

ARBORICULTURAL ASSESSMENT & IMPACT REPORT

BAILEY GIBSON 2 SHD

Project No.	Project name	Date	Revision
TBAI001	Bailey Gibson SHD 2	08/06/22	A

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Client brief & Methodology

CMK Hort + Arb Ltd. were commissioned by the applicant to provide base-line data on the composition and condition of trees at the site of the proposed development at in Dublin 8, generally bounded by South Circular Road, Donore Avenue and Rehoboth Place. (image 1). The fieldwork was undertaken on the 13th of April 2022.

The survey methodology, supporting drawings and documentation follow the recommendations contained within BS 5837 (2012). The analysis of the trees was undertaken using the VTA methodology as developed by Mattheck and Breloer (1994).

1. General description of trees

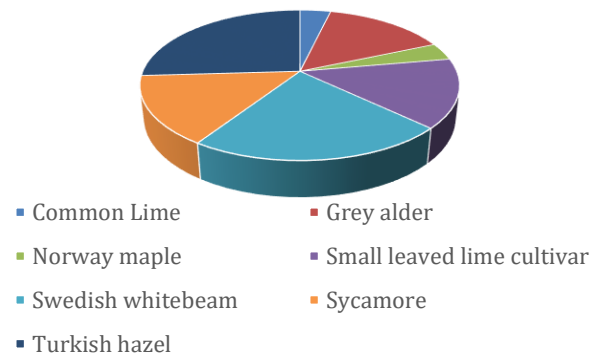
The site encompasses vacant brownfield former industrial lands, namely Bailey Gibson and part of the Player Wills site, greenfield boys brigade pitches and vacant residential structures at St Teresa's Gardens. The mix of species is broad (chart 1) with the age range also mixed and reflecting the sites diverse nature. The condition of the trees is mixed (table 1) with vandalism a factor within the former housing complex at Donore Avenue and poor establishment of some trees on South Circular Road. Individual tree analyses are outlined within Appendix i with tree locations shown on drawing TBAI001 101 Tree Survey & Constraints.

The better-quality trees are arguably the small leaved lime cultivars (*Tilia cordata* cv) on Donore Avenue which have established well and provide a softening of the streetscape in this area (image 2).

The trees within the more central area of St Teresa's Gardens have been blighted by vandalism with storm damage also a factor (image 3). The main species planted was Swedish whitebeam (*Sorbus aria*) which though having the potential to develop into good quality trees often contain structural issues such as included bark which renders them prone to storm damage.



CHART 1. SPECIES MIX



Tree Categories	Number	% of Total
A	0	0
B	17	65
C	5	19
U	4	15

Table 1. Tree Categories

The street trees on South Circular Road within the applicant's landholding are Turkish hazel (*Corylus colurna*) which are of mixed age and quality. Like small leaved lime cultivars this species has been used extensively by local authorities as a street tree. It is a robust species and like lime responds well to pruning allowing it to be shaped to avoid high sided vehicles etc. Some of the trees assessed for this report appear to have established more readily than other with poor planting conditions most likely responsible for the less successful plantings. A disused allotment within the applicant's landholding contains a number of trees which appear to be both self-seeded and planted (image 4). They form an effective screen to this area and though crowded together are generally well developed. The close proximity of some of the trees to a low boundary wall reduces their long-term potential.



Image 2. Lime cultivars on Donore Avenue
©Google



Image 3. Storm damage to Swedish whitebeam within St Teresa's gardens



Image 4. Trees screening the allotment area on South Circular Road with street trees within site boundary arrowed.

2. Impact of the proposed development

The proposed development will necessitate the removal of all the trees which fall within the site boundary encompassing St Teresa’s Gardens and environs, the trees within the former allotment area and one tree from South Circular Road.

The loss of trees in terms of the percentage of the total number within the site is significant (table 2). However, it is worth noting that 34% of the total trees present are within categories C & U with limited long-term potential. This is particularly evident within the St Teresa’s Gardens housing complex where the majority of the trees are category U and recommended for removal based on their poor condition. The remaining trees to be removed (50% of total) are of moderate value (category B). The better-quality trees located on Donore Avenue have been identified for removal due to the reconfiguration of the civic open space provision in this area. The impact on the streetscape in this location will be significant however the redesign of this area allows for large numbers of new trees to be planted on Donore Avenue and within the new civic space adjacent to the new playing pitches. The existing trees at the former allotment site on South Circular Road will be removed. The impact that the loss of these trees will have on the streetscape will be significant but temporary as significant numbers of replacement trees are proposed both at this location and along Rehoboth Place.

Tree Categories	Number	% of Total
A	0	0
B	13	50
C	3	12
U	5	20

Table 2. Arboricultural Impact

One Turkish hazel tree has been identified for removal on South Circular Road to facilitate a new pedestrian crossing point. This is a relatively well-developed young tree which could be replaced with new plantings in suitable locations along the road. There is extensive tree planting proposed within the new development which will greatly increase the tree cover within this area overall (for details on proposed planting refer to the Landscape Masterplan). The proposed planting of three hundred trees significantly reduces the long-term impact of the loss of the current population of trees by providing a new gain of seventy-nine trees.

Tree protection proposals are shown on drawing TBAI001 107 where there will be a reconfiguration of the existing to facilitate the provision of a pedestrian crossing. Given the close proximity of works to tree #939 and the very variable nature of tree root architecture beneath paved areas it is proposed that these works are monitored by the project arborist.

Tree protection proposals are shown on drawing TBAI001 107 where there will be a reconfiguration of the existing to facilitate the provision of a pedestrian crossing. Given the close proximity of works to tree #939 and the very variable nature of tree root architecture beneath paved areas it is proposed that these works are monitored by the project arborist.

4. Limitations of Survey

This survey should be regarded as a preliminary assessment of the trees and deals with the current condition as identified during this survey only. Every attempt was made to identify hazardous trees in this report however; this survey was carried out from the ground and therefore cannot be held to have identified elements of decay, which may be hidden out of sight within the crown or beneath ivy or other obstructions. To counter this limitation in the survey process it is vital that during tree works any additional defects found by the climbing arborist are communicated to the consulting arborist to allow appropriate action to be taken.

The details within this survey are based on the condition of the trees during the survey period only. The findings in this survey cannot be held to be valid after any site

disturbance, man-made or natural, which may have an adverse effect on any trees present.

5. Relevant legislation

There are no Tree Protection Orders (TPOs) on any of the trees on this site.

6. Terminology

Tree categories

- A Trees of high quality and value due to their size, age, condition, historical/visual merit and/or conservation potential (a minimum of 40 years).
 - A1 Mainly arboricultural values. Particularly good examples of species, essential components of groups or of formal or semi-formal arboricultural features.
 - A2 Mainly landscape values. Trees, groups or woodlands which provide a definite screening or softening effects to the locality in relation to views into or out of site, or those of particular visual importance.
 - A3 Mainly cultural values, including conservation. Trees, groups or woodlands of significant conservation, historical, comparative or other value (e.g. veteran trees or wood-pasture).
- B Trees of moderate quality and value (a minimum of 20 years).
 - B1 Mainly arboricultural values. Trees that might be included in high categories but are downgraded because of impaired condition (e.g. presence of remedial defects including unsympathetic past management and minor storm damage).
 - B2 Mainly landscape values. Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal features (e.g. trees of moderate quality within an avenue that includes better A category specimens) or trees situated internally to the site, therefore individually having little visual impact on the wider locality.
 - B3 Mainly cultural values including conservation. Trees with clearly identifiable conservation or other cultural benefits.
- C Trees of low quality and value (a minimum of 10 years).
 - C1 Not qualifying in higher categories.
 - C2 Trees present in groups or woodlands but without conferring on them greater landscape value and/or trees offering low or only temporary screening benefit.
 - C3 Trees with very limited conservation or other cultural benefits.

Terminology cont.

U Trees in such 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. Trees that are dead, dying or showing immediate and irreversible decline.

Comments: Refers to the tree's condition and suitability for the site.

Common name: Most widely used non-botanical name.

Co-dominant: Two branches assuming the role of leading shoots. When growing close together may form a weak attachment (included bark) at their point of contact. Trees with this defect may be in danger of splitting at this weak attachment.

Crown Spread: Measured in meters north, south, east and west.

Decay fungi: Refers to those species of fungi which degrade living wood and which may, depending on the degree of degradation, render the tree structurally unsound.

Defects: Refers to cracks, storm damage and any other damage mechanical or biological.

Diameter: Diameter of the trunk (millimetres) at 1.5m. M.S. after the measurement refers to the tree being multi-stemmed.

Genus & Species: Refers to the botanical names for the tree.

Height: Measured in meters.

Monitor: Refers to trees which need to be re-surveyed on a yearly basis to assess their condition. This timescale may be sooner where works or adverse weather conditions have impacted negatively on the trees.

Overhaul: A reference to standard tree surgery work which consists of the removal of deadwood, crossing branches and balancing where appropriate.

Recommendations: Indicates surgery work necessary for the retention or, where necessary, removal of the tree.

Tree No. Refers to numbered tag fixed to tree during survey.

7. References

BS 5837 (2012). Trees in Relation to Design Demolition and Construction

Mattheck and Breloer (1994). The body language of trees

APPENDIX I. TREE CONDITION ANALYSIS AND PRELIMINARY RECOMMENDATIONS

Tag number	Species	Age Class	Vigour	Comments	Preliminary Recommendations	Category	Long-term potential (years)	Dbh mm	Height m	Spread m N, E, S, W	Clear stem m
924	Swedish whitebeam Sorbus aria	Mature	Very Poor	Extensive storm and fire damage	Fell	U	0	470	7.5	2,1,1,2	NA
925	Swedish whitebeam Sorbus aria	Mature	Dead		Fell	U	0	460	7	4,0,0,0	NA
926	Swedish whitebeam Sorbus aria	Mature	Fair	A large area of bark damage at 0.5m with associated dysfunctional wood. A section of canopy failed. Remaining canopy with tight weak unions between stems.	Overhaul	C2	10	470	12.5	3,4,3,3	2.25e
927	Swedish whitebeam Sorbus aria	Mature	Very Poor	Extensive storm damage in crown.	Fell	U	0	400	8	2,4,4,2	NA
928	Swedish whitebeam Sorbus aria	Mature	Very Poor	Large section of tree lost to storm damage.	Fell	U	10-15	440	11	4,3,0,4	NA

Tag number	Species	Age Class	Vigour	Comments	Preliminary Recommendations	Category	Long-term potential (years)	Dbh mm	Height m	Spread m N, E, S, W	Clear stem m
929	Norway maple Acer platanoides	Young	Good	A 1m strip of bark damage to north. Unlikely to be significant at present. Crown well developed with no visible defects.	No action necessary	B1	30-40	160	8	2,3,2,3	2.25e
930	Swedish whitebeam Sorbus aria	Young	Good	An even-aged planting of 6 trees. Mixed condition with most of low value due to poor establishment and vandalism.	No action necessary	B2-C2	10-20	60	6	1,1,1,1	2.5n
931	Common Lime Tilia x europaea	Early Mature	Good	Bark damage to trunk north-east. Not significant at present. Crown well developed with no visible defects.	No action necessary	B2	30-40	370	10.5	4,4,4,4	4e
932	Small leaved lime cultivar Tilia cordata cv	Early Mature	Good	Well developed with no visible defects. Basal shoots present.	Remove basal shoots	B2	40	420	13.5	5,5,4,5	3e
933	Small leaved lime cultivar Tilia cordata cv	Early Mature	Good	Bark damage and associated decay present to south. Unlikely to be significant at present.	Monitor decay	B2	30-40	340	12	5,5,5,6	2.5w
934	Small leaved lime cultivar Tilia cordata cv	Early Mature	Good	Topped for surveillance cameras. A pollard as a result.	No action necessary	B2	30-40	340	8.5	2,2,2,2	5e

Tag number	Species	Age Class	Vigour	Comments	Preliminary Recommendations	Category	Long-term potential (years)	Dbh mm	Height m	Spread m N, E, S, W	Clear stem m
935	Small leaved lime cultivar <i>Tilia cordata</i> cv	Early Mature	Good	Well developed with no visible defects.	No action necessary	B2	40	400	14	6,5,5,6	3n
936	Turkish hazel <i>Corylus colurna</i>	Young	Poor	Dieback in upper canopy. May signify decline.	Monitor	C2	10	120	5	1.5,1.5, 1.5,1.5	2.25n
937	Turkish hazel <i>Corylus colurna</i>	Young	Poor	Poor crown development with deadwood. May be in decline.	Dead wood	C2	10	100	4	0.5,0.5, 0.5,0	2.75n
938	Turkish hazel <i>Corylus colurna</i>	Early Mature	Good	Well developed with no visible defects.	No action necessary	B2	30-40	300	10	4,4,4,4	2.25n
939	Turkish hazel <i>Corylus colurna</i>	Early Mature	Good	Well developed with no visible defects.	No action necessary	B2	40	310	12	5,4,4,5	3s
940	Turkish hazel <i>Corylus colurna</i>	Young	Fair	Slightly sparse crown. Slow to becoming established or in decline.	Monitor	B2	10-15	150	6	1,2,2,1	2.25e
941	Turkish hazel <i>Corylus colurna</i>	Young	Good	Well developed with no visible defects.	No action necessary	B2	30-40	111	5	1,1,1,1	2s
942	Turkish hazel <i>Corylus colurna</i>	Young	Good	Well developed with no visible defects.	Remove stake	B2	40	80	5	1,1,1,0	2

Tag number	Species	Age Class	Vigour	Comments	Preliminary Recommendations	Category	Long-term potential (years)	Dbh mm	Height m	Spread m N, E, S, W	Clear stem m
943	Sycamore Acer pseudoplatanus Alder Alnus incana	Early Mature	Good	Two inter-dependent trees forming a multi-stemmed specimen. Minor deadwood in upper crown of alder. Unlikely to be significant at present.	No action necessary	B2	40	250	15	5,5,5,4	0
944	Sycamore Acer pseudoplatanus	Early Mature	Good	Crown restricted toward north due to competition from neighbouring trees. Trunk co-dominant from 2.15m with wide unions between stems.	No action necessary	B2	30-40	250	14	1,3,5,2	2.75s
945	Grey alder Alnus incana	Early Mature	Good	A tall slender specimen though crown limited toward east.	No action necessary	B2	40	220	14	3,1,1,3	2.5w
946	Grey alder Alnus incana	Early Mature	Fair	Deadwood in upper canopy may indicate decline.	Dead wood	C2	10-15	220	9	1,2,2,1	2s
948	Sycamore Acer pseudoplatanus	Young	Good	In contact with boundary wall. Crown slightly restricted toward north due to competition from	Remove to retain boundary wall.	C2	10	210	7.5	0,1,1,1	2.25n
949	Grey alder Alnus incana	Mature	Good	Well developed with no visible defects.	No action necessary	B2	30-40	290	13	3,3,3,3	3n

Tag number	Species	Age Class	Vigour	Comments	Preliminary Recommendations	Category	Long-term potential (years)	Dbh mm	Height m	Spread m N, E, S, W	Clear stem m
950	Sycamore Acer pseudoplatanus	Early Mature	Good	Multi-stemmed from base. Tight unions between stems. No visible defects.	No action necessary	B2	30-40	220	11	3,4,4,4	0