



Arboricultural Development Report

HAVEN BANKS EXETER

Produced for:
Coplan Estates

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tree : fabrik

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1.0 EXECUTIVE SUMMARY

- 1.1 This report provides an assessment of the potential impact of proposed development on the tree stock and relevant trees. This analysis is based on “British Standards 5837 (2012) ‘Trees in relation to design, demolition and construction’ (“BS 5837 (2012)”)” and in context of the proposed landscape strategy.
- 1.2 This report has been prepared in support a planning application for the redevelopment of Haven Banks, Water Lane, Exeter EX2 8BY (‘the site’).
- 1.3 The site is located south of Exeter City centre, and formed by a large retail building with associated carparking and soft ground to the boundaries forming incidental landscaping.
- 1.4 A total of 27 individual trees are located within the site including 7 category ‘B’ trees (Moderate quality), 19 category ‘C’ trees (Low quality) and 1 ‘U’ category tree in accordance with British Standards 5837 (2012) ‘Trees in relation to design, demolition and construction’. Of these trees, 16 trees are subject to Tree Preservation Order (TPO) 561 (2006) administered by Exeter City Council.
- 1.5 In addition, 10 individual trees and 1 group located off-site were recorded within the survey schedule including 1 category ‘A’ tree, 6 category B trees and 3 category ‘C’ trees and 1 group. These additional trees were included within the survey schedule as they are located within close proximity to the site boundary and provide context to the site and surrounding features.
- 1.6 All trees located off-site are retained.
- 1.7 Of the trees located within the site, 24 individual trees have been identified for removal to facilitate development including; 5 category ‘B’ trees, 18 category ‘C’ trees and 1 ‘U’ category tree.
- 1.8 In mitigation, the landscape strategy makes provision for 104 new trees and 78 Multi-stemmed trees at ground level. This will enhance the quality of the future tree stock, introduce resilience and result in a significant net gain in canopy cover in the medium term.
- 1.9 Trees identified for retention can be adequately protected during demolition and construction phases in accordance with BS5837 (2012) ‘Trees in relation to design, demolition and construction - recommendations’ and can be successfully integrated within the proposed development.

2.0 INTRODUCTION

- 2.1 This report is submitted on behalf of Coplan Estates in support of a planning application for redevelopment of Haven Banks, Water Lane, Exeter EX2 8BY.
- 2.2 The land subject to this application is referred to as ‘the site’ hereon in throughout this report.

3.0 PURPOSE OF REPORT

- 3.1 This report presents an analysis of the potential impact of the proposed scheme on the existing tree stock and in context of the local and wider landscape. The analysis is based on British Standards 5837 (2012) ‘Trees in relation to design, demolition and construction - recommendations’ (BS 5837 (2012)).
- 3.2 The impact assessment is informed by a Tree Survey dated March 2022 prepared by *tree:fabrik*. The tree survey assessment was carried out in accordance with BS 5837 (2012). The tree survey provides an informed approach to tree retention and protection as part of the feasibility and design process. All tree numbers within this report reference the tree identification number within the tree survey.
- 3.3 The Tree Survey Reference Plan [TF1210-FAB-00-XX-DR-G-8201] (“Tree Survey Plan”) at Appendix 1, was overlaid onto the proposals. An illustrative Tree Removal & Arboricultural Impact Assessment Plan [TF1210-FAB-00-XX-DR-G-8301] is provided at Appendix 4.
- 3.4 This enables a review of the arboricultural impact by Exeter City Council (ECC) in context of other material considerations and site constraints and opportunities submitted in support of the planning application and a basis for issuing planning permission.

4.0 STATUTORY DESIGNATIONS

- 4.1 Selected trees within the site are subject to Tree Preservation Order (TPO) 561 (2006) administered by Exeter City Council (ECC). The TPO is comprised of 15 individual trees. Written consent must therefore be obtained from ECC prior to carrying out any works to trees subject to the TPO, or works that may impact on the tree’s health or amenity beyond that granted by planning consent.

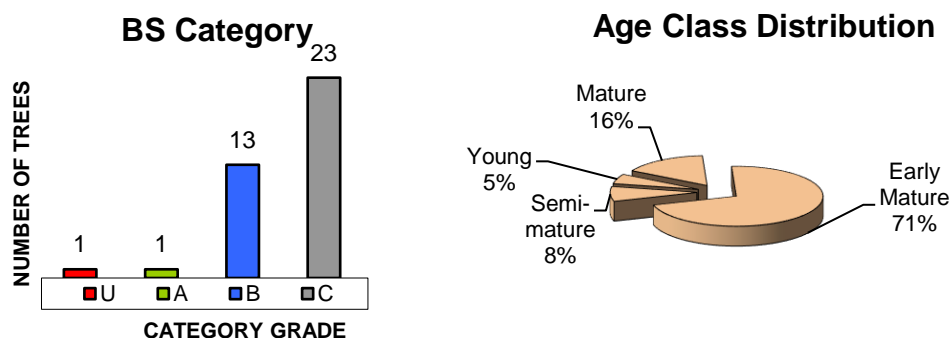
- 4.2 At the time of the assessment, TPO T16 (Norway Maple) cited within the TPO schedule could not be positively identified on site and is likely to have been removed in the interim period.
- 4.3 The location of trees subject to the TPO are cross-referenced within the Tree Survey Reference Plan [TF1210-FAB-00-XX-DR-G-8201] at Appendix 2.
- 4.4 The statutory designation of trees may change. It is therefore recommended that the statutory designation of trees be confirmed with ECC prior to carrying out tree works. All tree works must be carried out by a competent person experienced in arboriculture and in accordance with British Standards 3998 (2010) Recommendations for tree work.
- 4.5 Attention is drawn to the responsibilities under the Wildlife & Countryside Act (1981) as amended by the Countryside and Rights of Way Act 2000. This may place additional constraints on trees above that considered within this report.

5.0 SITE DESCRIPTION

- 5.1 The site is formed by Haven Bank Retail Park and is located to the south of Exeter City Centre. The site consists of a large retail building with carparking to the northwest and soft ground to the boundaries forming incidental landscaping. To the southeast of the site an access road services the retail building to the rear.
- 5.2 The site, irregular in shape, is bound to the northwest and south by residential gardens with Haven Road and Water Lane to the north and west respectively. The east boundary is formed by a footway that connects Haven Banks Carpark to Haven Road.
- 5.3 The topography of the site is fairly flat with trees located within areas of soft ground. These areas of soft ground are at a slightly higher level than the car park. Vehicle access to the site is from Water Lane with 'exit only' access to Haven Road.
- 5.4 Within the local landscape, the wider tree stock is varied with the principal arboricultural features formed by native and ornamental trees within municipal areas, rear gardens and along the banks of the River Exe.

6.0 TREE STOCK

- 6.1 A copy of the limitations, methodology and tree survey schedule forms Appendix 1. Root protection area (RPA) calculations form Appendix 2 and a photographic record of the tree stock forms Appendix 3.
- 6.2 The assessment was carried out in accordance with the guidance and recommendations of British Standards 5837: (2012).
- 6.3 At the time of the site visit, 4 additional trees were included within the site assessment. These additional tree(s) were omitted from the land survey but have been included within this assessment as they may have potential to influence the site and provide context to surrounding site features. Additional trees include off-site trees T28, T36, T37 & T38. Whilst care has been taken to position the trees within the drawing they should be accurately re-surveyed and plotted if considered appropriate. The tree positions do not however, affect the condition or their grading within this report.
- 6.4 A total of 37 individual trees and 1 group were assessed within the survey schedule including 1 category 'A' tree (High quality), 13 category 'B' trees (Moderate quality), 23 category 'C' trees (Low quality) and 1 'U' category tree in accordance with British Standards 5837 (2012) 'Trees in relation to design, demolition and construction'. Of these trees 10 individual trees and 1 group are located off-site.
- 6.5 Trees assessed as category 'U' are considered to be of such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.



- 6.6 In general, trees within the site are of a mixed species with the majority of trees within the site located to the north and west boundaries. Species include; Hawthorn, Honey Locust, London Plane, Norway Maple, Snakebark Maple, Paperbark Maple and Whitebeam.

- 6.7 The principal arboricultural features within the site are formed by the four early mature London Plane (T1, T15, T16 & T17). With the exception of T1, these trees are located within raised planters and are set centrally within the main car park. T1 is located within soft ground adjacent to Water Lane. These trees have been crown reduced and display early development of knuckle points within the main crown architecture, typically characteristic of cyclical pruning. As such, the trees are prominent at a local level and within the street scene to Water Lane.
- 6.8 To the north and west boundaries of the site, the majority of the tree stock is formed by Norway Maple (T2 to T6, T8, T14, T19, T21 to T23, T25 and T27) set within narrow areas of soft ground adjacent to the carpark and Haven Road. Whilst of fair health, the trees have been subject to unsympathetic crown reduction in the past and display a poor crown form. The trees are likely to be subject to future decay with weakly attached regrowth and therefore have limited potential to accrue greater visual amenity or a form that is characteristic of the species. Whilst the trees provide some screening to properties within Stream Court, the trees are of low quality and have been assessed as 'C' category accordingly.
- 6.9 Elsewhere within the site, trees are of ornamental species including Snakebark Maple (T10 & T13) and Paperbark Maple (T11 and T12).
- 6.10 Off-site, trees to the east are located within a pedestrian/cycle link connecting Haven Bank Carpark to Haven Road. These trees are of fair health and condition including Himalayan Birch (T29 to T32), Winter Cherry (T33), Yew (G34 & T35), Ash (T36) and Monterey Pine (T37). Together with Silver Birch (T28), these trees would not usually be considered to form a constraint to the sites development.

7.0 ARBORICULTURAL IMPACT ASSESSMENT

7.1 General

- 7.1.1 The potential impacts, both direct and indirect are illustrated within the Tree Removal & Arboricultural Impact Assessment Plan [TF1210-FAB-00-XX-DR-G-8301] at Appendix 4.

7.2 Tree Retention and Removal

- 7.2.1 Together with all off-site trees, the proposed development retains one mature and two early-mature ornamental trees located within the site. Of these trees, a Paperbark

Maple (T12) and a Snakebark Maple (T13) are assessed as 'B' (moderate) category. The remaining Norway Maple (T19) assessed as 'C' (low) category is located adjacent to Haven Banks and contributes to the street scene.

- 7.2.2 The proposed development will result in the loss of 24 trees within the site. This includes trees subject to the existing TPO.
- 7.2.3 Of these trees, the London Plane (T1, T15, T16 & T17) assessed as category 'B', the Norway Maple (T2, T3, T4, T5, T6, T8, T14, T22, T23, T25) and Honey Locust (T26) assessed as category 'C' are located directly within the proposed building footprint.
- 7.2.4 The remaining trees identified for removal are located in close proximity to the proposed buildings and could not realistically be retained during practical construction. Of these trees, and with the exception of Snakebark Maple (T10) assessed as 'B' category, the majority have been subject to unsympathetic crown reduction as noted within the tree survey schedule above and are assessed as 'C' or 'U' category accordingly.
- 7.2.5 Whilst this will result in the loss of a major proportion of the existing tree stock in the short term, the strategic loss enables the opportunity for comprehensive redevelopment of the site and re-instatement of significant areas of existing hard surfacing to soft ground. This creates opportunities for new tree planting across the site and will enhance the quality of the tree stock in the future.

Table 1: Summary of trees by category that will be removed to directly and indirectly facilitate development

BS5837 Category Grade	A (high quality)	B (medium quality)	C (low quality)	U
Tree No.		T1, T10, T15, T16, T17	T2, T3, T4, T5, T6, T7, T8, T9, T11, T14, T18, T20, T21, T22, T23, T25, T26, T27	T24
Total	0 trees	5 trees	18 trees	1 tree

7.3 Drainage and Utilities

- 7.3.1 Whilst proposed drainage and utility runs will be the subject to detailed design, given the existing site, incoming and out-going services can reasonably be accommodated without an adverse impact on the health or stability of retained trees. New drainage, services and utilities, will be directed away from the RPA of retained trees. Where connection to an existing supply is required within the RPA, all works will be carried out

in accordance with National Joint Utility Guidelines Vol. 4 issue 2 Nov' 07 and under arboricultural supervision.

7.3.2 SUDs will be located to avoid conflict with new tree planting.

7.4 Tree Protection

7.4.1 Trees located within influence of the site can be adequately protected in accordance with BS 5837 (2012).

7.4.2 A suitable vehicle to deliver appropriate protection of retained trees during future development would be through a site-specific Tree Protection Plan and detailed Arboricultural Method Statement in accordance with BS5837 (2012). The primary purpose of the Arboricultural Method Statement is to aid the preservation of retained trees through the setting out the appropriate working practices, construction techniques and tree protection measures that are to be adopted when construction is undertaken in close proximity to trees. The contents of this Method Statement are to be based upon documents submitted in respect of the *Approved Plans*, technical construction drawings, tree protection measures recommended in British Standards 5837 (2012) and current good practice.

7.4.3 In particular, provision must be made for, but not exclusively, the following;

- Location and specification for protection barriers including exclusion from the active site.
- Details of site set-up, welfare and delivery and storage of materials
- Details of proposed site levels
- Details of removal of hard surfacing and re-instatement to soft ground within RPA (T12, T13, T19 & T21).
- Methodology and precautionary measures to be adopted during works within the RPA

8.0 LANDSCAPE MITIGATION

8.1 Provision is made within the proposed landscape masterplan for 107 new trees and 78 multi-stemmed trees located at ground level.

8.2 Of these new trees, 15 trees are in direct replacement of those trees removed subject to the TPO.

- 8.3 Whilst the removal of trees will result in a loss in the short term, the proposed mitigation will enhance the quality of the future tree stock, introduce resilience and result in a significant net gain in canopy cover in the medium term.
- 8.4 In particular, provision is made for two feature trees to be planted to the north of Block A within Haven Road maintaining views of foliage on the approach within the street scene, together with new trees along the northwest boundary to maintain screening to neighbouring gardens at lower level.
- 8.5 During landscape operations precautionary measures must be adopted to ensure that root disturbance does not occur within the RPA of retained trees. In particular, precautionary measures must be observed during ground preparation and planting of new shrubs and trees within the RPA of retained trees.
- 8.6 For further details of the landscape strategy please refer to the Illustrative Landscape Masterplan [D3141-FAB-00-XX-M2-L-1000] by fabrik Landscape Architects submitted under separate cover.

9.0 CONCLUSION

- 9.1 Selected trees within the site are subject to a Tree Preservation Order.
- 9.2 Whilst the proposal will result in the direct and indirect loss of trees including those subject to the TPO, the majority of trees display a poor crown form having been subject to unsympathetic crown reduction in the past. The trees therefore have limited potential to accrue greater visual amenity.
- 9.3 In mitigation, the landscape strategy demonstrates that 107 new trees and 78 multi-stemmed trees are proposed at ground level. This will increase the distribution of trees across the site resulting in a net gain in the quality and canopy cover in the medium to long term.
- 9.4 Subject to precautionary measures and recommendations discussed within this report, it is considered that existing trees shown for retention can be adequately protected throughout the development process in accordance with British Standards 5837 (2012).
- 9.5 The provision for adequate tree protection, precautionary measures and replacement tree planting could therefore be satisfactorily addressed through Conditions by the Local Planning Authority.

APPENDIX 1
Tree Survey Schedule
& Reference Plan

Limitations

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Trees are living organisms whose health and condition can change rapidly. The validity of this report and conclusions or recommendations cease at the prescribed period of two years from the site inspection or if the site conditions change due to unspecified works or storm events that affect the subject tree(s) whichever is the sooner.

This tree survey assessment is a basic data collection exercise for the sole use of identifying site constraints in context of the planning process and a record of the trees condition at the time of assessment. This is not a vegetation assessment for NHBC guidance or a higher level inspection (full hazard or risk assessment) and no guarantee, either expressed or implied can therefore be given with regards to identification, safety, stability or internal condition.

All observations are confined to that which was visible from the site. Where dense ivy/ground vegetation hampered visual assessment of trees assessed its quality and condition was assessed from that which was visible from the point of inspection. This preliminary assessment may therefore be subject to amendment following additional detailed inspection.

Tree Assessment Methodology

The assessment was carried out in accordance with the recommendations of British Standards 5837: (2012) and good arboricultural practice.

Trees identified within this assessment were inspected from ground level by a person qualified and experienced in arboriculture using the Visual Tree Assessment Method (VTA). Visual assessment, in accordance with accepted arboricultural practice, was based on visual observation of vitality (leaf cover, extension growth), presence of deadwood and die back, fractured and detached limbs, structural form or external indications of stem and basal decay likely to affect the structural condition of the tree. No decay detection equipment either invasive or non-invasive was employed.

For the purpose of clarity, trees are identified by a reference number within the Tree Survey Schedule which corresponds with the tree no. recorded within the Tree Survey or Tree Protection Plan. The tree's common name and its dimensions are recorded within the tree survey schedule together with their age, physiological, structural condition and a category code in accordance with the guidelines set out in British Standard 5837: (2012) “.

Where a tree's crown is heavily asymmetrical, the crown radius for each cardinal compass point is given. Together with the height, clearance between ground level and the crown, this provides a good guide to the size and outline form of the tree.

The estimated life expectancy in context of the species is provided as guidance only.

The quality and value of each tree is assessed, grading the tree to one of four categories. The purpose of the tree categorization method is to allow informed decisions to be made concerning which trees should be removed or retained should development occur.

Details of the preliminary root protection area (RPA) around each individual tree are provided within Appendix 2 and illustrated on the Tree Survey Reference Plan to assist in assessment of site layout and the likely impact of construction works proposed within the vicinity of trees to be retained.

Where the trees root morphology within the preliminary RPA may be influenced by existing site features, these areas of restrictive growth may be illustrated within the Tree Survey Reference Plan for higher grade trees ie category 'A' & 'B'. The preliminary root protection area may therefore require adjustment; this may change its shape but not reduce its area (m²) in accordance with BS 5837 (2012). It is recommended that *tree:fabrik* be consulted and additional detailed evaluation and guidance be considered within the emerging site layout.

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ARBORICULTURAL DEVELOPMENT REPORT

Tree No.	Species	Ht (m)	Stem Dia (mm)	Stem Count	Branch spread (m)				Height of Lower Crown (m)	Age Class	Phys. Condition	Structural Condition	Remaining contribution (est. years)	Category Grade
					N	E	S	W						
T1	London Plane	13	480	1	4	5.5	6	4	2	EM	N	Located within soft ground area, subject to pollarding, regrowth 2m, asymmetrical crown to S.	20+	B1
T2	Norway Maple	11	440	1	5	4	4	4.5	3	EM	N	Located within soft ground area, previously crown reduced.	20+	C1
T3	Norway Maple	13	540	1	6	6	6	7	3	EM	N	T3 to T5 located within narrow soft ground strip at slightly raised level to carpark, tarmac drive directly to NW, crown break at 3m a.g.l., previously crown reduced, poor crown form.	20+	C1
T4	Norway Maple	10	510	1	4	6.5	5.5	5	3	EM	N	Crown break at 2.5m a.g.l., previously crown reduced, open crown form, poor crown form.	20+	C1
T5	Norway Maple	12	300 e	1	3	3	3.5	3.5	3	EM	N	Triple-stemmed from 3m a.g.l., tight fork formation, occluded bark, upright form, previously crown reduced, poor crown form.	20+	C1
T6	Norway Maple	10	240	1	1.5	1.5	2.5	1.5	3	EM	N	T6 to T14 located within narrow soft ground strip at slightly raised level to carpark, residential gardens directly to NW, T6 crown break at 3m a.g.l., congested, previously crown reduced, upright form, poor crown form	20+	C1
T7	Whitebeam	8	400	1	3.5	5	5	5	3	M	N	Crown break at 2m a.g.l., reduced on NW side over garden, extended lateral to SE.	10+	C1
T8	Norway Maple	13	680	1	5.5	5	5.5	5.5	4	M	N	Crown break at 3m a.g.l., previously crown reduced, poor crown form	20+	C1
T9	Whitebeam	10	350	1		4.5	4	4	4	M	N	Crown break at 2m a.g.l., tight fork formation, poor crown form.	10+	C1
T10	Snakebark Maple	9	360 ave	1	5	4.5	5.5	3	4	EM	N	Crown break 1.8m a.g.l., tight fork formation, asymmetrical crown to NE. Snake Bark Maple.	20+	B1
T11	Paperbark Maple	7	170	1			4	3.5	4	EM	N	Heavily asymmetrical crown to S, poor crown form, domestic scale.	20+	C1
T12	Paperbark Maple	7	230 e	1	4	3.5	2.5	3.5	4	EM	N	Ornamental tree, domestic scale.	20+	B1
T13	Snakebark Maple	5	270	1	5	4	3.5	4.5	2	EM	N	Ornamental tree, low broad crown form, domestic scale.	20+	B1
T14	Norway Maple	11	560	1	4.5	6	5	6	3	M	N	Concrete drive directly to NW, crown break at 3m a.g.l., previously crown reduced, poor crown form.	20+	C1

HAVEN BANKS, EXETER
ARBORICULTURAL DEVELOPMENT REPORT

Tree No.	Species	Ht (m)	Stem Dia (mm)	Stem Count	Branch spread (m)				Height of Lower Crown (m)	Age Class	Phys. Condition	Structural Condition	Remaining contribution (est. years)	Category Grade
					N	E	S	W						
T15	London Plane	13	560	1	5.5	6	5	5	3	EM	N	Located within car park within raised brick planter (0.5m hgt 2m x2m), possibly at original g.l., slight inclined trunk to E, subject to crown reduction, local individual prominence, fair health and condition.	40+	B1
T16	London Plane	14	590	1	5	5	5.5	4.5	3	EM	N	Located within car park within raised brick planter (0.5m hgt 2m x2m), possibly at original g.l., subject to crown reduction, local individual prominence, fair health and condition.	40+	B1
T17	London Plane	16	670	1	5	6	5.5	6	4	EM	N	Located within car park within raised brick planter (0.5m hgt 2m x2m), possibly at original g.l., subject to crown reduction, local individual prominence, fair health and condition.	20+	B1
T18	Waterer's Cotoneaster	4	180 e;ave	1	3	2.5	3	1	1	EM	N	Ornamental shrub, domestic scale.	10+	C1
T19	Norway Maple	13	580	1	7	6	5.5	5	4	M	N	T19 to T26 located within soft ground area to car park boundary, T19 at slightly raised level to car park, building 3.3m to W, major surface root to W, tight fork formation, included bark, previously crown reduced, poor crown form.	20+	C1
T20	Hawthorn	4	130	1	3	3	3	2	2	EM	N	Domestic scale.	20+	C1
T21	Norway Maple	10	480	1	4.5	4	5	4	4	EM	N	Inclined trunk to E, swept crown form, previously crown reduced, poor crown form.	20+	C1
T22	Norway Maple	10	490	1	4.5	4	5.5	4	4	EM	N	Soft ground bound by low brick wall to N and car park S, dead central leader, previously crown reduced, poor crown form.	20+	C1
T23	Norway Maple	10	400	1	4.5	4.5	4.5	4	4	EM	N	Soft ground bound by low brick wall to N and car park S, previously crown reduced.	20+	C1
T24	Honey Locust	5	110	1	3	3.5	1	2.5	3	SM	N	Soft ground bound by low brick wall to N and car park S, self set sucker, asymmetrical crown to E due to proximity of T23, directly adjacent low brick boundary wall.	<10	U
T25	Norway Maple	10	460	1	5	4.5	4	5	3	EM	N	Soft ground bound by low brick wall to N and car park S, congested crown break, tight fork formation, previously crown reduced, poor crown form.	20+	C1

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ARBORICULTURAL DEVELOPMENT REPORT

Tree No.	Species	Ht (m)	Stem Dia (mm)	Stem Count	Branch spread (m)				Height of Lower Crown (m)	Age Class	Phys. Condition	Structural Condition	Remaining contribution (est. years)	Category Grade
					N	E	S	W						
T26	Honey Locust	12	300	1	2.5	5	5	3.5	3	EM	N	Soft ground bound by low brick wall to N and car park S, previously heavily ivy clad trunk, likely to interfere with brick wall and footway in future years, previously crown reduced.	20+	C1
T27	Norway Maple	11	240	1	3.5	3.5	3.5	3.5	3	SM	N	Located within soft ground area within car park at raised level to footway, building 4.5m to NW, twin-stemmed from 2m a.g.l.	10+	C1
T28	Silver Birch	14	320 e	1	4	3.5	3	3	2	EM	N	Off site tree, separated from site by rear access to adjacent gardens and boundary wall, fair health and condition. 12m from wall.	20+	B1
T29	Himalayan Birch	11	240	1	4.5	4.5	4	4.5	3	EM	N	Off-site tree adjacent green link, fair health and condition.	20+	B1
T30	Himalayan Birch	11	230	1	4.5	4.5	4	4.5	3	EM	N	Off-site tree adjacent green link, fair health and condition.	20+	B1
T31	Himalayan Birch	11	230	1	4.5	4.5	4	4.5	3	EM	N	Off-site tree adjacent green link, inclined trunk to N, fair health and condition.	20+	B1
T32	Himalayan Birch	11	230	1	4.5	4.5	4	4.5	3	EM	N	Off-site tree adjacent green link, fair health and condition.	20+	B1
T33	Winter Cherry	8	270	1	5	3	5	4.5	2	EM	N	Off-site tree adjacent green link, boundary wall 3.5m to E, major surface roots, minor deadwood.	20+	C1
G34	Yew (x4)	3	40	1	3	3	3	3	1	Y	N	Off-site tree adjacent green link, x4 trees forming small evergreen group, domestic scale.	40+	C1
T35	Yew	3	120,80 *	2	3	3	3	3	1	Y	N	Off-site tree adjacent green link, twin-stemmed from 0.2m a.g.l, domestic scale.	40+	C1
T36	Ash	11	400 #	1	5.5	5	5	5.5	3	EM	N	Off-site tree adjacent green link, surface roots, heavily ivy clad trunk, tight fork formations. 4m from wall.	20+	B1
T37	Monterey Pine	16	738	1	6.5	6	7	5.5	2	M	N	Off-site tree adjacent green link, major surface roots, constrained by sunken brick retainer, boundary wall 3.2m to E, crown break at 2m a.g.l., prominent landscape tree.	40+	A1
T38	Pittosporum sp	7	100,100,100,60 *;e	4	3	3	3	3	3	SM	N	Off-site tree located to S of high boundary wall within residential rear garden, multi-stemmed (?), ornamental tree, domestic scale.	20+	C1

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General
 This illustrative plan is provided to assist in interpretation of the tree survey and should be read in conjunction with the Arboricultural Development Report (TF1210-FAB-00-XX-RP-G-8201). The assessment was carried out in accordance with the guidance and recommendations of British Standards 5837: (2012) 'Trees in relation to design, demolition and construction' and good arboricultural practice. Trees identified within this assessment were visually inspected from ground level by a person qualified and experienced in arboriculture. The tree's common name and its dimensions are recorded within the tree survey schedule together with their age, physiological, structural condition and a category code. All observations are confined to that which was visible from the site and areas of public access. Where dense ivy/ground vegetation hampered visual assessment of trees its quality and condition was assessed from that which was visible from the point of inspection. No consideration has been given to ecological or other constraints. This preliminary assessment may therefore be subject to amendment following additional detailed inspection.

This tree survey is based on the Topographical Survey dated May 2021 [210312] by Survey Dimensions Ltd

At the time of the site visit, 4 additional individual trees were included within the site assessment. These additional tree(s) were omitted from the land survey but have been included within this assessment as they may have potential to influence the site. Additional trees include T28, T36, T37 & T38. Whilst care has been taken to position the trees location on the drawing they should be accurately re-surveyed and plotted if considered appropriate. The tree positions do not however, affect the condition or their grading within this report.

Limitations
 Trees are living organisms whose health and condition can change rapidly. The validity of this report and conclusions or recommendations cease at the prescribed period of two years from the site inspection or if the site conditions change due to unspecified works that affect the subject tree(s) whichever is the sooner.

This is a basic data collection exercise for the sole use of identifying site constraints in context of trees and the planning process and provides a record of the trees quality and condition at the time of surveying. This is not a vegetation assessment for NHBC guidance or a higher level inspection (full hazard or risk assessment) and no guarantee, either expressed or implied can therefore be given with regards to identification, safety, stability or internal condition.


Site Boundary
 Site boundary (indicative)


Statutory Designations (trees)
 Exeter City Councils (ECC) online mapping tool indicates that selected trees within the site are subject to Tree Preservation Order 561 (2006). Written consent must therefore be obtained from ECC prior to carrying out any works to trees subject to the TPO, or works that may impact on the tree's health or amenity beyond that granted by planning consent.


 Tree subject to TPO


Tree Survey
 Tree No.  Common name
 Group

Quality & value of existing tree stock
 The quality and value of each tree or group of trees assessed has been categorised in accordance with British Standards 5837 (2012) 'Trees in relation to design, demolition and construction'. The purpose of the tree categorization method is to allow informed decisions to be made concerning which trees should be removed or retained should development occur.



 U Category tree
 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

 B Category tree
 Trees of moderate quality and value

 A Category tree
 Trees of high quality and value

 C Category tree
 Trees of low quality and value

Above and Below Ground Constraints
 In addition to the tree's quality and condition, consideration needs to be given to the above ground constraints (crown spread) and the below ground constraints (root protection area) the trees pose by virtue of their size and position.

 Crown spread
 Preliminary root protection area
 Illustrated as an area equivalent to a circle.

The root protection area (RPA) is a design tool indicating the area surrounding a tree that contains sufficient roots and rooting volume to maintain the trees viability, and where the protection of the tree roots and soil structure is treated as a priority.

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Project
**HAVEN BANKS RETAIL PARK
 WATER LANE, EXETER**

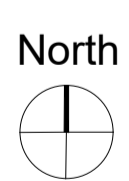
Drawing
TREE SURVEY REFERENCE PLAN

Scale 1:500 Date MARCH '22 Drawn AR

Drawing No. tf1210-FAB-00-XX-DR-G-8201 Revision

Preliminary Issued for Design/Information
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APPENDIX 2
Root Protection Area
(Calculations)

HAVEN BANKS, EXETER

ARBORICULTURAL DEVELOPMENT REPORT

Tree No.	Species	Combined Stem Dia (mm)	Stem Count	Age Class	Remaining Contribution (est. years)	Category Grade	Root Protection Area	
							Radius (m)	M ²
T1	London Plane	480	1	EM	20+	B1	5.8	104.2
T2	Norway Maple	440	1	EM	20+	C1	5.3	87.6
T3	Norway Maple	540	1	EM	20+	C1	6.5	131.9
T4	Norway Maple	510	1	EM	20+	C1	6.1	117.7
T5	Norway Maple	300 e	1	EM	20+	C1	3.6	40.7
T6	Norway Maple	240	1	EM	20+	C1	2.90	26.1
T7	Whitebeam	400	1	M	10+	C1	4.80	72.4
T8	Norway Maple	680	1	M	20+	C1	8.20	209.2
T9	Whitebeam	350	1	M	10+	C1	4.20	55.4
T10	Snakebark Maple	360 ave	1	EM	20+	B1	4.30	58.6
T11	Paperbark Maple	170	1	EM	20+	C1	2.00	13.1
T12	Paperbark Maple	230 e	1	EM	20+	B1	2.80	23.9
T13	Snakebark Maple	270	1	EM	20+	B1	3.20	33.0
T14	Norway Maple	560	1	M	20+	C1	6.70	141.9
T15	London Plane	560	1	EM	40+	B1	6.70	141.9
T16	London Plane	590	1	EM	40+	B1	7.10	157.5
T17	London Plane	670	1	EM	20+	B1	8.00	203.1
T18	Waterer's Cotoneaster	180 e;ave	1	EM	10+	C1	2.20	14.7
T19	Norway Maple	580	1	M	20+	C1	7.00	152.2
T20	Hawthorn	130	1	EM	20+	C1	1.60	7.6
T21	Norway Maple	480	1	EM	20+	C1	5.80	104.2
T22	Norway Maple	490	1	EM	20+	C1	5.90	108.6
T23	Norway Maple	400	1	EM	20+	C1	4.80	72.4
T24	Honey Locust	110	1	SM	<10	U	1.30	5.5
T25	Norway Maple	460	1	EM	20+	C1	5.50	95.7
T26	Honey Locust	300	1	EM	20+	C1	3.60	40.7
T27	Norway Maple	240	1	SM	10+	C1	2.90	26.1
T28	Silver Birch	320 e	1	EM	20+	B1	3.80	46.3
T29	Himalayan Birch	240	1	EM	20+	B1	2.90	26.1
T30	Himalayan Birch	230	1	EM	20+	B1	2.80	23.9
T31	Himalayan Birch	230	1	EM	20+	B1	2.80	23.9
T32	Himalayan Birch	230	1	EM	20+	B1	2.80	23.9
T33	Winter Cherry	270	1	EM	20+	C1	3.20	33.0
G34	Yew (x4)	40	1	Y	40+	C1	0.50	0.7
T35	Yew	144	2	Y	40+	C1	1.70	9.4
T36	Ash	400	1	EM	20+	B1	4.80	72.4
T37	Monterey Pine	738	1	M	40+	A1	8.90	246.4
T38	Pittosporum sp	183	4	SM	20+	C1	2.20	15.2

APPENDIX 3
Photographic Record

1. General view of London Plane (T1) and Norway Maple (T2) located adjacent to Water Lane.



2. General view of Norway Maple (T3, T4, T5 & T6) located adjacent boundary.



3. General view of Whitebeam (T7) located adjacent boundary.



4. General view of Norway Maple (T8), Whitebeam (T9) Snakebark Maple (T10 & T13) and Paperbark Maple (T11 & T12) located adjacent boundary.



5. General view of London Plane (T15) located centrally within carpark.



6. General view of London Plane (T16 & T17) located centrally within carpark.



7. General view of Norway Maple (T19, T21, T22, & T23) located adjacent to Haven Road.



8. General view of Norway Maple (T22, T23 & T25) and Honey Locust (T24 & T26) located adjacent to Haven Road.



9. General view of Norway Maple (T27) located to east corner of site adjacent to retaining wall.



10. General view of off-site Silver Birch (T28).



11. General view of off-site Himalayan Birch (T29, T30, T31 & T32).



12. General view of off-site Yew (G34 & T35) with Silver Birch (T28) within background.



13. General view of off-site Ash (T36).



14. General view of off-site Monterey Pine (T37).



15. General view of off-site Pittosporum located within rear residential garden adjacent south boundary.



16. General view of clipped ornamental shrubs including Berberis, Cotoneaster, Dogrose, Holly, Laurel, Portuguese Laurel, Euonymus.



APPENDIX 4
Tree Removal & Arboricultural Impact
Assessment Plan



NOTES
 This drawing is the property of tree:fabrik Ltd. It must not be copied or reproduced without written consent. The original of this drawing was produced in colour - a monochrome copy should not be relied upon. Only figured dimensions are to be taken from this drawing. This is a basic data collection exercise for the sole use of identifying site constraints in context of the planning process and a record of the trees condition at the time of surveying. This is not a vegetation assessment for NHBC guidance or a higher level inspection (full hazard or risk assessment) and no guarantee, either expressed or implied can therefore be given with regards to identification, safety, stability or internal condition.

General
 This illustrative plan is informed by an Arboricultural Survey prepared by tree:fabrik and identifies the potential direct and indirect impact of development on existing trees as part of a planning submission. This plan should be read in conjunction with the accompanying Arboricultural Development Report [TF1210-FAB-00-XX-DR-G-8301]. Prior to commencement of development, a detailed Tree Protection Plan and Arboricultural Method Statement must be drafted in accordance with BS5837 Trees in relation to design, demolition and construction (2012). The approved Method Statement shall be incorporated into the Construction Management Plan and subsequent drawings used for design purposes and issued for use on site, to ensure that all parties are fully aware of the areas in which access and works may and may not take place.

Site Boundary
 Indicative site boundary

Statutory Designations (trees)
 Exeter City Councils (ECC) online mapping tool indicates that selected trees within the site are subject to Tree Preservation Order 561 (2006). Written consent must therefore be obtained from ECC prior to carrying out any works to trees subject to the TPO, or works that may impact on the tree's health or amenity beyond that granted by planning consent.

Tree Survey

T4	Tree No.	Ash	Common name
Group			

Quality & value of existing tree stock
 The quality and value of each tree or group of trees assessed has been categorised in accordance with British Standards 5837 (2012) 'Trees in relation to design, demolition and construction'. The purpose of the tree categorization method is to allow informed decisions to be made concerning which trees should be removed or retained should development occur.

U Category tree	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	B Category tree	Trees of moderate quality and value
A Category tree	Trees of high quality and value	C Category tree	Trees of low quality and value

Above and Below Ground Constraints
 In addition to the tree's quality and condition, consideration needs to be given to the above ground constraints (crown spread) and the below ground constraints (root protection area) the trees pose by virtue of their size and position.

Crown spread	
Preliminary root protection area	

The root protection area (RPA) is a design tool indicating the area surrounding a tree that contains sufficient roots and rooting volume to maintain the trees viability, and where the protection of the tree roots and soil structure is treated as a priority.

Impact Assessment

Existing building to be demolished	Proposed building
Tree or group to be retained	Tree to be removed
Area of existing hard surfacing - precautionary measures to be adopted during removal of existing hard surfacing and re-instatement of soft ground to minimise root disturbance	
Area of existing hard surfacing - precautionary measures to be adopted during removal of existing hard surfacing and re-instatement of new hard surfacing to minimise root disturbance	
Area of new hard surfacing - precautionary measures to be adopted during installation of footway using 'no dig' construction methodology in accordance with BS5837 (2012)	
New tree (for details please refer to Illustrative Landscape Masterplan by fabrik)	

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HAVEN BANKS, EXETER

Drawing
TREE REMOVAL & ARBORICULTURAL IMPACT ASSESSMENT PLAN

Scale 1:500 Date FEB '23 Drawn AR

Drawing No. TF1210-FAB-00-XX-DR-G-8301 Revision

<input type="checkbox"/> Preliminary	<input type="checkbox"/> Issued for Design/Information
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<input type="checkbox"/> Issued for Construction	<input type="checkbox"/> As Built

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APPENDIX 5
Qualifications and Experience

Brief qualifications and experience of Alan Richardson

Qualifications: I hold the National Diploma in Arboriculture and I am a Professional Member of the Arboricultural Association.

Career experience: I started my career at the grass roots of the industry working in Britain and West Germany, obtaining experience in all aspects of practical tree care. In 1989 I joined Westminster City Council as an Arboricultural Officer, dealing with municipal tree management. This provided me with a comprehensive insight into the social, safety and contract management issues of urban tree management.

In 1991 I joined English Heritage as the Trees and Woodlands Advisor providing specialist advice on all aspects of trees, woodlands and forestry within the historic environment. During the next nine years, I developed and established national policy and strategy for tree management on the 420 historic properties under guardianship including the co-ordination, inspection and monitoring of the annual H&S inspection programme, contracts and standards and represented English Heritage on policy matters relating to trees, including liaison with other government departments on joint projects such as the Veteran Tree Initiative and the Parklands & Wood Pasture Habitat Action Plan.

As a Director of **tree : fabrik**, I draw on the wide range of experience obtained and specialise in supplying bespoke arboricultural planning services to Local Planning Authorities and the private sector. This includes advising on a full range of tree issues within the planning environment, providing site surveys to BS5837 (2012), arboricultural impact reports, method statements and supervision, development control advice to Local Planning Authorities, successful enforcement and prosecution, appeal statements and attendance at hearings, liaison with and on behalf of Local Planning Authorities, developers, architects and town planners.

This comprehensive experience and current working knowledge of Local Authorities and the private sector encourages a pragmatic approach that has been found to be of benefit to all parties.

Continuing professional development: I keep current on arboricultural issues and best practice through membership of the Arboricultural Association and attendance at short courses.



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