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**BS 5837:2012 Tree Survey &
Arboricultural Impact Assessment**

**Address: Village Hotel Car Park,
Reading**

Site Surveyed by Peter Holloway

Report prepared by: Peter Holloway
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Date: 5th December 2025

Report Prepared for McArdle Doyle

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1. Introduction

- 1.1 Mr Jamie Reynolds of McArdle Doyle asked me to carry out an arboricultural Implications Assessment for an Ionity Fast Charging Station at the Village Hotel, Caversham Road, Reading.
- 1.2 The report aims to comply with British Standard 5837: 2012 'Trees in relation to design, demolition, and construction – Recommendations' April 2012. All trees within the site or on adjacent land which might be affected by any construction work were surveyed.

2. Summary

- 2.1 The proposal is for the construction of an electric car fast-charging station within and adjacent to the existing car park of the Village Hotel.
- 2.2 The proposal will require the removal of some shrubs and one B category Lime tree. This tree could be replaced near the site.
- 2.3 There is a young Ash, a Group of Buddleia and fallen Willow tree near to the site but the retained trees will be protected by controlling construction work within a perimeter fence.
- 2.4 The crown of a mop-head maple overhangs the perimeter of the work site, and this will be pruned to prevent any damage during the work.
- 2.5 Tree Protection guidance was prepared for the retained trees.

3. Documents

- 3.1 I was provided with the following documents:
 - i. Topographical Survey, P2434.23.IONITY Reading, dated 3.10.2025.
 - ii. Location Plan and Proposed Site Layout (Draft) Reading VH-003 dated 18.08.2025.
 - iii. Proposed Site Layout Option 2a, P2434.23.C03.2A Dated 19.09.2025.

4. Site Description

- 4.1 The existing site is partly the south east corner of the Village Hotel's car park and also part of the verge between the existing car park and a drainage ditch that is located around the southern and western perimeter of Rivermead Park and connects to the Thames in the north west corner of Rivermead Park.
- 4.2 The car park has some soft landscaping with shrubs and trees, and the verge between the car park and the drainage ditch is lawn, planted with shrubs and trees.

- 4.3 The site is bounded by the drainage ditch north of Richfield Road to the south and west of the site, Thames Street Promenade to the east and the Village Hotel car park to the north.
- 4.4 I made enquiries with Reading Council about Tree Protection around the site. The Natural Environment Officer was extremely helpful and sent map extracts of three Tree Preservation Orders and a Plan showing the Council owned land and protected trees around the junction of Richfield Road and Thameside Promenade.
- 4.5 I have shown the approximate position of council owned land and two Protected Trees near to the proposed site on the Proposed Site Plan with Tree Constraints in Appendix 5.

5. Background

- 5.1 I recorded all the trees and shrub groups that I thought were close enough to be affected by the proposal or affected by working space and site access. This included twelve trees and four shrub groups. I recorded tree numbers preceded with the letter 'T' and shrub group with 'SG.'
- 5.2 The Wildlife and Countryside Act 1981 (as amended), the Conservation (natural habitats etc.) Regulations 1994, and the Countryside and Rights of Way Act 2000 provide protection for many species of animal that live in trees. Prior to any tree work trees (or shrubs) the contractor must ensure that protected species will not be affected.
- 5.3 The British Geological Survey Geoindex shows the geology at the site is Langley Silt overlying Seaford and Newhaven Chalk Formation. Langley Silt is a variable deposit of silt and clay and resting on River Terrace deposits consisting of sand and gravel. Seaford and Newhaven Chalk Formation is chalk and flint. There is a lot of variation in the geology near the site so the geology could be more varied than indicated on the 1:50:000 scale geological maps. The surface geology is likely to contain clay and silt so it could be prone to compaction and clay, and silt can influence foundation design.
- 5.4 A borehole record on the opposite side of Richfield Avenue shows 1.5m of soft clay with brick, wood and concrete (made ground), 0.35m of firm clay with gravel, 7.15m of medium dense coarse to fine gravel with some sand and at 9m deep there is hard rubbly chalk to the bottom of the borehole at 15m.

- 5.5 Reading Council 'My Reading' website page shows the site is not within a conservation area. I made enquiries about Tree Preservation Orders with Reading Council and there are trees protected with Tree Preservation Orders within the Village Hotel Car Park and the grounds around the Hotel. There are also protected trees on the opposite side of Richfield Road in and around Caversham Place, and there are protected trees in the Toby Carvery site south and west of the proposed site of the car charging station on the opposite side of the waterway/ditch south of the site. The status of tree protection can change so it should be confirmed before undertaking any tree work in any case.

6. Tree Survey

- 6.1 The methodology for the tree survey is described in Appendix 1.
- 6.2 I surveyed the trees on 14th November 2025; the weather was poor with heavy rain. The survey results are described in Table 1, Appendix 2.
- 6.3 Tree Constraints**
- 6.3.1 The tree constraints are plotted on the Existing Site Plan with Tree Constraints in Appendix 3 and the Proposed Site Plan with Tree Constraints in Appendix 4 and Appendix 5.
- 6.3.2 Tree crown constraints are the maximum crown spread projected onto the ground in a two-dimensional shape created from the crown radius in four cardinal points.
- 6.3.3 These plans also show the Root Protection Area (RPA) of the trees as a notional circle calculated from the trunk diameter as described in BS5837:2012. The RPAs of trees can be adjusted for obstructions to root growth. The waterway/drainage ditch to the southwest of the site was full of water when I visited but there may be periods when it is dry. It is feasible that the drainage ditch has affected root distribution, but I cannot be sure, so they are unchanged on the plan. Similarly, the makeup of major road surfaces can discourage root growth, but the circular RPA of the London Plane (T07) overlaps the Richfield Avenue by less than 2m, so I have not adjusted its circular RPA.
- 6.3.3 The tree crown is shown in coloured lines according to the quality assessment of the tree. The colour green is good quality, blue is moderate, grey is low quality and red is unclassified. The quality assessment is based on the system described in BS5837. The crown spread of shrubs are recorded as a dashed line as these are not classified in BS5837.

6.4 The quality of the trees on site is listed in the table below.

Tree Quality				
Quality Category	A (High)	B (Moderate)	C (Low)	U (Unclassified)
Tree No.	T07	T01, T11, T15	T02, T03, T04, T05, T06, T09, T10	T08
Total	1	3	7	1

7. Discussion of Arboricultural Impact

- 7.1 The Proposed Site Plan with Tree Constraints in Appendix 4 indicates where the proposal could affect retained trees.
- 7.2 I expect site access, materials storage, waste storage, and car parking to be within the Village Hotel car park adjacent to the north of the site.
- 7.3 I expect the work will require mini-excavators and dumpers to transport materials and waste.
- 7.4 I estimate from the plans supplied by the council that the majority of SG14 is growing within council land (the stems arch northwards over the site). I also believe that T06, T08, T09 and T10 are within council land. T07 could be in council land, within the Toby Carvery land or on the border of both.
- 7.5 I have looked at the Tree Preservation Order (TPO) plans, and I believe that T07 (London Plane) and T05 (Italian Alder) are included in Tree Preservation Orders.
- 7.6 Shrub groups SG13B will be removed and the majority of SG13A.
- 7.7 The Shrub group SG14, the young Ash (T10) and the fallen willow (T08) have foliage that is close to the site but do not appear to overhang it. These are all growing in council owned land. The majority of the stems of SG14 are located to the southwest and arch over to the northeast near the site. It may be necessary to carry out a minimal amount of pruning to these trees and shrubs when the protective fencing is erected. The overhanging foliage can be pruned under common law, but the material removed belongs to the tree owner so the permission of Reading Council will be needed before it is disposed.
- 7.8 The Small Leaved Lime T01 could not be retained. There is space to plant a replacement for this tree elsewhere within the car park or in the land around the perimeter of the car park if the Planning Authority demand it.

- 7.9 The group of four Mop-head Maple (T02-T05) could be retained as the impact on the circular RPAs is minimal. The crowns of one of them (T02) would need to be pruned to clear the perimeter of the site.
- 7.10 The Willow (T08) is a twin stemmed tree that was growing on the edge of the waterway/ditch on council owned land. The tree has collapsed and one stem fell south towards Richfield Avenue and the larger stem fell north towards the site. This tree should be removed although it is still living but the fallen stem could increase the risk of flooding, and the stem and branches could roll to the east or west in high winds. The removal of this tree is the responsibility of the owner, Reading Council.
- 7.11 The Golden Ash (T11) is not affected by the proposal, and it can be protected during the work.
- 7.12 I have prepared guidance in the form of a Tree Protection Method Statement for this proposal in Appendix 6.

8. Appendix 1: Standard Report Methodology

British Standard 5837: 2012 'Trees in relation to design, demolition, and construction – Recommendations'

- A.1 Survey
 - A.1.1 All my observations were from ground level without detailed investigations, and I measured tree stem diameters where possible and estimated height and crown spread by pacing and using a clinometer. I do not normally have access to trees outside the boundaries and so my observations and comments on these trees are based on the visual assessment made from within the site or the surrounding public highway.
 - A.1.2 I surveyed all trees objectively without reference to any design proposals supplied or suggested by the client. The trees were located using the topographical survey where provided. If the topographical plan did not include all relevant trees, they would be added in their approximate positions.
 - A.1.3 As suggested in the BS 5837:2012 all single stem trees with a stem diameter of less than 75 mm at 1.5m above ground level can be excluded from the survey as they are not deemed to be of significant size to be included. Multi stemmed trees were measured in accordance with the standard.
 - A.1.4 Trees and shrubs are living organisms whose health and condition can change rapidly, for this reason the BS 5837 grades, along with any conclusions or tree management recommendations can only remain valid for a period of 12 months.
 - A.1.5 Where possible, trees were assessed as individual specimens, however, where there were trees that formed distinctive groups of the same species within the landscape they can be assessed and graded as groups.
 - A.1.6 Trees on or adjacent to development sites are a material consideration that may have a significant impact on the future development and use of the site.
- A.2 Use of survey data.
 - A.2.1 The British Standard 5837:2012 provides guidance on the principles to be applied to achieve a satisfactory juxtaposition of trees with structures.
 - A.2.2 The tree survey with minimum requirements of BS5837 is enclosed in the appendices of this report.

- A.2.3 The British Standard 5837: 2012 'Trees in relation to design, demolition, and construction – Recommendations' provides guidance and specifies measures to be adopted to avoid or minimise damage to trees retained on or in proximity to construction sites. One of the key recommendations is that a Root Protection Area (RPA) should be established around each retained tree. The RPA is calculated as an area equivalent to a circle with a radius 12 times the stem diameter measured at 1.5 metres above ground level for a single stem tree. To prevent disturbance or contamination of the RPA they are usually enclosed by robust fencing.
- A.2.4 Circular Root Protection Areas (RPAs) can be adjusted by an arboriculturist by considering obstructions for root growth, including building foundations, retaining walls, metalled roads, topography, soil type, and tolerance of individual trees.
- A.2.5 The British Standard recommends that trees within categories A-C (where A is highest quality) are a material consideration in the development process. Category U trees are trees that will not be expected to exist for long enough to justify their consideration in the planning process. The tree categories are used with the number 1, 2, or 3, which is shown in Table 1. These signify whether the justification for the category was made based on arboricultural values, landscape values, or cultural/conservation values, respectively. The tree categories are shown on the tree constraints plan by colour coding. Category A trees are green, category B trees are blue, category C are grey, and category U are dark red.
- A.2.6 It is important to recognise that tree roots are particularly vulnerable during any adjacent construction operations. Tree roots grow where conditions are most favourable, this tends to be near the soil surface, for this reason most tree roots grow in the upper 600mm of the soil. This means that operations during construction such as shallow excavations, soil compaction by heavy plant or machinery or contamination by substances such as cement, diesel, or other chemicals, even water in excess, can be damaging to the root system.
- A.2.7 The presence of walls, roads and retaining walls can affect the root distribution of trees within and around the site. Normally when a Root Protection Area is adjusted its shape is changed but the total area is maintained.

- A.2.8 Approved tree work should be carried out in accordance with BS 3998:2010 by suitably qualified and experienced professional tree surgeons. Under no circumstances shall site personnel undertake any tree pruning operations. All tree works should also take into consideration The Wildlife and Countryside Act 1981 (as amended), the Conservation (natural habitats etc.) Regulations 1994, and the Countryside and Rights of Way Act 2000 protected species of flora and fauna.
- A.2.9 If the site is within a conservation area, then the local authority will need to be notified of your intention to prune the tree which they can prevent by making a Tree reservation Order. Some forms of tree work are exempt from this requirement and tree works directly required to accommodate a development that has planning permission would be exempt. However, I would recommend notifying the local authority before doing any tree work to avoid misunderstandings.
- A.2.10 If a Tree Preservation Order protects any tree, then written consent is required for tree pruning or tree removal except for a few exemptions and if the work is directly required to accommodate a development which has planning permission. As above, I would recommend applying for consent rather than assuming that works are exempt.

9. Appendix 2: Table 1 'Tree data'

Tree number: The number used in the table 1 corresponds to numbers on the plans.

Species: The Common and Botanical names of each tree.

Height and **branch spread** are estimated and listed in metres.

Stem diameter is usually measured at 1.5m above ground level (a.g.l.). It is listed in the table in mm.

Height of crown above ground level (a.g.l.):

This gives an indication of whether the crown extends to the ground or has low hanging branches. The height of the lowest branch and its direction will also be recorded.

Direction of Lowest Branch:

The direction is given as a compass direction however where all branches originate at the same point (like a pollarded tree) the letter 'CB' may be used, where the lower branches originate at the same height 'AR' for all 'round may be used.

Age class: This refers to the age of the individual tree relating to the average life expectancy of each species in a similar environment.

Physiological condition:

The general state of health of the tree, good (G), fair (F), poor (P) or dead (D).

Structural condition:

A description of any defects/habits/any previous management of note.

Remaining contribution in years:

This has been estimated by taking the age of the tree away from an estimate of the total number of years the tree may live for in current site conditions, it has listed in bands as recommended in BS5837:2012.

Retention category:

Each tree is placed in a category using the guidance in BS 5837:2012.

Table 1		Village Hotel Reading																	14.11.2025	
Tree Number	Tree Name (species)		Estimated dimensions	Height (m)	Calculated Stem Diameter (mm)	Number of Stems	Root Protection Area (Radius, m)	Root Protection Area (Area, m2)	Crown constraints			Crown Radius (m)				Age class	Observations		Remaining contribution years	Tree Category
	Common	Botanical							Crown height over site m	Lowest branch m	Direction lowest branch	N	S	E	W		Summary of Physiological condition	Structural Condition & General comments		
T01	Small-Leafed Lime	Tilia cordata	No	11.5	270	1	3.24	33	2	1.8	AR	4	5	3.5	4.5	Semi-mature	Good	Lower branches touching railings. Stem too close to railings for full life expectancy.	20 to 40 yrs	B1,2
T02	Mop Head Maple	Acer platanoides 'Globosum'	No	4.5	140	1	1.68		2	2	AR	3	2	2.5	3	Young	Good		20 to 40 yrs	C1,2
T03	Mop Head Maple	Acer platanoides 'Globosum'	No	4.5	140	1	1.68		2	2	AR	1.5	1.5	2.5	3	Young	Good		20 to 40 yrs	C1,2
T04	Mop Head Maple	Acer platanoides 'Globosum'	No	4.5	140	1	1.68	9	2	2	AR	1.5	1.5	3.5	2	Young	Good		20 to 40 yrs	C1,2
T05	Mop Head Maple	Acer platanoides 'Globosum'	No	5	170	1	2.04	13	2	2	AR	1.5	3	3.5	2.5	Young	Good		20 to 40 yrs	C1,2
T06	White Willow	Salix alba	No	12	373	2	4.48		2	0.3	N	7	2	6	1	Semi-mature	Good	Twin stemmed from near ground level. Recommend removing northern low limb. If tree retained better to retain as a coppice. Stem inclined north. Stream revetment restricts roots on the south.	10 to 20 yrs	C
T07	London Plane	Platanus x hispanica	No	18	550	1	6.60	137	4	6	AR	5.5	6	7	6	Mature	Good	Stem forks at 6m. Stem ivy clad and invading crown. Roots restricted on north side by stream revetment. Offsite tree.	>40 yrs	A1,2
T08	Crack Willow	Salix fragilis	Yes	8	849	2	10.18	326	0	0	N & S	10	6	6	6	Mature	Good	Tree has split and collapsed branches embedded in ground and forming trees. Was growing on edge of river. Ivy clad	<10 yrs	U
T09	White Willow	Salix alba	No	10.5	194	2	2.33	17	4	1.4	S	4	1	4	2	Young	Good	Stem inclined NE.	20 to 40 yrs	C
T10	Common Ash	Fraxinus excelsior	No	8	100	1	1.20	5	1.5	1.6	N	5	1	1	2	Young	Good		20 to 40 yrs	C
T11	Golden Ash	Fraxinus excelsior 'Jaspidea'	No	9	370	1	4.44	62	2	2	SE	6	5	5	5	Mature	Fair	Extension growth small. Blocking lamp column.	20 to 40 yrs	B1,2
SG12	Rockspray Cotoneaster	Cotoneaster microphyllus	Yes	1.2	16	10	0.19	0	0.2	0	MS					Semi-mature	Good		10 to 20 yrs	NA
SG13A	Fire Thorn, Portuguese Laurel, Butterfly Bush	Pyracantha sp, Prunus lusitanica, Buddleia davidii	Yes	3.5	98	6	1.18	4	0	0	MS	2	1	2	2	Semi-mature	Good	Shrub group. Prunus Lusitania, Pyracantha, buddleia,	10 to 20 yrs	NA
SG13B	Fire Thorn Variety	Pyracantha rogersiana 'flava'	Yes		98	6	1.18	4	0.3	0	MS						Good	Shrub group: Pyracantha	10 to 20 yrs	NA
SG14	Butterfly Bush	Buddleia davidii	Yes	4.5	147	6	1.76	10	0	0	MS	4	2	4	3	Semi-mature	Good	Shrub group: Buddleia	10 to 20 yrs	NA
T15	Italian Alder	Alnus cordata	No	12.5	380	1	4.56	65	3	3	AR	4	5	3	5	Mature	Good	Offsite.	20 to 40 yrs	B1,2

10. Appendix 3: Existing Site Plan with Tree Constraints

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Village Hotel - Electric Car Charging Station Existing Site Plan with Tree Constraints

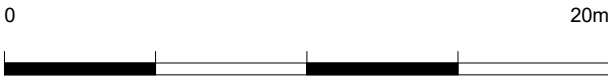
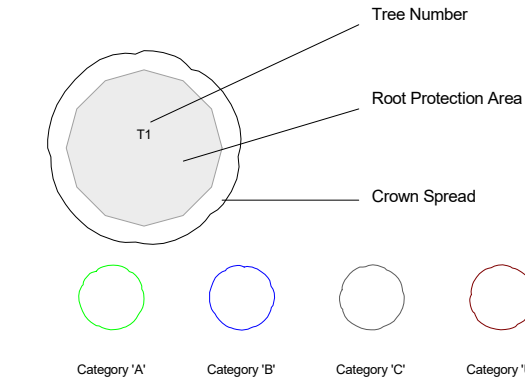
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DATE :
02/12/2025



MAP FILENAME :
Reports/2025/Ionity Sites/Reading Village Hotel

Map data from Topographical Survey Supplied by the Client



- River (Approximate)
- Groups of Shrubs
- Shrub Crown Spread (Approx)



12. Appendix 4: Proposed Site Plan with Tree Constraints

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Village Hotel - Electric Car Charging Station Proposed Site Plan with Tree Constraints

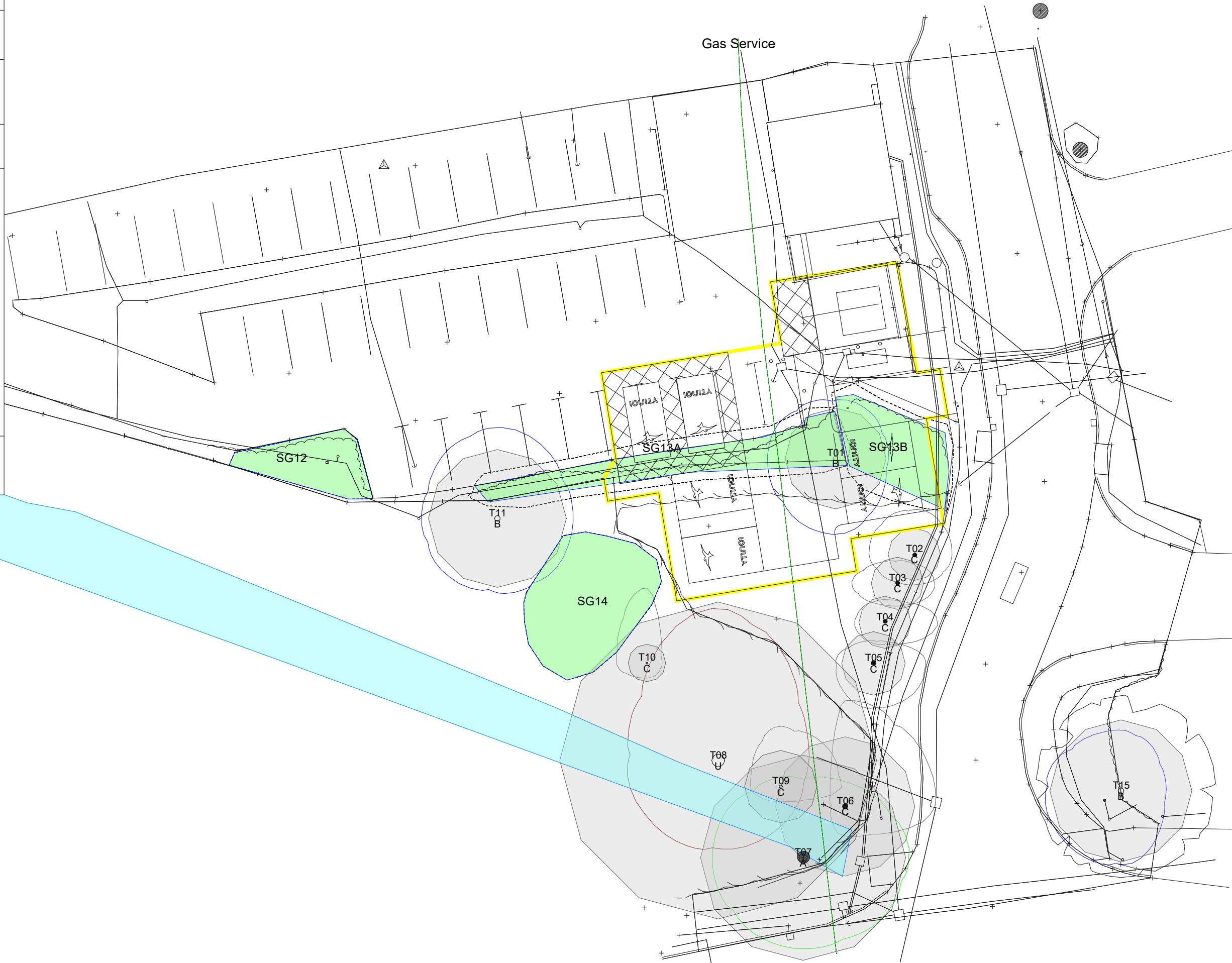
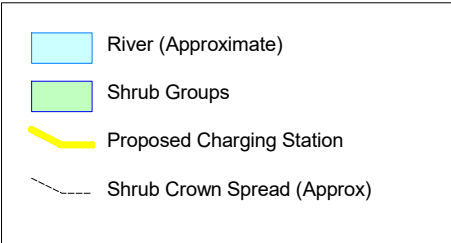
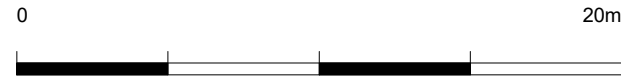
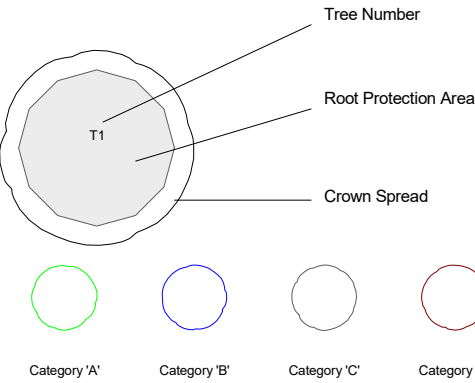
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05/12/2025



MAP FILENAME :
Reports/2025/Ionity Sites/Reading Village Hotel

Map data from Topographical Survey Supplied by the Client



13. Appendix 5: Council Owned Land and Protected Trees Superimposed on the Proposed Site Plan with Tree Constraints

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Village Hotel Reading Council Owned Land and Protected Trees

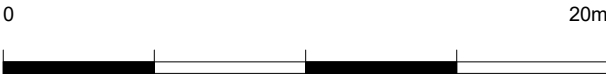
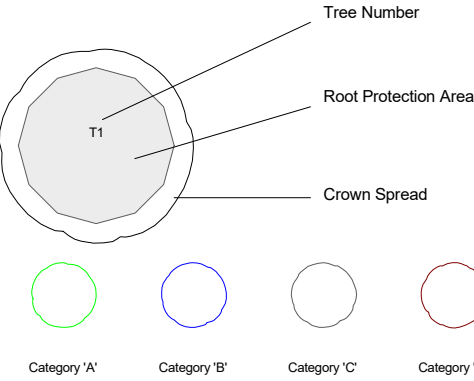
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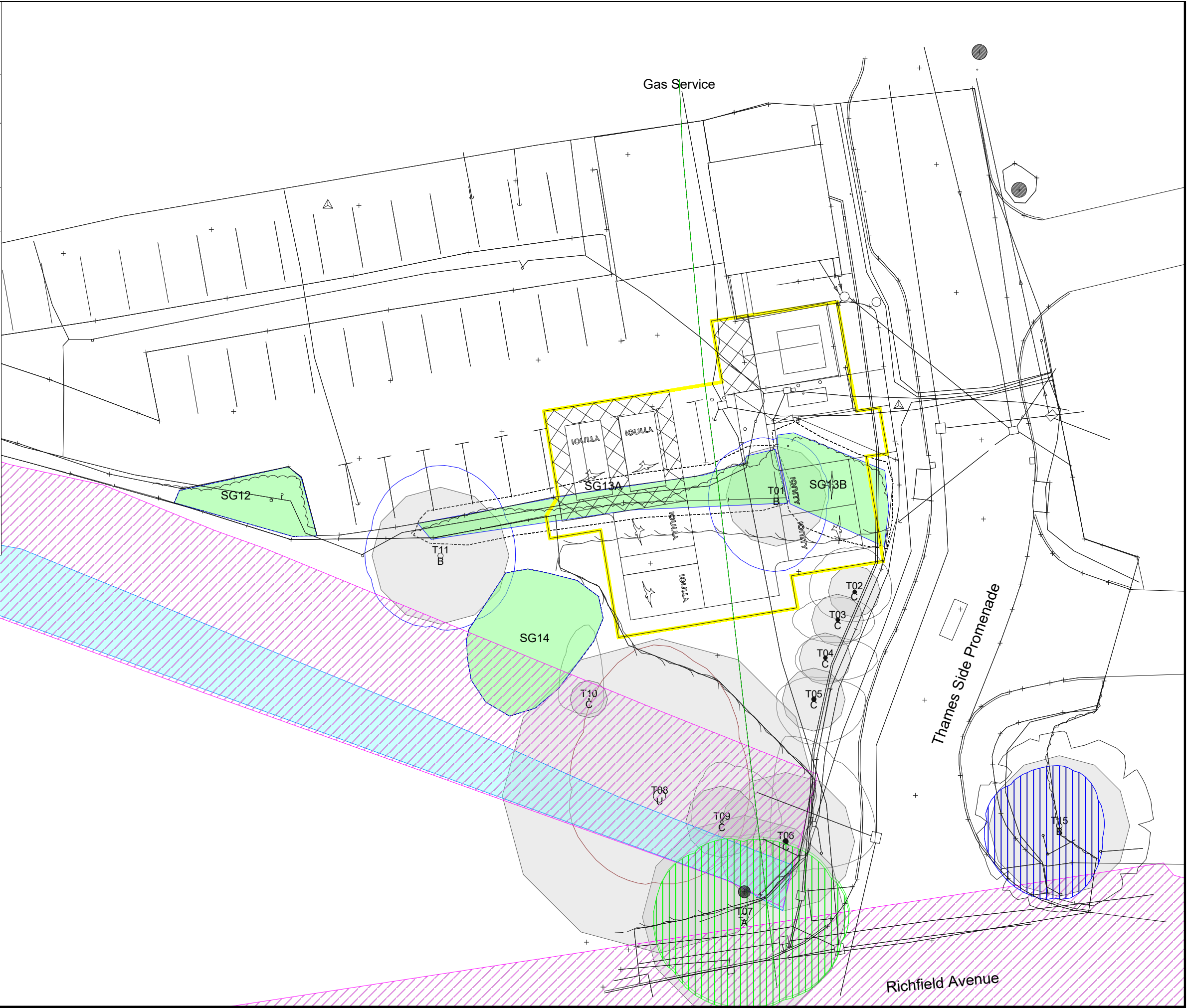
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Reports/2025/Ionity/Reading Village Hotel



Map data shown based on a Topographical Survey supplied by my client



- River (Approximate)
- Shrub Groups
- Council Owned Land (Approx)
- TPO87-05
- TPO118-09
- Proposed Charging Station



14. Appendix 6: Tree Protection Method Statement

- A5.1 The Roles and Responsibilities for Tree Protection on this site are described below. Tree protection details are reviewed as part of the site supervision procedure to ensure that tree protection is practical and that construction methods do not compromise tree protection.

Arboriculturist

Peter Holloway of Rootcause Ltd

To provide a watching brief over the works on site when there is a risk of damage to any tree or woody plant. To provide an advisory role to the Contractor of how works are to be conducted, and the preparation of the agreed methodology with the Contractor. To complete site visit reports for the client after each visit which will be forwarded to the relevant Tree Officer/Department if required by a planning condition.

Construction Company

McArdle Doyle

To manage the works on site as per the agreed tree protection methodology. The contractor is responsible for all operatives on site and how the works are to be executed. The contractor must endeavour to comply with all aspects of the methodology when working on or near trees.

The contractor will incorporate a section in their site induction about site constraints and procedures for tree protection in relation to site access and working near trees.

A5.2 Tree Work

- A5.2.1 The following trees (green) and shrubs (red) will be pruned or removed.

ID Number	Species	Work description
T01	Small Leaved Lime	Remove tree
SG13A	Fire Thorn/Laurel	Remove part of shrubs group affected by work site
SG13B	Fire Thorn	Remove shrubs completely
T08	Willow	Prune by up to 1m to clear protective fence if necessary**
T10	Ash	Prune by up to 1m to clear protective fence if necessary**
SG14	Buddleia	Prune by up to 1m to clear protective fence if necessary**

** These trees are owned by the local council so they must be consulted before conducting the recommended work

A5.3 Provision of information for all site operatives

- A5.3.1 A copy of the arboricultural method statement will be provided to site managers and key staff.

A5.4 Erection of protective fencing and ground protection

- A5.4.1 Tree Protective fencing will be erected where indicated in the tree protection plan. Tree protective fencing will consist of 2m tall by 3m long weldmesh panels fixed to a scaffold framework or stakes so they cannot be easily moved or breached. Braces for protective fences must not be fixed to any part of a tree. The purpose of fencing is to contain the work and create a construction exclusion zone and prevent damage to trees, soft landscaping, roots, and to prevent contamination or compaction of the ground outside of the site.
- A5.4.2 Construction Exclusion Fences should be marked with signs to emphasise that construction work, workers, materials, and waste are excluded from these areas. A similar sign could be attached to the timber rail fence on Thames Side Promenade.
- A5.4.3 The existing hard landscaping will be used as ground protection in the car park. Ground protection will be used around the perimeter of the work site as indicated on the Tree Protection Plan or if any other soft ground exposed during construction. Ground protection can take many forms, so the physical description of ground protection is impractical. However, ground protection must be constructed in such a way to prevent compaction in relation to the anticipated loads from vehicles, plant, or pedestrians.

BS5837 recommends the following but suitable alternatives are acceptable:

a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;

b) for pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane.

c) for wheeled or tracked construction traffic exceeding 2t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

A5.5 Construction

- A5.5.1 The materials will be unloaded within the existing car park and moved into the site manually.
- A5.5.2 There may be a skip in the car park for waste storage and waste removal.
- A5.5.3 If the space within 10m of retained trees and hedges is used as storage for flammable waste or materials, then suitable fire-fighting equipment must be available while work is in progress.
- A5.5.4 Many materials are harmful to trees. Cement, cement washings, wastewater, diesel fuel, and even clean water in excess can kill or seriously damage trees. Any runoff or spillages must be controlled so that they do not contaminate the ground within RPAs of retained trees or landscape areas.
- A5.5.5 The ground will be excavated to create the car parking spaces, paths, and roadways. The ducts for the electricity sub-station and power supply will also need to be excavated. Excavations should not affect the RPAs of retained trees and shrubs.
- A5.5.6 If any services must pass through the RPAs of retained trees, then trenches for services (electricity, gas, water etc.) can damage tree roots. Any excavations for new services within the RPAs of the retained trees, must be conducted considering that roots may be present. Excavations for services will need to be carried out by hand and all roots of 25mm diameter or larger must be retained.
- A5.5.7 Any excavations within the RPAs of retained trees must use manual methods to control unnecessary root damage. A methodology for manual excavations is included in A5.8.

A5.6 Site Supervision

- A5.6.1 Site supervision can be a condition of planning consent. Once tree pruning and removal has occurred, and tree protection is in place this can be reviewed on site and as long as tree protection is in place no site supervision by an arboriculturist will be necessary. It is common to check the condition of the ground and trees after construction in case any remedial work is necessary.

A5.7 Hard and Soft Landscaping

- A5.7.1 Physical Tree Protection is not feasible during landscaping as it is impractical to conduct landscaping work with fencing and ground protection in place.
- A5.7.2 Any new hard and soft landscaping within the RPAs of trees should avoid significant increases or decreases in ground levels (no more than 100mm) and excavations should be conducted in a way that ensures roots and rooting space are retained.

- A5.7.3 If there is any new hard landscape within the RPAs of retained trees should be constructed using minimal excavations and ideally using permeable surfaces to ensure adequate gaseous exchange and water infiltration.
- A5.7.4 If any machinery is used in landscaping (none is anticipated) it must be used in a way that avoids root damage or soil compaction using ground protection or low ground pressure equipment.
- A5.7.5 The use of herbicides must be avoided where the chemicals could affect retained trees and shrubs.

A5.8 **Method for Hand Excavations within Root Protection Areas.**

The purpose of the excavation is to establish the presence/absence of significant roots within the RPA's of retained trees so that roots can be retained without damage.

Method:

- a) Excavation within hard landscaping will need to be carried out using concrete breakers and excavators. Hand excavation is not practical.
- b) Machine excavations should be planned and supervised to protect and preserve roots within the excavations, prevent compaction of soil or granular materials.
- c) Where excavations occur in soil or soft landscape, excavations will use hand tools like forks, spades, and shovels. An 'Air Spade' could be used where appropriate. Any other power tools must not be used.
- d) The depth of excavation will be the same as the depth of the structure proposed.
- e) During excavations, any roots less than 25mm diameter can be cut cleanly to the sides of the excavation with a pair of secateurs or handsaw.
- f) Tree roots 25mm in diameter or greater will be left in situ and protected from damage during the work.
- g) Tree roots could be up to 1.5m below ground level. Therefore, it is important to avoid compaction, contamination of the soil within, below or in the sides of any excavations.
- h) If excavations are close to retained roots the roots need to be protected with cut sections of plastic pipe, or similar materials, to prevent physical damage. Roots to be retained which are exposed for longer than an hour will be covered with Hessian to prevent damage from high (above 20 °C) or low temperatures (under 5 °C) and sun scorch (depending on the ambient weather conditions). In temperatures above 20°C roots and their coverings will need to be kept moist.

15. Appendix 7: Tree Protection Plan

Rootcause Limited

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Village Hotel - Electric Car Charging Station Tree Protection Plan

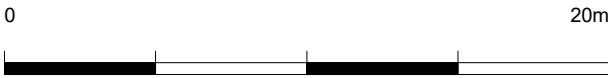
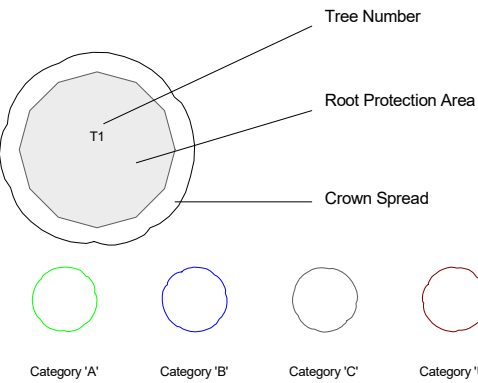
SCALE :
1 : 250 @ A3

DATE :
05/12/2025

MAP FILENAME :
Reports/2025/Ionity Sites/Reading Village Hotel



Map data from Topographical Survey Supplied by the Client



- River (Approximate)
- Shrub Groups
- Shrubs to be pruned
- Ground Protection
- Proposed Charging Station
- Trees and Shrubs to be Removed
- Protective Fence

