Tree Management Services
Arboriculture, Landscape and Forestry Consultants

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Our Ref: TMS.CD.11.21.01

Your Ref:

Date: 29th. November 2021

Report Title: Arboricultural Tree Survey Report

Project Title: Residential Development at St Edmunds Phase 3

Client(s): Moykerr Limited

C8.

Contents

1. Introduction:

1.1 Tree Management Services have been commissioned by Moykerr Limited to carry out this Arboricultural Tree Survey Report on lands at St Edmunds Phase 3, Palmerstown, Co. Dublin. It is proposed to develop the site for residential purposes and this Arboricultural Tree Survey Report and associated Tree Survey drawing is part of the overall Arboricultural tree-related planning information pack that also includes an Arboricultural Impact Assessment (AIA) and an associated Tree Root Protection Plan.

2. Methodology

2.1 We carried out the Tree Survey on 29th. November 2021 and this report provides an update of our Survey last carried out on 12th. February 2019. The Tree Survey was carried out to the ISA's *Best Management Practices – Level 1* or *Level 2 Assessment* and the *BS 5837:2012 Trees in relation to Design, Demolition and Construction – Recommendations.* The trees have been identified and described in the Tree Survey Schedule outlined below. Measurements relating to height, girth diameter, and crown spread have been taken and the general condition of the trees have been assessed and described. Finally, preliminary management recommendations have been prescribed. For Tree locations refer to *Tree Survey drawing Ref: TMS.CD.11.21.01A.* The Survey has been carried out without reference to any development proposals for the site.

3. Scope of the Work

3.1 Our brief was to carry out a Tree Survey on the site area as outlined in red on the attached drawing ref. *TMS.CD.11.21.01A.*

4. Summary of Tree Survey:

4.1 The trees surveyed are growing in a planted row along the western boundary of the site and on SDCC Lands on the eastern side. While the row of Beech trees growing along the western boundary of the site could be assessed as a group as per clause 4.4.3 of BS 5837:2012, we assessed each tree individually within the row to highlight any variation in attributes (including physiological or structural conditions).

4.2 The tree species surveyed comprise of *Fagus sylvatica (Beech), Populus trichocarpa* (Poplar), *Acer platanoides* (Maple), *Sorbus aria* (Whitebeam) and other minor species. The trees vary in age and range from young (<20) to mature (>80 years) old.

4.3 The row of *Fagus sylvatica* (Beech) trees tag nos. 621-688 along the western boundary are part of a row of screen trees growing close to the entrance road to the St. Edmunds Residential Development complex. The row of trees continues northwards beyond the development. The trees are generally in poor condition with little or no arboricultural or sylvicultural management practices carried out in the past. Refer also to photographic images - Appendix 2. The trees, probably originally planted as a screen hedge at close spacing (often <1m.) have been allowed to grow and mature. The close spacing is causing limited room for healthy growth and good development. The trees are competing for light and space as they seek out optimum light and growing space. A high number of trees have developed weak forking points and these trees could be prone to stem failure particularly during times of high winds. The restricted growing conditions has caused leaning and crooked stems and asymmetrical and unbalanced crowns to occur. There are over-extended limbs and stems on the eastern and western sides over the adjacent cycle land, footpath, access road and the development site. In several instances tree trunks or stems have become fused together causing structural weakness to occur. There are instances where trees are suppressed and growth retarded by heavy ivy growth. There is wire attached and embedded in the tree trunks along the entire row to a height of about one metre. The trees have limited space for future growth and development. The trees are within falling distance of the entrance roadway, pedestrian footpath and cycle lane to the west and the apartment blocks (under construction) and development to the east. Generally the trees have a very low or fell retention rating and are classified as either 'C' as defined in BS 5837:2012 as *'Those of low quality and value, but can make a contribution until new planting is established'* or as 'U' retention category trees - defined in BS5837: 2012 as *'Those in such condition that they cannot be realistically be retained as living trees in the context of the current land use for longer than 10 years'.*

4.4 The characteristics and condition of the row of Beech trees, the high level of structural defects present, the size of the components(s) most likely to fail, the site environment, and the potential targets nearby (pedestrians,

cyclists, motorists, busy road, cycle lane, footpath and buildings) all combine to provide a high tree hazard evaluation with limited abatement options. Therefore our recommendation is to fell the row of Beech trees and to replant with a more sustainable and suitable species of avenue trees.

4.5 The group of Poplar and Maple growing on lands to the east of the site in the ownership of South Dublin County Council are in fair to poor condition. The trees are growing in an exposed part of the site. Many of the trees have suffered from storm damage in the past, resulting in broken and storm-damaged crowns. Some trees are displaying signs of storm damage, stem fractures, cavities, decay and broken and hung-up limbs. The tall poplar trees are close to or within falling distance of the adjoining slip road to the N4. In general, Poplar trees show a high propensity to form weak forks, a high propensity for fork failure and a high propensity to fail due to decay. Thus the species are not suitable for long-term retention on public lands close to a busy road. We have prescribed felling a number of the Poplar trees and recommend that consideration be given to the removal of the remaining Poplar trees in this location. Other works for trees to be retained includes crown cleaning, crown pruning and the removal or repair all leaning, storm-damaged and broken limbs.

4.6 The young *Sorbus aria* (Whitebeam) growing along the southern boundary are in good condition.

4.7 In general, the site is moderately exposed and mature trees could be vulnerable to wind throw particularly during times of high winds. Storm damage resulting in stem fractures has occurred in the past particularly within the *Populus spp.* (Poplar) species. Heavy ivy growth often restricted our assessments.

4.8 The main threats or risk to persons and/or property will be from fallen limbs, deadwood, hangars or other debris falling from the crowns of trees. Other threats include trees that suffer from mechanical failure or uproot during times of high winds. For preliminary management recommendations, refer to the Tree Survey Schedule below.

5. Proposed Tree Works:

5.1 Refer to the Programme of works outlined in the Tree Survey schedule below. Tree Works recommended includes the felling of the row of mature Beech trees on the western boundary and remedial and felling works to those trees growing on SDCC Lands on the eastern boundary. Remedial works include the severance of ivy growth, crown cleaning, deadwood removal, as well as general pruning and reshaping. The works as detailed in the Tree Schedule below shall only be carried out by a competent, professional and fully insured and certified Tree Surgery firm. The Contracting firm shall adhere to the Safety, Health and Welfare at Work Act 2005 and other relevant safety legislation. Works to trees on SDCC Lands shall only be carried out with the prior consent and approval of SDCC.

5.2 During any tree works, care shall be taken to protect surrounding healthy trees, buildings, other structures and private property. Strict safety precautions shall be put in place to safeguard site occupants, road users, members of the general public, property and vehicles. If possible, felling work should not be carried out during the bird-nesting season. Trees shall be checked for bat roosting areas prior to commencement of work. While tree felling and remedial works are being carried out, appropriate measures should be put in place to prevent access from unauthorised persons to the work sites. All trees that are to be retained shall be managed in the interests of safety and to best arboricultural and sylvicultural standards and practices. **Note:** It should also be noted that the Beech trees and possibly other trees surveyed have wire and metal objects attached or embedded in their main trunks. Wire and other embedded materials can damage trees and can cause injury/death to persons engaged in the pruning, cutting, felling or related activities of affected trees. Damage to machinery can also occur.

5.3 ***Timeframe for re-inspection:*** Trees are not static objects, but growing, living organisms; and their condition, size, and relationship to buildings or other trees can change significantly and sometimes unpredictably within a relatively short period of time. The maximum interval of time for which this report and its findings remain valid shall be no more than twelve months from the date the Survey was carried out. Regular and ongoing assessments shall be carried out at least annually, or after major storms or other exceptional events on the tree site. Re-assessments shall be at the request of the Tree Owner.

Assumptions and Limitations

Any tree, whether it has visible weaknesses or not, will fail if the force applied exceed the strength of the tree or its parts. Only those trees specified in the scope of work were assessed and assessments were performed within the limitations specified. This tree assessment was carried out from the ground as a visual survey. To counter this limitation, it is vital that during Tree Works or Aerial Inspections, any additional defects found by the climbing Tree Surgeon be communicated to the Consulting Arborist to allow appropriate action to be taken. Our tree risk assessments represent the condition of the trees at the time of inspection. Our basal assessments were impeded and limited due to heavy ivy and basal sucker growth, scrub and ground vegetation. Climbing plants such as ivy can obscure decay or structural defects present at the time of the Survey. Where the ivy growth is so dense that a thorough assessment cannot be carried out, then it is recommended that it be severed at ground level, and the tree be re-inspected once the ivy has died off. Our tree risk assessments consider known targets and visible or detectable tree conditions. No invasive or destructive evaluation techniques were used and all findings are based on the knowledge and expertise of the undersigned – a qualified Arborist. Trees are living organisms that are subject to the stresses of climatic extremes and attack from decay fungi and injurious diseases. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees in question may not arise in the future. By examining the trees, rating their likelihood of causing damage and injury and recommending action to abate the hazard, we act to reduce but not eliminate the risks associated with trees. We have been authorized to carry out this report with the full permission and consent of Moykerr Limited.

Larry Phelan M.S.I.F. Certified Arborist, Dip EIA Mgmt. Dip in Science (Forestry)

Larry Phelan is a Professional Forester and Certified Arborist. He has over 35 years' experience in a broad range of tree-related matters including Forestry, Arboriculture, Landscaping and related activities. He trained and worked for the semi-state Forestry Company – Coillte Teoranta for over 30 years in a number of forestry-disciplines including Tree Services, Private Afforestation and Private Timber procurement.

He is a Professional Member and Certified Arborist with The International Society of Arboriculture (ISA), Technical Member of the Society of Irish Foresters (MSIF) and an Approved Forester including Native Woodlands with the Forest Service, Department of Agriculture Food and The Marine.

Explanation of terms – Tree Survey Schedule

Tree No.: The tag number used to identify the tree.

Species: The genus and species for each tree is given.

Ht.: The approximate tree height to the nearest .5/m. is given.

DBH: This is the trunk diameter measured at a height of 1.5 m above ground level.

Dripline: This is the measurement taken from the base of the tree to the outer tip of the lateral branches. It records branch spread. This is an average radial reading as most tree canopies are generally not symmetrical

Age: The approximate age of the tree

Physiological Condition: Tree condition is based on a 3-tier rating system, and constitutes a general assessment of the physiological condition of the tree where a rating of
Good = represents good health and vigour
Fair = Healthy and reasonable vigour
Poor = Showing signs of decline, disease or decay.

Preliminary Management recommendations: Comments or initial suggestions of remedial works recommended at this point in time

Retention Category: BS 5837: 2012 determines four retention categories following assessment

(1) Trees whose retention is most desirable: ***Category A***
Those of high quality with an estimated remaining life expectancy of at least 40 years.

(2) Trees whose retention is desirable: ***Category B***
Those of moderate quality with an estimated remaining life expectancy of at least 20 years.

(3) Trees which could be retained; ***Category C***
Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.

(4) Trees for removal: ***Category U***
Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

Note: Trees categorized as C/U require a Management decision on final course of action to be taken.

Preliminary Management recommendation: Comments or initial suggestions of remedial works recommended at this point in time

E= denotes estimated (restricted access)
NAR = No action required at this point in time.
AVG. – The average girth recorded where there is more than one main stem.

Glossary of Arboricultural Terms used:

Cavity: open or closed hollow within a tree stem, usually associated with decay.

Codominant stem: Forked stems or branches nearly the same size in diameter, arising from a common junction and lacking a normal branch union.

Crown: upper part of a tree, measured from the lowest branch, including all the branches and foliage.

Crown cleaning: In pruning, the selective removal of dead, dying, diseased and broken branches from the tree crown.

Crown raising: In pruning, the selective removal of lower limbs from a tree crown to provide clearance.

Crown reduction: Method of reducing the height and/or spread of a tree crown by making appropriate pruning cuts.

Crown thinning: In pruning, the selective removal of live branches to reduce crown density. The percentage of crown thinning stated are for guideline purposes only. The climbing Tree Surgeon to ultimately decide the amount of limbs to be removed following his inspection of the crown.

Deadwooding: removing dead and dying branches from a tree.

Decay: an area of wood that is undergoing decomposition

Decline: gradually diminishing health or condition of a tree.

Dieback: condition in which the branches in the tree crown die from the tips towards the centre.

Failure: Breakage of stem, branch or roots, or loss of mechanical support in the root system.

Hangar: Broken branch hung up in the tree crown.

Lean: Angle of the trunk

Level 1 Assessment consists of a visual assessment of an individual tree or a population of trees near specified targets, conducted from a specified perspective in order to identify certain obvious defects or specified conditions. A limited visual assessment typically focuses on identifying trees with *imminent* and/or *probable* likelihood of failure.

Level 2 Assessment consists of a detailed visual examination of the tree and its surrounding site and a synthesis of the information collected. It requires walking around each tree looking at the site, buttress roots, trunk, crown and branches and noting any defects, outward signs of possible internal defects and response growth. Data is then analysed and mitigation measures (tree works) are derived.

Pruning: Removing branches from a tree using approved practises, to achieve a desired objective.

Root rot: Decay located in the tree roots. Root decay is usually developed from the bottom up, and crown symptoms may or may not be visible.

Scope of work: The defined project objectives and requirements

Sucker growth: Shoots arising from the roots close to base of tree.

Stem: woody structure bearing foliage and buds.

Target: Person, object, or structure that could be harmed (damaged or injured) by a tree or tree part in the event of failure.

TREE SURVEY SCHEDULE

Tree No.	Species Common Name See Appendix 3 for *Scientific Name*	Ht. Ms. m.	Girth	Branch Spread m.	Age Y-Young M - Middle-aged MA - Mature OM - Over mature	Physiological Condition and Comments • Good • Fair • Poor • Dead	Preliminary Management recommendations	Estimated Remaining Contribution In years. <10 10-20 20-40 >40	Retention Category A - High B - Moderate C - Low U - Remove
621	Common Beech	9.0	20	0N 0S 0E 1W	MA	Dead. Removal recommended.	Fell.	<10	U
622	Common Beech	14.5	46	2N 1S 4E 1W	MA	Fair. Forked at 2m. Ivy growth to 4m. Basal sucker growth present. Forked at 2m. Could develop into a weak stem union in time. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
623	Common Beech	10.0	17	0N 0S 0E 1W	MA	Poor. Light ivy growth to 2m. Asymmetrical crown. More crown weight to west. Unbalanced and deformed crown.	Remove the tree - see paragraph 4.4	20-40	U
624	Common Beech	19.0	75	4N 0S 5E 3W	MA	Poor. Forked at 1.5m and 2.5m. Weak forking points. Could be prone to stem failure. Co-dominant stem at base - west side. Cavity on main stem on south side at 4m. Fused stems at 6m. Dead stems east side. Wire attached to main trunk east side. More crown weight to east over site. Poor shape and form.	Remove the tree - see paragraph 4.4	20-40	U
625 1262	Common Beech	7.0	17	0N 0S 3E 0W	MA	Poor. Suppressed tree. Crooked main stem. Cavity on main stem to 1m. Wire attached to main trunk east side.	Fell.	10-20	U
626 1263	Common Beech	17.0	45	0N 0S 5E 4W	MA	Poor. Fused tree with no 627. Crooked main stem. Forked at 2m. Over-extended limbs to east. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
627	Common Beech	19.0	33	2N 0S 0E 2W	MA	Poor. Fused tree with no 626. Could be a weak point where fused. Wire attached to main trunk east side. Light crown. Suppressed on south side.	Remove the tree - see paragraph 4.4	20-40	U

628	Common Beech	17.0	41	0N 0S 3E 3W	MA	Fair. Slightly crooked stem. Branched from 7m. Light crown. Suppressed on south and north sides. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
629	Common Beech	18.0	47	0N 1S 4E 0W	MA	Poor. Crevice on northern side at 1.5m. Wire attached to main trunk east side. Minor cavities along main stem. Fused with tree no. 630. Over-extended limbs to east.	Remove the tree - see paragraph 4.4	20-40	U
630	Common Beech	13.0	41	1N 0S 0E 4W	MA	Poor. In advanced state of decline. Peeling bark along main trunk. Fused tree with no. 629. Hangar in crown at 5m. Wire attached to main trunk east side. Deformed and suppressed crown.	Fell.	<10	U
631	Common Beech	16.0	37	1N 0S 0E 4W	MA	Poor. Crooked stem. Wire and metal objects attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
632	Common Beech	15.0	36	1N 0S 0E 3W	MA	Fair. Unbalanced crown. More crown weight to west. Wire attached to main trunk east side. Suppressed crown on west side.	Remove the tree - see paragraph 4.4	20-40	U
633	Common Beech	6.0	18	0N 0S 0E 2W	MA	Dead tree	Fell.	<10	U
634	Common Beech	17.0	42E	2N 0S 6E 0W	MA	Poor. Crooked main stem. Fused with tree no 635. Broken stem at 2m. East Side. More crown weight to east. Leaning to NE. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
635	Common Beech	15.0	27	0N 0S 0E 1W	MA	Poor. Light stem. Light high crown. Suppressed on east side. Fused with tree no. 634. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
636	Common Beech	14.5	37	1N 0S 0E 5W	MA	Poor. Crevice at base on southern side. Pocket cavities at base. Limbs overhang footpath and street lighting to west. Suppressed crown on east side. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U

637	Common Beech	15.0	28	0N 0S 3E 0W	MA	Poor. Suppressed on west side. Ivy growth to 2m. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
638	Common Beech	14.0	26	0N 0S 0E 2W	MA	Fair. Straight stem to 6m. Light crown.	Remove the tree - see paragraph 4.4	20-40	U
639	Common Beech	13.0	41	0N 0S 4E 4W	MA	Fair. Heavy ivy growth to 2m. Lower stem not assessed. Suppressed on south side. Limbs overhang footpath to west. Over-extended limbs to east and west. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
640	Common Beech	14.5	50	0N 0S 4E 0W	MA	Poor. Ivy growth to 3m. Forked at 1.3m. Suppressed on northern side. Lower stem not assessed. Fused stems. Dead stems along trunk. Wire attached to main trunk east side. Dead limbs on east side.	Remove the tree - see paragraph 4.4	20-40	U
641	Common Beech	7.0	35	0N 0S 1E 0W	MA	Dead.	Fell	<10	U
642	Common Beech	16.0	35	1N 0S 0E 4W	MA	Fair. Heavy ivy growth to 6m. Lower stem not assessed. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
643	Common Beech	17.0	45	2N 1S 2E 4W	MA	Fair. Crooked stem to 1m. Ivy growth to 6m. Dominant tree. More crown weight to west over footpath and road. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
644	Common Beech	12.0	28	0N 0S 3E 0W	MA	Poor. Suppressed on south side. Leaning to northeast. Crooked stem. Cracked stem at 4m. Heavy ivy growth to 3m. Lower stem not assessed. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
645	Common Beech	14.5	38E, 30E	1N 0S 4E 4W	MA	Poor. Heavy ivy growth to7m. Lower stem area not assessed. Forked close to base. Leaning stem to west. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
646	Common Beech	14.0	42E	0N 2S 0E 2W	MA	Poor. Heavy ivy growth to 7m. Lower stem not assessed. Close to no. 645. Dead stems on south and west sides.	Remove the tree - see paragraph 4.4	20-40	U

647	Common Beech	13.0	34E	1N 0S 0E 0W	MA	Fair. Heavy ivy growth to 7m. Lower stem not assessed. Suppressed on south side. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
648	Common Beech	16.0	76	1N 1S 4E 4W	MA	Poor. Forked at 1m. Weak stem union. Water retention in stem union. Crooked stems. Poor shape and form. Suppressed on south side. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
649	Common Beech	15.0	40	1N 0S 3E 1W	MA	Poor. Crooked main stem. Wire attached to main trunk east side. Light ivy growth attached.	Remove the tree - see paragraph 4.4	20-40	U
650	Common Beech	16.0	41, 33	0N 0S 6E 6W	MA	Poor. X 2 stems. Light ivy growth attached. Fused stems at base. Weak stem union. Prone to stem splitting. Limbs overhang footpath to west. Heavy over-extended limbs to east. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
651	Common Beech	19.0	27, 24	0N 1S 2E 3W	MA	Poor. Forked at base. Could be prone to stem splitting. Light ivy growth to 4m. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
652	Common Beech	17.0	62	2N 0S 5E 3W	MA	Poor. Forked at 1.5m. x 3 stems. Weak stem union. Unbalanced crown. Heavy over-extended limbs to east. Light ivy growth attached. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
653	Common Beech	18.0	32	0N 1S 1E 0W	MA	Poor. Fused with tree no. 652. Fused stems at 4m. Suppressed crown on northern side. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
654	Common Beech	14.0	47	0N 0S 0E 4W	MA	Poor. Forked at 1.5m. Leaning stem over path to west. Wire attached to main trunk east side. Unbalanced crown.	Remove the tree - see paragraph 4.4	20-40	U
655	Common Beech	16.0	36E, 30E	0N 0S 2E 4W	MA	Poor. Forked at base. Heavy ivy growth attached to about 12m. Crooked main stem. Forked from .5m. Lower stem not assessed. Wire attached to main trunk east side. Multiple forking points from 2m. Leaning stems to west over path.	Remove the tree - see paragraph 4.4	20-40	U
656	Common Beech	15.0	43, 27	1N 0S 6E 4W	MA	Poor. Forked at 1m. Light ivy growth attached. Suppressed on south side. Heavy over-extended limbs to east. More crown weight to east. Wire attached and embedded in main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U

657	Common Beech	16.0	30	1N 0S 0E 2W	MA	Poor. Heavy ivy growth to 12m. Crooked main stem. Suppressed light crown. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
658	Common Beech	7.0	9	-N -S -E -W	MA	Poor. Suppressed tree. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
659	Common Beech	17.0	44,41 20	3N 0S 5E 4W	MA	Poor. X 3 stems. Forked at base. Light ivy growth attached. Over-extended limbs to east and west. Dead stems on east side. Leaning stems to west. Deformed crown. Wire and cable embedded in main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
660 1310	Common Beech	19.0	38, 31, 36	2N 2S 5E 4W	MA	Poor. X 3 stems from 1m. Ivy growth attached to 10m. Fused and crossing stems. Limbs overhang path on west side. Wire attached to main trunk east side. Dead stems over path.	Remove the tree - see paragraph 4.4	20-40	U
661	Common Beech	15.0	29	0N 0S 5E 0W	MA	Poor. Cavities along trunk. Crooked and deformed main stem. Cavity on main trunk at elbow. Could be prone to stem breakage. Leaning to east. Wire attached to main trunk east side.	Fell.	<10	U
662	Common Beech	16.0	53	1N 0S 3E 5W	MA	Fair. Forked at 1.7m. Wire attached to main trunk east side. Ivy growth to 14m. Leaning stems to west over path and cycle lane. Deformed and unbalanced crown.	Remove the tree - see paragraph 4.4	20-40	U
663	Common Beech	15.0	40	0N 2S 3E 3W	MA	Poor. Light ivy growth to 5m. Multiple forking points from 2m. Old pallet in crown. Wide-spreading crown. Leaning stem to west. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
664	Common Beech	17.0	34	1N 0S 2E 1W	MA	Poor. Crooked stem. Self-corrected. Heavy ivy growth to 10m. Wire attached to main trunk east side. High crown.	Remove the tree - see paragraph 4.4	20-40	U
665	Common Beech	16.0	45	1N 0S 2E 4W	MA	Poor. Slightly crooked stem. Heavy ivy growth to 8m. Light co-dominant stem on north side. Minor hangars in crown. Wire attached to main trunk east side. Limbs overhang footpath and cycle lane to west.	Remove the tree - see paragraph 4.4	20-40	U

666	Common Beech	12.0	24	0N 0S 0E 5W	MA	Poor. Suppressed crown. Crooked stem. Minor cavity at base east side. Deformed crown. More crown weight to west over path and cycle lane. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
667	Common Beech	14.0	43	0N 0S 7E 7W	MA	Poor. Ivy growth to 7m. Major forking point at 2m. More end weight to east and west. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
668	Common Beech	6.0	20,14	0N 0S 0E 5W	MA	Poor. Light ivy growth to 3m. Forked from base. Leaning to west. In advanced state of decline. Wire attached to main trunk east side.	Fell	<10	U
669	Common Beech	16.0	36, 32	1N 1S 4E 2W	MA	Poor. Forked close to base. Fused stems at 2m. Could be prone to stem breakage. Crooked stems. Poor shape and form. Suppressed crown. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
670 1322	Common Beech	5.0	12	0N 1S 0E 0W	MA	Poor. Suppressed tree. Dead stems on west side. Wire attached to main trunk east side. Hangar in crown.	Remove the tree - see paragraph 4.4	20-40	U
671	Common Beech	6.0	12	0N 0S 0E 1W	MA	Poor. Suppressed tree. Ivy growth attached. Wire attached to main trunk east side. Deformed crown.	Remove the tree - see paragraph 4.4	20-40	U
672 1324	Common Beech	18.0	34,30 18	2N 0S 3E 2W	MA	Poor. Forked at .5m. Leaning stem to west. Fused and crooked stems. Self-corrected. Dead stem on west side. Light ivy growth to 14m. High crown Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
673	Common Beech	17.0	53	0N 0S 5E 0W	MA	Poor. Leaning to east. Could be prone to wind throw. Heavy ivy growth to 8m. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
674	Common Beech	8.0	14, 16	0N 0S 0E 2W	MA	Poor. X 2 stems. Suppressed on northern side. Wire embedded in main trunks east side. Poor long-term potential.	Remove the tree - see paragraph 4.4	20-40	U
675	Common Beech	14.0	22	0N 0S 2E 0W	MA	Poor. Crooked stem. Leaning to east. Heavy ivy growth to 12m. Suppressed on west side. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U

676	Common Beech	16.0	34	0N 0S 0E 5W	MA	Poor. Forked at 6m. Leaning to west. Suppressed crown on east and south side. Heavy ivy growth to 8m. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
677 1329	Common Beech	14.0	35	1N 0S 3E 0W	MA	Poor. Suppressed by ivy to 12m. Wire attached to main trunk east side. Deformed crown.	Remove the tree - see paragraph 4.4	20-40	U
678	Common Beech	17.0	31	0N 0S 3E 1W	MA	Poor. Suppressed on west side. Forked from 2m. Light ivy growth to 13m. Unbalanced crown. More end weight to east. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
679	Common Beech	15.0	36	1N 1S 3E 1W	MA	Poor. Light ivy growth to 4m. Crooked main stem. More crown weight to east. Wire attached to main trunk east side. High crown.	Remove the tree - see paragraph 4.4	20-40	U
680	Common Beech	6.0	19	0N 0S 2E 0W	MA	Poor. Suppressed tree. Deformed crown. Heavy ivy growth to 4m. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
681	Common Beech	15.0	75E	2N 2S 2E 4W	MA	Poor. Forked at 1.2m. Fused stems. Heavy ivy growth to 14m. Lower stem not assessed. Leaning stem over cycle lane and path to west. Deformed crown. Suppressed crown on south side. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
682	Common Beech	6.0	16	-N -S -E -W	M	Poor. Suppressed tree. Heavy ivy growth to 4m.	Remove the tree - see paragraph 4.4	20-40	U
683	Common Beech	18.0	38	1N 0S 1E 4W	MA	Poor. Heavy ivy growth to 4m. Wire attached to main trunk west side. High crown	Remove the tree - see paragraph 4.4	20-40	U
684	Common Beech	17.0	54E	0N 0S 4E 1W	MA	Poor. Forked at 1.5m. Decay in forking point. Could be prone to splitting. Heavy ivy growth to 14m. Wire attached to main trunk east side.	Remove the tree - see paragraph 4.4	20-40	U
685	Common Beech	16.0	46E	0N 0S 3E 3W	MA	Fair. Heavy ivy growth to 14m. Lower stem not assessed. Main forking point from 6m. High crown. Wire attached to main trunk. Electrical service unit box on western side.	Remove the tree - see paragraph 4.4	20-40	U

686	Common Beech	16.0	33	0N 0S 2E 0W	MA	Poor. Suppressed by ivy. Suppressed crown. Heavy ivy growth to 14m. Wire attached to main trunk. Electrical service unit box on western side.	Remove the tree - see paragraph 4.4	20-40	U
687	Common Beech	15.0	32, 70E	3N 0S 3E 2W	MA	Fair. Close to entrance. Forked at .5m. Suppressed by ivy. Elder scrub at base. Forked at base. Multiple forking points from 3m. Heavy ivy growth attached to 16m. Lower stem not assessed. Wire attached to main trunk.	Remove the tree - see paragraph 4.4	20-40	U
688	Common Beech	14.0	47E	0N 2S 6E 0W	MA	Fair. Wooden plank attached. Suppressed by ivy. Close to entrance. Heavy basal sucker growth. Major forking point at 7m. More end weight to east. Wire attached to main trunk.	Remove the tree - see paragraph 4.4	20-40	U
689	Whitebeam	4.5	8	0N .5S .5E .5W	Y	Good. Staked and tied. Clear Stem to 2m.	Readjust stake and tie.	>40	C
690	Whitebeam	5.0	11	.5N .5S .5E .5W	Y	Good. Clear stem to 2m. Crown-raised in recent past.	NAR	>40	C
691	Whitebeam	5.0	14	.5N .5S 1E .5W	Y	Good. Crown-raised in recent past. Clear stem to 2m.	NAR	>40	C
692	Whitebeam	5.0	14	1N .5S 1E .5W	Y	Good. Slight lean to north. Crown-raised in recent past. Clear stem to 2m.	NAR	>40	C
693	Horse chestnut	13.0	44	2N 2S 1E 3W	MA	Good. Forked at 2m. Early signs of oozing sap blotches along main trunk. Small open wound on main trunk on west side. Close to path. Well-balanced crown.	Lightly tip prune back limbs over path. Clean the crown.	>40	A
696	Poplar	15.0	85	4N 3S 4E 3W	MA	Poor. Forked at 1.3m. x 3 stems. Open wound with decay at 1m. west side. Broken stem on NE side. Structurally weak and prone to stem or whole tree failure. Minor hangar in crown.	Fell	10-20	U

697	Maple	8.0	19	0N 0S 3E 0W	MA	Poor. Major open wound at Northern side to 1m. Broken stem at 1 and 2m. north side. Suppressed and deformed crown. Poor long-term potential.	Fell.	10-20	U
698 1904	Maple	11.0	32	1N 2S 3E 1W	MA	Fair. Forked at 2m. Could develop into a weak stem union. Minor hangars in crown. Light crown. Broken limbs in crown.	Remove minor hangars in crown. Remove broken limbs in crown on northern side. Prune crown to improve balance and shape. Clean the crown.	>40	C
699	Poplar	15.0	53	1N 3S 1E 2W	MA	Fair. Forked at 1m. Water retention in stem union. Canker and burrs along stems. Storm damage and multiple fracture points in crown. Suppressed crown on north side.	1. Prune crown to improve balance and shape. Clean the crown. Or 2. Fell tree to ground level.	>40	C/U
700	Maple	4.0	23	0N 0S 0E 0W	MA	Poor. Broken main stem at 4m. Crevice to 1m. on north side.	Fell	<10	U
701	Poplar	17.0	48	1N 0S 4E 0W	MA	Poor. Ivy growth to 2m. Broken main stem at 8m. Broken and storm-damaged limbs in crown. Leaning towards east.	Fell.	10-20	U
702	Poplar	17.0	36	1N 0S 0E 5W	MA	Poor. Storm damage in crown. Light debris in crown. Straight stem to 6m. Old fracture point to .5m. east side. Open to decay. Structurally weak. Unbalanced crown.	Fell.	10-20	U
703	Poplar	15.0	34	1N 1S 2E 3W	MA	Good. Straight stem. Well-balanced crown. Given the location of the tree - removal of tree to be considered.	1. Crown raise to 2.5m. Clean the crown. Or 2. Fell tree to ground level.	>40	C/U
704	Poplar	17.0	37	1N 1S 4E 0W	MA	Fair. Slight lean to east. Unbalanced crown. More crown weight to east. Given the location of the tree - removal of tree to be considered.	1. Crown raise to 2m. Prune crown to improve balance and shape. Clean the crown. Or 2. Fell tree to ground level.	20-40	C/U
705	Common ash	5.0	11, 14	0N 0S 1E 0W	M	Poor. Twin-stemmed. Suppressed. Leaning towards east. Poor long-term potential.	Consider removing both stems.	20-40	C/U
706	Field maple	7.0	15, 11	0N 0S 2E 0W	MA	Fair. Twin-stemmed. Scaring at base west side. Open to decay. Suppressed crown. Leaning towards east. Unbalanced crown.	Prune crown to improve balance and shape. Clean the crown.	20-40	C

707	Poplar	16.0	33	0N 0S 3E 0W	MA	Poor. Slight lean to east and towards road. Ivy growth to 3m. Lower stem not assessed. Dead stem at 4m. Light crown. Given the location of the tree - removal of tree to be considered.	1. Sever ivy growth at base and reassess tree after ivy dies off. Remove dead stem back to main trunk - east side. Prune back limbs in crown on east side. Clean the crown. Or 2. Fell tree to ground level.	>40	C/U
708	Poplar	20.0	72	4N 2S 0E 6W	MA	Fair. Forked at 1.3m. Weak stem union. Could be prone to stem splitting. More end weight to west over adjoining site. Leaning to west over hoarding. Given the location of the tree - removal of tree to be considered.	1. Prune back limbs on west side. Crown raise to 3m. Prune crown to improve balance and shape. Clean the crown. Or 2. Fell tree to ground level.	20-40	C/U
709	Maple	11.0	22	2N 0S 4E 0W	MA	Poor. Scaring at base on southern side. Open wound and not occluded. Straight stem to 2m. Suppressed crown on west side. lBroken and storm-damaged limb at 2m. east side. Unbalanced crown. Suppressed on west side. Poor long-term potential.	Remove broken limb east side. Prune crown to improve balance and shape. Clean the crown.	>40	C
710	Poplar	20.0	42	4N 0S 4E 1W	MA	Fair. Straight stem to 6m. Light crown. Suppressed crown on southern side. Given the location of the tree - removal of tree to be considered.	1. Clean the crown. Remove all dead stems. Prune crown to improve balance and shape. Or 2. Fell tree to ground level.	>40	C/U
711	Maple	10.0	24	1N 0S 4E 1W	MA	Fair. Vigourous growth habit. Forked at 2m. Small open wound at .5m. east side. Unbalanced crown. More end weight to east. Storm damage on west side. Minor hangar in crown.	Prune crown on east side to improve balance and shape. Remove hangar in crown. Clean the crown.	>40	C
712	Maple	9.0	24	0N 1S 4E 2W	MA	Poor. Old fracture wound at 2.5m. SE side. Structurally weak. Deformed crown. More end weight to east. Slight lean to east. Old pruning point 1m west side.	1. Prune crown to improve balance and shape. Crown raise to 2m. Clean the crown. Or 2. Consider removing tree.	>40	C/U
713	Maple	12.0	26	1N 1S 0E 4W	MA	Fair. Lacks vigour. Poor extension growth. Forked at 2m. Broken limbs on northern side at 2m.	Remove broken limbs in crown. Prune crown to improve balance and shape. Clean the crown.	>40	C
714	Maple	14.5	28	1N 1S 1E 1W	MA	Fair. Forked at 2m. and 2.2m. Minor storm damage in crown.	Crown raise to 2m. Clean the crown.	>40	C

715	Common ash	11.0	18	1N 0S 2E 0W	MA	Poor. Crooked stem. Crevice and decay on southern side of main trunk to 2m. Signs of decline in crown. Unbalanced crown with more end weight to east. Removal recommended.	Fell	<10	U
716	Maple	12.0	30, 22	1N 0S 2E 3W	MA	Poor. Forked at .5m. Weak forking point. Broken stem at 2m. SW side. Open wound and fracture point at 2m. on SW side not occluded. Open to decay. Poor shape and form.	1. Prune crown on east side to improve balance and shape. Clean the crown. Or 2. Consider removing tree.	20-40	C/U
717	Silver Birch	15.0	26	1N 1S 1E 2W	MA	Good. Crooked stem. Self-corrected. Clear stem to 4m. Well-balanced light crown.	Clean the crown.	>40	C
718	Maple	12.0	29, 29	3N 1S 4E 3W	MA	Poor. Forked at .4m. Weak union. Fused stems at 1.5m. Could be prone to stem splitting in time. Well-balanced crown.	Crown raise to 2m. removing lower lateral stem on west side. Clean the crown.	20-40	C

Appendix 1

Scientific names of trees surveyed:

Common Name	Scientific Name
Common Ash	*Fraxinus excelsior*
Common Beech	*Fagus sylvatica*
Whitebeam	*Sorbus aria*
Maple	*Acer rubrum*
Alder	*Alnus glutinosa*
Balsam Poplar	*Populus trichocarpa*
Horse chestnut	*Aesculus hippocastanum*

Appendix 2

Photo 1 = Start of Tree Survey from tree no. 621 looking southwards.

Photo 2: Views of Beech trees nos. 621, 622 and 623

Photo 3: Views of Beech tree no. 624 with weak forking point.

Photo 4: Tree nos. 626 and 627 with fused stems - Poor long-term potential.

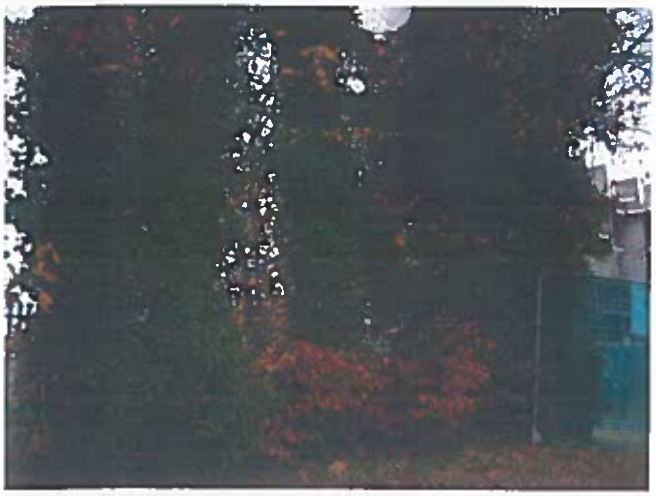

Photo 5: Views of Beech trees 642-646 - Note heavy ivy growth.

Photo 6: Views of row of Beech trees from entrance road looking north.

Appendix 2 (contd.)

Photo 7 = Views of row of Beech trees from entrance road

Photo 8: Tree no. 648 with weak stem union.

Photo 9: Views of Beech tree (no. 661) with crooked stem and cavity.

Photo 10: View of Beech tree with poor shape and form.

Photo 11: Views of row of Beech trees looking north - Note the overhanging limbs over path and cycle lane

Photo 12: Close up views of Beech trees showing poor formation from overcrowding

Photo 13: Beech trees with low forking points leading to weak stem unions.

Photo 14: Upper canopy views of Beech tree with leaning stems to east.

Photo 15: Beech trees nos. 685-688 - note heavy ivy growth.

Photo 16: General views of Beech trees looking northwards from entrance.

Photo 17: Views of trees on SDCC Lands - eastern boundary.

Photo 18: Views of Poplar and Maple trees in poor condition.

Appendix 3 -*Tree Survey Drawing Ref: TMS.CD.11.21.01A*