C M K
Hort + Arb Ltd.

# ARBORICULTURAL ASSESSMENT & IMPACT REPORT

# DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT (SHD)

| Project No. | Date | Revision |
|---|---|---|
| TDUN009 | 15/03/22 | C |


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## Appendices

## 1. Client brief & Methodology

CMK Hort + Arb Ltd. were commissioned by Dundrum Retail GP DAC (Acting for and on behalf of Dundrum Retail Limited Partnership) to provide base-line data of trees on the composition and condition of trees at the proposed development site at the Dundrum Village Centre site and adjacent properties to the west of Main Street at Dundrum, Dublin (image 1). This report also outlines the impact of the proposed development on trees and hedgerows. The fieldwork was undertaken on the 28th & 29th of July 2021.

**Image 1.** Site location

The survey methodology, supporting drawings and documentation follow the recommendations contained within BS 5837 (2012; Ref. Pg8). The analysis of the trees was undertaken using the VTA methodology as developed by Mattheck and Breloer (1994).

## 2. General description of trees

The site is located in Dundrum Village Centre and adjacent properties to the west of Main Street with trees scattered across the site in distinct locations. Tree locations are shown within Appendix II (TDUN009 101 Tree Survey & Constraints).

A total of 37 trees are included within this report. In terms of numbers the majority of the trees have been planted since the shopping centre opened in the 1970s. However, there are trees which appear to be associated with the older properties on Main Street. These trees are located in rear gardens or abandoned parcels of land to the rear of these properties. The species mix (chart 1) also reflects the history of the site. The older trees are native and naturalised species with the younger trees directly associated with the shopping centre mainly cultivars. The exception to this pattern are a number of ash planted into a retaining slope to the north of an access linking Main Street to the surface car parking on the Dundrum Village Centre Lands.

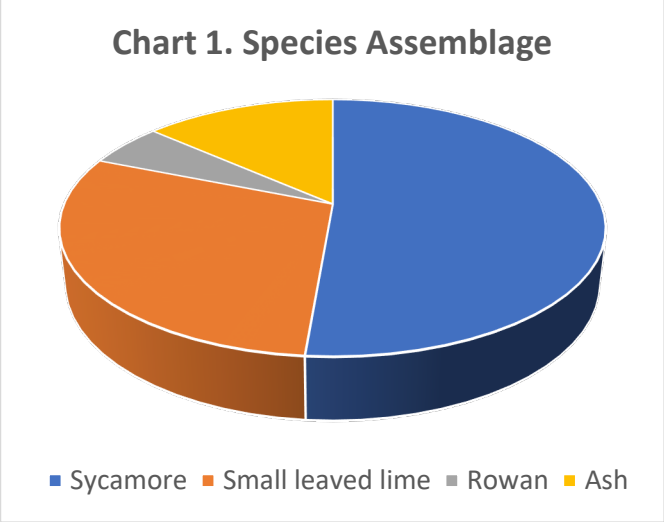


Table 1 outlines their categorisations with individual tree descriptions contained within appendix I. The younger trees have been planted to screen areas such as the carpark adjacent to the Dundrum bypass (image 2) or to provide an ornamental, softening edge along Main Street (image 3).

**Image 2.** Lime cultivars screening a carpark along the Dundrum bypass.

**Image 3.** Birch planted in containers along Main Street.

Older trees on derelict land (images 4 & 5) are probably self-seeded however a number have grown to large sizes in particular two sycamore #2931 & #2933 (images 4 & 5) which are particularly notable specimens. With the exception of #2931 the group of sycamore within image 4 are of moderate to low value overall due to the competition between trees.

**Image 4.** Ash in the foreground planted on a retaining slope with sycamore in the background within an abandoned site.

**Image 5.** Sycamore #2933

The condition of the trees is mixed (table 1) but there are a relatively high number within the A & B categories (79%) (refer to section 7 for terminology). There have been very limited management interventions over time and there are issues such as trees growing in very close proximity to buildings and infrastructure which should have been addressed some time ago. This includes a number of trees within the group of sycamore to the rear of 13 Main Street. A very large specimen is in this location but competition between trees has reduced the quality of others within the tree group.

| Tree Categories | Number | % of Total |
|---|---|---|
| A | 1 | 3 |
| B | 28 | 76 |
| C | 5 | 14 |
| U | 3 | 8 |

**Table 1.** Tree Categories

## 3. Impact of the proposed development

### 3.1 Description of proposed development

The development comprises 11no. Urban blocks arranged around the central pedestrian spine and a series of 4 courtyards corresponding to 4 separate "zones" or character areas. The buildings range in height from 4-5 stores on Main Street to 9-16 storeys to the Dundrum Bypass. The development will consist of c. 881no. Residential units. This development also includes a food store, retail, café/restaurant and a crèche are at ground floor level, fronting Main Street, as detailed in the Schedule of Accommodation included with this submission. The development will include the demolition of all existing structures on the site with the exception of No.'s 1-3 Glenville Terrace which will be refurbished. Vehicular and cycle parking is provided below podium with visitor cycle parking spaces in the public realm. Vehicular access to serve the proposed development will be provided via Dundrum Bypass. The existing vehicular entrance on Main Street will be closed. Pedestrian connections and linkages are proposed through the site, forming connections that are not currently possible from within the site to Main Street; to the south via Church Square and Dom Marmion Bridge; and west via the proposed new Sweetmount Bridge connecting Main Street to the residential communities west of the Bypass.

### 3.2 Detail of Arboricultural impact

The development of the site will necessitate removal of 68% of all the category A, B & C trees on the site. In addition, all the category U trees will also be removed in the interests of sound arboricultural management. A line of 11 young small leaved limes will be retained adjacent to the Dundrum bypass (Refer to drawing TDUN009 108).
The loss of trees particularly the large mature specimens represent a loss of ecosystem services within this location. The retention of the eleven young small-leaved lime trees is to be welcomed and they should provide a degree of screening as established trees at this location within the site. A comprehensive tree planting programme is proposed over the site (refer to the Landscape Masterplan) which will go some way toward mitigating against the loss of existing trees.

## 4. Tree Protection

Tree protection locations are shown on drawing TDUN009 110. The erection of the tree protection fencing will be undertaken prior to any works commencing in this area with locations set out and monitored by the project arborist.
The removal of the existing carpark will pose a minor challenge for tree protection as machinery will be operating close to retained trees, however it is considered that there will be little or no tree root development beneath carpark. As a result, no damage to these trees is envisaged during these works. An arboriculturist will be engaged to provide any specialist guidance should that be required during the construction of the project.

## 5. 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.

## 6. Relevant legislation

There are no Tree Protection Orders (TPOs) on any of the trees on this site. However, unless planning permission which clearly identifies trees for removal has been granted then under Section 7 of the Forestry Act 2014 a person wishing to fell trees must apply to the minister for a licence to do so.

Exempted trees: Section 19 states that the requirement for a felling licence for the uprooting or cutting down of trees does not apply where:

- The tree in question is standing in an urban area
- The tree is considered dangerous and hazardous.
- The tree is within 10m of a public road and regarded as hazardous
- The tree in question is less than 100 ft. / 30m from a dwelling other than a wall or temporary structure;
- The tree in question is a hazel, apple, plum, damson, pear, or cherry tree grown for the value of its fruit or any ozier;

Other exceptions apply in the case of local authority road construction, road safety and electricity supply operations.
The Act is administered by the Forest Service (Department of Agriculture, Fisheries and Food). The Felling Section of the Forest Service is based in Johnstown Castle, Co. Wexford (053-9160200 or 1890-200223).

If you have any queries about felling in general or are unsure whether or not the trees fall under any of the above cases, it is recommended that you seek the advice of the Felling Section or of your local forestry development officer for further information.

Trees may contain bats. Bats are protected under Schedule 5 of the Wildlife Act 1976 and Schedule 1 of the European Communities (Natural Habitats) Regulations 1997. Professional advice from a licenced surveyor should be sought prior to any works commencing on trees.

## 7. 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).
Terminology cont.

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.

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.

## 8. References

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

Fossitt J.A. (2000) A Guide to Habitats in Ireland, Heritage Council

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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2904 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Well developed. No visible defects. | No action necessary | B2 | 40 | 140 | 6 | 2,2,2,2 | 2n |
| 2903 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Well developed. No visible defects. Stake in place. | Remove stake. | B2 | 40 | 150 | 6 | 3,2,2,3 | 2e |
| 2902 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Well developed. No visible defects. Stake in place. | Remove stake. | B2 | 40 | 160 | 7 | 2,3,2,2 | 2e |
| 2901 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Well developed. No visible defects. Stake in place. | Remove stake | B2 | 40 | 170 | 8 | 2,2,2,2 | 2n |
| 2905 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Trunk with lean toward east but crown vertical. Unlikely to be significant at present. | No action necessary | B2 | 40 | 200 | 150 | 2,2,3,3 | 2s |
| 2906 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Well developed. No visible defects. Stake in place. | Undertake formative pruning | B2 | 40 | 170 | 7.5 | 3,3,3,3 | 2.25n |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2907 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Well developed. Minor branch damage in lower crown to east. | Remove damaged branch | B2 | 40 | 150 | 7 | 3,3,3,3 | 2s |
| 2908 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Well developed. No visible defects. Stake in place. | Remove stake. | B2 | 40 | 160 | 10 | 3,3,3,3 | 2.5n |
| 2909 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Trunk with a lean toward west. Canopy restricted due to competition from neighbouring trees. Could be removed in favour of neighbouring trees. | No action necessary | C2 | Oct-15 | 150 | 8 | 1,2,1,3 | 2e |
| 2910 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Well developed. No visible defects. Basal suckers present. | Remove basal suckers | B2 | 40 | 160 | 8.5 | 3,3,3,3 | 2n |
| 2911 | Small leaved lime cultivar Tilia cordata cv | Young | Good | Well developed. No visible defects. | No action necessary | B2 | 40 | 150 | 9.5 | 3,3,2,3 | 2n |
| 2916 | Ash Fraxinus excelsior | Early Mature | Good | Well developed. No visible defects. | No action necessary | B2 | 15-20 | 280 | 13 | 4,4,4,4 | 1.75w |
| 2915 | Ash Fraxinus excelsior | Early Mature | Good | Well developed. Stake in place. No visible defects. | Remove stake. | B2 | 15-20 | 260 | 13 | 4,4,4,4 | 1.5w |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2914 | Ash Fraxinus excelsior | Young | Good | Well developed. No visible defects. | No action necessary | B2 | 15-20 | 150 | 7 | 3,3,3,3 | 2s |
| 2913 | Ash Fraxinus excelsior | Young | Good | Well developed. Stake in place. No visible defects. | Remove stake. | B2 | 15-20 | 100 | 5 | 2,2,2,2 | 1.75n |
| 2912 | Ash Fraxinus excelsior | Young | Good | Well developed. No visible defects. | No action necessary | B2 | 15-20 | 100 | 4 | 1.5,1.5, 1.5,1.5 | 1.75e |
| 2923 | Sycamore Acer pseudoplatanus | Mature | Good | A cluster of stems. Bark damage minor limb loss present. Crown Restricted due to competition | Overhaul | C2 | 15-20 | 220 | 11 | 5,5,3,1 | 0 |
| 2922 | Sycamore Acer pseudoplatanus | Mature | Good | Relatively well developed though crown development restricted due to competition | No action necessary | B2 | 40 | 340 | 16 | 5,4,1,1 | 10n |
| 2921 | Sycamore Acer pseudoplatanus | Mature | Good | Well developed. No visible defects. very heavy ivy growth obscuring view for assessment. | Cut ivy | B2 | 30-40 | 350 | 16 | 4,2,2,4 | 4s |
| 2920 | Sycamore Acer pseudoplatanus | Early Mature | Good | A tall slender specimen. Twin stemmed from base. No visible defects. | No action necessary | B2 | 40 | 220 | 16 | 2,2,2,2 | 11n |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2919 | Sycamore Acer pseudoplatanus | Early Mature | Good | A cluster of three stems. Crown mainly concentrated toward north and west due to competition from neighbouring trees. No visible defects. | No action necessary | B2 | 40 | 220 | 16 | 4,2,2,5 | 5w |
| 2918 | Sycamore Acer pseudoplatanus | Mature | Good | A cluster of stems forming a combined canopy. No visible defects. | No action necessary | B2 | 40 | 220 | 16 | 4,4,4,4 | 2.5w |
| 2917 | Sycamore Acer pseudoplatanus | Mature | Fair | Two stems slightly sub-dominant to neighbouring trees to east. Crown restricted in this | No action necessary | B2 | 20-30 | 250 | 16 | 4,1,1,5 | 4w |
| 2924 | Sycamore Acer pseudoplatanus | Mature | Very Poor | Extensive bark loss. | Fell | U | <10 | 200 | 16 | 3,1,2,1 | NA |
| 2925 | Sycamore Acer pseudoplatanus | Mature | Good | A relatively well developed specimen though crown restricted toward north due to competition from neighbouring trees | No action necessary | B2 | 40 | 520 | 16 | 2,5,7,4 | 0 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2926 | Sycamore Acer pseudoplatanus | Mature | Good | A cluster of four stems. Storm to north sub-dominant. Canopy of remaining stems restricted toward north due to competition from neighbouring trees. No visible defects. | No action necessary | B2 | 40 | 280 | 16 | 4,5,1,1 | 3n |
| 2927 | Sycamore Acer pseudoplatanus | Mature | Good | Well developed. No visible defects. | No action necessary | B2 | 40 | 330 | 16 | 5,5,2,5 | 5n |
| 2929 | Sycamore Acer pseudoplatanus | Mature | Good | Trunk co-dominant from base. very heavy ivy growth obscuring view for assessment. No visible defects. | Cut ivy and re-assess | B2 | 40 | 250 | 16 | 4,4,4,4 | 4n |
| 2930 | Sycamore Acer pseudoplatanus | Mature | Good | Relatively well developed. Trunk co-dominant from 2m. very heavy ivy growth obscuring view for assessment. Upper canopy wd. No visible defects.. Old boundary wall at 0.5m to north may restrict root development in this direction. | Cut ivy and re-assess | B2 | 40 | 350 | 16 | 6,4,3,4 | 6n |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2928 | Sycamore Acer pseudoplatanus | Mature | Poor | A section of crown to north dead. May indicate decline. very heavy ivy growth obscuring view for assessment extensive rubble at base | Cut ivy + deadwood | C2 | 10 | 350 | 12 | 1,3,4,2 | 8e |
| 2932 | Sycamore Acer pseudoplatanus | Mature | Poor | A cluster of stems becoming swamped in ivy. | Cut ivy and re-assess | C2 | Oct-15 | 350 | 9 | 3,3,3,3 | 0 |
| 2931 | Sycamore Acer pseudoplatanus | Mature | Good | Very large specimen. A pocket of decay in trunk at 0.5m to east but unlikely to be sig at present. Trunk multi-stemmed from 3m with wide unions between stems. Upper canopy well dev No visible defects. | Cut ivy | A2 | 40 | 910 | 20 | 9,9,8,8 | |
| 2933 | Sycamore Acer pseudoplatanus | Mature | Good | Trunk co-dominant from base with wubs. Stem to north further sub-dividing at 2m with a wide union between stems. Buildings on close proximity to north and east. Ramp at 0.5m to south. Upper canopy relatively full and well developed. | Cut ivy and re-assess | B3 | 40 | 900 | 20 | 5,5,6,5 | 4s |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2935 | Sycamore Acer pseudoplatanus | Early Mature | Good | Self-seeded beside infrastructure. | Fell | U | <10 | 350 | 10 | 4,4,4,4 | NA |
| 2934 | Sycamore Acer pseudoplatanus | Early Mature | Good | Self-seeded beside infrastructure. | Fell | U | <10 | 300 | 8 | 4,4,4,4 | NA |
| 2936 | Rowan Sorbus aucuparia | Mature | Fair | Lower canopy full and well developed but deadwood in upper canopy may indicate early decline. | Monitor | C2 | 10 | 260 | 6 | 3,3,3,3 | 2.5n |
| 2937 | Rowan Sorbus aucuparia | Mature | Good | Multiple stems from the base of a failed tree. appear stable and structurally sound. | No action necessary | B2 | 15-20 | 150 | 8010 | 3,3,3,3 | 0 |