

Arboricultural Impact Assessment (AIA)

Site: 93232 –Knowsley Hall, Knowlsey Lane, Prescot, L34 7HE

Client: Cornerstone

Date: 29/04/2024

Revision: 1.0



Document Control Sheet

Title	Arboricultural Impact Assessment			
Client	Cornerstone			
Document Number	J240325-GGC-XX-XX-T-ARB-0600			
Author	Lee Garner BSc Arb, MArborA Senior Arboricultural Consultant, GC Professional Services Ground Control Limited, Kingfisher House, Radford Way, Billericay, Essex, CM12 0EQ T: 07542 861676 E: Lee.Garner@ground-control.co.uk			
Reviewed	Kevin Slezacek DipArb, MArborA, MCIHort Head of Arboriculture & Ecology, GC Professional Services			
Issue Status	Issue	Date	Status	Revision
	1	29/04/2024		1.0
Disclaimer	<i>The recommendations contained in this Report represent Ground Control's professional opinions, in exercising the duty of care required of an experienced Arboricultural Consultant. The information contained has been prepared and given in accordance with the author's professional institution's Code of Professional Conduct and the opinions expressed within are true professional opinions.</i> <i>The report has been prepared by Ground Control for the sole and exclusive use of the Client and for the specific purpose for which Ground Control were commissioned.</i> <i>Ground Control accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.</i> <i>Use of the Report by any other person is unauthorised and such use is at the sole risk of the user.</i> <i>The tree survey and this report has been undertaken in accordance with BS 5837:2012 Trees in relation to design, demolition, and construction - Recommendations, which are intended to assist decision making with regard to the existing and proposed trees in the context of design, demolition, and construction. This report will also assess the potential impact that the scheme may have on the surveyed trees.</i> <i>This survey is not, nor should be taken to be, a full or thorough assessment of the health and safety of trees on or adjacent to the site, and therefore it is recommended that detailed tree inspections are undertaken on a regular basis with the express purpose of complying with the landowner's duty of care and satisfying health and safety requirements.</i>			

Table of Contents

1	TECHNICAL SUMMARY	4
2	INSTRUCTIONS	5
	SUPPORTING INFORMATION	5
3	SITE ASSESSMENT.....	6
	SITE VISIT.....	6
	EXISTING SITE AND SURROUNDINGS	6
	TREE SURVEY DATA SUMMARY	8
4	TECHNICAL DATA	10
	SOILS AND GEOLOGY	10
	NATIONAL PLANNING POLICY & GUIDANCE	10
5	ARBORICULTURAL APPRAISAL	12
	IDENTIFIED IMPACTS.....	12
	TREE REMOVAL(S) AND PRUNING WORK(S).....	12
	TREE PROTECTION	13
6	CONCLUSIONS AND RECOMMENDATIONS	16
	APPENDIX 1: TREE SURVEY SCHEDULE	17
	APPENDIX 2: DRAWINGS	20
	APPENDIX 3: PHOTOS.....	23

1 TECHNICAL SUMMARY

- 1.1 Ground Control Ltd were instructed by Cornerstone to undertake a survey of trees and significant vegetation, within and directly adjoining land at Knowsley Hall, Knowlsey Lane, Prescott, L34 7HE; hereafter referred to as 'the site'.
- 1.2 The survey and subsequent assessment have been carried out in accordance with BS 5837: 2012 Trees in Relation to Design, Demolition and Construction.
- 1.3 The purpose of this report is to assess the likely direct and indirect impact of development proposals and to provide details of suitable mitigation, and the protection measures to be implemented to ensure trees are successfully retained wherever feasible.
- 1.4 Our assessment found the proposal to be acceptable subject to the removal of a number of trees (T1, T2, T3, T4, T15, T17 & T18) and further pruning works to a further 3 trees (T5, T10 & T16), which will help to provide the clearances required. Given the location of the trees and growing part of a larger group, the impact of tree removals will not detract from the benefits and amenity that the group as a whole provides.

2 INSTRUCTIONS

- 2.1 Ground Control Limited were instructed to carry out a survey of trees and significant vegetation within and directly adjoining the site in relation to the installation of communication cell tower and associated substation and infrastructure.
- 2.2 The assessment was carried out in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'; details of all surveyed vegetation can be found within the Tree Survey Schedule at Appendix 1. All trees were visually inspected from ground level only and no diagnostic equipment or detailed decay investigation was carried out.

Supporting information

- 2.3 The report has been prepared with reference to the following documentation bundle referenced **CTIL12597827_TEF93232_VF13023_DD_Rev_A**;

		CORNERSTONE — BEACON 3						Pack Issues:	Options:
		Cell Name: THE NURSERY						A	—
		CORNERSTONE	TEF	VF	Site Address			KNOWSLEY HALL KNOWSLEY LANE PRESCOT L34 7HE	
125978_27 E300812		93232	13023						
Drawing Title	Drawing Sheet No.	Date	Date	Date	Date	Date	Date	Date	
		16.10.23							
		1st Issue	Revision	Revision	Revision	Revision	Revision	Revision	
Site Location Maps	100	A							
Existing Site Plan	200	A							
Proposed Site Plan	201	A							
Existing Site Elevation	300	A							
Proposed Site Elevation	301	A							
Existing Antenna Plan	400	A							
Existing Equipment Layout	401	A							
Proposed TEF Antenna Plan	402	A							
Proposed TEF Equipment Layout	403	A							
Existing R.F. Schedule	501	A							
TEF R.F. Schematic	502	A							
TEF R.F. Schedule	503	A							
Equipment Schedule	504	A							
Construction Notes	600	A							
ERS Mounting Details	601	A							
Cable Ladder & Gantry Pole Detail	602	A							
GPS Mounting Details	603	A							
Foundation Detail Sheet 1 of 2	604	A							
Foundation Detail Sheet 2 of 2	605	A							
Cabinet Foundation Detail	606	A							
Standoff Bracket Detail	607	A							
Earthing & Lightning Protection Layout	608	A							
AC Electrical Schematic	650	A							
DC Electrical Schematic	651	A							
Signage Layout	700	A							

3 SITE ASSESSMENT

Site visit

- 3.1 The site was visited by Lee Garner BSc Arb, MArborA on 10/04/2024 to identify, measure and locate trees and significant vegetation within and directly adjoining the site in accordance with BS5837:2012 Trees in Relation to Design, Demolition and Construction.
- 3.2 Trees have been plotted as per the client provided site plan as referenced within section 2.3. Where trees were not plotted on the topographical survey plan these have been plotted by a combination of on-site measurements from known fixed points and aerial photography using a digital measuring device.
- 3.3 Where trees could not be accessed, estimated dimensions are marked with # on the tree survey schedule.

Existing Site and surroundings

- 3.4 The site is situated within grounds of the Knowsley Hall Estate. The trees within the site form part of larger deciduous group/woodland.
- 3.5 The public highway (M57 & Knowlsey Lane) runs adjacent to the site (South to West), with the remaining areas (North to East) within Knowsley Hall Estate where an access road and residential farm buildings are located.



Figure 1: Showing approximate site boundary and site in relation to its surroundings.

Tree survey data summary

- 3.6 The location, root protection area, crown spread and BS5837 categorisations are shown on the appended tree survey drawing at Appendix 2. Dimensions, comments, and information gathered for each survey entry is provided in the tree schedule at Appendix 1.
- 3.7 Figure 2 below shows the age distribution of trees across the site.

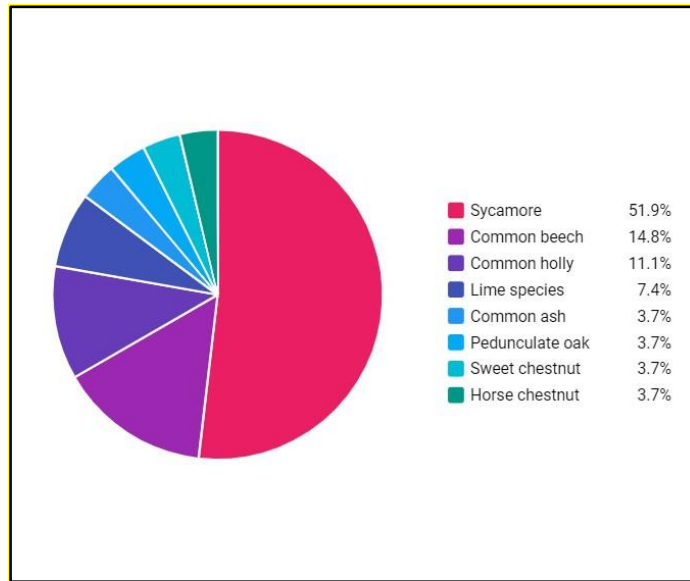


Figure 2: Age distribution across the site

3.8 Table 1 below, provides a quick reference overview of the quality of the tree and vegetation population across the site. In general trees were of low to medium quality and value due to their physiological condition and/or shape and form.

Trees	Groups or woodlands	Hedgerows	BS5837:2012 Cat	Quality & Value
0	0	0	A	High. min 40+ years life expectancy
5	2	0	B	Moderate. Min 20 years life expectancy
21	1	0	C	Low. Min 10 years life expectancy or trees below 150mm stem diameter
1	0	0	U	Those in such a condition that any existing value would be lost within 10 years, and which should, in the current context be removed for reasons of sound Arboricultural management.
27	2	0	Totals	

Table 1: BS5837:2012 Tree categorisation assessment.

4 TECHNICAL DATA

Soils and Geology

- 4.1 The British Geological Survey (online) 'Geology of Britain Viewer' provides an indication as to the likely soil type and geology in the area but is provided only as a guideline to assist with assessment of site conditions in relation to rooting habits of trees.
- 4.2 Soil conditions have the potential to impact rooting habits of trees, their likely growth potential, suitable species to be planted and the depth and type of foundation to be specified in close proximity to trees, and therefore a detailed soil assessment should be carried out prior to completion of detailed design.
- 4.3 Bedrock geology is described as being Chester Formation - Sandstone. Superficial deposits are noted to be Till, Devensian - Diamicton.

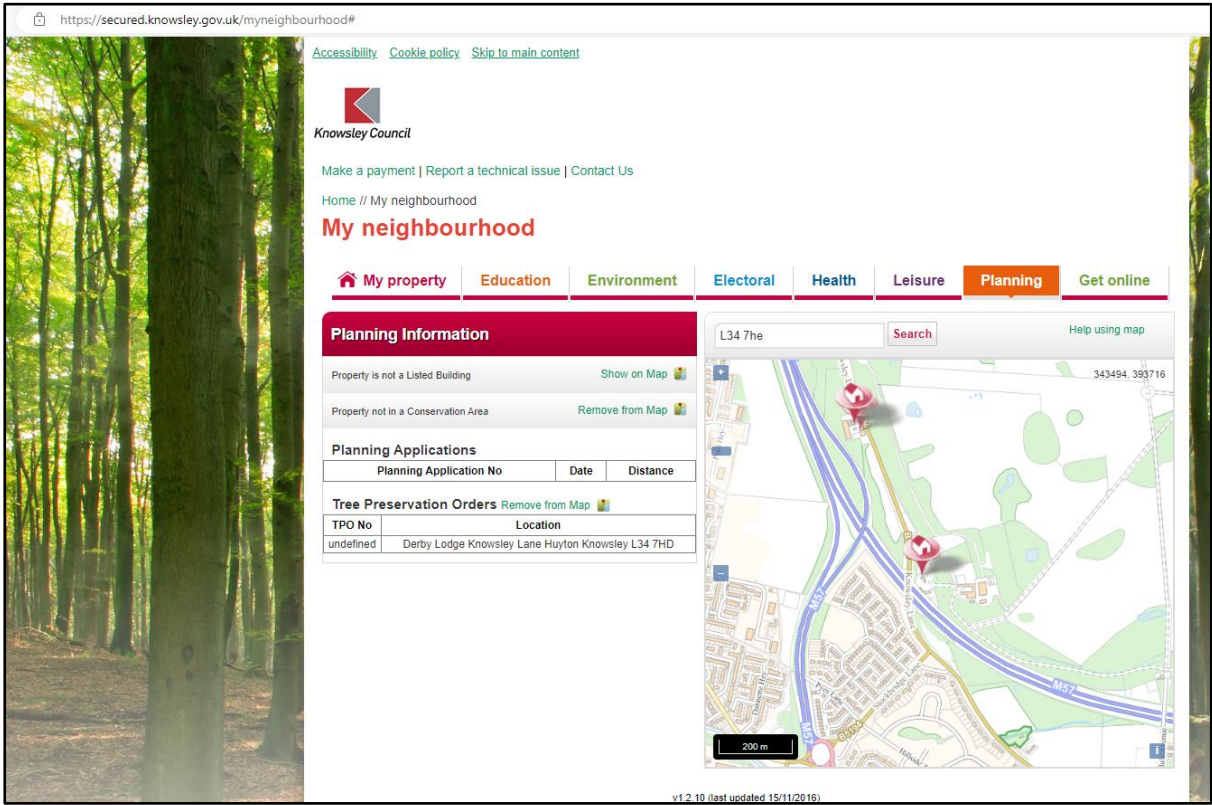
National Planning Policy & Guidance

- 4.4 The National Planning Policy Framework sets out the government's planning policies for England and how these should be applied. The document replaces all previous documents and took effect in July 2018 with additional updates in 2019, July 2021, September and December 2023.
- 4.5 The NPPF supports and promotes sustainable development, which it defines as having three dimensions; social, economic, and environmental. It goes on to state that these three dimensions are mutually dependent and to achieve sustainable development they must be sought simultaneously.
- 4.6 Specifically, the NPPF states that "development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland or ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists".

Statutory Protection

4.7

According to Knowsley Council’s website, the site is not located within a Conservation Area or subject to any Tree Preservation Orders. The attached screenshot was taken on the 29th April 2024.



4.8

In reviewing additional open-source data e.g. DEFRA magic map and Ancient Tree Forum websites, it revealed that there were no further designations of concern e.g. SSSI, ancient woodland or Veteran trees.

5 ARBORICULTURAL APPRAISAL

Identified Impacts

5.1 The impact of the proposed installation of communication cell tower and associated substation and infrastructure have been assessed in relation to surrounding tree cover. In respect of the proposal the following have been identified as being of most significance;

- Tree removal(s) and Pruning Work(s)
- Tree protection requirements
- Installation of cell tower and associated substation and infrastructure
- Replacement planting

Tree removal(s) and pruning work(s)

5.2 In order to implement the proposal and allow clearance for the required occupational zone (A) there are a number of trees identified for removal and pruning works which can be seen in the following table:

Zone A

Tree/Group Number	Specification	Impact	Pruning Frequency
T1, T2, T3, T4, T15, T17 & T18	Fell to ground level and treat with approved herbicide	No suitable/sustainable pruning options due to proximity and growth potential of tree (s). Some trees also noted to hold defect or poor health.	N/A
T5 (Beech)	Selectively prune secondary branches by undertaking a height reduction from 18m down to 15m, whilst ensuring pruning cuts (number and	Works can be achieved in - line with current best practises (BS3998:2010). Specification provides sustainable clearance	3- 5 years

	size/diameter) are kept to a minimum.		
T10 (Beech)	To clear Zone A - Selectively prune southern lateral branches that extend towards proposed Cell tower by tip-reducing southern canopy from 8m back to 5m and balance as required.	Works can be achieved in - line with current best practises (BS3998:2010). Specification provides sustainable clearance.	3- 5 years
T16 (Oak)	To clear Zone A - Selectively prune Eastern lateral branches that extend towards proposed Cell tower by tip-reducing eastern canopy from 11m back to 6m and balance as required.	Works can be achieved in - line with current best practises (BS3998:2010). Specification provides sustainable clearance.	3- 5 years

- 5.3 Within the group of trees requiring pruning works, T5 has been identified for height reduction due to the presence of a poor union (included union). Undertaking the reduction works will alleviate pressure to the union, but also provides the required clearance for Zone A.
- 5.4 Within the works identified for removal, there a number of trees that hold defect or disease, further data found within tree schedules (Appendix 1).
- 5.5 All crown reduction works specified are recommended to be undertaken during dormant season, where possible, in order to reduce pruning stress.
- 5.6 It is recommended that tree works are undertaken outside of the bird nesting season (March to September inclusive). Where works are undertaken during this period appropriate checks should be made prior to commencement by a suitably trained and competent individual.

Tree Protection

- 5.7 In order to ensure the protection of retained trees a combination of protective fencing and ground protection is recommended.

- 5.8 Drawing J240325-GGC-ZZ-ZZ-D-ARB-0101 - TRPP at Appendix 2 illustrates the development proposals in relation to retained trees and the position and extent of tree protection measures to be implemented as part of the scheme.
- 5.9 Tree protection will therefore consist of robust fencing secured to a solid framework as recommended within BS5837 2012.
- 5.10 Suitable ground protection has been recommended and should be laid out in order to allow access for machinery e.g. Piling rigs and/or cranes, over RPA's of retained trees without detriment to their health and condition.
- 5.11 Sufficient ground protection specifications must be chosen to accommodate the chosen vehicles weight and size.

Installation of cell tower and associated substation and infrastructure

Construction of Cell Tower

- 5.12 Details have not been providing with regards to how the Cell tower is going to be constructed.
- 5.13 If the use of a crane is needed to lift sections of the cell tower frame into location, suitable working area will be required. Sufficient ground protection will need to be put in place to take the vehicles load, if the crane is required to drive over or sited within the trees RPA.
- 5.14 If the crane can be located from the hardstanding (access road) consideration for boom clearance will be needed to determine whether further pruning/removal works are required.

Fencing

- 5.15 The footprint of fencing falls within outer edge of the Root Protection Area (RPA) of T5. This area will initially be protected by ground protection, but a proportion of the ground protection will need to be removed to allow installation of fence line (as indicated within TRPP).
- 5.16 All machinery will need to either work outside of the RPA of retained trees or from ground protection, in order to reduce the potential of soil compaction.
- 5.17 When installing the fence line, post holes will need to be dug. When excavating the holes within the RPA it is required that they are undertaken by means of hand tools. As the fence line extends into the outer edge of the root system you will typically reveal smaller diameter roots that can be pruned with limited impact. The following methodology is recommended:

- 5.18 General methodology: If digging is required within the RPA of retained tree, it is recommended that this is undertaken by means of hand tools only and any roots exposed (less than 25mm in diameter) are pruned back to suitable pruning points inline with current best practise. Any roots found greater than 25mm in diameter, we recommend you seek further advice from your instructed arboriculturist on how to proceed.

6 CONCLUSIONS AND RECOMMENDATIONS

- 6.1 The proposals will require the removal of a number of trees (T1, T2, T3, T4, T15, T17 & T18) as there are no sustainable pruning options available to achieve required clearance. The trees provide limited visual amenity as surrounded by a larger group of trees.
- 6.2 Pruning specifications have been provided for a number of trees (T5, T10 & T16). that will provide the clearances required, which will not significantly impact on the tree's future health or condition.
- 6.3 Remaining trees all fall below and/or outside the required clearance zone (A).
- 6.4 Given the location of the trees and growing part of a larger group, the impact of tree removals will not detract from the benefits and amenity that the group as a whole provides.

APPENDIX 1: TREE SURVEY SCHEDULE

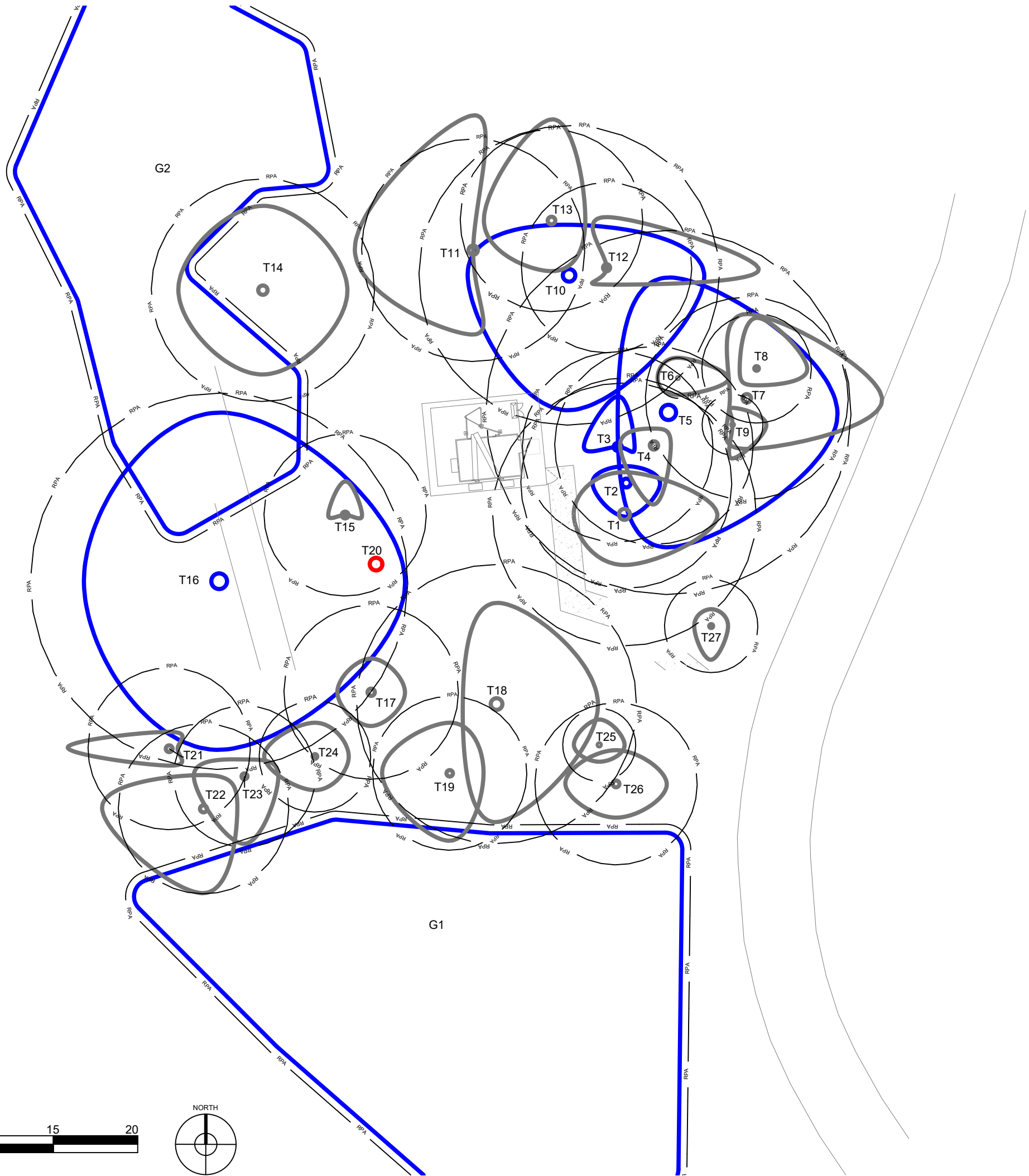
Tree ID	Common Name	Scientific Name	Life Stage	Stem Diameter [mm]	Tree Height [m]	Height of Canopy Above Ground Level [m]	Height of First Significant Branch [m]	(N) Branch Spread [m]	(E) Branch Spread [m]	(S) Branch Spread [m]	(W) Branch Spread [m]	Physiological Condition	Structural Condition	Comments	Recommendations	Estimated Remaining Contribution	Quality Category	RPA Radius [m]
1	Sycamore	Acer pseudoplatanus	Early-mature	650	16	3	3	2.5	5.5	3	3	Fair	Fair	Sucker and epicormic growth around basal area. Bark, necrosis noted throughout main trunk possible advance stages of disease (sooty bark disease). Cavities on main trunk originating from large pruning wound. Minor deadwood.	Monitor health and condition review during the summer.	Short (10 to 20 years)	C	7.8
2	Lime species	Tilia sp.	Early-mature	520	18	2	3	1	2	2	2	Fair	Fair	Old pruning wounds. Tall and etiolated. Co-dominant leader. Small crown, suppressed. Growing as part of group.	No works recommended.	Short (10 to 20 years)	B	6.24
3	Lime species	Tilia sp.	Early-mature	470	17	2.5	2.5	3	1	0	2	Fair	Fair	Old pruning wounds. Tall and etiolated. Co-dominant leader. Small crown, suppressed. Major deadwood. Growing as part of group.	No works recommended.	Medium (20 to 40 years)	B	5.64
4	Horse chestnut	Aesculus hippocastanum	Early-mature	489	16	2.5	2	1	1	3.5	2	Fair	Fair	Growing within a group. Bark necrosis noted throughout main trunk dark stains noted on main trunk possible phytophthora present. Tree tall and etiolated suppressed by neighbouring trees. Poor shape and form.	No works recommended.	Very Short (<10 years)	C	5.87
5	Common beech	Fagus sylvatica	Mature	900	18	4	32	8	10	8	3	Good	Fair	Located at 3 m above ground level. Adaptive is noted within union at 3 m above ground level adaptive suggesting possible inclusion major Deadwood in crown. crown shape distorted due to group pressure.	Undertake further investigation of union at 3 m above ground level in order to determine extent of inclusion.	Medium (20 to 40 years)	B	10.8
6	Common holly	Ilex aquifolium	Semi-mature	100	3	0	1	1.2	3	1	1.2	Good	Good	Bark wounding near ground level. Twin leader. Suppressed individual.	No works recommended.	Long (>40 years)	C	1.2
7	Sycamore	Acer pseudoplatanus	Early-mature	500	15	5	2.5	5	8	3	1	Good	Fair	Main trunk leaves to the east bifurcates at 2.5 m of ground level. Cavity/wounding at 3 m above ground level on scaffold branch. Crown shape distorted due to group pressure.	Work recommended	Medium (20 to 40 years)	C	6
8	Common holly	Ilex aquifolium	Semi-mature	270	13	0	1	3	3	1	1	Good	Good	Growing as part of group. Suppressed Tree. Crown shaped distorted due to group pressure.	No worries	Medium (20 to 40 years)	C	3.24
9	Common holly	Ilex aquifolium	Semi-mature	150	3	0	1	1	2	2	0	Good	Good	Growing as part of group. Suppressed Tree. Crown shaped distorted due to group pressure.	No works required.	Medium (20 to 40 years)	C	1.8
10	Common beech	Fagus sylvatica	Mature	740	19	1	3	3	8	8	6	Good	Fair	Growing as part of group. Good buttressing present. Old pruning wounds miner deadwood.	No Work recommended.	Medium (20 to 40 years)	B	8.88
11	Sycamore	Acer pseudoplatanus	Early-mature	550	16	3	3	8	0	5	7	Good	Fair	Growing as part of group. Suckers at ground level crown shape distorted due to group Pressure. Minor dead wood.		Medium (20 to 40 years)	C	6.6
12	Common beech	Fagus sylvatica	Early-mature	420	13	4	4	3	9	1	0	Good	Fair	Exposed buttresses. Three leaning to the east. Crown shaped distorted due to group pressure..	No works recommended	Medium (20 to 40 years)	C	5.04
13	Common beech	Fagus sylvatica	Mature	450	13	3	2	6	2	3	4	Good	Fair	Growing within a group. Main to the west old pruning wounds occluded. Crown shape distorted due to group pressure.	No works recommended	Medium (20 to 40 years)	C	5.4
14	Sycamore	Acer pseudoplatanus	Early-mature	550	16	3	2	5	5	5	5	Good	Fair	Smothered by Ivy. Minor deadwood	No works Recommended.	Medium (20 to 40 years)	C	6.6
15	Sycamore	Acer pseudoplatanus	Semi-mature	400	13	2	2	2	1	0	1	Good	Fair	Growing as part of the group Ivy on main trunk. Tall and etiolated due to group pressure.		Medium (20 to 40 years)	C	4.8
16	Pedunculate oak	Quercus robur	Mature	930	16	6.5	5	10	11	10	8	Good	Fair	Ivy on main trunk. Stand at 3 m above ground level. Some branches previously reduced major deadwood.	No works recommended.	Long (>40 years)	B	11.16
17	Sycamore	Acer pseudoplatanus	Early-mature	430	3	4	4	2	2	2	2	Good	Fair	Ivy on main truck. Historical lifting works undertaken small crown growing as one within group.	No works recommend	Medium (20 to 40 years)	C	5.16
18	Sweet chestnut	Castanea sativa	Mature	690	16	6	2	6	6	7	2	Good	Fair	Growing as within neighbouring group. Suckers at ground level. Major deadwood. Crown shape distorted due to group pressure.	No Work recommended.	Medium (20 to 40 years)	C	8.28
19	Sycamore	Acer pseudoplatanus	Early-mature	380	15	8	8	3	2	4	4	Good	Fair	Suckers at ground level. Occluding wounds on main trunk. Small crown. Crow sharp distorted due to group pressure. Growing as one within group.	No works required.	Medium (20 to 40 years)	C	4.56
20	Sycamore	Acer pseudoplatanus	Mature	750	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Failed tree (uprooted).	Cross cut and stack on site.	N/A	U	N/A
21	Sycamore	Acer pseudoplatanus	Early-mature	400	10	3	3	1	0.5	1	6	Good	Fair	Main trunk covered by ivy. Crown shape distorted due to group pressure. Minor deadwood.	No works recommended.	Medium (20 to 40 years)	C	4.8

22	Common ash	Fraxinus excelsior	Early-mature	420	15	3	3	2	2	5	6	Good	Fair	Main trunk covered by ivy. Crown shape distorted due to group pressure. Minor deadwood.	No works recommended.	Medium (20 to 40 years)	C	5.04
23	Sycamore	Acer pseudoplatanus	Early-mature	349.28	13	3	3	1	2	4	3	Good	Fair	Twin stemmed (80/20)Main trunk covered by ivy. Crown shape distorted due to group pressure. Minor deadwood.	No works recommended.	Medium (20 to 40 years)	C	4.19
24	Sycamore	Acer pseudoplatanus	Semi-mature	274.59	12	3	2	2	2	2	3	Good	Fair	Twin stemmed. Main trunk covered by ivy. Crown shape distorted due to group pressure. Minor deadwood.	No works recommended.	Medium (20 to 40 years)	C	3.3
25	Sycamore	Acer pseudoplatanus	Semi-mature	180	10	2	3	1.5	1.5	1	1.5	Good	Fair	Crown shape distorted due to group pressure. Minor deadwood.	No works recommended.	Medium (20 to 40 years)	C	2.16
26	Sycamore	Acer pseudoplatanus	Semi-mature	400	10	6	6	2	3	2	3	Good	Fair	Limited access to basal area. Tall and etiolated. Crown shape distorted due to group pressure. Minor deadwood.	No works recommended.	Medium (20 to 40 years)	C	4.8
27	Sycamore	Acer pseudoplatanus	Semi-mature	230	8	2	2	1	1	2	1	Good	Fair	Suppressed tree. Crown shape distorted due to group pressure. Minor deadwood.	No works recommended.	Medium (20 to 40 years)	C	2.76

Group ID	Common Name	Scientific Name	Life Stage	Lower Height Range [m]	Upper Height Range [m]	Lower Stem Diameter [mm]	Upper Stem Diameter [mm]	Height of Canopy Above Ground [m]	Physiological Condition	Structural Condition	Comments	Recommendations	Estimated Remaining Contribution	Quality Category
1	Mixed species	Mixed species	Semi-mature	10	13	150	320	3	Mixed	Fair	Small group estimated >15 m away from proposal. Typical features noted throughout. Individually low-grade trees.	No works recommended.	Medium (20 to 40 years)	B
2	Mixed species	Mixed species	Semi-mature	10	14	150	400	3	Mixed	Fair	Small group estimated >15m away from proposal. Typical features noted throughout. Individually low-grade trees.	No works recommended.	Medium (20 to 40 years)	B

APPENDIX 2: DRAWINGS





LEGEND:

-  **EXISTING CATEGORY 'B' TREES:** Those of moderate quality and value; in such a condition as to make significant contribution (a mininum of 20 years is suggested)
-  **EXISTING CATEGORY 'C' TREES:** Those of low quality and value; currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm
-  **EXISTING CATEGORY 'U' TREES:**Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management

NOTES:

1. Tree survey carried out on behalf of GC Utilities for the proposed development.
2. Tree survey was carried out on 15th of April 2024 by Mr Lee Garner Ground Control's Senior Arboricultural Consultant.
3. Tree survey based on 8point8's Existing Site Plan E300812-CTIL 12597827_TEF93232_VF13023_DD_200_REV_D.
4. Tree survey has been carried out in accordance with BS:5837:2012 'Trees in relation to design, demolition and construction - Recommendations' part 4.4. Please refer to these sections for further details.
5. Tree canopies outlines as shown on the plan are in accordance with the branch spread details within the tree schedule.
6. Trees location are based on visual inspection and estimation of location only due to the trees not being plotted on the supplied Topographical drawing.

P01	1st Issue	29/04/2024	IH	LG
Rev	Changes	Date	DR by	AP by



Ground Control Ltd., Kingfisher House, Radford Way, Billericay, Essex, CM12 0EQ
T: 01277 650 697 E: info@ground-control.co.uk www.ground-control.co.uk

Client

Cornerstone

Project (Address)

93232 - Telecoms - Knowsley Hall
Knowlsey Lane, Prescott, L34 7HE

Drawing title

Tree Constraints Plan

Drawing No.	RIBA Stage	Status	Rev
J240325-GGC-ZZ-ZZ-D-ARB-0100	-	-	P01
GC Project ID	Issue status	Planning	
J240325			
Scale(s)	1st Issue Date	Drawn by	Checked by
1:250 @ A3	29/04/2024	IH	LG

Notes:
1. © This drawing is the copyright of Ground Control Ltd and cannot be reproduced in any form without express consent of the company.
2. Do not scale off this drawing. All written dimensions are to be checked on site prior to commencing works.
3. All discrepancies, errors or omissions are to be reported for clarification before proceeding.

NOTES:

- 1.0

DRAWING INFORMATION
- 1.1

Drawing based on 8point8's General Arrangement drawing:
- E300812_CTIL12597827_TEF93232_VF13023_AUTOCADGA_REV D.
- 1.2

Drawing to be read in conjunction with following Ground Control documents:
- GC Tree Survey Plan J240325-GGC-ZZ-ZZ-D-ARB-0100 - P01
- GC Arboricultural Method Statement J240325-GGC-XX-XX-T-ARB-0600-P01
- 2.0

TREE PROTECTION FENCING.
- 2.1

All trees requiring protection (as highlighted) to be protected for the duration of the contract in accordance with British Standard BS5837:2012, entitled 'Trees in relation to design, demolition and construction - Recommendations'. Refer to Arboricultural Report for details.
- 3.0

GENERAL SITE OPERATIONS
- 3.1

The following should be avoided. (BS5837:2012 sec 7 and 8)

3.1.1

Material which will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, should not be discharged within 10m of the tree stem.

3.1.2

Fires should not be lit in a position where their flames can extend to within 5 m of foliage, branches of trunk. This will depend on the size of the fire and the wind direction.

3.1.3

Notice boards, telephone cables or other services should not be attached to any part of the tree.
- 4.0

GROUND PROTECTION
- 4.1

The default position should remain as any existing hard surfacing within the RPA should remain in place and act as ground protection throughout duration of works (unless specified otherwise).
- 4.2

Where the retention of existing surfacing is not possible and ground is left exposed temporary ground protection should be installed in accordance with BS5837:2012 and the specification below and illustrative details on drawing:

4.2.1

For Pedestrian Movements;
Single thickness of scaffold boards placed on top of a driven scaffold frame to form a suspended walkway or on top of a compression resistant layer such as 100mm depth wood chip laid onto a geo-textile membrane.

4.2.2

Pedestrian Operated Plant up to 2 ton;
Proprietary interlinked ground protection board placed on top of compression resistant layer such as 150mm depth of wood chip laid onto a geo-textile membrane.

4.2.3

Wheeled or Tracked Construction Traffic exceeding 2 ton gross weight;
An alternative system such as a proprietary systems or pre cast reinforced concrete slabs to an engineering specification designed in conjunction with arboricultural advice.
- 5.0

CANOPY PROTECTION
- 5.1

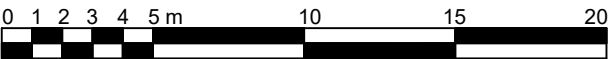
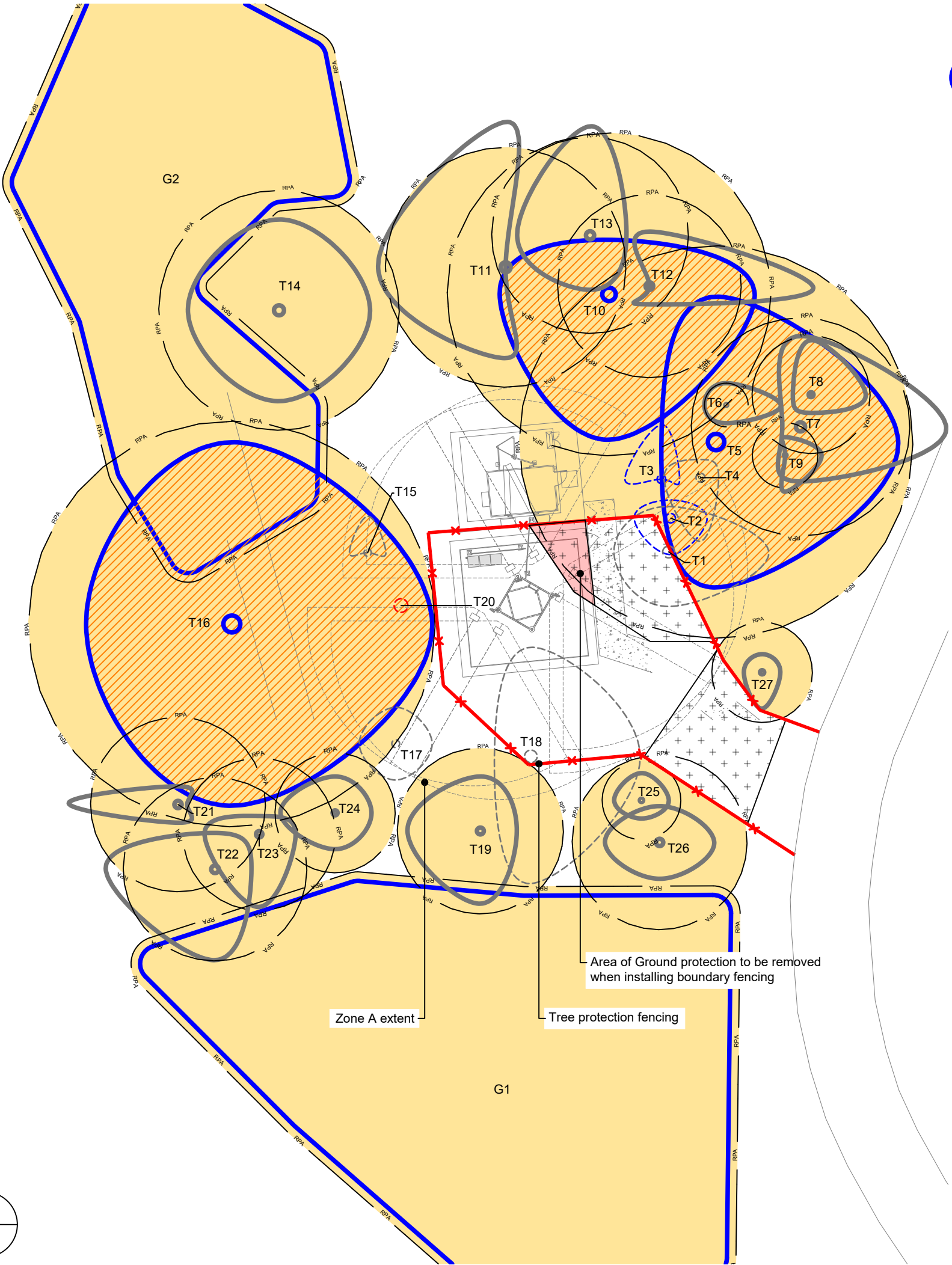
At all times, canopies should be protected from accidental damage by vehicle or machinery movement.
- 5.2

The use of any machinery directly underneath any tree canopy should be avoided, unless authorised by the on site supervising project arboricultural consultant, taking into account the dimensions of the machinery/ equipment and the height of lower canopy branches.
- 5.3

Any tree specific canopy protection measures to be determined and put in place by on site supervising arborist at commencement of works.

LEGEND:

- Existing category 'B' trees & Tree Groups to be retained
- Existing category 'C' trees to be retained
- Existing category 'B' trees to be removed
- Existing category 'C' trees to be removed
- Existing category 'U' trees to be removed
- Construction Exclusion Zone (CEZ) within Root Protection Area (RPA)
- Pruning works required (refer to specifications within AIA report)
- Proposed tree protection in accordance with BS 5837:2012 (see notes for detailed information).
- Proposed ground protection suitable to wheeled or tracked construction traffic to be installed



P01	1st Issue	29/04/2024	IH	LG
Rev	Changes	Date	DR by	AP by



Ground Control Ltd., Kingfisher House, Radford Way, Billericay, Essex, CM12 0EQ
T: 01277 650 697 E: info@ground-control.co.uk www.ground-control.co.uk

Client

Cornerstone

Project (Address)

93232 - Telecoms - Knowsley Hall
Knowsley Lane, Prescott, L34 7HE

Drawing title

Tree Retention and Protection Plan

Drawing No.	RIBA Stage	Status	Rev
J240325-GGC-ZZ-ZZ-D-ARB-0101	-	-	P01
GC Project ID	Issue status	Planning	
Scale(s)	1st Issue Date	Drawn by	Checked by
1:250 @ A3	29/04/2024	IH	LG

- Notes:
- © This drawing is the copyright of Ground Control Ltd and cannot be reproduced in any form without express consent of the company.
 - Do not scale off this drawing. All written dimensions are to be checked on site prior to commencing works.
 - All discrepancies, errors or omissions are to be reported for clarification before proceeding.

APPENDIX 3: PHOTOS



Sycamore Tree ID #1

299 Knowsley Lane

Tree Details

Scientific Name: Acer pseudoplatanus

Physiological Condition: Fair

Stem Diameter [mm]: 650

Stem Diameter [cm]: 65

User: LeeG

Primary ID: 67288

Photos



image.jpg
10/04/2024

Lime species Tree ID #2

299 Knowsley Lane

Tree Details

Scientific Name: Tilia sp.

Physiological Condition: Fair

Stem Diameter [mm]: 520

Stem Diameter [cm]: 52

User: LeeG

Primary ID: 67291

Photos



image.jpg
10/04/2024

Lime species Tree ID #3

299 Knowsley Lane

Tree Details

Scientific Name: Tilia sp.

Physiological Condition: Fair

Stem Diameter [mm]: 470

Stem Diameter [cm]: 47

User: LeeG

Primary ID: 67293

Photos



Horse chestnut Tree ID #4

299 Knowsley Lane

Tree Details

Scientific Name:	Aesculus hippocastanum
Physiological Condition:	Fair
Stem Diameter [mm]:	489
Stem Diameter [cm]:	48.9
User:	LeeG
Primary ID:	67295

Photos



image.jpg
10/04/2024

Common beech Tree ID #5

299 Knowsley Lane

Tree Details

Scientific Name:	Fagus sylvatica
Physiological Condition:	Good
Stem Diameter [mm]:	900
Stem Diameter [cm]:	90
User:	LeeG
Primary ID:	67296

Photos



image.jpg
10/04/2024

Common holly Tree ID #6

299 Knowsley Lane

Tree Details

Scientific Name:	Ilex aquifolium
Physiological Condition:	Good
Stem Diameter [mm]:	100
Stem Diameter [cm]:	10
User:	LeeG
Primary ID:	67297

Photos



Sycamore Tree ID #7

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	500
Stem Diameter [cm]:	50
User:	LeeG
Primary ID:	67298

Photos



image.jpg
10/04/2024

Common holly Tree ID #8

299 Knowsley Lane

Tree Details

Scientific Name:	Ilex aquifolium
Physiological Condition:	Good
Stem Diameter [mm]:	270
Stem Diameter [cm]:	27
User:	LeeG
Primary ID:	67299

Photos



image.jpg
10/04/2024

Common beech Tree ID #10

299 Knowsley Lane

Tree Details

Scientific Name:	Fagus sylvatica
Physiological Condition:	Good
Stem Diameter [mm]:	740
Stem Diameter [cm]:	74
User:	LeeG
Primary ID:	67306

Photos



Sycamore Tree ID #11

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	550
Stem Diameter [cm]:	55
User:	LeeG
Primary ID:	67307

Photos



image.jpg
10/04/2024

Common beech Tree ID #12

299 Knowsley Lane

Tree Details

Scientific Name:	Fagus sylvatica
Physiological Condition:	Good
Stem Diameter [mm]:	420
Stem Diameter [cm]:	42
User:	LeeG
Primary ID:	67309

Photos



image.jpg
10/04/2024

Common beech Tree ID #13

299 Knowsley Lane

Tree Details

Scientific Name:	Fagus sylvatica
Physiological Condition:	Good
Stem Diameter [mm]:	450
Stem Diameter [cm]:	45
User:	LeeG
Primary ID:	67310

Photos



Sycamore Tree ID #14

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	550
Stem Diameter [cm]:	55
User:	LeeG
Primary ID:	67314

Photos



image.jpg
10/04/2024

Sycamore Tree ID #15

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	400
Stem Diameter [cm]:	40
User:	LeeG
Primary ID:	67316

Photos



image.jpg
10/04/2024

Pedunculate oak Tree ID #16

299 Knowsley Lane

Tree Details

Scientific Name:	Quercus robur
Physiological Condition:	Good
Stem Diameter [mm]:	930
Stem Diameter [cm]:	93
User:	LeeG
Primary ID:	67318

Photos



Sycamore Tree ID #17

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	430
Stem Diameter [cm]:	43
User:	LeeG
Primary ID:	67323

Photos



image.jpg
10/04/2024

Sweet chestnut Tree ID #18

299 Knowsley Lane

Tree Details

Scientific Name:	Castanea sativa
Physiological Condition:	Good
Stem Diameter [mm]:	690
Stem Diameter [cm]:	69
User:	LeeG
Primary ID:	67325

Photos



image.jpg
10/04/2024

Sycamore Tree ID #19

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	380
Stem Diameter [cm]:	38
User:	LeeG
Primary ID:	67326

Photos



Sycamore Tree ID #20

299 Knowsley Lane

Tree Details

Scientific Name: Acer pseudoplatanus

Physiological
Condition:

Stem Diameter [mm]:

Stem Diameter [cm]:

User: LeeG

Primary ID: 67327

Photos



image.jpg
10/04/2024

Sycamore Tree ID #21

299 Knowsley Lane

Tree Details

Scientific Name: Acer pseudoplatanus

Physiological
Condition: Good

Stem Diameter [mm]: 400

Stem Diameter [cm]: 40

User: LeeG

Primary ID: 67328

Photos



image.jpg
10/04/2024

Common ash Tree ID #22

299 Knowsley Lane

Tree Details

Scientific Name: Fraxinus excelsior

Physiological
Condition: Good

Stem Diameter [mm]: 420

Stem Diameter [cm]: 42

User: LeeG

Primary ID: 67329

Photos



Sycamore Tree ID #23

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	349.28
Stem Diameter [cm]:	34.928
User:	LeeG
Primary ID:	67330

Photos



image.jpg
10/04/2024

Sycamore Tree ID #24

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	274.59
Stem Diameter [cm]:	27.458999999999996
User:	LeeG
Primary ID:	67331

Photos



image.jpg
10/04/2024

Sycamore Tree ID #25

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	180
Stem Diameter [cm]:	18
User:	LeeG
Primary ID:	67332

Photos



Sycamore Tree ID #26

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	400
Stem Diameter [cm]:	40
User:	LeeG
Primary ID:	67333

Photos



image.jpg
10/04/2024

Sycamore Tree ID #27

299 Knowsley Lane

Tree Details

Scientific Name:	Acer pseudoplatanus
Physiological Condition:	Good
Stem Diameter [mm]:	230
Stem Diameter [cm]:	23
User:	LeeG
Primary ID:	67334

Photos



image.jpg
10/04/2024



Ecology
Arboriculture
GIS and Mapping
Landscape Architecture

Ground Control Limited
Kingfisher House
Radford Way
Billericay
Essex
CM12 0EQ

T: 01277 650 697

E: info@ground-control.co.uk

www.ground-control.co.uk