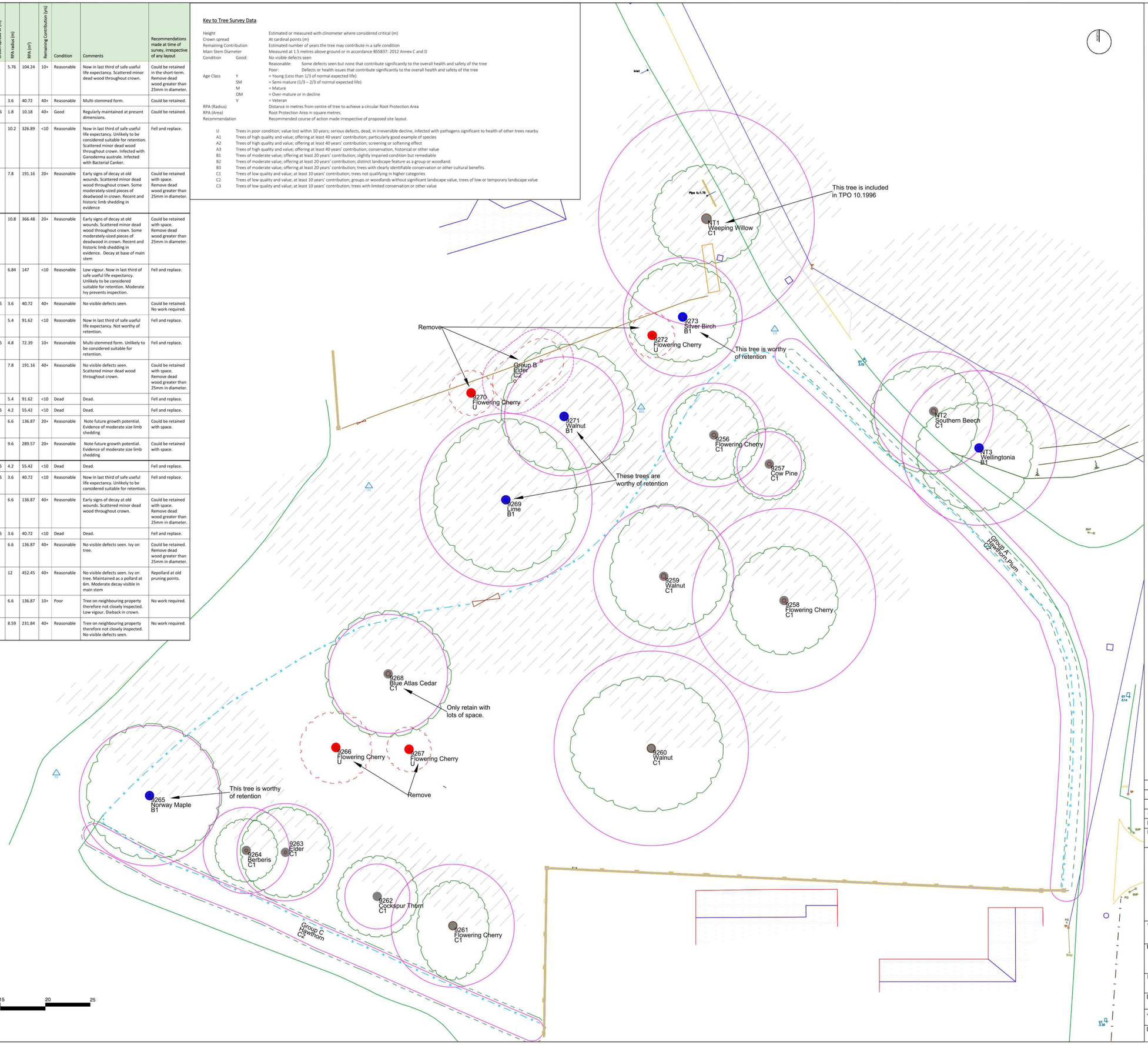
ref.	Species	Age Class	gt m/s (mm)	Height (m)	Lower crown height (m)	Ultimate height (m)	Grade	Crown Spread N (m)	Crown Spread S (m)	Crown Spread E (m)	Crown Spread W (m)	RPA radius (m)	RPA (m²)	Remaining Contribution (yrs)	Condition	Comments	Recommendations made at time of survey, irrespective of any layout
9256	Flowering Cherry	M	480	8	1	8	C1	5	5	5	5	5.76	104.24	10+	Reasonable	Now in last third of safe useful life expectancy. Scattered minor dead wood throughout crown.	Could be retained in the short-term. Remove dead wood greater than 25mm in diameter.
9257	Cow Pine	M	300	5	0	5	C1	4	4	4	4	3.6	40.72	40+	Reasonable	Multi-stemmed form.	Could be retained.
Group A	Hawthorn, Plum	M	150	2	0	2	C2	0.6	0.6	0.6	0.6	1.8	10.18	40+	Good	Regularly maintained at present dimensions.	Could be retained.
9258	Flowering Cherry	OM	850	14	1.5	14	C1	6	6	6	6	10.2	326.89	<10	Reasonable	Now in last third of safe useful life expectancy. Unlikely to be considered suitable for retention. Scattered minor dead wood throughout crown. Infected with Ganoderma australe. Infected with Bacterial Canker.	Fell and replace.
9259	Walnut	M	650	15	1.5	15	C1	8	6	7	6	7.8	191.16	20+	Reasonable	Early signs of decay at old wounds. Scattered minor dead wood throughout crown. Some moderately-sized pieces of deadwood in crown. Recent and historic limb shedding in evidence	Could be retained with space. Remove dead wood greater than 25mm in diameter.
9260	Walnut	M	900	15	0.5	15	C1	8	7	8	9	10.8	366.48	20+	Reasonable	Early signs of decay at old wounds. Scattered minor dead wood throughout crown. Some moderately-sized pieces of deadwood in crown. Recent and historic limb shedding in evidence. Decay at base of main stem	Could be retained with space. Remove dead wood greater than 25mm in diameter.
9261	Flowering Cherry	OM	570	8	0.5	8	C1	5	6	4	4	6.84	147	<10	Reasonable	Low vigour. Now in last third of safe useful life expectancy. Unlikely to be considered suitable for retention. Moderate Ivy prevents inspection.	Fell and replace.
9262	Cockspur Thorn	M	300	8	0.5	8	C1	4.5	4.5	4.5	4.5	3.6	40.72	40+	Reasonable	No visible defects seen.	Could be retained. No work required.
9263	Elder	M	450	6	0.5	6	C1	5	5	5	5	5.4	91.62	<10	Reasonable	Now in last third of safe useful life expectancy. Not worthy of retention.	Fell and replace.
9264	Berberis	M	400	5	0.5	5	C1	3.5	3.5	3.5	3.5	4.8	72.39	10+	Reasonable	Multi-stemmed form. Unlikely to be considered suitable for retention.	Fell and replace.
9265	Norway Maple	M	650	15	2	15	B1	8	7	8	7	7.8	191.16	40+	Reasonable	No visible defects seen. Scattered minor dead wood throughout crown.	Could be retained with space. Remove dead wood greater than 25mm in diameter.
9266	Flowering Cherry	M	450	5	2	5	U	4	4	4	4	5.4	91.62	<10	Dead	Dead.	Fell and replace.
9267	Flowering Cherry	M	350	5	2	5	U	2.5	2.5	2.5	2.5	4.2	55.42	<10	Dead	Dead.	Fell and replace.
9268	Blue Atlas Cedar	SM	550	14	0.5	25	C1	7	7	7	7	6.6	136.87	20+	Reasonable	Note future growth potential. Evidence of moderate size limb shedding	Could be retained with space.
9269	Lime	M	800	18	0	18	B1	9	8	8	8	9.6	289.57	20+	Reasonable	Note future growth potential. Evidence of moderate size limb shedding	Could be retained with space.
9270	Flowering Cherry	M	350	5	2	5	U	2.5	2.5	2.5	2.5	4.2	55.42	<10	Dead	Dead.	Fell and replace.
Group B	Elder	M	300	5	0	5	C2	2.5	2.5	2.5	2.5	3.6	40.72	<10	Reasonable	Now in last third of safe useful life expectancy. Unlikely to be considered suitable for retention.	Fell and replace.
9271	Walnut	M	550	15	2	15	B1	8	6	8	7	6.6	136.87	40+	Reasonable	Early signs of decay at old wounds. Scattered minor dead wood throughout crown.	Could be retained with space. Remove dead wood greater than 25mm in diameter.
9272	Flowering Cherry	M	300	5	2	5	U	2.5	2.5	2.5	2.5	3.6	40.72	<10	Dead	Dead.	Fell and replace.
9273	Silver Birch	M	550	17	0	17	B1	6	5	6	6	6.6	136.87	40+	Reasonable	No visible defects seen. Ivy on tree.	Could be retained. Remove dead wood greater than 25mm in diameter.
NT1	Weeping Willow	OM	1000	15	2	15	C1	6	5	6	6	12	452.45	40+	Reasonable	No visible defects seen. Ivy on tree. Maintained as a pollard at 6m. Moderate decay visible in main stem	Repollard at old pruning points.
NT2	Southern Beech	M	550	13	4	13	C1	5	7	5	7	6.6	136.87	10+	Poor	Tree on neighbouring property therefore not closely inspected. Low vigour. Dieback in crown.	No work required.
NT3	Wellingtonia	M	716	18	4	25	B1	5	7	6	7	8.59	231.84	40+	Reasonable	Tree on neighbouring property therefore not closely inspected. No visible defects seen.	No work required.

Key to Tree Survey Data

Height		Estimated or measured with clinometer where considered critical (m)
Crown spread		At cardinal points (m)
Remaining Contribution		Estimated number of years the tree may contribute in a safe condition
Main Stem Diameter		Measured at 1.5 metres above ground or in accordance BS5837: 2012 Annex C and D
Condition	Good:	No visible defects seen
	Reasonable:	Some defects seen but none that contribute significantly to the overall health and safety of the tree
	Poor:	Defects or health issues that contribute significantly to the overall health and safety of the tree
Age Class	Y	= Young (Less than 1/3 of normal expected life)
	SM	= Semi-mature (1/3 – 2/3 of normal expected life)
	M	= Mature
	OM	= Over-mature or in decline
	V	= Veteran
RPA (Radius)		Distance in metres from centre of tree to achieve a circular Root Protection Area
RPA (Area)		Root Protection Area in square metres
Recommendation		Recommended course of action made irrespective of proposed site layout.

U	Trees in poor condition; value lost within 10 years; serious defects, dead, in irreversible decline, infected with pathogens significant to health of other trees nearby
A1	Trees of high quality and value; offering at least 40 years' contribution; particularly good example of species
A2	Trees of high quality and value; offering at least 40 years' contribution; screening or softening effect
A3	Trees of high quality and value; offering at least 40 years' contribution; conservation, historical or other value
B1	Trees of moderate value; offering at least 20 years' contribution; slightly impaired condition but remediable
B2	Trees of moderate value; offering at least 20 years' contribution; distinct landscape feature as a group or woodland.
B3	Trees of moderate value; offering at least 20 years' contribution; trees with clearly identifiable conservation or other cultural benefits.
C1	Trees of low quality and value; at least 10 years' contribution; trees not qualifying in higher categories
C2	Trees of low quality and value; at least 10 years' contribution; groups or woodlands without significant landscape value, trees of low or temporary landscape value
C3	Trees of low quality and value; at least 10 years' contribution; trees with limited conservation or other value



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NOTES: Based on survey drawing 2202-212

The original of this drawing was produced in colour – a monochrome copy should not be relied upon

KEY

- GRADE A TREES
- GRADE B TREES
- GRADE C TREES
- GRADE U TREES
- ROOT PROTECTION AREA
- CANOPY OUTLINE - INDIVIDUAL TREE
- CANOPY OUTLINE - GROUPS
- CANOPY OUTLINE - FUTURE POTENTIAL
- TREES TO BE REMOVED
- INDICATIVE SHADE AREA

Arboricultural Constraints

Root Protection Area

The Root Protection Area (RPA) is illustrated as a magenta circle or polygon around each tree or group of trees. This is the area where if the trees are retained, ideally no excavation should take place; the soil level should not be raised or lowered; no materials should be stacked; there must be no contamination and no services should be routed.

However, trees may be tolerant of some disturbance and recent advances in construction techniques can avoid causing significant damage to roots. This will depend on a number of factors including tree species and site conditions along with the type of construction methods available to the developer.

Shade or Light-Loss

The shade area is based on a solar inclination of 45° in line with the median suggested by BS5837. Building within the shade area can be acceptable where internal layout, fenestration or proposed use of buildings means they are not adversely affected by a lack of daylight received. Some shading may be welcomed in the summer when solar gain can make room temperatures uncomfortable.

Above Ground Constraints

The height of the lower crown above ground is shown in the survey. Lifting (or raising) the crown to a set height above ground in order to install fences, achieve clearance over the driveway or allow access for plant and machinery would be an acceptable arboricultural practice. Crown spread may in its self be a constraint where it is greater than the RPA radius. Reference must be made to the tree survey schedule.

Trees on Neighbouring Land

Trees on neighbouring ground must be taken into consideration. These are shown on the plan.

Future Growth

Where future radial growth is possible, this has been illustrated as a broken green line. The potential future height has been illustrated in the shade patterns drawn.

Suitability for Retention

In general, Grade 'A' and 'B' trees should be retained, especially if they offer a visual amenity to the wider community. It may be desirable to retain Grade 'C' trees where they can continue to offer a presence until they are replaced but they should not generally prevent an otherwise satisfactory layout from being achieved. Some of the trees surveyed offer any current or future public visual amenity.

Statutory Protection

One of the trees surveyed is included in a TPO.

The site does not lie within a Conservation Area.

Design Objectives

Design a layout that takes account of the root protection areas of retained trees, with an aim to leave at least 2m beyond the radial extent of the RPA to make the practical execution of development feasible, (subject to other constraints) .

Design a layout that takes the shading and above ground constraints into account. Shady areas beyond the crown spreads of trees would be best for car parking. Gardens must receive direct sunlight over a reasonable proportion of the area (25% is suggested) to be satisfactory.

Service routes must be located outside of the RPAs of retained trees.

Implement a tree protection scheme before development (including demolition) starts on site.

Make provision for replacement planting within the landscape proposals.

Rev	Description	Date
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Purpose of Issue

Information Only

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Client

Ark Property

Project

Land off Thary Lane and Coalbeach Lane South, Surfleet

Drawing Title

TREE CONSTRAINTS PLAN

Drawn	Checked	Reviewed	Date
AMB	--	--	21/03/2022
Job No.	Scale	Sheet Size	Revision
4558	1:200	A1	

Drawing Number

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