Supplementary Planning Guidance

Open Space Provision in New Housing Developments: A Guide

West Wiltshire District Council
August 2004
1.0 Introduction

Objectives

1.1 West Wiltshire District Council aims to conserve existing recreation facilities and to provide more and better sports and recreation facilities to meet the needs and aspirations of local people.

1.2 The Council aims to deliver public open space through the planning system, mainly as part of the planning of new housing developments.

1.3 This guidance explains the requirements of the Council's open space policy and has been written as a guide for developers on how to provide for open space in new residential developments.

1.4 Following a consultation process, this document was adopted as Supplementary Planning Guidance to Policies R4, C32 and I1 of the West Wiltshire District Plan 1ST Alteration on 4 August 2004.

Policy Background

1.5 The planning system plays an important role in protecting existing open space and sports facilities from other forms of development. The system also enables land and buildings to be safeguarded for the provision of new recreation facilities and for recreation facilities to be secured as part of new residential developments.

1.6 Government guidance on the role of the planning system in sport and recreation is contained within Planning Policy Guidance (PPG) 17: Planning for Open Space, Sport and Recreation. Paragraph 23 states that:

"Local authorities should ensure that provision is made for local sports and recreational facilities (either through an increase in the number of facilities or through improvements to existing facilities) where planning permission is granted for new developments (especially housing). Planning obligations…should be used where appropriate to seek increased provision of open spaces and local sports and recreational facilities, and the enhancement of existing facilities."

1.7 In addition, PPG 3 Housing, paragraph 53 states that:

"…new housing developments should incorporate sufficient provision (of open space and playing fields) where such spaces are not already adequately provided within easy reach of the new housing."

1.8 Further guidance on the use of planning obligations is contained within Circular 1/97: Planning Obligations. Paragraphs B7, B9(ii), B10 and B14 suggest that where a proposed development will create a need for particular facilities (such as open space, recreational or sporting facilities) it may be reasonable for developers to meet, or to contribute towards, the cost of
providing and maintaining such facilities through the use of planning obligations. However, the Circular also states that, in general terms, planning obligations must be:

- necessary;
- relevant to planning;
- directly related to the proposed development;
- fairly and reasonably related in scale and kind to the proposed development;
- reasonable in all other respects.

The Government is currently reviewing the use and role of planning obligations.

1.9 The Government's Planning Policy Guidance Note 12: Development Plans encourages local authorities to publish supplementary planning guidance (SPG) to explain and to supplement the policies in an adopted development plan.

Development Plan Policies

1.10 The Wiltshire Structure Plan 2011 includes Policy RLT1 which states that "provision should be made for a wide range of facilities for sport, recreation leisure and the arts to meet local, County and sub regional needs". Supporting text, referring to recreational space in housing schemes, states that "Local plans should make provision at least to the standards proposed by the National Playing Fields Association (NPFA), which are regarded as minimum standards". Policy DP2 states that "Development should not proceed unless the infrastructure, services and amenities made necessary by the development can be provided at the appropriate time."

1.11 The West Wiltshire District Plan 1st Alteration contains two main policies relating to the provision of new open space in housing developments. Policy R4 requires all new residential developments to make a contribution towards public recreational and open space provision. All new residential developments of 10 units or more units are required to provide an appropriate proportion of recreation open space in accordance with the adopted standard. Smaller developments are required to contribute towards the provision or improvement of facilities nearby. Appendix C of the Plan includes a breakdown of the adopted standard and provides further guidelines. Policy I1 requires, where appropriate, developers to enter into legal agreements for the provision of new infrastructure, social, recreational and community facilities, where the need arises directly from the development, and allows for the provision on-site or via contributions to off-site provision. The full wording of these policies is provided in Appendix 1.

1.12 The West Wiltshire District Plan 1st Alteration also contains Policy C32 which requires proposals for development to make provision for areas of landscaping, including the protection of existing natural features, for new
planting and for appropriate hard features to allow developments to blend into the surrounding area.

Local Recreational Needs

1.13 PPG17 encourages local authorities to carry out robust assessments of local recreational needs and audits of existing facilities. Using the information gained they can then develop local standards for the future provision of open space, recreation and sports facilities in their areas.

1.14 West Wiltshire District Council published a Recreation Land Survey in November 2000, which compared the existing recreation provision in the District's five urban areas against the adopted open space standards for the District. This study identified that within the District's urban areas there is a deficiency in both formal and informal playing space accessible to the general public. The study concluded that new housing provision that does not make provision for playing space will exacerbate the current shortfall.

1.15 In addition, local needs for open space provision have emerged from a number of community planning workshops and the emerging Community Strategy has identified the provision of additional open space as a major objective.

1.16 The District Council is planning to undertake a comprehensive reassessment of recreation needs in the medium term and to review the current adopted standards. However, in the shorter term, the Council is committed to overcoming the identified existing recreation deficiencies through a range of initiatives.

1.17 This document will play a role in ensuring that new residential developments do not exacerbate the current shortfall. Also, whilst open space provision in new residential developments should not be required to meet existing deficiencies, nevertheless this document shows where requirements can be varied to help to overcome these deficiencies.

Open Space Standards

1.18 The Council has assessed local needs for the Plan period, has taken into account advice such as the NPFA's Six Acre Standard, and Government guidance in drawing up its local standards. The Council's standards are set out in full in Appendix 2.
2.0 **Step by Step Guide to Providing Open Space**

**Step 1: When will the policy be applied?**

2.1 The District Council's open space policy will be applied to applications for new residential development which result in a net gain in residential units of 10 or more units.

2.2 The only exceptions to this requirement are if the residential accommodation is used for a purpose which is unlikely to generate demand for recreational facilities or if there is no net increase in residential units.

2.3 All developments will be required to provide adequate landscaping to allow the development to blend into the surrounding area.

2.4 The following table summarises the types of development which do and do not generate the requirement for recreation provision.

<table>
<thead>
<tr>
<th>Type of development</th>
<th>Council Standard</th>
<th>Other Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Youth &amp; Adult</td>
<td>Equipped Play</td>
</tr>
<tr>
<td>Open market housing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Affordable housing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Flats</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bed-sits</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Hostels</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Student accommodation</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Sheltered housing</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Nursing homes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>No net gain in units (e.g. replacement units)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Temporary mobile homes</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

✓ Recreation provision required
X Recreation provision not required
✓* For sheltered housing schemes the requirement will be for the provision of sufficient amenity open space within the development to meet the visual and informal recreational needs of the occupants, consistent with the character of the area.
Step 2: What types of open space should be provided?

Youth and Adult Facilities

2.5 These are facilities intended for formal recreational use and include playing pitches, greens and courts which are available for public use. Wherever possible, such areas should be made available for informal use by children. Football pitches should measure at least 0.82 hectares (based on minimum dimensions of a football pitch plus clearance zones). The following table summarises the dimensions for a variety of sports.

<table>
<thead>
<tr>
<th>Type of sport</th>
<th>Area in hectares</th>
<th>Minimum pitch dimensions (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennis court</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>Football Mini soccer U7-U8</td>
<td>0.82-0.90</td>
<td>27.45 x 18.3</td>
</tr>
<tr>
<td>Youth U11-U13</td>
<td></td>
<td>54.9 x 42</td>
</tr>
<tr>
<td>Youth U17-U18 &amp; Seniors</td>
<td></td>
<td>90 x 45</td>
</tr>
<tr>
<td>Rugby Union</td>
<td>1.26</td>
<td>145.7 x 68.6</td>
</tr>
<tr>
<td>Bowling Greens</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>Cricket 1 square + 2 senior football pitches</td>
<td>2.05</td>
<td></td>
</tr>
</tbody>
</table>

2.6 The District Council is developing specifications for these facilities, utilising industry standards. Appendix 3 sets out the District Council's specification for football pitches. Developers will be required to provide youth and adult formal open space provision in accordance with these emerging specifications.

2.7 As well as the provision of the playing areas/pitches themselves, additional ancillary facilities directly related to the site may also be needed. These include:

- Changing facilities;
- Car parking facilities;
- Site accessibility improvements;

Children's Facilities
(Equipped Play Areas and Casual/Informal Play Space)

2.8 Children's facilities comprise outdoor equipped play areas and casual or informal playing space within housing developments, including safe, shared space such as play streets.

2.9 Appendix 4 sets out the District Council's design brief for equipped play areas. Developers will be required to provide equipped children's play areas in accordance with this brief.
2.10 Children's play areas will vary in terms of their size and range of facilities to meet the needs of different age groups. One of the key factors is walking distance, with younger children needing easy and safe access to play space close to their homes with facilities for older children less frequent and further away.

2.11 In general terms, children’s play areas should be:
- Sited in open, welcoming locations, not on backland with accesses along high-fenced narrow alleyways;
- Separated from areas of major vehicle movements and accessible directly from hard surfaced pedestrian routes;
- Located to allow informal supervision, for example overlooked by houses or from well used pedestrian routes;
- Far enough from houses to reduce the likelihood of disturbance;
- Linked, as far as possible, with other open spaces and footpaths.

2.12 In the case of equipped children’s play areas, the developer will need to ensure that the facilities are inspected by a relevant and recognised organisation, such as RoSPA.

2.13 Casual or informal playing space provided within housing developments should conform to the general principles set out in para 2.11 above. A further consideration will be the need to avoid the provision of a number of small, isolated areas which may be difficult to maintain in the longer term. The District Council will therefore seek the provision of casual open space areas next to equipped children's play areas. Further guidance will be prepared.

**Landscaping**

2.14 Landscaping includes the protection of existing trees, hedges and other natural features of the site reasonably capable of being retained. Landscaping also includes making new provision for the planting of trees and shrubs, grassed and hard landscaped areas for amenity purposes including boundary treatments.

2.15 Planting, construction and maintenance arrangements should follow the Council's specifications for hard & soft landscaping works, as set out in Appendix 3.

2.16 Small, isolated areas which may be difficult to maintain in the longer term should be avoided.
Step 3: How much open space should be provided?

2.17 For development of 10 net additional dwellings or more, the District Council will require the provision of open space to the following standards:

<table>
<thead>
<tr>
<th>Type of Provision</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth and Adult Facilities</td>
<td>1.7 hectares per 1,000 population</td>
</tr>
<tr>
<td>Children’s Equipped Play Areas</td>
<td>0.3 hectares per 1,000 population</td>
</tr>
<tr>
<td>Children’s Casual / Informal Play Space</td>
<td>0.4 hectares per 1,000 population</td>
</tr>
</tbody>
</table>

There are no overall quantitative standards for the provision of landscaping. However, an appropriate level and type of landscaping should be provided to ensure that the development blends into the surrounding area.

2.18 These standards will be applied to the estimated number of residents resulting from the proposed development. The estimated number of residents will be calculated by reference to the average household size of 2.35 persons (District average, Census 2001) and by reference, where available, to any household size data related to a specific locality.

2.19 When an application is received in "outline" and the number and type of dwellings are unknown, the open space requirement will be estimated based upon the application of a minimum density of 30 dwellings per hectare (gross) and the average household size of 2.35 persons (District average, Census 2001). This is intended to provide an initial guide to the likely requirement.

<table>
<thead>
<tr>
<th>Size of Development</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 dwellings</td>
<td>0.11 hectares</td>
</tr>
<tr>
<td>50 dwellings</td>
<td>0.29 hectares</td>
</tr>
<tr>
<td>100 dwellings</td>
<td>0.57 hectares</td>
</tr>
<tr>
<td>200 dwellings</td>
<td>1.14 hectares</td>
</tr>
</tbody>
</table>

Step 4: Where is the open space to be provided?

2.20 Wherever possible, the open space requirement should be provided on-site. This is normally the best and most practicable way to serve the recreational needs of a new residential development. Landscaping on-site should always be provided.

2.21 To ensure the provision of usable areas of open space which can be easily and economically maintained, open space should not normally be provided on-site if the areas required fall below the following minimum sizes:

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Minimum Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth and Adult Facilities</td>
<td>0.81 hectare</td>
</tr>
<tr>
<td>Children's Equipped Play Areas</td>
<td>0.01 hectare</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>LAP</td>
<td>0.04 hectare</td>
</tr>
<tr>
<td>LEAP</td>
<td>0.1 hectare</td>
</tr>
<tr>
<td>Children's Casual/Informal Play Space</td>
<td>0.04 hectare</td>
</tr>
</tbody>
</table>

2.22 In addition, open space should not normally be provided on-site if appropriate facilities already exist within the locality of the new residential development which, if improved, could meet the extra demand created by the development. The definition of locality depends upon the type of facility concerned. The following maximum distances and times should be used when assessing whether appropriate current facilities exist, in locational terms:

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Maximum walking distance</th>
<th>Maximum walking time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth and Adult Facilities</td>
<td>1000 metres*</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Children's Equipped Play Areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAP</td>
<td>100 metres</td>
<td>1 minute</td>
</tr>
<tr>
<td>LEAP</td>
<td>400 metres</td>
<td>5 minutes</td>
</tr>
<tr>
<td>NEAP</td>
<td>1000 metres</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Children's Casual/Informal Play Space</td>
<td>400 metres</td>
<td>5 minutes</td>
</tr>
</tbody>
</table>

*Access to a local park where pitches or courts are available.

2.23 The usual requirements and specification of facilities may be varied where there are existing open space deficiencies in the area, which could be overcome by a new facility. Subject to the provisions of Circular 1/97, a variation to the required provision may be made where:

- There is an area surplus in one type of open space required by the application of standards, but an existing deficit in another type of open space covered by the policy.
- An on-site facility could be located within the site in such a way as to be accessible to an area of existing deficiency.

For the purposes of this assessment of existing deficiencies, the District Council will have regard to the Recreation Survey 2001 and to the accessibility standards set out in paragraph 2.22.
Step 5: When will financial contributions be appropriate?

2.24 The District Council will request financial contributions to secure provision off-site if on-site provision is inappropriate for any of the reasons set out above.

2.25 Financial contributions will relate directly to the size of the development and will be used to provide new, or upgrade existing, youth/adult sports facilities and children's play areas.

2.26 Appendix 5 sets out the level of financial contributions expected from proposed developments of 10 or above dwellings for types of outdoor playing facility for the current financial year. These calculations are based upon the average costs per square metre of provision taken from SPON'S Landscape and External Works Price Book. Costs include site preparation and levelling, drainage, equipment, and landscaping. The level of contributions towards the provision of youth and adult facilities will be based upon the Council's emerging specifications, utilising costs as set out in the SPON'S guide.

2.27 The costs act as a guide for negotiation and exact contributions will vary according to site characteristics and over time.

2.28 The scale of the contributions payable by developers will be reviewed annually to take account of changing circumstances in the costs of playing equipment and installation.

Step 6: What are the arrangements for the adoption and future maintenance of open space?

2.29 To ensure that the public recreational facilities and open space provided as part of a development are always available for their intended uses, and maintained in perpetuity, developers will be required to satisfy the District Council that a mechanism is in place before planning permission is granted to achieve these objectives.

2.30 The District Council's preferred approach is for the developer to transfer the land to the Council, or to the Council's nominated organisation, together with a financial contribution to ensure its future maintenance for a period of 20 years.

2.31 If the developer wishes to transfer the site to a management company, the District Council will require appropriate conditions to ensure public access and appropriate arrangements in the event that the management company becomes insolvent (a developer guarantee).

2.32 The District Council will only adopt public open spaces if they are constructed to the required standard. Otherwise, the liability to maintain the facility will remain with the developer or property owners.

2.33 Where developers wish to transfer ownership and future maintenance to the Council, they will be required to maintain the open space for 12 months, or
other reasonable period, for "establishment" (as defined in the PPG17 Good Practice Guide) as determined by the Council.

2.34 Commuted sums will be calculated in accordance with industry specifications and costings to provide for 20 years maintenance for most landscaping. Longer time may be sought for capital items such as bridges. Appendix 6 sets out the District Council's maintenance commuted sums requirements at 2004/05. The costs act as a guide for negotiation and exact contributions will vary according to site characteristics and over time.

2.35 The scale of the maintenance contributions payable by developers will be reviewed annually to take account of changing circumstances in the costs of playing equipment and installation.

**Step 7: How will the provision of open space be secured?**

2.36 Policy R4 and the supplementary planning guidance contained within this document will be implemented through the mechanism of Legal Agreements under Section 106 of the Town and Country Planning Act 1990.

2.37 Developers are encouraged to meet the District Council at a pre-application stage to discuss the likely public open space requirement arising from the proposed development. The submission of a full or reserved matters planning application which requires the on-site provision of open space should be accompanied by a full specification of the open space to be provided. This will speed up the decision making process. The applicant will be required to enter into a Section 106 Legal Agreement with the District Council to secure either the provision and future maintenance of outdoor playing space on-site or a financial contribution towards off-site provision.

2.38 Open space including equipment should be provided on-site prior to the first occupation of any dwelling. Where major development is subject to phasing arrangements, open space should be provided prior to the occupation of any dwelling within the phase to which the open space relates.

2.39 Contributions from developers will be paid to the District Council on the signing of the Section 106 legal agreement (at the reserved matters stage in the case of outline permissions). These funds will not be used until the Council is notified by the developer that the planning permission, granted following the completion of the Section 106 legal agreement, has commenced. If the planning permission expires, is revoked, or otherwise becomes invalid without being implemented, the contribution will be repaid to the original payee.

2.40 Payments should be in the form of cheques, made payable to West Wiltshire District Council, with the planning application reference number written on the reverse. The Council will acknowledge receipt of the payment.
2.41 The District Council will hold commuted sums received from developers in a designated account and will be used solely for the provision or improvement of outdoor playing facilities.

2.42 The District Council will release the funds only when an appropriate recreation scheme has been identified. If the commuted sums have not been used, or an on-going scheme has not been identified, within 5 years of the receipt of the funds by the Council, the funds will be returned to the original payee with accumulated interest.
APPENDIX 1

West Wiltshire District Plan 1st Alteration: Policies

Policy R4 Open Space in New Housing Developments

Residential development proposals of ten or more dwellings will not be permitted unless appropriate provision for public open space is made in accordance with the standard of 2.43 hectares (6 acres) per 1,000 population, as detailed in Appendix C. The provision of formal and informal facilities for children’s use will be a particular requirement in new development. In other developments, where the achievement of the standard may be unrealistic or inappropriate, suitable arrangements will be considered such as contribution towards or the provision or improvement of facilities nearby, to be secured through legal agreements and planning obligations under Section 106 of the Town and Country Planning Act 1990. Sheltered housing schemes will be required to provide amenity open space consistent with the scale and kind of the development and with the character of the area.

Policy C32 Landscaping

Proposals for development should make provision for landscaping, including the protection of existing trees, hedges and other natural features of the site, for new planting and for appropriate earth mounding and hard features including surface treatment and boundary enclosures. Where appropriate, consideration of wildlife interest should form part of the proposals for landscaping.

Policy I1 Implementation

In housing, commercial and industrial developments the District Council will, where appropriate, enter into legal agreements with developers under Section 106 of the Town and Country Planning Act 1990 to provide for new infrastructure, social, recreational and community facilities, where the need for these arises directly from the development concerned. Provision should be commensurate with the scale and nature of the individual development. Provision may be on-site or contributions may be made to the provision of facilities elsewhere in the locality provided their location adequately relates to the development site.
APPENDIX 2

West Wiltshire District Plan 1st Alteration: Open Space Standards

Policy R4 requires the provision of recreational open space in new development at a standard of 2.43 hectares (6 acres) per 1,000 population as adopted by the NPFA. The standard is made up of:

Youth and Adult Use - 1.6-1.8 hectares (4.0-4.5 acres) per 1,000 population

Children’s Use - 0.2-0.3 hectares (0.5-0.75 acres) per 1,000 population for equipped children’s playgrounds and 0.4-0.5 hectares (1.0-1.25 acres) per 1,000 population for casual or informal play space within housing areas.

Youth and adult facilities include pitches, greens, courts and other miscellaneous items in public and private sectors, which as a matter of policy and practice are available for public use.

The minimum standard for children's use should be met at all times and in all circumstances. This provision should be within easy walking distance of new homes, well integrated within the development.

The precise provision of outdoor playing space within the stated categories and ranges will be dependent upon the nature of the development and the demographic profile of the resident population. In circumstances where provision cannot be made to the required standard, contributions towards the provision or improvement of facilities nearby will normally be secured (see Note 6).

Provision within sheltered housing development will not be required to provide formal facilities for youth and adult uses, but should provide appropriate amenity space consistent with the character of the area.

It may be appropriate for developers to enter into planning obligations under Section 106 of the Town and Country Planning Act 1990 to secure the provision of public open space and sporting, recreation, social, educational or other community facilities as part of larger mixed developments.

Such agreements might cover:

- the provision of on-site and off-site recreational facilities related to the development;
- in the case of small developments, a contribution to nearby sport and recreational or open space provision;
- alternative provision when recreational land or open space is lost.
1.0 EXCAVATING AND FILLING

To be read with Preliminaries / General conditions.

1.1 SITE INVESTIGATION: It remains the responsibility of the appointed consultant and contractor the carry out a thorough site investigation prior to any construction operation. It also remains the responsibility of the appointed consultant and contractor to assess the likely impact that the sports pitch would have on the adjoining land. All find should be passed to West Wiltshire District Council.

1.2 SOILS AND STRATA: Site information is not available. Make all necessary inquiries concerning the nature and location of soils and strata.

1.3 GROUND WATER LEVEL on the site is not known. Make all necessary inquiries concerning ground water level and allow for variations from this level when working on any part of the site.

1.4 EXISTING SERVICES: Make all necessary inquiries concerning the location and type of services that affect the site before construction.

2.0 CLEARANCE / EXCAVATING

2.1 SITE FEATURES: Before starting work verify with West Wiltshire District Council, which existing fences, gates, walls, roads, paved areas and other site features are to be removed. Materials arising are to be removed from site. This is only applicable if West Wiltshire District Council currently owns the land.

2.2 CUTTING TREE ROOTS:
- Do not cut roots in the protected area without approval of the Landscape/Tree Officer. The protected area is the larger of: the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.
- Notify the Landscape/Tree Officer and seek instruction if excavations expose roots exceeding 50mm.
- Form clean smooth cuts with a handsaw, minimizing the wound area and avoiding ragged edges. Pare cut surfaces smooth with a sharp knife. If roots have been unintentionally severed, notify Landscape/Tree Officer and form a new clean cut slightly nearer the trunk.
- Cover with original topsoil mixed with fertilizer and water well. (Follow guidance in BS 7370:Part4.)
- Refer to BS 3998:1989 (British Standard Recommendations for TREE WORK) and BS 5837:1991 (Guide for Trees in relation to construction) or contact the Landscape/Tree Officer.
2.3 REMOVING TREES, SHRUBS AND HEDGES:
- Before starting work verify with Landscape/Tree Officer, which trees, shrubs and hedges are to be removed.
- Check for below and above ground services in the vicinity. Inform Landscape/Tree Officer if they may be affected and obtain instructions before proceeding.
- Comply with Forestry and Arboricultural Safety and Training Council Safety Guides.
- Cut down and grub up roots of shrubs and smaller trees. Fell larger trees as close to the ground as possible and remove the stumps mechanically to a minimum depth of 300mm below ground level. Fill all soft spots with compacted general filling as per Item No.4.4
- Take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained, where tree canopies overlap and in confined spaces generally.
- Obtain CA's approval before removing stumps by winching and do not use other trees as supports or anchors.
- Comply with the Dutch Elm Disease (Restriction on Movement of Elms) Order.

2.4 SITE CLEARANCE:
- Clear site of rubbish and debris.
- Grub up and dispose of large roots without undue disturbance of soil and adjacent areas.
- Apply a suitable herbicide (in accordance with the UK Pesticide Guide) to landscape planting areas.

2.5 MATERIALS ARISING from the excavations and surplus to requirements.
- All materials arising from the excavations to be disposed of at the Contractor's expense.

2.6 STRIPPING TOPSOIL:
- Before beginning general excavation or filling, excavate all topsoil from areas where there will be regrading, buildings, paving, roads and other areas where specified.
- Remove topsoil and keep separate from excavated subsoil.
- Handle topsoil for re-use or sale in accordance with item No.5.0
- Do not remove topsoil from below the spread of trees to be retained.

2.7 TOPSOIL: Not less than two weeks before excavating topsoil apply a suitable herbicide (in accordance with the UK Pesticide Guide).

2.8 BENCHING: Surfaces of excavations with a gradient greater than 1 in 5 which are to receive filling must have horizontal benches cut to match the depths of compacted layers of filling.

2.9 ADJACENT EXCAVATIONS: Where an excavation encroaches below a line drawn at an angle of 45° from the horizontal from the nearest formation level
of another higher excavation, the lower excavation, all work within it and backfilling thereto must be completed before the higher excavation is made.

2.10 ACCURACY: Permissible deviations from formation levels:
- Beneath mass concrete foundations: +/- 25mm.
- Beneath ground bearing slabs and r.c. foundations: +/- 15mm.
- Embankments and cuttings: +/- 50mm.
- Ground abutting walls: +/- 50mm, but such as to ensure that finished level is not less than 150mm below dpc.

2.11 FORMATIONS GENERALLY:
- Make advance arrangements with Landscape Officer for inspection of formations for the following:
  - Groundwork for the football pitch.
  - Remove the last 150mm of excavations just before inspection. Trim excavations to required profiles and levels, and remove all loose material.
  - Unless otherwise instruction, seal formations within 4 hours of inspection with concrete or other specified fill.

2.12 FOUNDATIONS GENERALLY:
- A natural bearing formation of undisturbed subsoil should be achieved
- If the formation contains soft or hard spots or highly variable material refer to item No. 4.4.

2.13 TRENCH FILL FOUNDATIONS:
- Excavate the whole depth of the trench down to formation by machine in one operation. Make advance arrangements with Landscape Officer for inspection of formation as soon as it is exposed.
- Unless otherwise instructed, place concrete immediately after inspection.

2.14 FOUNDATIONS IN MADE UP GROUND: Excavate down to a natural formation of undisturbed subsoil.

2.15 UNSTABLE GROUND: All subsoil to be adequately stabilized to prevent any future subsidence.

2.16 RECORDED FEATURES: Break out old foundations, beds, drains, manholes, etc, when no longer required. Seal off drain ends, remove contaminated earth, and disinfect as required. Backfill as specified as stated in Item No.4.3.

2.17 UNRECORDED FEATURES: Where old foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered, do not disturb or enter. Carry out appropriate investigations with the relevant service provider or Local authority before proceeding.

2.18 EXISTING WATERCOURSES that have been diverted and are to be filled
must be cleared of all vegetable growths and soft deposits before filling.

2.19 EXCESS WIDTH: Backfill any excavations taken:
- Wider than required with the material specified for backfilling
- Deeper than required with well graded granular material or lean mix concrete.

2.20 UNDERGROUND STRUCTURES IN LANDSCAPE AREAS: Remove any buildings, walls, roads, foundations, disused services, drains, manholes and the like in areas to be landscaped to a minimum depth below finished levels of:
- Grass, ground cover and perennial planting: 500mm
- Shrub planting: 750mm
- Within 2m of tree planting: 1000mm
- Any similar underground structure in the vicinity of the alignment for the drainage system should be removed to allow the unrestricted installation of the drainage system.

3.0 DISPOSAL OF MATERIALS

3.1 TOPSOIL SPOIL HEAPS:
- To be not more than 2m high.
- Treat with a suitable herbicide at appropriate times to prevent seeding of weeds.
- Do not place any other material on top of spoil heaps.
- Do not allow construction plant to pass over spoil heaps.
- Prevent compaction and contamination.

3.2 SURPLUS EXCAVATED TOPSOIL: Remove from site.

SURPLUS SUBSOIL: Stockpile surplus excavated material in temporary spoil heaps or remove from site.

3.3 WATER: Keep all excavations free from water until formations are covered and below ground constructions are completed.

3.4 GROUND WATER LEVEL: Inform the CA immediately if it is considered that the excavations are below the water table so that the ground water level can be determined.

3.5 PUMPING:
- Do not disturb excavated faces or the stability of adjacent ground or structures.
- Avoid flooding of the site, or adjoining property, by disposal of pumped water.
- Construct sumps clear of the excavations and fill as specified on completion.

3.6 PERMANENT DRAINAGE SYSTEM: Do not use for disposal of water from the excavations.
4.0  FILLING

4.1  HAZARDOUS, AGGRESSIVE OR UNSTABLE MATERIALS:
- Do not import or use fill materials which would, either in themselves or in combination with other materials or ground water, give rise to a health hazard, damage to building structures or instability in the filling.

- Soluble sulphate content (SO3) of materials for filling under concrete slabs or within 1m of sub-structures must not exceed 1g/litre when tested to BS 1377:Part 3, clause 5, using a 2:1 water-soil extract. Submit test reports from a UKAS/NAMAS accredited laboratory demonstrating compliance of the proposed material(s).

4.2  PLACING FILL GENERALLY:
- Ensure that excavations and areas to be filled are free from loose soil, rubbish and standing water.
- Do not use frozen materials or materials containing ice. Do not place fill on frozen surfaces.
- Take all necessary precautions to avoid overloading of adjacent structures and to ensure stability. Place and compact fill against structures, membranes or buried services in a sequence and manner, which will ensure stability and avoid damage.
- Plant employed for transporting, laying and compacting must be suited to the type of material.
- Lay differing materials separately so that only one type of material occurs in each layer.

4.3  BENCHING IN FILL: Where, during the progress of work, the difference in level between adjacent areas of filling exceeds 600mm, cut into edge of higher filling to form benches having a minimum width of 600mm and a height equivalent to them depth of a layer of compacted filling. Spread and compact new filling to ensure maximum continuity with the previous filling.

4.4  COMPACTED LANDSCAPE FILLING:
- Materials arising from the excavations or imported, capable of compaction by light earthmoving plant, and excluding the following:
  - Material from marshes or bogs
  - Peat, logs, stumps, slurry, mud and perishable material
  - Material susceptible to spontaneous combustion
  - Material in a frozen condition
  - Clay of liquid limit exceeding 80 and/or plasticity index exceeding 55
  - Material with excessive moisture content
  - Material likely to erode or decay and cause voids
  - Unacceptable material class U2 as defined in clause 601 of the Highways Agency
  - 'Specification for highway works'
- "Soft Spots:" Prior to undertaking landscape filling operations, the whole
area is to be rolled to identify localised depressions, contractor is to confirm extent of depressions with the Landscape Officer. Hollows are to be filled with acceptable subsoil fill material having the same characteristics as the surrounding material and compacted using light Cambridge roller. Spread layers of fill not more than 200mm thick and evenly compact each layer with earthmoving plant or light Cambridge roller. Number of passes of roller to be two in transverse directions, i.e. 4 No. total passes.

- Lay in layers not more than 200mm thick and lightly compact each layer with the earthmoving plant to produce a stable soil structure. Identify all areas of soft ground and undertake all work necessary to adequately compact ground to ensure no future subsidence will occur.
- Well in advance of starting work submit details of proposed:
  - Materials to be used
  - Type of plant
  - Method to be used
  Obtain instructions before proceeding.

4.5 PROTECTION OF COMPACTED FILLING:
- Do not allow construction traffic on compacted cohesive soil filling until the level has been raised not less than 150mm above formation level by properly compacted temporary protective filling.
- Remove temporary protective filling from site before beginning permanent construction.

5.0 TOPSOIL AREAS

5.1 GRADE SUBSOIL to smooth flowing contours and to achieve the specified finished levels of the topsoil. Excavate locally as necessary for areas of thicker topsoil. Small planting beds located in general landscape areas may be excavated separately at a later date.

5.2 LOOSEN SUBSOIL consisting of light, non-cohesive material with a 3 tine ripper, drawn 300 mm deep at 600 mm centres in two directions obliquely across the slope, when ground conditions are reasonably dry.

5.3 LIGHTLY SCARIFY sub-grades consisting mostly of rock or chalk to promote free drainage.

5.4 TOPSOIL QUALITY REQUIREMENTS.
Confirm the following for all topsoil:
- Texture: medium loam
- Soil reaction: 6.5 - 7.5 pH for areas of non lime hating plants
- Reasonably free from stones
- Maximum size of stones in any dimension: 50mm
- Organic matter: not less than 4
- Electricity conductivity: below 1500 micromhos per cm in 1:2.5 soil: water extract
- Nitrogen (N): not less than 0.2
- Available Phosphorus (P): not less than 300ppm when extracted with 4.2
NaHCO at pH8.5
- Free from weed seeds, roots of perennial weeds, sticks, subsoil and foreign matter
- From an approved source.

5.5 PREPARE SURFACE of subsoil/subgrade immediately before spreading topsoil by removing stones with largest dimension exceeding 100mm.

5.6 TOPSOIL ANALYSIS
Obtain approval of a sample load of not less than 5 cubic metres. Retain for comparison with subsequent loads and arrange for a soil analysis report to be carried out from an approved soil analyst of the physical and chemical properties as below (two weeks are customarily needed by the analyst for such tests.) Samples for analysis shall be representative of the soil being offered and ten equal samples shall be taken and well mixed and quartered. From this mixture 500g of soil shall be placed in a plastic bag, labeled with name and details of origin and sent to the analyst with a request for the following information:-
- Soil reaction and lime requirement.
- Electricity conductivity
- Mechanical analysis
- Soil texture
- Nutrient levels: Nitrogen, Available Phosphorus, available Potassium, available Magnesium
- Organic matter
- Recommendations for making good any deficiencies and fertilizer treatment related to the planting proposals.
- The supervising officer may ask for additional tests for toxicity, water holding capacity or mechanical composition.
- Soil analyst: Dr. Augustus Voelcker, 380 Bollo Lane, London W3 8QU
- Collect a sample in accordance with BS 3882.
  Provide:
  - A declaration of analysis of above criteria.
  - A report detailing the soil analyst's recommendations.
  - Submit the original of the soil analyst's report to the Landscape Officer.

5.7 CONTAMINATION: Unless specified otherwise:
Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
- Corrosive, explosive or flammable
- Hazardous to human or animal life
- Detrimental to healthy plant growth.
In areas to receive topsoil, do not use subsoil contaminated with the above materials. Inform the Landscape officer if any evidence or symptoms of soil contamination are discovered on the site, or in topsoil to be imported.

5.8 HANDLING TOPSOIL: When moving topsoil within the site, or when stripping topsoil and importing to site:
• If aggressive weeds are present, apply a suitable herbicide (in accordance with the UK Pesticide Guide) and allow to take effect before moving.
• Select and use plant to minimize disturbance, trafficking and compaction.
• Avoid contamination by subsoil, stone, hardcore, rubbish or material from demolition work.
• Keep different grades of topsoil separate from each other when handling and stockpiling.
• Inform CA where the depth of topsoil is difficult to determine.
• Minimize multiple handling of topsoil. Use topsoil immediately after stripping wherever possible.
• Handle topsoil in the driest condition reasonably possible. Do not handle topsoil during or after heavy rainfall or when it is wetter than the plastic limit less 3, to BS 1377:Part2.

5.9 SPREADING TOPSOIL:
• Remove temporary roads or surfacing before spreading topsoil.
• Spread over prepared subsoil in layers not exceeding 150 mm and gently firm each layer before spreading the next.
• Overall minimum depths after firming and settlement to be:
  - Football pitch and run-off area: 175mm
  - Grassed areas: 200mm
  - Planting areas: 450mm
• Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

5.10 REMOVAL OF SURPLUS TOPSOIL AND ARISING FROM SCREENING OPERATION
• It remains the responsibility of the contractor to remove from site, any arising from the topsoil screening operation.
• Any surplus topsoil is to be deposited elsewhere on site, at a location to be agreed.

5.11 FINISHED LEVELS OF TOPSOIL after settlement, unless otherwise stated, to be:
• 30 mm above adjoining paving or kerbs,
• Unchanged within the root spread of existing trees,
• Not less than 150 mm below dpc of adjoining buildings,
• 30 mm higher for shrub areas than for adjoining grass areas,
• Married-in with adjoining soil areas.
6.0 SITE PREPARATION:
The Contractor shall be responsible for all works associated with the construction of the football pitch.

6.1 In order to relieve compaction and expose any remaining tree roots, rip the subsoil material to a depth of 500mm using a ripper with 3 tines set at a spacing of 600mm. Allow for two passes in transverse directions.

6.2 Remove all stones with a dimension greater than 150mm and any exposed tree roots off site to tip provided by the Contractor.

6.3 Lightly grade formation surface using an approved blade grader to smooth out any unevenness or disturbance in surface levels caused by the ripping operation.

7.0 TOPSOIL SCREENING/REPLACEMENT:

7.1 The topsoil for the pitch shall be obtained from an approved source or on site. Prior to spreading the topsoil shall be passed through a mechanical static screening plant fitted with a 16mm gauge riddle to remove injurious or deleterious materials.

7.2 Spread screened topsoil over all the football pitch shown on Drawing plus a 3m wide surround to provide a minimum firmed depth of 175mm.

Any other peripheral sections where level adjustment has taken place which lie outside the main playing area shall be covered with a minimum 175mm firmed depth of unscreened topsoil.

8.0 DRAINAGE:

8.1 OUTLET DRAIN:
- Introduce 150mm outlet drain. The drain shall be formed using unperforated plastic pipe to BS4660: 1989 or other approved. The drain shall be laid at a minimum depth of 750mm to invert and with the fall as indicated. Outlet drain to be connected a pre-agreed drainage system.
- When excavating the drain trench, the topsoil shall be removed and then the subsoil, the materials being preserved separately to one side for replacement.
- Following laying and sealing of the pipes, subsoil shall be replaced first and then the topsoil. Each material shall be adequately firmed to avoid settlement.

8.2 PIPE DRAINAGE:
- Introduce pipe drainage system (where laterals are generally at 3.5m intervals) working from the outlet.
• Laying of pipes and backfilling of drain trenches shall not be carried out in temperatures less than those specified by the pipe manufacturer.
• Main drains within the site shall be laid at a minimum depth of 700mm to invert. Lateral drains shall be laid at a minimum depth of 600mm to invert. All drains shall be laid with the steady fall of the land along their line. No drain shall be laid to a fall less than 1:200.
• Perforated plastic drain pipes to BS4962: 1989 shall be used with unperforated plastic pipe to BS4660: 1989, used for the outlet. All joints in the line of drains shall be made with purpose made connectors, by slotting or by reduction in pipe size if necessary, end stops shall be provided to seal open ends and all connections between laterals and mains shall be formed with purpose made junctions of appropriate sizes.
• Drain trenches shall be as wide as necessary at ground level to allow easy laying of pipes, but in the case of lateral drains the trench bottoms shall be at least 150mm wide. In the case of pipes of 110mm diameter or over the trenches shall be 50mm wider than the outside diameter of the pipe. The trench bottom shall be shaped to bed, fit and secure the pipes centrally at the required invert depths.

8.3 Excavate topsoil and subsoil to form drain trenches to required depth and shape bottoms to receive pipes. The spoil shall be loaded as it is excavated and removed from site to an authorized tip. The final surface shall be left smooth to receive topsoil.
• Lay drainage pipes of specified size to a true line on a firm subsoil foundation. Purpose made junctions, end stops, etc. shall be set into the drain lines as required
• Backfill drain trenches up to 150mm from ground level using approved 6 - 10mm gauge gravel or stone chippings. Adequately and evenly firm, leaving surface flat.
• Cover backfilling with approved coarse, gritty sand to finish flush with topsoil surface.
• Catchwater drains shall be filled up to 75mm from finished ground level with approved aggregate and, after firming and evening up, topped off with 50mm firmed depth approved coarse sand. Care shall be taken to maintain the backfilling over catchwater drains, clean, e.g. free from soil, or similar.
• All filling shall be carried out carefully to avoid displacement or damage of pipes. Approved backfilling shall be carefully introduced by shovel or chute.

8.4 SILT CHAMBERS:
• Excavate for and construct silt chambers with inside measurements of 915mm x 610mm and to a depth of 300mm below the outlet pipe.
• The silt pits shall be set on 150mm thick concrete (1-3-6 40mm aggregate) bottoms and shall be constructed with purpose made reinforced pre-cast concrete units to BS5911. Each unit bedded and pointed in cement mortar.
• The silt pits shall be fitted with Grade B cast iron covers and frames to BS497: 1976, the frames to be bedded on and haunched round in cement mortar. Covers shall be set 25mm below finished ground level.
• Allowance shall be made for building in inlet and outlet pipes, along with pointing and sealing around all units and pipes to ensure efficient waterproofing.
• Surplus subsoil from excavations for silt pits shall be disposed of as specified for drain trenches.

9.0 CULTIVATIONS:

9.1 Cultivate working area using approved tine or disc cultivators to produce a reasonably fine tilth, to relieve any compaction through the full topsoil depth and to keep the site clean of weed until seedbed preparation commences. The use of rotary cultivators will not be allowed unless agreed to by Landscape Officer.

The Contractor shall allow for 4 cultivations. Each cultivation shall comprise two passes, the second to be transverse to the first.

9.2 When a suitable tilth has been produced during earlier stages of above cultivation, blade grade the site using an approved blade grader. The surface shall be made smooth to the gradients desired, i.e. free from humps, depressions and ruts. An absolute minimum 130mm true topsoil shall exist overall on completion.

9.3 During final cultivations all surplus vegetable matter, rubbish and surface stones having dimensions of 16mm or more shall be collected using approved mechanical stone pickers/rakes and removed off site to a tip provided by the Contractor.

Supply and evenly apply with an approved distributor, ground limestone at the rate of 3 tonnes per hectare.

10.0 SAND LAYER:

10.1 Supply approved medium-fine sand to provide 50mm firmed depth over the football pitch area plus a 4m surround.

10.2 Spread approved sand to form an even layer of 50mm firmed depth. The sand shall be spread in a manner agreed by the Landscape Officer but the Contractor shall note that lorries will not be allowed on site unless the ground is dry and unless agreed to by Landscape Officer.

10.3 Lightly cultivate sand into the upper 50mm of the topsoil layer using tractor mounted cultivating machinery with a depth control, a stone rake, power harrows or other approved.

11.0 SEEDBED PREPARATION:

11.1 Produce by rolling and chain harrowing a tilth suitable for grass seeding. The seedbed shall be fine, smooth and evenly firmed but not over consolidated.

11.2 After the seedbed has been approved by Landscape Officer and shortly before seeding is carried out, supply and evenly apply with approved tractor-
operated distributor 500kg per hectare of a granular fertilizer containing 10 nitrogen: 15 phosphoric acid: 10 potash.

12.0  GRASS ESTABLISHMENT:

12.1  Winter games pitches: Provide a seeds mixture composed by weight of:
- 80 wear tolerant fine-leaved perennial ryegrass: certified seed of 'Aberelf, Plasir', 'Master', 'Barlinda' or other approved.
- 20 smooth-stalked meadowgrass: certified seed of 'Limousine', 'Julia', 'Haga', 'Lily' or other approved for sowing at the rate of 350kg/ha.

12.2  Seeding shall be carried out during suitable conditions. The total quantity of seed shall be divided in half, each half being sown evenly with an approved distributor in transverse directions to provide a total rate of sowing of 350kg per ha.

   Lightly chain harrow seed into immediate surface, care being taken not to work seed into drills or ridge the surface.

13.0  SUNKEN CORNER SOCKETS:

13.1  Drive 1no. sunken galvanized steel sockets (600mm x 75mm diameter) on each outside corner of the 4m run-off strip. This will accommodate a post and rope barrier.

14.0  SEEDING/TURFING (GENERAL REQUIREMENTS)

14.1  The Contractor is to follow the recommendations set down in BS4428: 1989 Code of Practice for general Landscape Operations (excluding hardworks) unless stated otherwise in specification.

14.1  TOPSOIL: At the time of starting the subcontract work, the areas to be seeded/turfed will be covered by:
- Topsoil 200 mm thick provided and spread in accordance with Items 1.0 to 5.0 of this document.

14.2  CLIMATIC CONDITIONS: Carry out the work while soil and weather conditions are suitable. Carry out seeding during April to October.

14.3  MACHINES AND TOOLS: Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is impracticable to use machinery.

14.4  WATERING GENERALLY:
- Ensure the full depth of topsoil is thoroughly wetted
- Use a fine sprinkler or oscillating spray.
- Water as necessary to ensure the establishment and continued thriving of all seeding/turfing.
- Water when specified and when instructed by the Landscape Officer.
14.5 WATER RESTRICTIONS: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.

14.6 NOTICE TO CA: Make arrangements 2 days in advance with the Landscape Officer to give him the opportunity of being present during:
   - Setting out
   - Application of herbicide
   - Application of fertilizer
   - Preparation of seed bed
   - Seeding or turfing
   - Each site visit during maintenance period.

14.7 SETTING OUT: Clearly mark boundaries of seeding/turfing areas and obtain approval before starting work.

14.8 SUITABILITY OF TOPSOIL:
Before commencing work the Contractor must confirm to the Landscape Officer that the topsoil, after the specified preparation, will be suitable for seeding/turfing.

15.0 SEEDING/TURFING (PREPARATION)

15.1 PREPARATION MATERIALS GENERALLY:
   - Do not use materials containing concentrations of toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
   - Submit to the CA a supplier's certificate for the following materials and obtain approval before ordering or using the materials:
     - Mushroom compost
   - The certificate must provide the following information:
     - Source of supply
     - Analysis of content
     - Confirmation of suitability for proposed purpose
     - Confirmation of absence of harmful substances.

15.2 HERBICIDE: Apply a suitable type to perennial weeds and allow period of time to elapse as recommended by manufacturer before cultivation.

15.3 SEED BED CLEANING BEFORE SOWING FOR ALL GRASSED AREAS
   - Remove all weeds and their seeds by hoeing, burying, hand weeding or special herbicide treatments to be agreed with the Landscape Officer.

15.4 LIME:
   - Fine ground limestone containing not less than 50 of CaO equivalent.
   - Apply evenly over seeding areas at 300g/sq. m immediately before cultivation.

15.6 PEAT: Do not use peat or products containing peat.
15.7 CULTIVATION:
- Break up any compacted topsoil to full depth.
- Reduce top 100 mm of all topsoil to a tilth suitable for blade grading (10 mm down particles).
- Remove undesirable material brought to the surface including stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.

15.8 GRADING:
- When topsoil is reasonably dry and workable grade to smooth, flowing contours, with falls for adequate drainage, removing all minor hollows and ridges
- Unless otherwise stated, finished levels after settlement to be 25 mm above adjoining
- Topsoil levels may be adjusted by blade grading ensuring that there is nowhere less than 200 mm of topsoil.

15.9 FERTILIZER: Three to five days before seeding/turfing and before final cultivation apply Levington PS 5 grass fertilizer evenly over all seed beds, each at 70 g/sq. m, in transverse directions:
- Superphosphate with a minimum of 18 water soluble phosphoric acid.
- A sulphate of ammonia with a minimum of 20 nitrogen.

15.10 FINAL CULTIVATION:
- After grading and fertilizing carry out further cultivation to reduce top 25 mm to a fine firm seedbed with good crumb structure.
- Rake with chain harrow, drag mat or hand rake to a true, even surface, lightly firmed but not over compacted, removing all stones and earth clods more than 50 mm in any dimension on general areas and 25 mm on fine lawns.
- Extend cultivation into any adjacent existing grass areas to ensure full marrying in of levels.
- Obtain approval of appearance of prepared soil areas before seeding/turfing.

16.0 SEEDING

16.1 GRASS SEED FOR GENERAL AREAS
- Mixture: A9 General Outfield.
- Supplier and reference: British Seed Houses (01869-323585).
- Rate of application: 25g /m2.
- Increase rate of application by 50 for slopes exceeding 1 in 3.

16.2 QUALITY OF SEED
- Purchase fresh seed for each growing season. Do not use seed purchased for previous seasons.
- Use blue label certified seed varieties complying with EC regulations for purity and germination.
- When requested, supply to Landscape Officer samples of mixtures as delivered to site or copy of original certificate of germination, purity and composition carried out by an Official Seed Testing Station.
16.3 SOWING:
- Sow seed in calm weather during spring or autumn.
- Spread seed evenly at the specified rate(s) applied in two equal sowings in transverse directions.
- Lightly harrow or rake.
- On light soils roll and cross roll after seeding using a lightweight roller.

16.4 PRE-EMERGENT HERBICIDE:
Where soil has not been allowed to lie fallow apply a suitable pre-emergent herbicide immediately after sowing.

17.0 PROTECTING/WATERING/CUTTING

17.1 PROTECTIVE FENCING should be erected around all features to be retained
- Protect newly seeded areas with 1m high chestnut pale fencing to BS1722: Part 4. Maintain fencing until grass is well established then remove and reinstate ground. Make good any damage to grass until area is accepted. The fencing will remain the property of the Contractor.

17.2 WATERING: During establishment of grass areas ensure that sufficient water is applied using a fine sprinkler or oscillating spray to maintain healthy growth.

17.3 FIRST CUT OF GRASS AREAS:
- When grass is 50mm high remove debris, litter and all stones and earth clods larger than 25mm in any dimension, and when grass is reasonably dry, cut to approximately 25mm high.
- Arisings: to be removed and disposed off site.

17.4 CLEANLINESS: Remove soil and arisings from hard surfaces and leave the works in a clean, tidy condition at Practical Completion and after any maintenance operations.
SPECIFICATIONS OF LANDSCAPE WORKS FOR ORNAMENTAL AND STRATEGIC PLANTING

TOPSOILING OPERATIONS

To be read in conjunction with Buro Happold Consulting Engineers, Bulk Earthworks contract drawings.

810 GRADE SUBSOIL to smooth flowing contours and to achieve the specified finished levels of the topsoil. Excavate locally as necessary for areas of thicker topsoil. Small planting beds located in general landscape areas may be excavated separately.

820 LOOSEN SUBSOIL consisting of light, non cohesive material with a 3 tine ripper, drawn 300 mm deep at 600 mm centres in two directions obliquely across the slope, when ground conditions are reasonably dry.

823 LIGHTLY SCARIFY subgrades consisting mostly of rock or chalk to promote free drainage.

827 PREPARE SURFACE of subsoil/subgrade immediately before spreading topsoil by removing stones with largest dimension exceeding 75 mm.

841 TOPSOIL
Provide as necessary to complete the work.
- Obtain from temporary site storage heap.
- On visual inspection free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, or other foreign matter.

850 CONTAMINATION: Unless specified otherwise:
- Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
  - Corrosive, explosive or flammable
  - Hazardous to human or animal life
  - Detrimental to healthy plant growth.
- In areas to receive topsoil, do not use subsoil contaminated with the above materials.
- Inform the CA if any evidence or symptoms of soil contamination are discovered on the site or in topsoil to be imported.

855 HANDLING TOPSOIL: When moving topsoil within the site:
- If aggressive weeds are present, obtain instructions from the CA before moving topsoil.
- Select and use plant to minimize disturbance, trafficking and compaction.
- Avoid contamination by subsoil, stone, hardcore, rubbish or material from demolition work.
- Inform CA where the depth of topsoil is difficult to determine.
- Minimise multiple handling of topsoil. Use topsoil immediately after stripping wherever possible.
- Handle topsoil in the driest condition reasonably possible. Do not handle topsoil during or after heavy rainfall or when it is wetter than the plastic limit less 3% to BS 3882: Annex N.2.
860 SPREADING TOPSOIL
- Remove temporary roads or surfacing before spreading topsoil.
- Spread over prepared subsoil in layers not exceeding 150 mm and gently firm each layer before spreading the next.
- Overall minimum depths after firming and settlement to be:
  - 150 mm for grass areas
  - 400 mm for planting areas
- Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

880 FINISHED LEVELS OF TOPSOIL after settlement, unless otherwise stated, to be:
- 30 mm above adjoining paving or kerbs
- Unchanged within the root spread of existing trees
- Not less than 150 mm below dpc of adjoining buildings
- 30 mm higher for shrub areas than for adjoining grass areas
- Married-in with adjoining soil areas.
Q30 SEEDING/TURFING

GENERAL INFORMATION/REQUIREMENTS

120 CLIMATIC CONDITIONS: Carry out the work while soil and weather conditions are suitable. Carry out seeding during April to October.

130 MACHINES AND TOOLS: Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is impracticable to use machinery.

142 WATERING GENERALLY:
- Ensure the full depth of topsoil is thoroughly wetted.
- Use a fine sprinkler or oscillating spray.

145 WATERING:
- Water as necessary to ensure the establishment and continued thriving of all seeding/turfing.

150 WATER RESTRICTIONS: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.

160 NOTICE TO CA: Make advance arrangements with CA to give him the opportunity of being present during:
- Setting out
- Application of herbicide
- Application of fertiliser
- Preparation of seed bed
- Seeding or turfing
- Each site visit during maintenance period.

170 SETTING OUT: Clearly mark boundaries of seeding/turfing areas and obtain approval before starting work.

190 SUITABILITY OF TOPSOIL: Before commencing work the subcontractor must confirm to the CA that the topsoil, after the specified preparation will be suitable for seeding/turfing.

PREPARATION

205 PREPARATION MATERIALS GENERALLY:
- Do not use materials containing concentrations of toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

210 HERBICIDE:
- Apply a suitable type to perennial weeds and allow period of time to elapse as recommended by manufacturer before cultivation.

231 PEAT: Do not use peat or products containing peat.

240 COMPOST: One of the following spread over seeding areas at 1cu m of material per 20sq m prior to cultivation:
- Sewage sludge: Dewatered ameliorated solid sludge with a maximum moisture content of 10% and containing not less than 3% nitrogen, 2.5% phosphate, 0.3% potash.
**Q30 SEEDING/TURFING**

- Mushroom compost: Spent mushroom beds containing only well rotted manure, peat, chalk and residual mushroom growth.
- Composted bark, cocoa shell or coir fibre.
- Other well rotted organic material subject to approval.

**250 CULTIVATION:**
- Break up any compacted topsoil to full depth.
- Reduce top 100 mm of all topsoil to a tilth suitable for blade grading (10 mm down particles).
- Remove undesirable material brought to the surface including stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.

**260 GRADING:**
- When topsoil is reasonably dry and workable grade to smooth, flowing contours, with falls for adequate drainage, removing all minor hollows and ridges.
- Unless otherwise stated, finished levels after settlement to be 25 mm above adjoining paving, kerbs, manholes etc.
- Topsoil levels may be adjusted by blade grading ensuring that there is nowhere less than 150 mm of topsoil. If required levels cannot be achieved by movement of the existing soil, obtain instructions.

**275 FERTILISER:** Three to five days before seeding/turfing and before final cultivation apply Levington Horticulture Sportsmaster PS.5 evenly over all grassed areas except wild flower meadows at 70 g/sq m.

**280 FINAL CULTIVATION:**
- After grading and fertilising carry out further cultivation to reduce top 25 mm to a fine firm seedbed with good crumb structure.
- Rake with chain harrow, drag mat or hand rake to a true, even surface, lightly firmed but not over compacted, removing all stones and earth clods more than 40 mm in any dimension on general areas and 25 mm on fine lawns.
- Extend cultivation into any adjacent existing grass areas to ensure full marrying in of levels.
- Obtain approval of appearance of prepared soil areas before seeding/turfing.

**SEEDING**

**310 GRASS SEED FOR GENERAL GRASSED AREAS:**
- Mixture: A19
  - Supplier and reference: British Seed Houses
  - Rate of application: 35 g/m²
  - Increase rate of application by 50% for slopes exceeding 30%.

**312 WILD FLOWER SEED FOR MEADOW AREAS AND VERGES:**
- Mixture: for calcareous soil
  - Origin: Native UK
  - Original has the meaning given in the National Plant Specification.
  - Supplier and reference: British Seed Houses mix WFG 5
  - Rate of application: 5 g/m²
  - Increase rate of application by 50% for slopes exceeding 10%.

**319 QUALITY OF SEED:**
- Purchase fresh seed for each growing season. Do not use seed purchased for previous seasons.
Use blue label certified seed varieties complying with EC regulations for purity and germination.

When requested, supply to CA samples of mixtures as delivered to site or copy of original certificate of germination, purity and composition carried out by an Official Seed Testing Station.

**330 SOWING:**
- Sow seed in calm weather during April to May or August to September.
- Spread seed evenly at the specified rate(s) applied in two equal sowings in transverse directions.
- Lightly harrow or rake.
- On light soils roll and cross roll after seeding using a lightweight roller.

**335 SOWING WILD FLOWER SEEDS:**
- Sow seed in calm weather during April to May or August to September.
- Thoroughly mix seed with fine lime-free dry sand and spread evenly at the specified rate(s) applied in two equal sowings in transverse directions.
- Lightly harrow or rake in with a spring tined rake.
- Firm the soil using a lightweight roller and water with a fine spray.

**340 PRE-EMERGENT HERBICIDE FOR:** All grass areas, where soil has not been allowed to lie fallow apply a suitable pre-emergent herbicide immediately after sowing.

**361 REINFORCED GRASS SYSTEM:**
- Subgrade/preparation: As per Engineers details
- Sub-base: As per Engineers details
- Topsoil: Obtain from temporary site storage heap
- Reinforced root zone: As per manufacturers specification
- Manufacturer and reference: As per Engineers details
- Dressing/fertiliser: See clause 275
- Grass cover: See clause 310

**TURFING**

**405 CULTIVATED TURF FOR BUILDING SURROUNDS:**
- Supplied by a Turfgrass Growers Association (TGA) member, to TGA quality standards.
- Seed mixture sown: Industrially grown turf comprising low maintenance mix with no rye grass.
- Properties of soil used for turf production: loam and sand containing less than 40% clay.

**420 DELIVERY AND STORAGE:**
- Take all necessary precautions to avoid drying out and deterioration of turf.
- Arrange supply of turf to avoid excessive stacking.
- Do not stack to a height of more than 1 m.
- Use turf which shows any signs of deterioration without delay or lay out on topsoil and keep moist.

**425 SAMPLE AREA:** Lay a sample of 5-sq. m of turf for all turfed areas and obtain approval before proceeding. The approved sample may form part of the permanent work.

**430 TURFING GENERALLY:**
- Lay turf during autumn or early winter or at times agreed with the CA.
Lay turf within 18 hours of delivery in spring or summer and within 24 hours of delivery in autumn or winter.

- Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
- Lay turf with broken joints, well butted up, working from planks laid on previously laid turf. Do not stretch turf.
- Use whole turves at edges. Trim to a true line.
- Adjust levels by raking out or infilling with fine soil, and ensuring full contact with the substrate.
- Consolidate by lightly and evenly firming with wooden beaters as the laying proceeds. Do not use rollers.
- Dress turf with finely sifted topsoil/peat/sand and brush well in to completely fill all joints.
- Thoroughly water the completed turf immediately after laying. Check by lifting a corner of turf that water has penetrated to the soil below.

440 BANKS EXCEEDING 30 DEGREES SLOPE:
- Lay turves diagonally or horizontally and secure each turf with:
  - pointed softwood pegs, 200 mm long x 25 mm square, or
  - galvanised wire pins, bent or hairpin pattern, 200 mm long x 4 mm diameter.
- Remove all pegs or pins when turf is well established.

450 NEWLY PLANTED TREES: Neatly cut away turf to a diameter of 800 mm around individual trees and leave soil exposed.

PROTECTING/WATERING/CUTTING

520 WATERING: During establishment of grass areas ensure that sufficient water is applied using a fine sprinkler of oscillating spray to maintain healthy growth.

540 FIRST CUT OF GENERAL AREAS: When grass has grown to the scheduled height of initial growth, remove debris, litter and all stones and earth clods larger than 25 mm in any dimension, and when grass is reasonably dry, cut as scheduled. Remove arisings from site or spread evenly over cut areas as scheduled:

<table>
<thead>
<tr>
<th>Type of area:</th>
<th>Height of initial growth:</th>
<th>Height of first cut:</th>
<th>Mower type:</th>
<th>Arisings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verges</td>
<td>50-75mm</td>
<td>50mm</td>
<td>Rotary</td>
<td>Remove from site</td>
</tr>
</tbody>
</table>

550 AREAS NOT TO BE CUT:
Meadow grass containing wild flowers.

590 CLEANLINESS: Remove soil and arisings from hard surfaces and leave the works in a clean, tidy condition at Practical Completion and after any maintenance operations.

MAINTENANCE

605 MAINTENANCE: Carry out the following operations from completion of seeding/turfing until the end of the defects liability period or as instructed by the CA.

610 FAILURES OF SEEDING/TURFING: Bare areas, areas of dead grass and wild flowers that have failed to thrive, which are apparent during the period stated in clause 605, will be regraded as defects due to materials or workmanship not in accordance with the Contract and must be made good by recultivation and reseeding/returfing at times agreed with the CA.
620 GRASSED AREAS:
- Lawns. The height of growth must not exceed 40 mm at any time. Cut as and when necessary to a height of 25 mm, using a cylinder mower and remove all arisings.
- Before each cut remove all litter and debris.
- At the time of each cut, trim all grass edges round the base of trees, manholes, etc. and remove arisings. Sweep all adjoining hard areas clear of cuttings and remove.
- Keep the sward substantially free of broad-leaved weeds by applying a suitable selective herbicide.
- Water in accordance with clause 145.

650 GRASSED AREAS WITH PERENNIAL WILD FLOWERS:
- Before each cut remove all litter and debris.

AUTUMN ESTABLISHMENT
- First Year Maintenance
  - 1st cut to 4-7cm – March (if sufficient material)
  - 2nd cut to 4-7cm – Early May
  - 3rd cut to 4cm – September (leave tidy through winter period)

SPRING ESTABLISHMENT
- First Year Maintenance
  - 1st cut to 4-7cm – Approx. 6 weeks after sowing
  - 2nd cut to 4-7cm – Approx. May when sward height exceeds 10cm
  - 3rd cut to 4-7cm – September/October

FUTURE MAINTENANCE
- 1st cut to 4-7cm – March/April
- Final cut to 4-7cm – End September/October
- NB. Additional cuts may be required on fertile soils.
- At the time of each cut, trim all grass edges, round the base of trees, manholes, etc. and remove arisings.
- Sweep all adjoining hard areas clear of cuttings and remove.
- Water in accordance with clause 145.

680 FERTILISER FOR LAWNS
- In March apply 15:10:10 spring turf fertiliser at 35 g/sq m or equivalent.
- In September apply 5:10:10 autumn turf fertiliser at 50 g/sq m or equivalent.

690 EDGES TO SEEDED AREAS: When seeded areas are well established, form edges to planting beds and around newly planted trees with a suitable edging tool, to clean straight lines or smooth curves. Draw back soil from edges to permit use of edging shears and remove all arisings.
GENERAL INFORMATION/REQUIREMENTS

110 TOPSOIL:
At the time of starting the work, the areas to be planted will be covered by either:

- Undisturbed topsoil to existing agricultural land to be prepared as necessary so that it is in a suitable state for the cultivation operations specified in this section, or
- Topsoil minimum 400 mm thick.

112 SITE CLEARANCE:
- Remove rubbish, concrete, metal, glass, decayed vegetation, contaminated topsoil, and stones with largest dimension exceeding 100 mm.
- Contamination includes subsoil, rubble, fuel, lubricants or other substances injurious to plant growth.
- Clear surface vegetation by flail mowing and remove arisings.
- Herbicide to be a type recommended for the purpose in the current list of MAFF/HSE Approved Pesticides.

118 SOIL CONDITIONS:
- Cultivate and plant into moist friable soil that is not waterlogged.
- Do not plant into frozen or snow covered soil without prior approval of the CA.
- Provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.

120 CLIMATIC CONDITIONS:
Carry out the work while soil and weather conditions are suitable for the relevant operations. Do not plant during periods of frost or strong winds. Plant only during the following periods:
- Deciduous trees and shrubs: Late October to late March.
- Conifers and evergreens: September/October or April/May.
- Herbaceous plants (including aquatic and marginal): September/October or March/April.
- Container grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering and weed control is provided.
- Dried Bulbs, corms and tubers: September/October
- Green bulbs: after flowering in spring
- Wildflower plugs: Late August to mid November or March/April

130 MACHINES AND TOOLS:
Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is impracticable to use machinery.

144 WATERING GENERALLY:
- Ensure the full depth of topsoil is thoroughly wetted.
- Use a fine rose where appropriate to avoid damaging or loosening plants.
Q31 EXTERNAL PLANTING

145 WATERING:
Water as necessary to ensure the establishment and continued thriving of all planting.

150 WATER RESTRICTIONS:
If water supply is or is likely to be restricted by emergency legislation do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.

160 NOTICE TO CA:
Provide 3 days notice of the following operations, to give the CA the opportunity of being present:
  ▪ Setting out
  ▪ Application of herbicide
  ▪ Application of fertiliser
  ▪ Delivery of plants
  ▪ Planting of shrubs
  ▪ Planting of trees into previously dug pits
  ▪ Watering

165 PREPARATION, PLANTING AND MULCHING MATERIALS GENERALLY:
Do not use materials containing concentrations of toxins, pathogens or other extraneous substances harmful to plant, animal or human life, except as specified elsewhere.

200 TREES/PLANTS GENERALLY:
  ▪ Materially undamaged, sturdy, healthy, vigorous, of good shape and without elongated shoots.
  ▪ Grown in a suitable environment and hardened off.
  ▪ Free from pests, diseases, discoloration, weeds and physiological disorders.
  ▪ Budded or grafted plants to be bottom worked, unless otherwise specified or approved.
  ▪ With balanced root and branch systems, root system and condition in accordance with the relevant part of the National Plant Specification.
  ▪ True to name.
  ▪ Origin/Provenance: British grown.

Origin and Provenance have the meaning given in the National Plant Specification.

215 TREES/PLANTS:
Name, forms, dimensions and other criteria as scheduled and defined in the National Plant Specification.

217 SEMIMATURE TREES: To BS 4043, sizes and other criteria as scheduled. Supplier: to the approval of the CA.

225 BULBS/CORMS/TUBERS:
  ▪ Firm, entire, not dried out or shrivelled, visually free of pests, diseases and fungus.
  ▪ Remove from packaging immediately. If necessary, store for the minimum period of time-covered in a well ventilated, dark covered location at 18-21degC, away from vehicle exhausts and fruit.

235 CONTAINER GROWN PLANTS:
  ▪ Supplied in a growing medium with adequate nutrients for the plant to thrive until permanently planted.
Q31 EXTERNAL PLANTING

- Centred in the container, firmed and well watered.
- With root growth substantially filling the container, but not root bound, and in a condition conducive to successful transplanting.
- Grown in the open for at least two months before being supplied.
- Grown in containers with holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

245 LABELLING AND INFORMATION:
- Provide each tree/plant or group of trees/plants of a single species or cultivar with supplier's labelling for delivery to site, showing:
  - The full botanical name
  - Total number
  - Number of bundles
  - Part bundles
  - Supplier's name
  - Employer's name and project reference
  - Plant specification, in accordance with the scheduled National Plant Specification categories

250 SUPPLY OF TREES/PLANTS: Unless specified otherwise, obtain trees/plants from suppliers listed in the Horticultural Trades Association Nursery Certification Scheme

255 PREDELIVERY INSPECTION:
The following are to be inspected by CA before supplying to site, then clearly identified as being reserved for use on this project:
- Heavy and Extra Heavy Standard Trees
- Semi-mature Trees

260 SUBSTITUTES:
If specified plants are unobtainable or known to be likely to be unobtainable at the time of ordering, submit alternatives to the CA stating price and how they differ from the specification. Such substitutions may not be acceptable and submission of further alternatives may be required. Obtain approval before making any substitution.

265 PLANT/TREE HANDLING STORAGE AND TRANSPORT:
- Comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.
- Protect plants/trees from frost.
- Handle plants/trees with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging: Co-extruded polythene bags.
- Packaging of bulk quantities: Pallets sealed with polyethylene and shrink-wrapped.

270 PLANTING GENERALLY:
- Comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part III, paragraphs 6.2 to 6.6.
- Plant upright or well balanced with best side to front.

280 TREATMENT OF TREE WOUNDS:
- Keep wounds as small as possible and cut cleanly back to sound wood using sharp, clean tools. Set cuts so that water will not collect on cut area.
- Do not apply fungicide or sealant unless instructed by the CA.
Q31 EXTERNAL PLANTING

290 SURPLUS MATERIAL, including debris, wrapping material, canes, ties, temporary labelling and prunings to be removed from site.

PREPARATION OF PLANTING BEDS/PLANTING MATERIALS

300 HERBICIDE
Use only where specified or approved, and then only products on the current MAFF/HSE list of approved products. Observe all precautions recommended by the manufacturer and remove containers from site immediately they have been emptied or are no longer required.

305 WEED CONTROL FOR EXISTING TOPSOIL AREAS
Control existing weed growth by applying a suitable herbicide. Allow period of time to elapse as recommended by the manufacturer before cultivation.

306 ROOT DIP
Alginure Root Dip, as supplied by: Alginure Products Ltd, Bells Yew Green, Tunbridge Wells, Kent TN3 9BT.

307 TREE PLANTING COMPOST
Type: ‘Super Humus’ or equivalent peat-free tree planting compost
Supplied by: Melcourt Industries Ltd, Tetbury, Gloucestershire GL8 8JG

308 COMPOUND FERTILISER
Type: Sierrablen Flora Yellow (2 year) or equivalent for trees and shrubs.
Supplied by: Scotts UK Professional, Paper Mill Lane, Bramford, Ipswich IP8 4BZ

309 WATER STORING GRANULES
Type: Broadleaf P4 or equivalent
Supplied by: Agricultural Polymers International Ltd, Waverley Road, Gloucester, GL2 0SZ

310 RABBIT GUARDS/SHELTERS
‘Tubex’ Tree shelters 1200mm with stake and support for whips.
‘Tubex’ 600mm high spirals for standard and feathered trees.
Shrub shelter 172mm diameter x 600 high with timber stakes for shrubs/transplants.
Supplied by: Tubex Ltd, Aberaman Park, Aberdare CF44 6DA

311 SEMI-MATURE AND NURSERY STOCK TREES TO BE FITTED WITH IRRIGATION INLET:
- Tree scheduled to be fitted with irrigation inlet
- Pits: Size as shown on drawing. Ensure pit sides are rough and not smeared in clay areas. Break up bottom of pits to a depth of 200mm.
- Backfill material: As clause 585
- ‘Root Rain’ irrigation inlets by “Greenleaf” product references RRPC 1 to 4, (type shown on drawings). Supplied by Greenleaf, Croft Road, Hastings, East Sussex, TN34 3JU.

312 TREE TIES
Jumbo ‘Rubber Lock’ or similar approved type. ‘Rubber Lock’ ties supplied by Jumbo ‘Rubber Lock’, 31 Norbrown Drive, Newport, Shropshire TF10 7RJ.

313 ROOT BARRIERS
‘ReRoot’ linear root deflecting barrier, 1000 mm or 600 mm width, supplied by ‘Greenleaf’, Croft Road, Hastings, East Sussex, TN34 3JU.
Q31 EXTERNAL PLANTING

314 MULCH
Material: Coarse grade coniferous bark flakes with an even particle size between 15 – 125mm free from pests, diseases, fungus and weeds. Dust and fine material to be excluded. Mulch to contain less than 5% wood. Clear all weeds, water soil thoroughly and mulch whole surface of planting beds.

341 PEAT: Do not use peat or products containing peat.

355 SOIL CONDITIONER/AMELIORANT: One of the following spread over shrub beds at 1 cu m of material per 10 sq m prior to cultivation:
- Composted bark, cocoa shell or coir.
- Manure: Well-rotted horse or farmyard dung but not poultry or pig manure.
- Leaf mould: Well-rotted broad leaves from deciduous trees but not ash, poplar or sycamore leaves.
- Other well rotted organic material, subject to approval.

375 CULTIVATION:
- Break up any compacted topsoil to full depth.
- Within a few days before planting, but in suitably dry weather and ground conditions, cultivate top 100 mm of all planting beds, using suitable plant to loosen, aerate and break up the soil into particles of 2-8 mm.
- Leave surface regular and even, with levels as required in section D20 and within 50mm of levels specified on drawings.
- Remove weeds, perennial weed roots and undesirable material brought to the surface including stones and clods larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.
- Do not dig or cultivate within the root spread of trees and shrubs to be retained.

PLANTING TRANSPLANTS/SHRUBS/BULBS

405 PLANTING PITS:
- Excavate not more than 2 days before planting and retain topsoil for re-use where specified.
- Size(s): 150mm wider than roots when fully spread and 200mm deep
- Break up bottoms of pits to a depth of 150mm
- Backfilling material: Excavated soil mixed with compost, as clause 485.

425 HERBACEOUS PERENNIAL PLANTS:
Where there is no detailed planting plan, evenly space as scheduled over the allocated area, avoiding straight lines unless indicated otherwise on drawings or schedules.

435 GROUND COVER PLANTS:
When using climbing plants as ground cover, remove canes or other supports and spread stems, pinning to ground where appropriate to ensure good contact to encourage rooting and early establishment.

445 BULBS/CORMS/TUBERS:
- Plant so that the top of the bulb/corm/tuber is at a depth of approximately twice its height with base in contact with bottom of hole. Backfill with finely broken soil and lightly firm to existing ground level.
Q31 EXTERNAL PLANTING

- When planting in existing grassed areas neatly remove a plug of turf and replace after planting. Scatter naturalised bulbs/corms/tubers at random over the allocated area and plant where they fall.

455 WILD FLOWER PLUG PLANTING:
- Keep plants watered and in the shade until planted. Do not allow to dry out.
- Remove brambles and coarse weeds etc. from planting sites. Where planting in grass, close mow to approximately 50 mm and remove arisings.
- Plant into bare soil patches, of 150-300 mm diameter, between tufts of grass. If such patches do not occur as a result of mowing long grass, remove grass and weeds to create two planting sites per sq m, of 300 mm diameter, using a suitable spot herbicide.
- Plant each plug into a hole created by a dibber specially designed to suit the plug size and shape and to create a chet at the bottom of the hole. Gently firm the plant into the hole.

465 CLIMBING PLANTS:
- Plant 150 mm clear of wall/fence etc. with roots spread outward. Lightly secure branches to support. Retain canes of plants, which are too small to reach supports.

470 HEDGES:
- Shrubs for hedges: As specified, consistent in species, cultivar and clone to ensure a uniform hedge.
- Plant shrubs in trenches large enough to take full spread of roots. Set out plants evenly as scheduled.

475 BACKFILLING MATERIAL:
A previously prepared mixture of topsoil excavated from the pit and additional topsoil as required, together with:
- Compost/soil conditionerameliorant: planting compost at 10 litres per pit
- Fertiliser: Sierrablen slow release type at 30g per plant.

480 AFTER PLANTING:
- Water plants thoroughly immediately after planting, using a fine rose or sprinkler where necessary to avoid damaging plants.
- Lightly firm soil around plants and fork and/or rake soil, without damaging roots, to a fine tilth with approved gentle cambers and no hollows.

485 MULCHING PLANTING BEDS
- Material: coniferous bark flakes, free of pests, disease, fungus and weeds.
- Clear all weeds, water soil thoroughly and mulch the whole surface of planting beds with bark at 1 cu m of material per 13 sq m or 75mm deep after consolidation

490 INDIVIDUAL MULCH MATS
- Manufacturer and reference: Ecomulch
  Type/size: 50 x 50cm wool/felt
  Water soil thoroughly before laying. Lay after planting, taking care to ensure close contact with the soil surface.
- Fixing: Metal pins, 3mm x 240mm
- Position pre-slit mat closely around plant stems.
EXTERNAL PLANTING

PLANTING TREES

500 CONIFERS/EVERGREENS: Dip in or thoroughly spray with approved antidesiccant before delivering to site. Apply again soon after planting. Do not apply in rainy or frosty weather. Ensure full coverage of underside of foliage.

505 TREE PITS:
- Excavate with slightly raised centre. Retain topsoil for re-use where specified. In sloping ground, maintain horizontal bases and vertical sides with no less than minimum depth throughout.
  - Size(s):
    - Transplants: 450 x 450 x 450mm deep
    - Whips: 600 x 600 x 600mm deep
    - Feathered: 600 x 600 x 600mm deep
    - Standard trees: 900 x 900 x 600mm deep
    - Heavy Standards: 1200 x 1200 x 750mm deep
    - Extra Heavy Standards: 1200 x 1200 x 750mm deep
    - Semi Mature: 2100 x 2100 x 750mm deep

  - Break up bottoms of pits to a depth of 150mm and scarify sides.
  - Backfilling material: Topsoil incorporating tree planting compost and slow release fertiliser as clause 585.
  - Accessories: Root Barriers as clause 313 as shown on the drawings. Irrigation system as clause 311 in circle above and around root-ball.

525 SEMI-MATURE TREES
- Prepare roots and transplant to BS 4043 unless specified otherwise.
- Backfilling material: As clause 585.
- Support: Underground tree anchoring system to root-ball, Platipus rootball fixing system, and reference no. RF1ED, RF2, and Plati-Mat reference no. PM1, PM2 supplied by Platipus Anchors Ltd, Philanthropic Road, Redhill, Surrey, and RH1 4DP.

535 STAKING GENERALLY:
- Stakes: Softwood, peeled chestnut, larch or oak, free from projections and large or edge knots and with pointed lower end.
- Nails: To BS 1202:Part 1, galvanised, minimum 25 mm long and with 10 mm diameter heads.
- Minimum stake sizes:
  - Tree/shrub: Overall length Cross section
    - size/type: of stake: of stake:
    - Feathered Trees: 1500mm Round 75mm diameter
    - Standard Trees: 1800mm Round 75mm diameter
    - Heavy Standard: 1800mm Round 100mm diameter

555 SHORT SINGLE STAKING FOR STANDARD AND FEATHERED TREES
- Position stake close to tree on windward site and drive vertically at least 300mm into bottom of pit before planting. Consolidate material around stake during backfilling.
- Cut stake to approximately 600mm above ground level.
- Secure tree firmly but not rigidly to the stake with approved tie within 25mm of top of stake.

575 SHORT DOUBLE STAKING FOR HEAVY STANDARD TREES
- Drive stakes vertically at least 300 mm into bottom of pit on either side of tree position before planting.
Q31 EXTERNAL PLANTING

Consolidate material round stakes during backfilling.
- Cut stakes to approximately 600mm above ground level.
- Secure tree firmly but not rigidly to stakes with 2 No. ‘Rubber Lock’ ties.

585 BACKFILLING MATERIAL:
A previously prepared mixture of topsoil excavated from the pit and additional topsoil as required, together with:
- Compost/soil conditioner/ameliorant: tree planting compost at 80 litres per pit
- Fertiliser: slow release fertiliser
- Quantity per pit:

<table>
<thead>
<tr>
<th>Tree Type</th>
<th>Compost</th>
<th>Fertiliser</th>
<th>Granules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transplants</td>
<td>20 litres</td>
<td>50g</td>
<td>100g</td>
</tr>
<tr>
<td>Whip &amp; Feathered</td>
<td>40 litres</td>
<td>60g</td>
<td>150g</td>
</tr>
<tr>
<td>Standard</td>
<td>80 litres</td>
<td>90g</td>
<td>300g</td>
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<tr>
<td>Heavy &amp; Extra Heavy Standard</td>
<td>160 litres</td>
<td>120g</td>
<td>-----</td>
</tr>
<tr>
<td>Semi Mature</td>
<td>200 litres</td>
<td>150g</td>
<td>-----</td>
</tr>
</tbody>
</table>

590 MULCHING TREES:
- Material: Coniferous bark to clause 313, free of pests, disease, fungus and weeds.
- Clear all weeds, water soil thoroughly, and mulch around each tree in a circle of 900mm diameter at 1 cu m of material per 13 sq m.

595 TREE PROTECTION:
Ensure that protection methods do not impede the natural movement of trees or restrict growth.
- Tubex spiral Rabbit Guards
  - Size/Colour: 600mm high, brown
- Tubex standard tree shelter, 1200mm high, colour brown.

597 TREE/MULCHING MATS:
- Material/Size: Wool/felt 1000 x 1000 cm
- Manufacturer and reference: Ecomulch
- Fixing: Metal pins, 3mm x 240mm
- Fit neatly and closely around tree stem, where necessary cutting a neat slit or flap.

PROTECTING/MAINTAINING/MAKING GOOD DEFECTS

710 MAINTENANCE:
- Carry out the following operations from completion of planting until the end of the defects liability period or as instructed by the CA.
- Make visits at approximately monthly intervals during the growing season and as necessary to fulfil the requirements of this specification.

720 FAILURES OF PLANTING:
- Excepting theft or malicious damage after practical completion, any trees/shrubs/plants that have failed to thrive, which are apparent during the period stated in clause 710, will be regarded as defects due to materials or workmanship not in accordance with the Contract. Unless otherwise instructed they must be replaced by approved equivalent trees/shrubs/plants during the next suitable planting season.
- Replacements must match the size of adjacent or nearby plants of the same species or should match the original specification, whichever is the greater.
Q31 EXTERNAL PLANTING

730 PROTECTIVE FENCING

Protect newly planted areas with rabbit proof fence, 900mm high
Netting: galvanised wire netting, 31mm mesh, 900mm above ground, 150mm below ground turned out and buried.
Posts: 75mm diameter softwood 1.8m long driven into the ground at 4.0m centres.
Straining wires: 2.6mm diameter spring steel
Straining posts: 100mm diameter, 2100 long driven into ground at 100m centres

731 FIELD GATES AND POSTS: TO BS 3470

Size: height 1.1m, width 3.0m
Materials: Timber to BS EN942, Class J40
Preservative Treatment: CCA, Category ‘A’
Fittings: Hot tip galvanised strap hinges and bolts

Posts set in concrete, 450 x 650 x 650mm deep. Concrete to BS 5328, standard mix not less than ST2.

732 STOCK PROOF FENCE

Wooden post and rail fence to BS 1722 Part 7
Type: Nailed
Height: 1000mm
Timber: Softwood
Preservative treatment: CCA Category A
Maximum centres of posts: 1.8m
Method of setting posts: rammed earth, set to a depth of 600mm
Netting: Wire mesh to BS 1722: Part 2, 1050 x 31mm x 18g. Bottom 150mm of mesh buried.

750 PLANTING MAINTENANCE GENERALLY:

- Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit. Keep planting beds clear of weeds by hand removal or by use of suitable herbicides.
- Ensure that trees and shrubs are not damaged by the use of mowers, nylon filament rotary cutters and similar powered tools.
- Every 3 months check condition of stakes, ties and guards. Replace broken or missing items. Adjust if necessary to allow for growth and prevent rubbing of bark. Cut back any damaged bark.

760 PLANTING MAINTENANCE - PRUNING:

Prune at appropriate times, to remove dead or dying and diseased wood and suckers, to promote healthy growth and natural shape. Prune trees to favour a single central leading shoot, unless specified otherwise.

761 REFIRMING:

Ensure that trees and shrubs remain firmly bedded after strong winds, frost heave and other disturbances. Refirm by treading around the base. ‘Collars’ at the base of tree stems created by tree movement to be broken up by fork, avoiding damage to roots, backfilled with topsoil as necessary and refirmed.
Q31 EXTERNAL PLANTING

762 TREE GUARDS:
Inspect and adjust, refix or replace loose or defective guards to original specification and to prevent chaffing.

765 PLANTING MAINTENANCE - WATERING:
Water in accordance with clause 145, using a fine rose or sprinkler until full depth of topsoil is saturated.

790 FINAL MULCHING: At the end of the period stated in clause 710:
- Ensure that the soil is thoroughly moistened prior to remulching, applying water where necessary.
- Remulch the whole surface of planting beds as specified in clause 485 at 1 cu m of material per 40 sq m.
- Remulch trees as specified in clause 590 at 1 cu m of materials per 40 sq m.
Q31 EXTERNAL PLANTING

GENERALLY

107 ATTENDANCE: Throughout the contract period, undertake all maintenance operations specified. Attend the site at intervals of not less than one month whether or not maintenance operations are carried out. Report any incidence of damage or disease immediately to the CA.

108 MONTHLY MAINTENANCE REPORTS: Complete and submit to the CA a Monthly Maintenance Report on the forms provided by the CA. Include details of all works completed plus any requests for the instruction of any additional or provisional works. Failure to submit the Report during the first week of the following month will result in payment for the operations concerned being withheld.

109 VERBAL REPORTS: Where a verbal report is required, make a verbal report to the CA during the last week of each month. This will also enable the agreed operations to be included on the next interim valuations.

110 NOTICE TO CA: Provide 3 days notice of the following operations, to give CA the opportunity of being present:
- Application of herbicide
- Watering
- Each site maintenance visit.

130 REINSTATEMENT: Reinstall to original condition and within a reasonable period of time (according to season), any damage or disturbance occurring during the work, to soil structure, planting, grass, fencing, hard landscaping, structures or buildings.

140 CONTROL OF MAMMALIAN PESTS: Employ only approved firms and methods.

150 WATERING GENERALLY:
- Obtain CA's approval before using a supply other than potable mains water.
- Ensure the full depth of topsoil is thoroughly wetted.
- Use a fine rose or low-pressure hose where appropriate to avoid damaging or loosening plants.
- Where necessary, loosen soil or form depressions around the stem base of plants to ensure that water reaches the root zone instead of dispersing on the surface.

155 WATERING: Water as necessary to ensure the continued thriving of all planting.

160 DROUGHT CONDITIONS: If water supply is or is likely to be restricted by emergency legislation inform the CA without delay and ascertain availability and additional cost of second quality water or other alternative source of supply.

170 DISPOSAL OF ARISINGS GENERALLY: unless specified otherwise, dispose of arisings from all specified operations by removal from site to contractors tip.

180 CHIPPING OR SHREDDING ON SITE of materials arising from the work will not be permitted.
Q31 EXTERNAL PLANTING

190 LITTER COLLECTION: Collect and remove all extraneous rubbish not arising from the contract work and detrimental to the appearance of the site, including paper, packaging materials, bottles, cans, and similar debris.

195 PROTECT EXISTING GRASS during maintenance operations by laying boards or tarpaulins. Do not place excavated material directly on to grass.

197 CLEANLINESS: Remove soil and arisings from hard surfaces and leave the works in a clean, tidy condition after maintenance operations.

GRASSED AREAS

210 MAINTENANCE OF GRASSED AREAS: Carry out operations in the following clauses as necessary in order to:
- Maintain grass height within the specified range.
- Maintain ornamental turf and lawns reasonably free from moss, thatch, weeds, frost heave, worm and mole casts, and with neat well-defined edges.
- Ensure that soil and grass does not become compacted or waterlogged.
- Maintain grass in a healthy vigorous condition, free from disease, fungal growth, discoloration, scorch or wilt.
- Repair grassed areas damaged by trampling, abrasion or scalping during mowing.
- Remove litter and fallen leaves regularly to maintain a neat appearance.
- Maintain turf in a manner appropriate to the intended use.

215 ESTABLISHMENT OF GRASS AREAS – WATERING Water in accordance with clause 155.

220 GRASS CUTTING GENERALLY:
- Remove litter, rubbish and debris from grassed areas before mowing.
- Cut to a neat even finish, without rutting or compaction of the surface, especially when ground conditions are soft.
- Leave edges neat and well defined.
- Neatly trim all grass edges round the base of lighting columns, manholes, and the like.
- Sweep adjoining hard areas clear of arisings and remove.
- Do not cut during periods of drought, or when ground conditions or grass are wet, without the prior agreement of the CA.

225 TREE STEMS: Do not allow mowing machinery closer than 100 mm to any tree stem. Avoid damage to tree stems by nylon filament rotary cutters or other mechanical tools.

230 GRASS CUTTING MACHINES: must be appropriate to the grass cutting operation required, taking due regard to grass type, mowing specification, ground contour and condition. Machinery is to be well maintained and correctly adjusted to give a clean even cut without damaging the grass.

235 BULBS AND CORMS: Where these occur in grassed areas in the locations described or shown on drawings, do not commence the maintenance cutting of bulb planted areas until 6 weeks after they have flowered, or as instructed.

240 MOWING STRIPS: Where specified, maintain a mowing strip approximately 150 mm wide along the base of walls, fences and hedges by applying a suitable herbicide twice during the growing season.
Q31  EXTERNAL PLANTING

250 LEAF REMOVAL: Remove fallen leaves from lawns by sweeping with a motorised vacuum sweeper or rotary brush sweeper.

260 MOWING LAWNS: Maintain height of grass between 15 and 25 mm. Cut when necessary using a cylinder mower and remove arisings.

265 MOWING GENERAL AREAS: Maintain height of grass between 25 and 50 mm. Cut when necessary using a rotary flail and spread.

270 MOWING ROUGH GRASSED AREAS: Cut to a height of 75 mm twice per year with one cut in July and one in September and remove arisings.

272 ESTABLISHMENT OF GRASSED AREAS WITH PERENNIAL WILD FLOWERS:
- Before each cut, remove all litter and debris
- AUTUMN ESTABLISHMENT
  - First Year Maintenance
  - 1st cut to 4-7cm – March (if sufficient material)
  - 2nd cut to 4-7cm – Early May
  - 3rd cut to 4cm – September (leave tidy through winter period)
- SPRING ESTABLISHMENT
  - First Year Maintenance
  - 1st cut to 4-7cm – Approx. 6 weeks after sowing
  - 2nd cut to 4-7cm – Approx. May when sward height exceeds 10cm
  - 3rd cut to 4-7cm – September/October
- FUTURE MAINTENANCE
  - 1st cut to 4-7cm – March/April
  - Final cut to 4-7cm – End September/October
  - NB. Additional cuts may be required on fertile soils.
  - At the time of each cut, trim all grass edges, round the base of trees, manholes, etc. and remove arisings.
  - Sweep all adjoining hard areas clear of cuttings and remove.
  - Water in accordance with clause 145.

309 EDGES TO SEEDED AREAS: When seeded areas are well established, form edges to planting beds and around newly planted trees with a suitable edging tool, to clean straight lines or smooth curves. Draw back soil from edges to permit use of edging shears and remove all arisings.

320 LEVELLING HOLLOWS AND BUMPS IN TURF: Level using the methods in BS 7370: Part 3, clauses 12.4 and 12.5.

325 RELIEVING SURFACE COMPACTION IN TURF: Relieve using the methods stated in BS 7370:Part 3, clause 13.5.

330 SELECTIVE HERBICIDE:
- Spray with a suitable selective herbicide.
- Do not spray wild flower or bulb and corm planted areas.
Q31 EXTERNAL PLANTING

340 SPOT WEEDKILLING: Walk through rough grass areas with a suitable portable applicator and spot treat weeds with a suitable herbicide.

350 FERTILISER – SPRING APPLICATION: Apply NPK ratio 9:7:7 at 50 g/m².

355 FERTILISER – AUTUMN APPLICATION: Apply NPK ratio 3:12:12 at 70 g/m².

380 REINSTATEMENT OF LAWNS: Reinstate worn areas as follows:

   ▪ Remove the damaged turf to a depth of 20 mm, cultivate to a fine tilth and either:
     - Returf using turf of a quality and appearance to match existing, or:
     - Fill with fine topsoil to BS 3882 general purpose grade, substantially free from stones, debris and weeds, and reseed with a seed mix to match existing grass in quality and appearance.
   ▪ Provide protection and watering to promote successful germination and/or establishment.

460 HERBACEOUS PERENNIALS: Maintain existing beds containing perennials.

   ▪ Replant gaps. Keep new plants watered as necessary before planting out and water in after planting.
   ▪ At end of growing season, cut down the older flowering stems of herbaceous perennials and generally clean through borders removing stakes, litter, debris and arisings by hand.

SHRUBS/TREES/HEDGES

500 ESTABLISHMENT OF NEW PLANTING: During the initial establishment of newly planted trees and shrubs, carry out maintenance of the planted areas as follows:

   ▪ Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1m or the surface of the original planting pit. Keep planting beds clear of weeds by cultivation where not mulched and use of approved herbicides. Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows.

510 TREE STAKES AND TIES: Inspect every 3 months and additionally immediately after strong winds, and carry out the following:

   - Check stakes for looseness, breaks and decay and replace as necessary to original specification. If a tree with a defective stake has grown sufficiently to become self-supporting, inform CA and, if instructed, remove stake(s) and fill the hole(s) with lightly compacted soil.
   - Adjust, refix or replace loose or defective ties as necessary, allowing for growth since planting and to prevent chafing. Where chafing has occurred, reposition or replace ties to prevent further chafing.
   - Remove redundant tapes, tags, ties, labels and other encumbrances.
   - Remove stakes and ties three years after planting.

520 REFIRMING: Ensure that trees and shrubs remain firmly bedded after strong winds, frost heave and other disturbances. Refirm by treading around the base. 'Collars' at the base of tree stems created by tree movement to be broken up by fork, avoiding damage to roots, backfilled with topsoil as necessary, and refirmed.
Q31 EXTERNAL PLANTING

525 TREE GUARDS: Inspect and adjust, refix or replace loose or defective guards to original specification and to prevent chafing.

530 TREE SHELTERS:
- Adjust, refix or replace loose or defective shelters to original specification and to prevent chafing.
- Remove shelters when instructed by CA.

540 PRUNING GENERALLY:
- Prune in accordance with good horticultural practice. Prune larger branches and woody stems in accordance with good arboricultural practice.
- Thin, trim and shape appropriately to each species, location, season, and stage of growth, leaving a well balanced natural appearance.
- Use clean sharp secateurs, hand saws or other tools approved by the CA. Trim off ragged edges of bark or wood with a sharp knife.
- Remove branches without damaging or tearing the stem.
- Keep wounds as small as possible and cut cleanly back to sound wood. Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
- Prune larger branches neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
- Notify the CA of any disease or fungus. Do not apply growth retardants, fungicide or sealant unless instructed by the CA.

545 PRUNING OF EXCESSIVE OVERHANG: Remove annually any growth encroaching onto paths, roads, signs, sightlines and light fittings.

570 FORMATIVE PRUNING OF YOUNG TREES:
- Do not prune whips or feathered trees.
- Do not prune during the late winter/early spring sap flow period, unless specified otherwise.
- Crown prune young trees up to 4 m high by removing dead branches and reducing selected side branches by one third to preserve a well balanced head, ensuring the development of a single strong leader and the removal of duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
- Extensive pruning of young trees and any surgery to larger trees must be carried out by a member of the Arboricultural Association or a specialist approved by the CA.

575 PRUNING SHRUBS:
- Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.
- Remove all suckers by cutting back level with the source stem or root.

580 PRUNING FLOWERING SPECIES:
- Winter flowering shrubs in spring.
- Shrubs flowering between March and July immediately after the flowering period.
- Shrubs flowering between July and October back to old wood in winter.
- Rose bushes in early spring to encourage basal growths and a balanced compact habit.
TRIMMING RAPIDLY ESTABLISHING HEDGES: Allow to reach planned height as rapidly as possible, trimming back lateral branches moderately to establish the required shape.

TRIMMING SLOWLY ESTABLISHING HEDGES:
- Cut back hard in June and September to encourage bushy growth down to ground level.
- Allow to reach planned dimensions only by gradual degrees, depending on growth rate and habit.

REMOVAL OF DEAD PLANT MATERIAL: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.

REMOVE AND REPLACE DEAD PLANTS as soon as possible, and in any case within the next planting season.
- Carefully move any mulch/matting materials to one side and dig over the soil, leaving it fit for replanting. Take care not to disturb roots of adjacent plants.
- Replace plants, using pits and plants to the original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.
- Agree details of replacement plants with CA before ordering.

WEED CONTROL GENERALLY
- Remove and/or prevent plant growth that is not required in the landscape to achieve the following level(s) of weed control: Maximum weed cover 20%.
- Ensure that the methods used cause the minimum of damage to adjacent plants, trees or grass.

HAND WEEDING: Remove all weeds, including roots, by hand using hoes, trowels or forks, taking care to remove not more than a minimum quantity of soil, causing minimum disturbance to trees, plants, mulched surfaces and leaving the area in a neat, raked, clean condition.

HERBICIDE TO KILL REGROWTH: Where instructed by the CA:
Apply a suitable foliar acting herbicide to kill regrowth. Allow the recommended period before clearing arisings.

TREE AND PLANT STEMS: Do not allow rotary cutters or other mechanical tools closer than 100 mm to the stem of any tree or plant. Complete operations close to stems using hand tools.

WEED CONTROL WITH HERBICIDE: Keep all planting clear of weeds by use of approved herbicides. Herbicide spray – with one or a combination of:
- Approved translocated herbicide using an arbor-guard
- Spot treatment with an approved contact herbicide
- Re-apply as necessary to maintain required level of weed control
- Allow the recommended period before clearing arisings

SOIL AERATION: Prick up trodden or otherwise compacted soil surfaces using a border fork as specified in BS 7370: Part 4, clause 3.4.5.6 to aerate the soil of root areas. Do not damage plants and their roots.
Q31 EXTERNAL PLANTING

685 SOIL LEVEL ADJUSTMENT: Reduce the level of the soil/mulch at the edges of beds to 50mm below the adjacent grass or hard surface. Spread the arisings evenly over the bed.

690 MAINTENANCE OF MULCH:
- Top up with coniferous bark mulch to thickness of 75 mm.
- Sweep up and replace mulch spilling onto adjacent areas and, if not contaminated with weeds or rubbish, return to planted area.
- Remove weeds growing on or in mulch by hand weeding or herbicide.

693 MAINTENANCE OF MULCH MATTING/SHEET MULCHES:
- Inspect and reattach or refirm mulch mats and sheet mulches.

HARD LANDSCAPE AREAS/FENCING

910 HARD SURFACES AND GRAVEL AREAS:
- Apply a suitable foliar acting or residual herbicide. Allow recommended period before clearing arisings.
- Sweep hard surfaces to keep free of litter, leaves and other debris.
- Rake gravel areas to remove litter, leaves and other debris and to reduce potential for weed growth. Leave gravel level.

920 FENCING: Inspect fences and gates and repair as necessary to maintain protection against rabbits and stock.

PONDS

930 ACCESS: Use routes for access to water areas that cause least disruption to use of land and minimum damage.

931 CLEANING:
- Regularly inspect ponds and collect litter, leaves and rubbish and dispose off site.
- Clear water inlets, outlets and weirs of blockages that impede the free flow of water.
- Keep stone surrounds clean and free from algae growth.

932 AQUATIC PLANTS:
- Maintain in accordance with general requirements in clauses 460 and 630.
- Clear unwanted vegetation from margins of ponds.

933 BANKS: Inspect timber bank structures and cladding annually and repair as necessary to retain in a stable condition.

934 PUMPS: Inspect return pumps and gate valves as necessary to maintain full circulation of water.
## Play Area Design Brief

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.0</strong></td>
<td>Target age group.</td>
</tr>
<tr>
<td>1.1</td>
<td>Local Area for Play (LAP) Toddlers to 6 year olds.</td>
</tr>
<tr>
<td>1.2</td>
<td>Locally Equipped Area for Play (LEAP) Toddlers to 8 year olds accompanied.</td>
</tr>
<tr>
<td>1.3</td>
<td>Neighbourhood Equipped Area for Play (NEAP) 8-14 year olds accompanied.</td>
</tr>
<tr>
<td>1.4</td>
<td>Combined NEAP &amp; LEAP - Toddlers to 8 year olds accompanied &amp; 8-14 year olds unaccompanied.</td>
</tr>
<tr>
<td><strong>2.0</strong></td>
<td>Material to be used should be at minimum:</td>
</tr>
<tr>
<td>2.1</td>
<td>Structural materials should be either pressure impregnated timber (excluding arsenic and chrome based pressure treatment products), primed and painted or stainless steel, anodised aluminium, hot dip galvanised or electrically galvanised and powder coated steel.</td>
</tr>
<tr>
<td>2.2</td>
<td>Side panels should be constructed from performed plastic or similar, for strength durability and low maintenance costs.</td>
</tr>
<tr>
<td>2.3</td>
<td>Ropes should be pre-stretched perlon, reinforced with steel, with a minimum breaking strength of 2200kg.</td>
</tr>
<tr>
<td>2.4</td>
<td>Seats should be at minimum plastic or rubber</td>
</tr>
<tr>
<td>2.5</td>
<td>All ground mountings should be concreted in to the ground and at minimum galvanised, with all structures bolted in place. No timber should be in contact with the ground at any time.</td>
</tr>
<tr>
<td>2.6</td>
<td>All metal components and fixing should be either stainless steel, anodised aluminium, hot dip galvanised or electrically galvanised and powder coated steel.</td>
</tr>
<tr>
<td><strong>3.0</strong></td>
<td>Fencing – Dog proof:</td>
</tr>
<tr>
<td>3.1</td>
<td>All fencing must conform to BSEN 1176 standards. TAN 7, produced by the National Playing fields Association, contain some useful advice on fencing although this is now becoming out of date.</td>
</tr>
</tbody>
</table>
The following Guidelines should help in your choice of fencing.

3.2 No part of a fence should form a wedge, finger, hand, limb or head trap (no gaps should be greater than 89mm.

3.3 Vision gaps should be provided in fencing to allow easy viewing of activities.

3.4 Pressure impregnated timber (excluding arsenic and chrome based pressure treatment products) or hot dip galvanised and powder coated or primed and painted steel palisade fencing @ 1 – 1.2 metres in height.

3.5 A double fence should be provided where the play area meets an agricultural boundary. Barbed wire is never used on a play area fence but could be used on the second fence, which adjoins the agricultural boundary. BS5696 recommends that between the fence and the edge of any safety surfacing there should be at least 1.8 metres. This is to allow for circulation.

3.5 The fencing components should be either screwed or fixed in place with a nail gun. Any swan timber should be re-treated with a timber preserver.

4.0 Gates:

4.1 Two pedestrian self-closing gates, outward opening, but not onto the path. The main access should cater for the disabled.

4.2 One vehicle set of gates should match the main pedestrian gates. This gate could form part of the second pedestrian gate.

5.0 Safety Surfacing:

5.1 Safety surfacing edging should be constructed from concrete pinkerbs edging.

5.2 All safety surfacing should wet-pawed material and use a minimum of two different colours, with the primary being Black and the second either blue, red or yellow.

6.0 Access Surfacing:

6.1 Pedestrian access, egress points are to be edged with concrete pin kerbs and the surface should be tarmacadam.

7.0 Seating and litter bin within the play area:

7.1 LAP & LEAP- One bench/seat and one litterbin, should be located within the fenced area and at least 1 metre away from the boundary.

NEAP – Three seats and two litterbins, should be located within the fenced area and at least 1 metre away from the boundary.
7.2 The Litter bin should be supplied by WYBONE, model LBV/20.

8.0 Equipment requirements:

8.1 LAP - a minimum of one piece of equipment. (demonstrative play features for low-key games)

8.2 LEAP - a minimum of five pieces of equipment
Seating for youths and adults.
Safety barriers.

8.3 NEAP - a minimum of eight pieces of equipment.
Seating for adults.
Safety barriers

8.4 Combined LEAP & NEAP - a minimum of eleven pieces of equipment.
A Kick-about Area and Wheeled Play Area.
Seating for youths and adults.
Safety barriers

11.0 All equipment will conform to BSEN 1176/7, BSI696 or European Equivalent.

12.0 Site Requirements:

12.1 LAP, LEAP & NEAP - A flat, grassed or hard surface area constructed BSEN standards, which must include a good drainage system to keep the site clear of water at all times.
All areas should also have soft landscape treatment to one or two of its boundaries.

13.0 Buffer Zones:

13.1 LAP – should be located at least 5 metres away from ground floor windows. There must be at minimum a 1.8 metres wide dense strip planting between exposed house walls and the activity zone.

13.2 LEAP – Should be located at least 20 metres away from the boundaries of the nearest residential properties (this includes footpaths and areas of planting)

13.3 NEAP – should be located at least 30 metres from the nearest residential properties.

14.0 Zones & Buffers:

14.1 Activity Zones – Fenced:
LAP – 100 m²
LEAP – 400 m²
NEAP – 1,000 m²
LEAP & NEAP – 1400 m²

14.2 Buffer Zones:

LAP – 300 m²
LEAP – 3,200 m²
NEAP – 7,400 m²

15.0 Proximity to the users dwelling:

15.1 LAP – 1 minute walk or 100 metres
LEAP – 5 minutes walk or 400 metres
NEAP – 15 minutes walk or 1,000 metres
## APPENDIX 5

### FINANCIAL CONTRIBUTIONS 2004/05

**PUBLIC OPEN SPACE (10,000m²)**

<table>
<thead>
<tr>
<th>INSTALLATION DESCRIPTION</th>
<th>QUANTITY</th>
<th>UNIT</th>
<th>COST</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass</td>
<td>8960m²</td>
<td>100m²</td>
<td>£233.97</td>
<td>£20,963.71</td>
</tr>
<tr>
<td>Trees and associated supports</td>
<td>40 No.</td>
<td>1 No.</td>
<td>£104.62</td>
<td>£4,184.80</td>
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<tr>
<td>Shrub beds</td>
<td>1000m²</td>
<td>100m²</td>
<td>£2101.76</td>
<td>£21,017.60</td>
</tr>
<tr>
<td>Boundary Fencing 1.2 m, Roll Top (galvanised)</td>
<td>200 m</td>
<td>1m</td>
<td>£57.61</td>
<td>£11,522.00</td>
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<tr>
<td>Seating (Broxap Streetscene)</td>
<td>2 No.</td>
<td>1 No.</td>
<td>£571.65</td>
<td>£1,143.30</td>
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<tr>
<td>Litter Bins (Wybone Closed Top LBV/20)</td>
<td>2 No.</td>
<td>1 No.</td>
<td>£369.49</td>
<td>£738.98</td>
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<tr>
<td>Footpath @1.8m wide</td>
<td>150m</td>
<td>1m</td>
<td>£40.81</td>
<td>£6121.50</td>
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**Estimated Total**

*(based on 10,000.00m² and the above quantities)*

£65,691.89
### LOCAL AREA FOR PLAY (LAP) 100m²

<table>
<thead>
<tr>
<th>Installation Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass</td>
<td>249m²</td>
<td>100m²</td>
<td>£ 233.97</td>
<td>£ 582.58</td>
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<tr>
<td>Trees and associated supports</td>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 104.62</td>
<td>£ 104.62</td>
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<tr>
<td>Shrub beds (external boundary treatment)</td>
<td>25m²</td>
<td>100m²</td>
<td>£2101.76</td>
<td>£ 525.44</td>
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<tr>
<td>Boundary Fencing 1.2m, Roll Top (galvanised) including self-closing and maintenance gates.</td>
<td>40m 1m</td>
<td>£ 65.00</td>
<td>£ 2,600.00</td>
<td></td>
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<tr>
<td>Seating (Broxap Streetscene)</td>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 571.65</td>
<td>£ 571.65</td>
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<tr>
<td>Litter Bins (Wybone Closed Top LBV/20)</td>
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<td>1 no.</td>
<td>£ 369.49</td>
<td>£ 369.49</td>
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<tr>
<td>Footpath @1.8m wide</td>
<td>25m 1m</td>
<td>£ 40.81</td>
<td>£ 1,020.25</td>
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</tbody>
</table>

Play equipment:
- 1 x Junior Multi Play unit – e.g. SMP Perth
- 1 x Springy Motor Bike – SMP
- Safety surface includes concrete base with concrete pin kerb edging.

**Estimated Total**
(based on 100m² and the above quantities, it also includes boundary treatment) £13,497.13
**LOCAL EQUIPPED AREA FOR PLAY (LEAP) 400m²**

<table>
<thead>
<tr>
<th>INSTALLATION DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td><strong>Grass</strong> 3097m²</td>
</tr>
<tr>
<td><strong>Trees and associated supports</strong> 3 no. 1 no.</td>
</tr>
<tr>
<td><strong>Shrub beds</strong> 50m²</td>
</tr>
<tr>
<td><strong>Boundary Fencing 1.2 m, Roll Top (galvanised) including self-closing and maintenance gates.</strong> 80m 1m</td>
</tr>
<tr>
<td><strong>Seating (Broxap Streetscene)</strong> 2 no. 1 no.</td>
</tr>
<tr>
<td><strong>Litter Bins (Wybone Closed Top LBV/20)</strong> 1 no. 1 no.</td>
</tr>
<tr>
<td><strong>Footpath @1.8m wide</strong> 50m 1m</td>
</tr>
<tr>
<td><strong>Play equipment x 5 pieces:</strong></td>
</tr>
<tr>
<td>- 1 x Multi Play unit = 2/3 pieces of equipment i.e. Slide, Climbing 1 no. 1 no.</td>
</tr>
<tr>
<td>- 1 x Springy Motor Bike – SMP 1 no. 1 no.</td>
</tr>
<tr>
<td>- 1 x double Cradle swing 1 no. 1 no.</td>
</tr>
<tr>
<td>- 1 x Roundabout 1 no. 1 no.</td>
</tr>
<tr>
<td>- safety surface includes concrete base with concrete pin kerb edging</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>UNIT</th>
<th>COST</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>3097m²</td>
<td>100m²</td>
<td>£233.97</td>
<td>£ 7,246.05</td>
</tr>
<tr>
<td>3 no.</td>
<td>1 no.</td>
<td>£104.62</td>
<td>£ 313.86</td>
</tr>
<tr>
<td>50m²</td>
<td>100m²</td>
<td>£2101.76</td>
<td>£ 1,050.88</td>
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<tr>
<td>80m</td>
<td>1m</td>
<td>£ 65.00</td>
<td>£ 5,200.00</td>
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<tr>
<td>2 no.</td>
<td>1 no.</td>
<td>£ 571.65</td>
<td>£ 1,143.30</td>
</tr>
<tr>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 369.49</td>
<td>£ 369.49</td>
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<tr>
<td>50m</td>
<td>1m</td>
<td>£ 40.81</td>
<td>£ 2040.50</td>
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<tr>
<td>1 no.</td>
<td>1 no.</td>
<td>£6,715.50</td>
<td>£ 6,715.50</td>
</tr>
<tr>
<td>1 no.</td>
<td>1 no.</td>
<td>£1,007.60</td>
<td>£ 1,007.60</td>
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<tr>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 2,929.30</td>
<td>£ 2,929.30</td>
</tr>
<tr>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 4,715.70</td>
<td>£ 4,715.70</td>
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</table>

**Estimated Total**
(based on 400m² and the above quantities)

£32,732.18
### NEIGHBOURHOOD EQUIPPED AREA FOR PLAY (NEAP) 1000m²

<table>
<thead>
<tr>
<th>INSTALLATION DESCRIPTION</th>
<th>QUANTITY</th>
<th>UNIT</th>
<th>COST</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass</td>
<td>6990m²</td>
<td>100m²</td>
<td>£ 233.97</td>
<td>£16,354.50</td>
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<tr>
<td>Trees and associated supports</td>
<td>10 no.</td>
<td>1 no.</td>
<td>£ 104.62</td>
<td>£ 1,046.20</td>
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<tr>
<td>Shrub beds</td>
<td>250m²</td>
<td>100m²</td>
<td>£2101.76</td>
<td>£ 5,254.40</td>
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<tr>
<td>Boundary Fencing 1.2 m, Roll Top (galvanised) including self-closing and maintenance gates</td>
<td>400m</td>
<td>1m</td>
<td>£ 65.00</td>
<td>£26,000.00</td>
</tr>
<tr>
<td>Seating (Broxap Streetscene)</td>
<td>4 no.</td>
<td>1 no.</td>
<td>£ 571.65</td>
<td>£ 1,143.30</td>
</tr>
<tr>
<td>Litter Bins (Wybone Closed Top LBV/20)</td>
<td>2 no.</td>
<td>1 no.</td>
<td>£ 369.49</td>
<td>£ 738.98</td>
</tr>
<tr>
<td>Footpath @1.8m wide</td>
<td>150m</td>
<td>1m</td>
<td>£ 40.81</td>
<td>£ 6,121.50</td>
</tr>
<tr>
<td>Play equipment x 5 pieces:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 1 x Multi Play unit = 2/3 pieces of equipment i.e. Slide, Climbing</td>
<td>1 no.</td>
<td>1 no.</td>
<td>£6,715.50</td>
<td>£17,249.10</td>
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<tr>
<td>- 1 x Springy Motor Bike – SMP</td>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 1,007.60</td>
<td>£ 1,007.60</td>
</tr>
<tr>
<td>- 1 x double Cradle swing</td>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 2,929.30</td>
<td>£ 2,929.30</td>
</tr>
<tr>
<td>- 1 x double flat swing</td>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 2,929.30</td>
<td>£ 3,197.70</td>
</tr>
<tr>
<td>- 1 x Roundabout</td>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 4,715.70</td>
<td>£ 4,715.70</td>
</tr>
<tr>
<td>- 1 x See Saw</td>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 2,968.90</td>
<td>£ 2,968.90</td>
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<tr>
<td>- Balance beam – Wobble log</td>
<td>1 no.</td>
<td>1 no.</td>
<td>£ 1,848.00</td>
<td>£ 1,848.00</td>
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<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>safety surface includes concrete base with concrete pin kerb edging</td>
<td></td>
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</tbody>
</table>

**Estimated Total**

*(based on 1000m² and the above quantities)*

£90,575.18
### Section 106 -

**Public Open Space (POS) Maintenance Calculation**

**Site address**
Legal agreement No. ---- - dated --.--.-- / Planning Application No.
Owner - Agent

<table>
<thead>
<tr>
<th>Item</th>
<th>£ rate</th>
<th>Unit</th>
<th>No. Visits</th>
<th>Amount</th>
<th>£</th>
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</thead>
<tbody>
<tr>
<td><strong>Grass Cutting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Tractor mounted equipment</td>
<td>0.0035</td>
<td>m²</td>
<td></td>
<td></td>
<td>£</td>
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<tr>
<td>Ride-on - Multiple rotary mower</td>
<td>0.0022</td>
<td>m²</td>
<td>20</td>
<td></td>
<td>£</td>
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<tr>
<td>Pedestrian operated - Rotary mower</td>
<td>0.0075</td>
<td>m²</td>
<td>24</td>
<td></td>
<td>£</td>
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<tr>
<td>Rough cut - Strim</td>
<td>0.0267</td>
<td>m²</td>
<td>20</td>
<td></td>
<td>£</td>
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<tr>
<td><strong>Shrub bed maintenance</strong></td>
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<tr>
<td>Shrub pruning</td>
<td>0.1200</td>
<td>m²</td>
<td>1</td>
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<td>£</td>
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<tr>
<td>Shrub bed - Edging</td>
<td>0.2400</td>
<td>Lin.m</td>
<td>1</td>
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<td>£</td>
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<tr>
<td>Annual mulching</td>
<td>0.7000</td>
<td>m²</td>
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<td>Hand weeding</td>
<td>6.0000</td>
<td>m²</td>
<td>3</td>
<td></td>
<td>£</td>
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<tr>
<td><strong>Hedge maintenance</strong></td>
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<td></td>
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<tr>
<td>Not exceeding 2m in height, depth 30-60cm</td>
<td>1.1120</td>
<td>m²</td>
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<td>Exceeding 2m in height, depth 60-90cm</td>
<td>3.3380</td>
<td>m²</td>
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<td>£</td>
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<td>Field hedge - tractor mounted equipment</td>
<td>0.0550</td>
<td>m²</td>
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<td></td>
<td>£</td>
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<tr>
<td>Removal &amp; Disposal of arisings (300mm cut)</td>
<td>0.1610</td>
<td>m²</td>
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<td></td>
<td>£</td>
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<tr>
<td><strong>Herbicide applications</strong></td>
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</tr>
<tr>
<td>Garages, Fence lines, Paths &amp; Trees</td>
<td>0.1100</td>
<td>m²</td>
<td>2</td>
<td></td>
<td>£</td>
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<tr>
<td><strong>Tree maintenance</strong></td>
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<td>Existing mature trees</td>
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<td>Newly planted trees</td>
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<td>£</td>
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<tr>
<td><strong>Leaf clearance</strong></td>
<td></td>
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<tr>
<td>Tractor towed equipment (existing trees)</td>
<td>0.0068</td>
<td>m²</td>
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<td>£</td>
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<tr>
<td>Pedestrian - blowers (Ornamental areas)</td>
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<td>m²</td>
<td>3</td>
<td></td>
<td>£</td>
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<tr>
<td>By hand &amp; dispose of arisings</td>
<td>0.0115</td>
<td>m²</td>
<td>3</td>
<td></td>
<td>£</td>
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<tr>
<td><strong>Litter clearance</strong></td>
<td></td>
<td></td>
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<tr>
<td>Daily</td>
<td>0.0018</td>
<td>m²</td>
<td>364</td>
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<tr>
<td>Weekly &amp; Play Areas</td>
<td>0.0018</td>
<td>m²</td>
<td>52</td>
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<td>£</td>
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<tr>
<td>Empty Litter Bins</td>
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<td>no.</td>
<td>52</td>
<td></td>
<td>£</td>
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<tr>
<td>Empty Play Area Litter Bins</td>
<td>0.6670</td>
<td>no.</td>
<td>364</td>
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<td>£</td>
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<tr>
<td><strong>Balancing Pond &amp; Ditch maintenance</strong></td>
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<tr>
<td>Balancing Pond - Wet</td>
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<td>m²</td>
<td>1</td>
<td></td>
<td>£</td>
</tr>
<tr>
<td>Balancing Pond - Dry</td>
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<td>m²</td>
<td>1</td>
<td></td>
<td>£</td>
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<tr>
<td>Ditch clearance</td>
<td>1.5000</td>
<td>m²</td>
<td>1</td>
<td></td>
<td>£</td>
</tr>
<tr>
<td><strong>Play areas</strong></td>
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<td></td>
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<tr>
<td>Local Area of Play - LAP</td>
<td>0.2500</td>
<td>m²</td>
<td>52</td>
<td>100</td>
<td>£ 1,300.00</td>
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<tr>
<td>Locally Equipped Area of Play - LEAP</td>
<td>0.2500</td>
<td>m²</td>
<td>52</td>
<td>400</td>
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<td>Neighbourhood Equipped Area of Play - NEAP</td>
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<td>m²</td>
<td>52</td>
<td>1000</td>
<td>£ 13,000.00</td>
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<td><strong>Boundary maintenance</strong></td>
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<td>--------------------------</td>
<td>---</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Brick Walls</td>
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<tr>
<td>Timber fencing</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Sports Pitches</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Sports pitches - grass</td>
<td></td>
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</tr>
<tr>
<td>Sports pitches - all weather surface</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Sub Total</strong></th>
<th>£ 19,500.00</th>
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<tbody>
<tr>
<td><strong>Over Heads (OH)</strong></td>
<td>20% £ 3,900.00</td>
</tr>
<tr>
<td><strong>Sub Total - inclusive of OH</strong></td>
<td>£ 23,400.00</td>
</tr>
<tr>
<td><strong>Total Commuted Sum - 20 years</strong></td>
<td>20 £ 468,000.00</td>
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</tbody>
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