellular confinement system (Cellweb®) or the ground.



Figure 4 - Example of temporary Cellweb® construction solution

2.6 Pre-development Inspection

The pre-development pruning works, protective fencing and ground protection will be signed off by the Project Arboriculturist before proceeding to the construction phase.

3. PHASE 2- CONSTRUCTION PROCESS

3.1 Monitoring

The site will be monitored on a monthly basis by the Project Arboriculturist to gather evidence that the construction works follow the recommendations of the Arboricultural Method Statement. Accurate records must be kept so a closing report can be submitted after development has been completed.

3.2 Works within Root Protection Areas

It is not anticipated that there will be works within the root protection areas of any retained trees onsite. All works within the root protection areas will only be undertaken in areas marked on the Tree Protection Plan, Drawing ref. 8280,EC,AR/002/Rev0, and will require onsite arboricultural supervision. Adequate Ground Protection must be in place during any works.

3.2.1 Demolition within the Root Protection Area

Although there is no demolition anticipated within the root protection areas of any of the trees to be retained onsite, there is demolition proposed immediately adjacent to the root protection area of T10 and as such this methodology must be followed.

Barriers and ground protection will be placed around the parts of trees and soil which face a risk of damage from debris. As outlined in the Tree Protection Plan, Drawing ref. 8280,EC,AR/002/Rev0.

The main body of any excavator or plant used will sit outside the root protection area, using the arm or boom to reach into the root protection area to remove the masonry. If this is not possible, plant will sit on existing hardstanding, or appropriate ground protection.

Above ground masonry will be removed first, leaving the hard surfacing to remain in place to protect soils from demolition works for as long as possible.

Masonry will be pulled inwards towards the footprint of the building. If no hard surfacing is available to pull the masonry onto, additional ground protection measures will be implemented.

Any underground structures will be brought to the attention of the project arboriculturist.

When finally removing the hard surface, machinery will work backwards over the area so will not be moving over the exposed soil. Where new hard surfacing is to be laid, sub-base will remain in situ where appropriate. Where removal of subbase is required, see Section 3.2.2 for Excavation in the root protection area.

3.2.2 Excavation in the Root Protection Area

No excavations are anticipated within root protection areas of retained trees, however if this becomes unavoidable then permission must be sought with the LPA and the following methodology used.

Where excavations are required within the root protection areas, the excavation will be made manually with hand tools.

If any major roots are discovered, the roots will have to remain in place and the excavation will have to continue around the roots. Any roots encountered with a diameter of less than 25mm, may be pruned with a clean cut by a sharp tool. The project Arboriculturist will be consulted before severing any roots or clumps larger than the specified 25mm. Figure 7 below, shows examples of retained roots for a service trench.

Any roots exposed during the excavations will be protected from desiccation by a suitable cover. Prior to back-filling, the protective cover will be removed, and a suitable topsoil will be used to surround any exposed roots.

Back-fill of removed soil will be conducted manually. The soil will be replaced carefully, so as not to damage the roots and to ensure the soil is not compacted. The soil will be backfilled, so the original ground level is maintained.



Figure 5 – Retained roots in service trench.

3.2.3 Ground Level

The ground level within the root protection area of trees will be maintained at the pre-development levels, throughout the works. Any changes of ground level near root protection areas, will consider the impacts of irrigation and drainage on protected tree roots.

3.2.4 Surface Design

Any surfaces which are to be laid within a root protection area required special design specifications and construction techniques. Surfaces will not be excavated into the soil other than removal of the surface vegetation.

Impermeable surfacing will not cover more than 20% of the root protection area. Where more than 20% of the root protection area needs to have a surface covering, permeable paving which allows water and oxygen exchange with the soil beneath will be used.

The edging of the surfacing and foundations will require special design. Any surfacing will be designed to distribute load to avoid soil compaction beneath. It would be prudent to lay surface on a flexible base to facilitate movement of the soils due to activity of the roots.

Space will be left between the tree stem and the surface in anticipation for growth and space for root flare.

3.3 Works Outside the Construction Exclusion Zones

Other works onsite which may damage trees will have to be controlled so the damage to trees is limited. For example, excessive dust generated through demolition and construction works will be removed from trees by spraying water over the trees.

4. PHASE 3- POST CONSTRUCTION

4.1 Post Construction Inspection

When the construction process is complete, the site will be inspected by the project arboriculturist or Local Authority Tree Officer. The inspection will be used to gather evidence on the condition of trees post construction and to advise any remedial action that may need to be taken. The evidence gathered during the inspection will be used for a closing report which provides evidence that the work was conducted following the recommendations of this Arboricultural Method Statement.

4.2 Removal of Tree Protection

Following the post construction inspection, the Project Arboriculturist can authorise the removal of the protective fencing and ground protection. Any proposed landscaping operations by heavy machinery will be conducted before the protective fencing is removed.

4.3 Remedial Tree Works

During the post construction inspection, the condition of the trees will be assessed. Any damage caused during construction will be noted, and remedial action will be recommended. Any tree works undertaken will comply with BS 3998:2010 Trees work - Recommendations.

4.4 Planting of trees lost during development

Trees will be planted onsite to mitigate any trees lost during development. The details of the planting scheme will be included in the landscape plans. The post construction inspection will include checking the condition of newly planted trees.

4.5 Closing Report

Once the construction works have been completed, a closing report will be submitted detailing evidence that works have been conducted correctly.



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