Design Requirements for Landscaping Residential Areas

East Dorset District Council Policy Planning Division
Supplementary Planning Guidance No.20 January 2007

Contents

Foreword

Guidance on the landscaping of residential areas was first published by the District Council in 1981. A revised version was approved by the Council in 1990 and was subsequently included as SPG to the East Dorset Local Plan, adopted in 2002.

This document updates these earlier editions, taking into account legislative, administrative and technical changes in landscape and arboriculture practice and guidance. Amendments to this guidance were approved by the Council's Policy and Resources Committee on the 31st January 2007 following consideration of comments received from parish and town councils and other consultees in respect of the proposed revisions.

In recent years the government has reinforced the importance of landscape in the promotion of good housing design and sustainable development. Planning Policy Statement 1 (PPS1) encourages local planning authorities to prepare design policies, a key objective being to 'respond to local context and create or reinforce local distinctiveness'. This document provides updated supplementary guidance to the Local Plan (paragraphs 6.287 – 6.298 and accompanying policies DES5 – DES8).

In addition to PPS1, a series of good practice guides by government departments and agencies such as the Commission for Architecture and the Built Environment (CABE), English Partnerships and The Housing Corporation, has brought housing design issues to the fore. The identification of landscape assets in site planning, the landscape restoration of brownfield land, and strengthening the identity and structure of greenfield sites, underpin these design principles. The 'Environmental Appraisal Inventory' is now a commonly accepted element of the planners' toolkit.

The government's support of improved design in building and housing has coincided with its commitment to make more efficient use of previously developed land, which in turn has impacted on housing densities on greenfield sites. PPS3 (draft) sets out the government's objectives regarding housing provision. Paragraph 54 notes that good design and layout of new development can help to achieve these objectives. '…local authorities and developers should think imaginatively about designs and layouts which make more efficient use of land without compromising the quality of the environment'. The PPS notes that the appearance and treatment of the spaces between and around buildings is often of comparable importance to the design of the buildings themselves. Higher residential densities pose a challenge to the creation of attractive landscaped housing. This can be met by engaging landscape professionals having the requisite design skills.

Circular 01:2006 and associated changes to the General Development and Procedures Order now require 'Design and Access Statements' to accompany each planning application. These will require applicants to explain the design principles of the proposal including, where appropriate, a landscape appraisal of the site (as set out in the 'Environmental Appraisal Inventory') and to describe the key features of the landscape design. This document is intended to assist applicants and their agents meet these landscape requirements in respect to new housing developments.

Summary

1 In all but the smallest developments, site planning is critically important in order to establish which features should be retained. A survey of existing trees and other landscape features and a site analysis will be required by the Local Planning Authority as part of the detailed planning application and, in some cases, may be required at the outline planning stage.

2 Landscaping should be worked out concurrently with the housing and road layout, and not treated as an afterthought. This maximises the potential of the site in terms of contours and existing features and helps to give the development a unique character.

3 The retention of existing trees provides a mature setting for new development and reduces the need for new tree-planting. A detailed tree survey must be undertaken as part of the site analysis. It is imperative that proper precautions are taken to protect trees whilst construction works are being undertaken. These precautions may be embodied in planning conditions accompanying the permission. Further guidance in this matter can be found in Supplementary Planning Guidance No.22 'Trees and Development'.

4 The timespan in creating a mature landscape should be considered and adequate provision made at the outset in order to ensure that the scheme fulfils the designer's objectives. As a planning condition, the Local Planning Authority may require a maintenance schedule and plan setting out the procedures for maintaining each landscape area.

5 Where it is intended that the Local Authority is to adopt public amenity areas it is important that it should be consulted at the design stage. Alternative arrangements for maintaining open spaces within developments should also be investigated, such as private management schemes.

6 Appendix A sets out the Council's requirements for laying out and planting Open Spaces prior to adoption under a Legal Agreement.

7 The current minimum requirement of the District Council for public open space in association with new development, over and above amenity space required in relation to roadways and around buildings, is set out in the East Dorset Local Plan and reproduced in Appendix B to this SPG.

8 Developers should discuss the range of facilities, type of treatment and maintenance responsibilities with the District Council at an early stage. The Local Planning Authority may, as a planning condition, require details of amenity and play spaces, including the method of construction, implementation timescale, and any maintenance arrangements.

9 Individual specimen trees planted in public areas should be of sufficient size to provide some degree of instant effect and to withstand vandalism. In such cases the District Council may require the planting of Heavy Standard trees (girth at 1m. from ground level 12/14cm., minimum length of clear stem 1.8m. measured from ground level to first branch).

10 When planting small groups of trees in a common bed with or without shrub underplanting, tree sizes may, depending upon the species used, range from Feathered to Standard. When planting larger groups of trees for a mass effect, a range of tree sizes may be introduced, from Transplants to Standards depending upon the size of the planting scheme.

11 Shrubs mature much earlier than newly-planted trees, and form a vital element in housing design. As part of the detailed submission the Local Planning Authority may require developers to prepare inset plans at 1:100 scale showing details of planting, together with a schedule of plants, their size and spacing.

12 Proper preparatory measures are essential to ensure that the material will thrive. Subsequent weed control can be a relatively simple operation if the soil has been sterilized before-hand. Before the District Council takes over any public open space for maintenance purposes it must be satisfied that adequate preparation works have been undertaken. This is normally at the end of the following growing season during which time all defects should be made good.

13 In larger schemes where development is phased it is important that the phases should be completed according to a schedule to ensure that items such as landscaping are not left to the end of the total development with the risk they may be omitted altogether.

1 Introduction

1.1 The Town and Country (General Development Procedure) Order 1992 as amended in 2006 requires that with certain specific exclusions (engineering, mining operations; material changes of use and development of an existing dwelling), planning applications shall be accompanied by a design and access statement. The statement must explain the design principles applied to specific aspects of the proposal including landscaping.

1.2 The Order also includes the following definition of landscaping: 'the treatment of land (other than buildings) for the purpose of enhancing or protecting the amenities of the site and the area in which it is situated and includes screening by fences, walls or other means, the planting of trees, hedges, shrubs or grass, the formation of banks, terraces or other earthworks, the laying out or provision of gardens, courts or squares, water features, sculpture, or public art, and the provision of other amenity features'.

1.3 The purpose of this guide is to assist designers and developers in site planning, the preparation of design statements and the landscaping of housing schemes by setting out the criteria by which applications submitted to the Local Planning Authority will be judged.

1.4 The District Council is committed to improving the standard of design in new development and recognises the value of imaginative landscaping as an important means of raising the quality of new housing areas.

1.5 The quality of the environment can be improved dramatically at a tiny percentage of the total cost. This has obvious advantages in terms of marketability and good landscaping offers lasting benefits to the residents and to the community as a whole.

2 Public Open Space

2.1 This note sets out briefly the kind of open space the District Council expects developers to provide in association with new housing. In most schemes this will be primarily for amenity and children's play; but in large scale housing developers will be expected to play a key part in achieving a satisfactory standard of provision in respect of other types of open space, notably for sports and more general park activities.

Provision

2.2 The East Dorset Local Plan, adopted January 2002, sets out the District Council's requirements for the provision of recreational facilities in conjunction with new developments. The policies in the Plan reflect the standards established by the National Playing Fields Association in 'The Six Acre Standard: Minimum Standards for Outdoor Playing Space' (1992). The Local Plan requirements are set out in full in Appendix B.

2.3 In large schemes it is a straightforward matter to compute the area of open space required and there is - during the site planning stages- ample scope for optimising its location in relation to pedestrian routes, existing site features and other parkland (existing or planned). Developers should discuss the range of facilities, type of treatment and maintenance responsibilities with the District Council at an early stage. In larger developments applicants will be expected to provide land and undertake suitable structural landscaping. The freehold of such areas of landscaping are to be conveyed to the Council together with an appropriate capital sum for future maintenance.

2.4 East Dorset District Council will seek a financial contribution based upon the total area of land put forward for adoption in those cases where a developer wishes to enter into a legal agreement for the Council to take over the maintenance of a open space on completion of a development scheme. This figure is subject to is periodic review and developers are therefore advised to contact the Council's Legal Division to determine the current rate per hectare.

(The Council's basic requirements for laying out and planting public open spaces, prior to adoption under a legal agreement, are set out in Appendix A.)

Planning and Design

2.5 The location, size and quality of facilities are as important as strict compliance with Council standards. Developers should consult the Council's Head of Community Services with regard to the provision, where required, of equipment in areas to be adopted by the Council. The Council's play spaces must be readily accessible by foot, and as such, should be designed as an integral part of the housing layout.

2.6 The location of such areas should relate to the distribution of other open space, both existing and planned, and to any specific Council policies and proposals set out in the local development plan where applicable.

2.7 The design of the open space is largely determined by:

(a) its function,

and

(b) the characteristics of the site.

2.8 The user requirements of the amenity space are critical if the area is to be fully utilised - and hence cared for - by the local community. At this local scale of provision the emphasis is normally placed on a low-key approach, flexible enough to accommodate changing demands.

2.9 Certain parts of the site may be suitable for specific activities by virtue of the topography, vegetation, presence of water and so on. By relating these features to the user requirements, preliminary site zoning can be undertaken. Having established the points of access and car-parking areas for the site, the main communication pattern can be established linking these zones. The planning framework for the open space can then be worked up in detail to produce a cohesive design.

2.10 An informal design is preferable to a formal layout, with generous land contouring to disguise boundaries and surrounding buildings.

2.11 Footways should respect the land contours and flow smoothly around the site without steep embankments or awkward turns.

2.12 A sequence of views should be created, both within and out of the site, through the imaginative use of existing features, ground-modelling, tree and shrub planting.

2.13 Children's play areas should be carefully assessed in respect of siting and the provision of play equipment, facilities for youngsters for example, should be kept separate from toddler equipment.

2.14 Under the terms of the Disability Discrimination Act 1998, the needs of disabled people should also be taken into account in the design and provision of open space. For example; avoid the use of steps and steep gradients, introduce changes of level gradually, try and provide some indication of changes of function where paths cross driveways or at the junction of paths and roads. For further advice or to discuss any specific problems relating to this issue developers should contact the Council's Building Control Section. Further information can also be obtained from the National Playing Fields Association (see Appendix C).

2.15 New planting, whether native or selected non-native species, can contribute to the diversity of wildlife. However it should be ensured that the species chosen will not, by virtue of their vigour, adversely affect established habitats. This is particularly important where landscaped areas in new developments lie adjacent to nature conservation sites. The use of invasive alien species should be avoided and care taken with the removal and disposal of such species from sites to be landscaped. Further information regarding the latter can be obtained from Defra and from Dorset Wildlife Trust.

2.16 The Construction Design and Management Regulations 1994 place a duty on designers and contractors, among others, to ensure that the health and safety risks of schemes during the design, construction and maintenance processes are identified, avoided or reduced.

2.17 Under the terms of the regulations it is also important that the landscape designer is both aware of his or her responsibilities and to the purposes for which the scheme is to be used within the foreseeable future and that the materials and equipment specified are fit for their purpose. Further guidance on the application of the Regulations can be obtained from the Health and Safety Executive (see appendix for contact details).

3 Existing Site Features

3.1 Take advantage of existing features that are worthy of retention, such as trees, areas of mature shrub vegetation, hedges and brick walls. These can be very expensive - if not impossible - to replace. The retention of the existing landscape makes it less imperative to create a new one.

3.2 The unique 'sense of place' of each location can be maintained and enhanced with the minimum of investment by using what is there. Careful site planning is of crucial importance.

3.3 **BEFORE GRANTING PLANNING PERMISSION THE LOCAL PLANNING AUTHORITY WILL REQUIRE EVIDENCE THAT SATISFACTORY SITE PLANNING HAS BEEN UNDERTAKEN. THIS WILL NORMALLY CONSIST OF A 1:500 SCALE SITE SURVEY SHOWING:**

(a) site boundaries (type and condition)

(b) topography and drainage (levels, slopes, streams etc)

(c) access (vehicular and pedestrian), especially definitive public rights of way

(d) services (underground and overground)

(e) existing land utilisation

(f) accurate tree survey in accordance with British Standard BS 5837:2005 Section 4

(g) accurate ground levels round those trees to be retained

(h) trees covered by a Tree Preservation Order

(i) hedgerows, significant shrub areas.

3.4 Good landscaping need not cost the earth. Save costs by planning the building and landscaping operations together, taking steps to preserve the topsoil wherever possible and utilizing sub-soil fill in earthmoving. Replacing top-soil onto a compacted site base can lead to drainage problems, and depending on the depth of top-soil, difficult growing conditions for trees and shrubs. It is important therefore to break up the sub-soil prior to top-soiling. This is important in respect to all soils. Guidance is given in Section 2.5 of BS 4428 (1989) Code of Practice for General Landscape Operations. A professionally prepared scheme that pays careful attention to detail can bring about substantial savings during implementation. On the other hand, a careless approach to the specification and quantities can lead to excesses in cost without any real benefit on the ground.

3.5 It is essential to plan for the protection of existing trees from the outset. The Council may require special protective measures to be

undertaken to safeguard existing trees on site prior to any development commencing.

3.6 The land survey indicates the location of all trees. A tree survey should then identify their species, size, approximate age and their condition. The site analysis determines which of these must be retained; which for which it is desirable to retain; those of little intrinsic value and those which are in poor condition or dying. On some sites it may be appropriate to retain relatively poor specimens on account of their group value or the character of the area. In these cases, their retention should be regarded as a temporary measure until new replacement planting begins to make an impact.

3.7 Trees subject of a TPO are given legal protection under the 1990 TCP Act (Section 198). Written permission to lop, top or fell such trees must first be obtained by the LPA. Conviction of illegal works on trees carries a substantial financial penalty. The Planning Act also provides protection for trees in conservation areas that are not covered by TPOs. Further details and application forms are available on request from the Council.

3.8 All new buildings should be sited so as to avoid affecting the roots of those trees that are to be retained. Developers and builders should follow the advice of the Council's Tree Officers and the guidance contained in the Council's Supplementary Planning Guidance document 'Trees and Development', SPG 22 and British Standard BS 5837:2005 to ensure the adequate protection for such trees.

3.9 Earthworks that affect the ground level around mature trees can have disastrous effects since older trees cannot adapt to the changing conditions sufficiently quickly. Site planning and building operations should ensure that materials or soil are not deposited close to trees (even temporarily). Similarly, the effects of soil excavations should be taken into account. A sudden drop in the water table caused by excavations elsewhere on site could be equally damaging to the tree as direct severance of its roots.

3.10 The destruction or culverting of water courses can also create alien conditions which may lead to die-back and eventual death.

3.11 Former hedgerows which have matured into substantial tree-belts are particularly susceptible since the loss of one tree in the middle can cause a windgap. The effects of this can be disastrous. If a proportion of an existing copse is removed to accommodate development the resulting over-exposure to wind, caused by the loss of companion shelter, could cause damage to other remaining trees. If overgrown hedgerows are to be reduced in size, they should, wherever practical, be laid in the traditional manner. Further advice on this technique may be obtained from the Council.

3.12 Changing the ground level around established trees should be avoided to prevent damage to the tree roots.

3.13 Particular care should be taken when trench-digging not to sever roots. On treed sites the Council may require that trenching is hand-dug. Further advice can be found in the National Joint Utilities publication 'Guidelines for the Planning Installation and Maintenance of Utility Services in proximity to Trees' (April 1995).

3.14 In many cases the area around existing trees forms the only part of the site unaffected by building operations. There is a strong temptation to deposit materials, machinery and huts in these areas. This may lead to compaction of the soil and physical damage of surface roots which together may kill those trees that were to be retained. Fires must not be lit in the vicinity of the trees. Apart from the obvious risk, fire may kill surface roots which in turn can promote fungal growth. Spillage of petrol, paint or other fluids used in the building trade causes ground pollution. It should be remembered that it may take several years before the symptoms of die-back become apparent.

3.15 The tree survey may identify trees in need of remedial treatment; for example, those trees in decline or exhibiting significant structural defects'. Expert arboricultural advice should be obtained and all works should conform to BS 3998:1989. (For details of local Tree Surgeons and Arborists contact the Councils Tree Section or the Arboricultural Association - see Appendix C).

4 Landscape Design

4.1 These notes do not purport to give more than but a brief resume of the many aspects of landscape design that need to be considered during the formative stages of any development. The advice given, whilst not conclusive, does set out some of the Council's priorities in the design of new housing areas. Developers are urged to seek proper professional advice at the earliest opportunity to ensure that the potential of the site is fully utilised.

A list of qualified, local landscape practitioners may be obtained from the Planning Department or from the Landscape Institute (contact details in Appendix C).

4.2 Establish the landscape policy at the beginning of the scheme, concurrently with the housing layout, rather than as an afterthought at the end.

4.3 Detailed planning applications for housing developments often need to be accompanied by a Landscape Plan. This may be at a single scale or include larger scale insets as necessary. The following landscape elements need to be clearly indicated:

(a) Location of open spaces and play areas (by type and size)

(b) Major areas of earthmoving (height, mode of construction, whether accompanied by cutting)

(c) Tree belts (existing and proposed)

(d) Existing features (to be retained)

(e) Hard floor finishes (including details of method of construction)

(f) Planting (species, spacing, quantities, special requirements e.g. staking, mulching and irrigation)

(g) Walls, fences hedges and other means of enclosure (including heights and materials where applicable).

4.4 Plans at 1.100 or 1.200 scale showing details of planting, together with a schedule of plants indicating quantities, their size and spacing should be prepared for each housing scheme irrespective of their size.

4.5 One of the main aims of the landscape plan is to establish a strong planting framework or structure which links the development with the surrounding landscape. The structure planting should comprise predominantly indigenous trees and shrubs so as to reinforce the identity of the locality and to support wildlife.

4.6 Where existing areas of woodland are to be incorporated into development schemes provision should be made for areas of shrub cover and/or grass to be created as buffers between the woodland edge and the curtilage of any new development

4.7 Developers should ensure that adequate arrangements are made to ensure the long term maintenance and management of areas of structural landscaping. A common method of achieving this end is for the Local Authority to adopt such areas as part of a legal agreement (also see Appendix A).

4.8 Where insufficient provision has been made for parking within a residential area pressure will be exerted on any incidental space, including grass verges, to park vehicles, with a resulting loss of amenity. Unless the grass has been reinforced by a geotextile or cellular mat, it will soon become rutted and/or bare. The problem needs to be anticipated at the site layout stage and, as far as possible, designed out of the scheme.

4.9 Hard Surfaces

(a) Contrasting floor textures represent an important design detail. Use different materials for different functions. Smooth surfaces are most suitable for heavy pedestrian traffic, prams and wheelchairs, but in less trafficked areas rough textures can be used.

(b) There is a wide variety of traditional and proprietary materials available both in respect of in situ and unit paving. The choice should be limited to four or five materials including roadways and drives, each having a definite role in the overall design.

(c) Hard paving is a good substitution for grass in small irregular areas where maintenance is difficult. It is usefully deployed between building projections, under windows, and as infill in irregular shapes between buildings and footpaths.

d) The selection of materials is determined by:

- Its function
- Design (formal or informal) and appearance
- Walking qualities
- Colour
- Texture
- Loadbearing, stain resistance and non-slip qualities (dual-use areas)
- Drainage
- Need for edging
- Relationship with other materials
- Compatibility in relation to trees
- Access to underground services
- Cost.

(e) Good workmanship in laying materials is essential. In the contract specify materials and the method of construction accurately or utilize the British Standard Code of Practice. Specialist contractors may do the job better, quicker and cheaper. Poorly constructed finishes lower the overall quality of the scheme and create maintenance problems later.

(f) Special attention is needed in the treatment of service covers, trees and drainage channels. Levels are critical, particularly between carriageways and building line and in footpath design. If possible, avoid slopes in excess of 1 in 10. Where slopes are steeper a suitable non-slip surface should be accompanied with ramps for use by prams and wheelchairs.

In both hard and soft areas watch levels closely to avoid ponding (also see 4.13).

(g) Treatment around trees. Around new trees, proprietary iron or pre-cast concrete tree grilles can be used, laid on gravel. Alternatively, small unit paving such as bricks or setts can be laid on 25mm fine grit on 50mm coarse gravel. If possible an area of 2.5m to 3m diameter should be laid in this way to allow water to reach the roots. Advice on hard surfacing around established trees can be found in BS5837:2005 or from an arboricultural consultant.

(h) Trim. This protects the surface edge and retains the loose foundation layers of paths, delineates boundaries (without causing any physical obstruction) and controls the direction of surface water flow. Trim is important in marking the functions between contrasting surface materials and in controlling traffic. Pre-cast concrete kerbs, channels and edgings are appropriate in many situations but alternative materials could be considered for specific functions and effects; engineering brick, granite, sandstone and York stone and granite, limestone or whinstone setts in particular, as well as a range of proprietary concrete edgings that are now available in various colours. Preservative-impregnated softwoods or hardwoods may be appropriate in more informal situations.

(i) For construction details Spon's Landscape Handbook, (ed. Derek Lovejoy Partnership), published by Taylor and Francis Ltd and 'Landscape Detailing' from the Architectural Press may be useful. Where it is intended that paths and other hard surfaced areas are to be adopted by the Council they should be constructed to Section 38 Highways Act 1980 adoption standards for highways and construction details should be submitted for approval as part of the landscaping scheme.

4.9 Grass

(a) Alternative soft landscape treatments may be more appropriate on steep banks, beneath trees and in areas of poor drainage. Grass and shrubs are complementary to one another as each sets off the appearance of the other.

(b) Small, awkward shapes make economical maintenance difficult, and should be avoided. Ground-cover planting or the use of textured paving is a better treatment of the spaces around buildings, walls, steps and other obstructions.

(c) The treatment around lamp standards and other obstructions needs to be considered at the design stage, so as to avoid maintenance later on.

(d) Grass edges can look untidy if inadequately maintained or without an artificial edging strip. The junction between grass and walls requires special treatment to facilitate maintenance. In these situations a 300mm mowing strip set 50mm below grass level should be provided.

(e) Too often, turf is laid over improperly prepared ground, resulting in poor growth and patchy appearance. Grass, like other plant material, will respond to proper preparatory treatment.

(f) There are many different grass seed mixtures available, including special mixtures for problem situations; for example, for steep slopes and embankments, for shady areas, for road verges, for use in forestry, country parks, and land reclamation. Slow-growing grass mixtures may be appropriate for amenity landscapes. (see Appendix A).

4.10 Tree Planting

(a) Not only do trees play an important visual part in housing design, they also serve a useful function in improving the microclimate and filtering the air.

(b) Trees provide the main vertical element in the overall design. Their relationship with buildings and spaces is, therefore, of fundamental importance. They should be used positively to:-

- Provide enclosure
- Act as a backdrop to buildings
- Provide long distance screening
- To create a foil against man-made structures
- To frame a view
- To provide dappled shade and shelter
- To provide a focal point.

(c) The selection of species is equally important to the siting. This largely depends on the space available, exposure, soil, acidity and existing vegetation. Their rate of growth and ultimate size must be anticipated. Generally, ornamental trees are more suited to small private spaces; forest trees are best in public areas. On the whole however there should be a predominance of British native or naturalised

species. Wherever possible trees should be of British provenance.

(d) The selection of tree size at planting will be largely determined by the effect required, the characteristics of the site and the number of trees to be used. Individual trees planted in public spaces should be of a size sufficient to create an instant effect and provide a degree of resistance to vandalism.

Therefore when planting trees in these circumstances the Planning Authority may require Heavy Standard trees (girth 12/14cm.) to be planted. Standard trees can be used when planting groups in a common block and, depending on the size of the planting scheme a wider range of tree sizes may be considered from Transplants to Standards, to give more variety.

(e) Trees planted in grassed areas should be provided with a strimmer guard. The surface of the planting pit should be 1m^2 in area, weed and grass-free and mulched to a depth of 75mm.

(f) The duration of after care and management should be carefully planned and incorporated into the scheme. After-care is essential until such time as the tree or trees can survive without protection, support or artificial irrigation.

(g) Care should be taken where trees are to be planted in close proximity to buildings. In addition to the effects of root growth (see paragraph h below) the ultimate height and spread and the effects of shading will influence the choice of species and location.

(h) On shrinkable soils, the choice and position of trees needs to be given more detailed attention. The advice of the Council's Building Control staff should be sought regarding precautions to be taken when constructing foundations near trees and hedgerows (see also: NHBC Standards Chapter 4.2, "Building near trees", [details of NHBC publications can be obtained at www.nhbc.co.uk]; " Trees on Development Sites", D.R. Helliwell [published by the Arboricultural Association]; " Tree Roots and Buildings", D.F. Cutler & I.B.K. Richardson [published by Longman Scientific & Technical] and "Tree Root Damage to Buildings", P. G. Biddle [Willowmead Publishing Ltd, Icketon Road, Wantage OX12 9JA]).

(i) Drainage pipes laid near trees and hedgerows should have joints which are well sealed to prevent the entry of roots and which are flexible enough to tolerate root growth and soil movement. Further information and advice regarding the installation of services near to planting can be found in the National Joint Utilities Group publication No.10 'Guidelines for the Planning, Installation and Maintenance of Utility Services in proximity to Trees' (see http://www.njug.co.uk/publications.htm.)

(j) The potential for future conflict with trees can be reduced at the stage of initial planning by the appropriate alignment of services and the provisions for future tree and shrub planting. Appropriate and separate space should be provided for each.

4.11 Shrub Planting

(a) Shrubs mature much earlier than newly-planted trees and can play an important role in blending new development into the landscape. Shrubs help soften the geometry of new buildings, walls and fences, and provide a source of pleasure to residents throughout the year.

(b) The main functions of shrubs in housing design are:-

- To define and articulate spaces

- To screen less desirable elements

- To provide enclosure and privacy

- To enframe views

- To emphasise desire lines

- To create colour and interest within a visually cohesive whole

- To provide a baffle against noise, particularly children playing and traffic

- To help give each scheme its own unique identity.

(c) Planting should be designed positively with these functions set out on an analysis plan. The final decision should read as a total composition with each element having a distinctive role.

(d) The suitability of certain species for different climatic conditions (especially exposure) and soils need to be carefully considered. The intended future level of maintenance too, will influence the choice of plant material since some species require more frequent and specialised attention than others.

(e) Attention to detail is of utmost importance and designers should maximise the intrinsic design characteristics of the plant material itself to achieve the most pleasing effects. Each space, however small, should be considered and appropriately treated.

(f) A limited number of species should be mass-planted to avoid 'spotty' effects and to cover the ground as quickly as possible. The aim should be to create a close knit appearance within three to five years. The successful relationship of different species remains the essence of planting design. The enormous diversity of plant material can be classified according to their role in design:-

Low, horizontal plants (such as Juniperus sabina Tamariscifolia),

dome shaped plants (such as Viburnum davidii),

spikey plants (such as Cordyline australis),

round shrubs (such as Weigela),

tall spindley shrubs (such as Rhus typhina),

multi-stemmed trees (such as Aralia elata).

(g) Plant design should be considered at three distinct levels: ground cover, eye level and above eye level:

i) Ground cover: this consists of carpet planting to link or define spaces without impeding views. It is also used as a base to display accent planting and to cover the ground beneath trees. Taller ground covers (up to 1.0m) are used where a more positive definition is required, or to provide protection against vandals, or as part of a gradual build-up from lower to higher levels.

ii) Eye-level: medium to large shrubs are used to provide privacy and shelter, to frame views or to screen eyesores. This provides the main structural element in the design.

iii) Above eye-level: large shrubs and small trees are used to define main spaces, to provide shelter and to frame views or particular buildings.

(h) Climbers perform an invaluable role, seldom exploited. They soften the harshness of new development whilst taking up the minimum of lateral space. Provided self-clinging types are used they are virtually maintenance free. Climbers can also be planted as ground-cover. When

planted together the boundary between building and ground can be completely obscured. Plant climbers in twos.

(i) Existing shrub vegetation on development sites is less imperative to retain than established trees. It does, however, indicate what species can survive on the site; for example, whether future planting should consist of ericaceous or non-ericaceous species. Any mature shrubs on the site boundaries should be retained to aid privacy and enclosure.

(j) Proper preparatory measures are essential to ensure that the newly planted areas become fully established. Reference should be made to B.S. 4428:1989 (includes planting of shrubs, hedges, climbers, herbaceous plants and bulbs) in any contract specification. There is no substitute for adequate preparation of the site, particularly dealing with weed infested sites, and it is recommended that the preparation of planting sites should begin in early August for planting during the following Autumn or Spring. Instructions and legal requirements on the application of herbicides, where used, should be carefully followed.

It is good practice to protect newly-planted shrub areas with temporary chestnut fencing for the first two growing seasons. Its' initial untidiness is compensated for by better plant establishment.

(k) After-care is a prerequisite to a lasting and effective scheme. Weed control will be a simple operation if the soil has been sterilised before-hand. A mild pre-emergent herbicide on clean cultivated soil will prevent weed seedlings from appearing. Where shrubs are planted into cultivated soil which has not been cleaned properly it is still advisable to apply a pre-emergent herbicide to the freshly planted soil. Perennial weeds will need additional spraying with contact herbicides within a few weeks of shooting. Herbicides should be applied carefully since stray spray will damage or kill the foliage of the planted shrubs.

Some herbicides can be harmful to livestock, pets and bees. All herbicides should therefore be applied strictly in accordance with the manufacturer's instructions and statutory obligations on their use.

(l) An alternative to the use of herbicides after planting is the use of mulches, which also has the advantage of reducing moisture evaporation from the soil surface. Mulches should be laid to a uniform compacted depth of 75mm over the plant bed. All edges between planting and grass or paving should be smoothly profiled down to 75mm below the surrounding surface so that the mulch depth when spread is even across the whole plant bed

(m) Any gaps which develop in the planting must be filled quickly with exact replacements. Planting distances vary according to the rate of growth and ultimate size of species, but the following spaces may be safely applied in most schemes:

- Dwarf/slow growing species 300mm

- Medium growing species 600mm

- Vigorous species 900-1200mm

(n) Plant design is a very skilled process, requiring an in-depth knowledge of plant characteristics, their suitability for different climatic and ground conditions, rates of growth etc. Planting can go horribly wrong and cause major problems of maintenance if it is not properly designed in the first place. Developers and architects are strongly recommended to seek the advice of a professionally qualified Landscape Architect or horticultural specialist.

4.12 Boundary Treatment

(a) The choice of material has a profound effect on the character and 'quality' of the housing area. In many situations brick walling looks best, lasts longest and requires least maintenance. Attention to detailing is extremely important; the choice of brick, bonding, pointing, capping, pillars and decoration will all have a profound effect on appearance.

(b) Fencing varies widely in cost and quality vertical slat or close boarded treated timber fencing, supported by concrete or hardwood standards and treated timber arris rails, is preferred. In rural areas wattle hurdles supported on a treated softwood frame are appropriate.

(c) A combination of brick walling and treated timber fencing is an attractive and cost-effective treatment but avoid the use of proprietary, decorative concrete block and panel walling.

(d) Hedging is much cheaper than walling or fencing and very effective in creating a softer, more relaxed character. Some hedges do not require regular clipping e.g. Beberis, Deutzia, Escallonia, Osmarea, Tamarix, be wary of planting fast growing conifers, they can be difficult to maintain as they become older.

Good hedging species include:

- Hawthorn
(Crataegus monogyna)

- Beech
(Fagus sylvatica)

- Hornbeam
(Carpinus betulus)

- Yew
(Taxus baccata)

- Rugosa rose
(Rosa rugosa)

- Viburnum tinus

- Eleagnus ebbingii

- Privet
(Ligistrum ovalifolium)

4.13 Drainage

a) Poor land drainage from both soft and hard landscaped areas, particularly in areas of open space, can detract from the value of the amenity.

b) Developers should submit an assessment of soil conditions and a statement regarding the need for the installation, if required, of an appropriate land drainage scheme. Any such scheme should be provided by the developer and proposals submitted for approval as part of the landscaping scheme.

5 Highways

5.1 Many of the principles of landscaping outlined in these notes apply to highways in residential areas.

5.2 Landscaping should be regarded as an important functional element to control traffic speed, influence where pedestrians walk and give residents privacy from the road. Landscaping is an important element in unifying buildings with the road and footpath network.

5.3 Opportunities exist to provide by thoughtful design a variety of surface treatments within developments, including tree and shrub planting along highway margins, without compromising highway safety.

Particular emphasis should be placed on:

- the choice and siting of trees
- hedges and other boundary treatments
- contouring of verges and shrub beds
- ground cover treatment of verges

5.4 The requirements of the Highway Authority (Dorset County Council) regarding road and footway widths and associated landscaping are contained in the booklet "Highway Guidance for Estate Roads, Winter 2002". This guide can be purchased from County Hall or the East Area Highways Office in Blandford for £40.00 including postage. (See the website address: http://www.dorsetforyou.com/media/pdf/ResidentialDesignGuide.pdf).

6 Maintenance

6.1 The future level of maintenance dictates the design of each scheme. There is little point in designing for a high quality landscape without a corresponding maintenance commitment. Similarly, the design of a scheme can greatly influence the level of maintenance required. For example, a scheme containing many small parcels of land in need of regular mowing will involve substantially more time in maintenance than one large open space.

6.2 An important aim of this guide is to summarise a 'Code of Practice' on designing residential landscapes which, if followed, will not only improve the quality of landscaping, but also result in more cost-effective maintenance. For example, the use of hard paving for small irregular areas where grass maintenance would be difficult; using slow-growing grass seed mixtures; the use of shrub ground-cover on steep banks, beneath trees and in areas of poor drainage; specifying shrubs which require little attention; or shrubs able to withstand herbicides thereby facilitating weed control.

6.3 The method of construction (in the case of hard landscape elements) and the extent of preparation works (in respect of soft landscape elements) have a crucial bearing on later maintenance. Poorly constructed pathways, for example, can lead to subsidence and poor drainage and eventual disintegration; planted areas that have been inadequately prepared can soon become infested with perennial weeds which causes not only an eyesore but also stifles the growth of the shrubs. As previously indicated paths intended for adoption by the Council should be constructed to Section 38 adoption standards for highways.

6.4 It should be remembered that the timespan in creating a mature landscape is very much longer than the construction of a building. This is one reason why it is good practice to preserve existing vegetation on site. Even trees up to 8m in height may be 15 years old or more. Planting semi-mature trees of equal size is not only very expensive but also requires careful planning, ground preparation and planting practice as well as a significant maintenance. successful establishment effort, particularly in terms of irrigation, to ensure successful establishment. The spacing of ground-cover shrubs should relate to their rate of growth, rather than their ultimate spread. The aim should be to obtain complete cover within 3 or 4 growing seasons.

6.5 From the outset it is important to ascertain the costs of implementation and maintenance so that the appropriate provision can be made in (a) the contract, and (b) the maintenance fund.

6.6 In most instances the long-term responsibility for maintaining public open spaces and amenity areas will fall upon the Local Authority. In the case of visibility splays and other highway land the agency for carrying out this work is normally the County Council. Local arrangements may exist between County, District and Parish Council for undertaking particular maintenance jobs. In Wimborne Minster itself, for example, the parks are controlled by the Town Council.

6.7 Where it is required that the Local Authority should adopt such amenity areas it is important that it should be consulted during the design stages so that it may be given the opportunity to comment on the maintenance implications of the design. (See Appendix A).

6.8 As mentioned in Section 2 the District Council requires a commuted sum from developers, based upon the size of the area, in return for the adoption of public amenity areas. This sum is subject to periodic revision in order to take account of the effects of inflation. Details of the current rate per hectare can be obtained from the Council's Legal Division.

6.9 The Local Planning Authority may require a schedule and plan at 1:500 scale setting out the procedures for maintaining each landscape area.

6.10 Normally the District Council adopts an area for maintenance purposes at the end of the following growing season, thus giving sufficient time for defects to be made good by the developer prior to handover.

6.11 When large developments are placed into several self-contained stages developers will be required to implement all landscaping conditions in accordance with an agreed programme. Completed phases shall be adopted by the District Council, subject to the aforementioned conditions, prior to the completion of the scheme in total.

6.12 There are certain situations where District Council involvement in maintaining amenity areas may be minimal. In the case of Housing Association schemes, for example, it is common practice for Housing Associations to undertake all maintenance responsibilities, including those relating to landscaping.

6.13 The District Council encourages community involvement in managing public open spaces, particularly when this can be organised in the form of residents associations, amenity societies and other groups.

6.14 In certain circumstances it may be possible for the responsibility for maintaining planted areas to be placed with individual residents by including the land within the curtilage of the dwelling and controlling how it is maintained by restrictive covenant. This permits a much more imaginative landscape treatment to be undertaken provided the design concept is understood and accepted by the intending purchasers.

6.15 Land contained within the highway, but which is treated as being part of the curtilage of adjacent dwellings, may be maintained by the residents themselves, subject to the requirements laid down by the Highways Authority (see Section 5). The ownership of the land, or course, remains that of the County Council.

Appendix A

Landscaping requirements for laying out and maintaining open spaces subject to Legal Agreements under the Planning Acts.

A.1. Trees

Unless specified or agreed otherwise all trees supplied shall conform to the requirements of B.S. 3936.

(a) For maintenance purposes single trees in grassed areas should be planted at centres of no less than 2.5 m apart to allow for the passage of grass cutting machinery.

(b) Trees planted in grassed areas should be fitted with proprietary plastic strimmer guards.

(c) Young trees planted in vandal prone areas, or areas where games are to be played, should be provided with extra tree stakes and mesh tree guards as directed by the District Council.

(d) Existing trees incorporated in an open space area must be, where necessary, brought up to a standard acceptable to the District Council. For public safety reasons, a full, written arboricultural survey of established trees, including those close to paths, houses etc, shall be carried out by the developer immediately prior to adoption of the open space by the Council.

A.2. Shrubs.

Unless specified or agreed otherwise all shrubs supplied shall be of good quality and conform to the requirements of B.S. 3936. The choice of species should have regard to the prevailing site conditions and the likely use of the open space e.g. where there is a probability of the shrubs being affected by ball games or vandals thorny shrubs which recover quickly from damage should be used.

A.3. Grassed areas.

A 225mm. minimum consolidated depth of good, agricultural grade soil should be provided. Soil should be free of any debris, rubble etc.

A.4. Grass species.

An appropriate grass seed mixture should be used in general open space areas to provide a hard wearing sward. Developers should consult with the District Council to ensure that the correct mixtures are provided for any given situation. Unless specified or agreed otherwise the seed mixtures used shall comply with the requirements of B.S. 4428.

A.5. Grass cutting and maintenance.

Cutting and maintenance of landscaped areas should be undertaken up to the date that confirmation in writing of adoption of the area by the District Council is received by the developer. At adoption all landscaped areas shall be tidy, well maintained and to the satisfaction of the District Council.

A.6. Access to Open Spaces.

Developers should ensure ease of access to open spaces for maintenance equipment. Where necessary dropped kerbs should be provided to enable access across footpaths. Access routes should be not less than 2.5m. wide and be over land owned by the developer directly from public roads or open spaces.

A.7. Mulch.

Unless agreed or specified otherwise shrub beds and planting pits shall be mulched after planting and watering- in with a proprietary mulch approved by the District Council.

Appendix B

Standards for Open Space Provision

As proposed by the East Dorset Local Plan Adopted January 2002:

1 Children's play provision should be to the following standards:

a) On housing sites of 15 dwellings or more, one or more Local Areas for Play (LAPs) designed for use by young children under the age of 6, so that at least one is within 1 minute's walking time (100m walking distance) of all new housing on the site, using routes which do not cross any roads other than access and service roads. Each LAP should include:

(i) a 100m2 activity zone;

(ii) a buffer zone between the edge of the activity zone of a minimum of 5m depth to ground floor windows and a minimum of 1m depth, densely planted, to house walls;

(iii) seating for carers;

(iv) fencing and entrances to exclude dogs and to separate the activity area from areas used by cyclists or motor vehicles.

b) On sites of 50 dwellings or more, in addition to the provision of adequate LAPs, one or more Local Equipped Area for Play (LEAP) designed for use by accompanied children of early school age (approximately 4 to 8 years) so that at least one is within 5 minutes walk (400m walking distance) of all new housing on the site, using routes which do not cross any roads above the level of local distributor roads. Each LEAP should include:

(i) at least 5 types of play equipment and surfacing complying with the relevant British Standards;

(ii) a 400m2 activity zone;

(iii) a buffer zone between the edge of the activity zone and the boundary of any residential property of a minimum of 20m depth (which could include footpaths and planted areas);

(iv) seating for accompanying adults;

v) fencing and entrances to exclude dogs and to separate the activity area from areas used by motor vehicles.

c) On sites of 150 dwellings or more, in addition to the provision of adequate LAPs and LEAPs, one or more Neighbourhood Equipped Area for Play (NEAP), designed for use mainly by unaccompanied and unsupervised children aged between 8 and 14, with opportunities for play by some slightly younger children, older children and those with special needs, so that at least one is within 1000 metres walking distance (maximum 600m air-line) of all new housing on the site, using routes which do not cross any roads above the level of local distributor roads. Each NEAP should include an activity zone of at least 1000 m2, including:

(i) at least 8 types of play equipment and surfacing complying with the relevant British Standards;

(ii) a kickabout area;

(iii) opportunities for wheeled play;

(iv) seating for accompanying adults;

(v) a buffer zone between the edge of the activity zone and the boundary of any residential property of a minimum of 30m depth (which could include footpaths and planted areas);

(vi) fencing and entrances to exclude dogs and to separate the activity area from areas used by motor vehicles.

2 In many cases a large site, which may be considered as a single unit in planning terms, is subdivided between developers because of market and financial considerations. In such cases, the site will be treated as one for the purposes of considering the proper provision of play space. Provision will need to be planned between the separate developers to a comprehensive overall plan.

3 It will usually be the case that any individual housing site will be too small to provide playspaces at all the levels of the hierarchy set out above. In some instances there will be existing play and open space provision nearby which

already meets these standards as far as the housing site is concerned in terms of quality of the facilities and walking distance. In these circumstances there will be no need for additional provision. However, where this is not the case, the planning authority may seek contributions towards provision off site. These will be sought only where:

(a) a firm proposal by the Local Planning Authority exists on an identified site, which will serve the development;

(b) the contribution to be made is not disproportionate to the benefit which will be enjoyed by the housing site in question;

(c) the contribution will be reserved for the identified provision and shall not be diverted, unless with the developer's consent, to any other play provision.

A particular case where such a contributions system may be required is where there are several housing sites in an area, physically separated from each other, but which in aggregate will give rise to substantially increased needs for play space.

4 In addition to children's play space, new housing development requires the provision of space for outdoor sport. The NPFA standard for this is for a level of 1.6 - 1.8 ha for each 1000 population. This Local Plan adopts a standard of 1.6 ha per 420 dwellings. As no identified housing sites will be so large as to provide this within their own boundaries, contributions will be sought from developers towards this provision on the same terms that are set out in 3 above for childrens' playspace, namely:

(a) a firm proposal by the Local Planning Authority exists on an identified site, which will serve the development;

(b) the contribution to be made is not disproportionate to the benefit which will be enjoyed by the housing site in question;

(c) the contribution will be reserved for the identified provision and shall not be diverted, unless with the developer's consent, to any other sports provision.

5 In addition to these areas for sport and for children's play, which are for active recreation, housing and other developments may need to include amenity space for more passive recreation. This will be particularly the case where there are features within the site which should be retained because of their value in establishing the intrinsic character or visual quality of the area, such as treebelts, woodland or the margins of watercourses. Where sites are identified for development in this plan, specific proposals for these are included. It may be possible for these areas to include provision for children's play.

Appendix C

Useful Addresses

Arboricultural Association
Ampfield House
Ampfield
Romsey
Hants SO51 9PA
www.trees.org
- for general information on tree surgeons, arborists, trees and for useful publications.

Brick Development Association
Woodside House
Winkfield
Windsor
Berks SL4 2DX
www.brick.org.uk

British Standards Institution
BSI Management Systems UK
PO Box 9000
Milton Keynes MK14 6W2
www.bsi-uk.com/StandardsAndPublications

BRE
Bucknalls Lane,
Watford WD25 9XX
general e-mail:
enquiries@bre.co.uk
http://www.bre.co.uk/contact.jsp
- for publications dealing with foundations design and tree root damage

Health and Safety Executive
Rose Court
2 Southwark Bridge
London SE1 9HS
www.hse.gov.uk

Landscape Institute
33 Great Portland Street
London W1W 8QG
www.landscapeinstitute.org
- for a list of practicing Landscape Architects .

Royal Institution of Chartered Surveyors
Contact Centre
Surveyor Court
Westwood Way
Coventry CV4 8JE
www.rics.org
- for list of practicing Quantity Surveyors.

Royal Town Planning Institute
41 Botolph Lane
London EC3R 8DL
www.rtpiconsultants.co.uk
- for list of practicing Chartered Town Planners.

National Playing Fields Association
Stanley House
St Chad's Place
London WC1X 9HH
Tel: 020 7833 5360
Fax: 020 7833 5365
Email: info@npfa.org
- for recommended standards of provision.

Royal Institute of British Architects
66 Portland Place
London W1N 4AD
www,riba.org
for list of practicing Architects.

The Stationery Office
PO Box 29
Norwich NR3 1GN
www.tso.uk/bookshop
- for H.M.S.O. publications.