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ASSOCIATED DOCUMENTS :

This Tree Constraints Plan should be read in conjunction with the Red Bank And Dantzic Street Manchester Tree Constraints Report (September 2021) produced by The Environmental Partnership which details tree/group condition, life expectancy and the contribution to amenity.

TREE WORKS NOTES:

All felling and tree surgery is to be carried out by an Arboricultural Association approved contractor. All operations are to be carried out in accordance with BS5998:2010 Recommendations for tree work and N.P.T.C certification guidelines.

METHOD STATEMENT:

Tree felling and surgery works are to be carried out prior to the commencement of main construction works. Once complete, approved hoarding is to be erected around the construction area.

Under no circumstances should materials, vehicles, equipment, diesel oil or spoil be stored within the canopy of retained trees. Similarly no excavations for services or other construction activities are to be carried out within the protected zone unless they are in accordance with the agreed Arboricultural Method Statement.

Note:-

- Tree felling should not be undertaken through the months of March to August unless agreed with the local planning authority due to the nesting birds season.
- If the program of works clashes with these dates then any trees in question should be heavily pruned to reduce the chance of nesting during the above months.

Extracted from BS 5837: 2012 Trees in relation to design, demolition and construction - Recommendations

This text has been extracted from the aforementioned guidance document and highlights the key factors when considering trees in relation to demolition and construction. For further information and conformation on protection measures contractors should familiarise themselves with the full document prior to any site works.

Section 3: Terms and definitions

3.5 Construction:
Site-based operations with the potential to affect existing trees.

3.6 Construction Exclusion Zone:
Area based on the Root Protection Area (3.7) from which access is prohibited or controlled for the duration of a project.

3.7 Root Protection Area (RPA):
Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.

Section 4: Feasibility: surveys and preliminary constraints:

4.6 For single stem trees, the RPA (see 3.7) should be calculated as an area equivalent to a circle with a radius 12 times the stem diameter. For trees with more than one stem, one of the two calculation methods below should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be determined from Annex D. The calculated RPA for each tree should be capped to 707 m².

a) For trees with two to five stems, the combined stem diameter should be calculated as follows:

$$(\text{stem diameter } 1)2 + (\text{stem diameter } 2)2 \dots + (\text{stem diameter } 5)2$$

b) For trees with more than five stems (not illustrated in Annex C), the combined stem diameter should be calculated as follows:

$$(\text{mean stem diameter})2 \times \text{number of stems}$$

6.1 Arboricultural Method Statement:

6.1.1 A precautionary approach towards tree protection should be adopted and any operations, including access, proposed within the RPA (or crown spread where this is greater) should be described within an Arboricultural Method Statement, in order to demonstrate that the operations can be undertaken with minimal risk of adverse impact on trees to be retained.

6.2 Barriers and ground protection:

6.2.1 General:

6.2.1.1 All trees that are being retained on site should be protected by barriers and/or ground protection before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers should be erected to create a construction exclusion zone. Where, due to site constraints, construction activity cannot be fully or permanently excluded in this manner from all or part of a tree's RPA, appropriate ground protection should be installed (see 6.2.3).

6.2.2 Barriers:

6.2.2.1 Barriers should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained tree(s). Barriers should be maintained to ensure that they remain rigid and complete.

6.2.3 Ground protection during demolition and construction:

6.2.3.1 Where construction working space or temporary construction access is justified within the RPA, this should be facilitated by a set-back in the alignment of the tree protection barrier. In such areas, suitable hard surfacing routes should be installed to act as temporary ground protection during construction. The suitability of such surfacing for this purpose should be evaluated by the project arboriculturist (TEP) and civil engineer (Anp) as appropriate. All construction vehicles should keep to these routes in order to minimise any overrun of the tree RPA.

6.2.3.2 Where the set-back of the tree protection barrier would expose unmade ground to construction damage, new temporary ground protection should be installed as part of the implementation of physical tree protection measures prior to work starting on site.

6.2.3.3 New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

7.2 Avoiding physical damage to the roots during demolition or construction.

7.2.1 To avoid damage to tree roots, existing ground levels should be retained within the RPA. Intrusion into soil (other than for piling) within the RPA is generally not acceptable, and topsoil within it should be retained in situ. However, limited excavation within the RPA might be acceptable, subject to justification. Such excavation should be undertaken carefully, using hand-held tools and preferably by compressed air soil displacement. Where hand-held tools cannot be used, any machinery and mechanical tools should be agreed with the project arboriculturist (TEP).

7.3 Tree protection during demolition

7.3.1 Where demolition is proposed on a site where trees are to be retained, access facilitation pruning should be undertaken as necessary to prevent injurious contact between demolition plant and the tree(s). In some cases, working space may be provided by temporarily tying back tree branches. Pruning or tying should be undertaken in accordance with a specification prepared by an arboriculturist.

NOTE: The local authority will be able to advise whether the trees are under statutory protection such that consent for tree works might be required.

7.3.2 When demolishing a structure (including underground structures) within what would otherwise be the RPA, barriers should be erected, and ground protection installed (see 6.2.3), to protect the underlying soil to the edge of the existing structure.

7.3.4 Where trees stand adjacent to structures to be removed, the demolition should be undertaken inwards within the footprint of the existing structure (often referred to as 'top down, pull back').

Do not scale

NOTE: Future Plot Extents are indicative Only

BOUNDARIES

Red Line Boundary

- Existing tree / tree groups to be removed (red fill)
Refer to categories below (outline colour)
Approx Area: 628m²
- Existing trees/tree groups to be retained (green fill)
Refer to categories below (outline colour)
Approx Area: 13845m²
- Root Protection Area

Individual trees shown to be removed (red outline) are subject to review on site during construction. Additional trees may be required to be removed within St Catherine's Wood due to condition or to facilitate the proposed design and should be agreed on site with the project arboriculturist.

Individual trees shown to be retained (green outline) are subject to review on site during construction.

Table 1 Cascade chart for tree quality assessment - Extracted from BS5837- July 2012.

Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
Category U			
Those 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	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unstable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
Trees to be considered for retention			
Category A			
Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual, or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)		
	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features		
	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)		
Category B			
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years or trees lacking the special quality necessary to merit the category A designation		
	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals, or trees occurring as collectives but situated so as to make little visual contribution to the wider locality		
	Trees with material conservation or other cultural value		
Category C			
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories		
	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value, and/or trees offering only temporary/transient landscape benefits		
	Trees with no material conservation or other cultural value		

P02.06	15.02.22	Final Draft Planning	CL	MS	GB	GB
P02.05	14.02.22	Final Draft Planning	CL	MS	GB	GB
P02.04	04.02.22	Draft Planning	BM	MS	GB	GB
P02.03	02.02.22	Draft Planning	CL	MS	GB	GB
P02.02	27.01.22	Draft Planning	BM	MS	GB	GB
P02.01	26.01.22	Draft Planning	BM	MS	GB	GB
P01	17.12.21	Stage 3 Issue	SR	MS	GB	GB
P01.03	01.12.21	For Information	SR	MS	GB	GB
P01.02	26.11.21	For Information	EKH	MS	GB	GB
P01.01	24.11.21	For Information	EKH	MS	GB	GB
Rev	Date	Description	By	Chkd	Appd	Auth



Client



Project Title

Victoria North HIF Infrastructure

Drawing Title

Tree Retention and Removal Plan
For Approval

Scale at A1 1:1000			Plant-IE Job No 2700			
Role Landscape Architect						
Suitability S2						
Rev	By	Chkd	Appd			
P02.06	EKH	MS	MS			
	Date	Date	Date			
	17.12.21	17.12.21	17.12.21			
Name						
Project	Originator	Volume	Location	Type	Role	Number
VNIF	PLA	ZZ	YYY	DR	L	1006

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