

ARBORICULTURAL SURVEY

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9th December 2015

SITE ADDRESS

Harrogate Road / New Line Junction
Greengates

PREPARED FOR:

City of Bradford Metropolitan District Council

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1 BACKGROUND

1.1 Brief

This arboricultural report has been commissioned by;
City of Bradford Metropolitan District Council
Department of Regeneration and Culture
Planning, Transportation and Highways Service
2nd Floor (south)
Jacob's Well
Manchester Road
Bradford
BD1 5RW

It is required to assist in a planning application for an improved road layout scheme at the junction of:

Harrogate Road / New Line
Greengates

1.2 Documents provided

To assist in the production of this report I have been provided with a copy of the topographical survey including the proposed road layout ref: H/101463/31A produced by CBMDC.

1.3 Tree Status

Prior to any work being carried out on site the status of the trees should be established and the appropriate permissions sought if any Tree Preservation Orders apply to the site.

2 SURVEY DETAILS

2.1 Site Visit

2.1.1 Surveyor

Georgina Tearne MSc. H.N.D. Arboriculture. F.Arbor.A.

2.1.2 Dates of Survey

Nov/Dec 2015

2.1.3 Other Persons Present

N/A

2.1.4 Weather Conditions

During the survey, over three separate visits, it was fine and bright with a temperature of approximately 8 degrees.

2.2 Inspection Methods

A visual tree inspection was carried out from ground level of a number of individual trees and groups of vegetation within and directly adjacent to the site extents.

Data collection of the trees surveyed has been carried out to BS5837:2012 and full details of the methods used are provided in Appendix 1.

An overview of the items is presented in the following section while notes in the form of a schedule are presented in a spreadsheet at Appendix 2. The location of the trees and groups are identified on the accompanying plans ref: 151209 TCP & 151209 TPP.

The positions of the trees within the site are based on the provided topographical survey. However, some trees were omitted and therefore the drawing accompanying this report should not be assumed to be accurate and all measurements should be checked on site.

3 SITE OVERVIEW

3.1 Site Description

- 3.1.1 The proposed road re-alignment scheme is at the point where Harrogate Road and New Line converge in the area known as Greengates. It is an area of mixed residential and commercial, including a school, chip shop, supermarket, public house, cafes and other retail units. There is also a small war-memorial and area of public open space at the junction.

3.2 Tree Population

- 3.2.1 The tree population is quite extensive, particularly at the main junction itself where there is an area of open space with a densely treed area behind. Significant trees are located along the side of the war-memorial site and a number of street trees are located along Harrogate Road to the north of the junction. Many of the trees included within the survey are quite prominent and consist of a mixture of species including sycamore, elm, London plane, Norway maple, rowan, ash, false acacia, birch, pear, holly, lime, whitebeam, cherry, crab apple, hawthorn, horse chestnut, laburnum, winter-flowering cherry, wild cherry, plum and leylandii. Some understory planting including hazel, elder and privet was also noted.
- 3.2.2 The trees surveyed total 85 items of vegetation including 72 individual trees, 12 groups and 1 section of hedging. Of these, 1 individual has been categorised as 'A' and 20 individuals and 1 group as 'B'. There are 6 trees identified as 'U' while all the remaining individuals and groups are identified as 'C' in accordance with BS5837:2012.
- 3.2.3 Due to the position of the more valuable trees the tree population surveyed is considered to have a moderate to high amenity value overall. A few of the smaller trees and small groups are considered to have lower values when considered individually rather than as part of the population as a whole.

4 TREE CONSTRAINTS

4.1 Root Protection Areas

4.1.1 The accompanying drawings (Ref: 151209 TCP & 151209 TPP) show the positions of the trees included within the survey. In the case of individual trees four point canopy spreads and the root protection areas are also shown. The RPAs are calculated from the tree stem diameters following the guidance of BS5837:2012. Although the RPA attempts to identify an area of the tree's root system which should be protected the simplistic circle (or square) does not take account of constraints such as buildings, land form and walls etc. which may have restricted or influenced root development. Although there are a few small retaining walls across the surveyed area the majority will not have influenced tree root development to any particular extent and therefore the circular RPAs are considered to be a reasonable guide to the extent of the rooting areas which should ideally be protected. There is one particular area, however, where the retaining wall will have influenced root spread significantly and in these instances the RPAs have been amended. In the case of the hedge and some groups the extents of the canopy spread shown has been considered to be a suitable guide for the RPA requirements.

4.2 Tree Retention

4.2.1 Following the guidance of BS5837:2012 proposals for the site should aim to incorporate those trees which are identified as 'A' and 'B'. In this instance this applies to 1 'A' and 20 'B' individuals and 1 'B' group. Where possible no development should encroach into the canopy spreads and RPAs of these trees. Occasionally it is possible to encroach into RPAs with hard-surfacing etc. although consideration must be given to materials and construction methods to ensure that root damage does not occur. The trees should also be considered in terms of their form in relation to clearance for the proposed road layout. Canopy spreads and their potential conflict will be considered in the following impact assessment.

5 IMPACT ASSESSMENT

5.1 Site Proposals

- 5.1.1 Proposals for the site are to create a larger road junction to improve the flow of traffic. This will include acquiring land by compulsory purchase and by encroaching into areas of other Local Authority land.

5.2 Statutory Tree Protection

- 5.2.1 The status of the trees should be established prior to any works being carried out. It is however, worthy of note that any work identified within a planning approval will over-ride any existing legislative protection.

5.3 Tree Appraisal

- 5.3.1 As the positioning of the new road layout is determined mainly by the position of existing buildings there is limited scope to accommodate the trees in the proposed layout. As a result a number of trees will need to be removed including 1 'A' and 9 'B' individuals and one tree within a 'B' group. 11 'B' trees will be retained as will 2 trees within a 'B' group. It is unfortunate that some of the more valuable trees need to be removed but the constraints of the site make retention of more trees unviable.
- 5.3.2 It is suggested that the 6 'U' trees are removed regardless of the site proposals due to their condition and unsuitability for retention. This includes T7, T36, T45, T56 and T68. It also includes T5 which is the stump of a street tree more recently felled.
- 5.3.3 The trees to be retained have been considered in relation to the proposal for physical conflict with the proposals and in all cases there are no significant concerns in this regard.
- 5.3.4 The potential for damage to trees to be retained during creation of the new road junction through vehicle access; material storage etc. is a significant concern and therefore protective barriers should be installed as shown on the accompanying drawing ref (151209 TPP). These areas should be considered sacrosanct with no access except under close supervision of an arboricultural consultant.

5.4 Services and Other Considerations

- 5.4.1 The positions of the proposed services are assumed to link to existing and to follow the new road layout. However, service trenches, to include drains and electricity supplies for lighting etc., must not extend into any areas protected by barriers or within the RPAs of trees to be retained. It is felt that this should be achievable although further advice can be provided in this respect should it be required.

6 CONCLUSIONS

- 6.1 The surveyed tree population is quite extensive and collectively the trees are considered to have a moderate to high amenity value although some trees have lower values when considered individually.
- 6.2 The proposals for the site are to create a new road layout at the junction to improve traffic flow. This will include acquiring land by compulsory purchase and by encroaching into areas of other Local Authority land.
- 6.3 There are a number of trees which are particularly worthy of retention including 1 'A' and 20 'B' category individuals and one 'B' group. However, due to the nature of the site the 'A' and 9 of the 'B' individuals and one tree within a 'B' group will need to be removed. Other 'B' individuals and many 'C' individuals and groups will however, be retained.
- 6.4 Protective barriers as shown on the accompanying drawing should be installed to protect the trees to be retained.
- 6.5 All services must be installed beyond the areas defined by the RPAs and the protective barriers.

7 GENERAL GUIDELINES, TERMS & CONDITIONS

- 7.1 All tree work should be carried out by qualified Arboricultural Contractors with at least £1 Million Public Liability Insurance cover.
- 7.2 Tree work must be carried out to BS3998 which specifies recommendations for tree work.
- 7.3 The acceptance of this report constitutes an agreement with the terms and guidelines listed within this report.
- 7.4 No liability can be accepted by the consultant in respect of the trees unless the recommendations within this report are carried out under his supervision. Nor shall the consultant be responsible for events which happen after the time of the survey due to factors which were not evident at the time.
- 7.5 Relationships between trees and other objects such as buildings are rarely static and can at times change quite unpredictably. It should therefore be understood that the inspection and monitoring of the condition of trees is a continuing requirement which, in this instance, is recommended on an annual basis.

I trust that this report provides all the necessary information although if further advice is needed please do not hesitate to contact me.

Signed

18/12/2015

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APPENDICES

APPENDIX 1 - SURVEY METHODOLOGY

A visual assessment of each tree was made from ground level in accordance with BS 5837:2012 Trees in relation to construction - Recommendations.

The following information has been collected for each tree and is presented in the spreadsheet at Appendix 1.

1. **Height** - measured in metres using a clinometer.
2. **Stem Diameter** - measured in millimetres at 1.5m above adjacent ground level. Stems of multi-stemmed trees are measured just above the buttress flare while where multiple stems emanate from ground level each stem is measured and the data is inputted into the calculation within the standard.
3. **Spread** - the measurement of the branch spread from the stem of the tree to the extent of the canopy in the direction of north, south, east and west.
4. **Crown Clearance** - measured from the highest point of the adjacent ground level in metres.
5. **Age Class** - described as young (Y), middle aged (MA), mature (M), over-mature (OM), veteran (V).
6. **Physiological Condition** - classed as good, fair, poor, or dead.
7. **Structural Condition** - details of any physical defects and the presence of any decay etc.
8. **Preliminary Management Recommendations** - detail of works required including details of further investigations recommended where suspected defects require more detailed assessment and where there is the potential for wildlife habitat.
9. **Estimated Remaining Contribution** - expressed in years as; less than 10, 10-20, 20-40 and more than 40.

10. **Category Grading** – trees are categorised, in accordance with the cascade chart for tree quality assessment, into one of the following categories;

Trees for Removal

Category U

Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.

Trees to be Considered for Retention

Category A

Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).

Category B

Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested).

Category C

Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm.

In addition there are three subcategories which should also be applied identifying the form taken by the value of each tree;

- 1 Mainly arboricultural values
- 2 Mainly landscape values
- 3 Mainly cultural values, including conservation