

**MINIMUM LANDSCAPE MAINTENANCE  
SPECIFICATION OF SERVICES AND WORKS  
MAY 2010**



# CONTENTS

<b>Introduction</b> .....	<b>4</b>
<b>Landscape Maintenance Period</b> .....	<b>4</b>
<b>Minimum Standards for Landscape Maintenance</b> .....	<b>4</b>
<b>Landscape Maintenance Goal</b> .....	<b>4</b>
<b>Landscape Maintenance Objectives</b> .....	<b>4</b>
<b>Landscape Maintenance Outcomes</b> .....	<b>4</b>
<b>Qualifications and Experience</b> .....	<b>4</b>
<b>Occupational Health and Safety (OHS)</b> .....	<b>5</b>
<b>Mowing</b> .....	<b>5</b>
<b>Trimming</b> .....	<b>6</b>
<b>Maintenance of Garden Beds</b> .....	<b>6</b>
<b>River Red Gum &amp; Significant Tree Maintenance</b> .....	<b>6</b>
<b>Edging</b> .....	<b>7</b>
<b>Slashing/Maintenance of Undeveloped Open Space</b> .....	<b>7</b>
<b>Tree, Shrub and Plant Pruning</b> .....	<b>8</b>
<b>Planting – Parkland and Open Space</b> .....	<b>8</b>
<b>Mulching Shrub Beds</b> .....	<b>9</b>
<b>Watering</b> .....	<b>9</b>
<b>Maintenance of Barbeques</b> .....	<b>9</b>
<b>Maintenance of Pathways and Hard Stand Areas</b> .....	<b>9</b>
<b>Drainage Infrastructure</b> .....	<b>10</b>
<b>Maintenance of Signage</b> .....	<b>10</b>
<b>Maintenance of Fences, Gates and Locks</b> .....	<b>11</b>
<b>Maintenance of Furniture and Fixtures</b> .....	<b>11</b>
<b>Maintenance of Ornamental Water Bodies</b> .....	<b>12</b>
<b>Litter Collection</b> .....	<b>13</b>

<b>Horticultural Chemical Application.....</b>	<b>13</b>
<b>Management of Pests .....</b>	<b>14</b>
<b>Graffiti Removal.....</b>	<b>15</b>
<b>Nature Strip Reinstatement .....</b>	<b>15</b>
<b>Indigenous Vegetation Management (IVM) .....</b>	<b>15</b>
<b>Maintenance of Park Lighting.....</b>	<b>16</b>
<b>Maintenance of Artwork.....</b>	<b>16</b>
<b>Maintenance of Art Features .....</b>	<b>16</b>
<b>Irrigation Maintenance.....</b>	<b>17</b>
<b>Grass Turf Renovation and Reinstatement.....</b>	<b>17</b>
<b>Maintenance of Tennis Courts.....</b>	<b>18</b>
<b>Netball, Basketball and Handball Courts and Hit Up Walls.....</b>	<b>19</b>
<b>Playgrounds.....</b>	<b>19</b>
<b>Street Tree Maintenance.....</b>	<b>19</b>
<b>Street Tree Pruning .....</b>	<b>20</b>
<b>Street Tree Planting.....</b>	<b>21</b>
<b>Conclusion .....</b>	<b>21</b>

## **INTRODUCTION**

### **LANDSCAPE MAINTENANCE PERIOD**

Council's standard planning permit conditions for all new subdivisions requires the developer to maintain all aspects of the landscape for a minimum period of two full summers + 3 months before hand over to Council for on-going maintenance. Approximately three months before scheduled handover, a Landscape Condition Audit is undertaken, with the developer required to reinstate or provide restitution for any identified defects prior to handover. Council holds a substantial establishment maintenance bond (20% of the construction cost), provided by each developer as assurance of the restitution works being undertaken in accordance with the endorsed landscape plan.

### **MINIMUM STANDARDS FOR LANDSCAPE MAINTENANCE**

Maintenance refers to the activities required to ensure all assets as identified in the endorsed landscape plan are retained in a safe and functional state for the purpose for which they were designed and to prolong their amenity and functional life.

Council recognises that various open space areas will require different management and maintenance regimes and as such will be subject to site specific maintenance schedules in order to achieve a high level of upkeep during the landscape maintenance period. As such, the landscape specifications identified in this document represent the minimum standard for maintenance within new growth areas.

### **LANDSCAPE MAINTENANCE GOAL**

- To establish and maintain open space areas and streetscapes in accordance with the endorsed landscape plans.

### **LANDSCAPE MAINTENANCE OBJECTIVES**

To establish and maintain open space areas to a high standard.

- To establish and maintain street tree planting to a high standard.
- To establish and maintain playgrounds and associated infrastructure to a high standard.
- To establish and maintain playing courts to a high standard and in accordance with relevant sporting codes.

### **LANDSCAPE MAINTENANCE OUTCOMES**

- High quality, well managed and maintained open space areas.
- Well maintained, functional and aesthetically pleasing streetscapes.
- Safe, functional, well utilised playground facilities.
- High quality, well utilised playing courts.

### **QUALIFICATIONS AND EXPERIENCE**

The developer shall ensure that all staff and/or sub-contractors are suitably skilled, experienced and licensed for the various activities they may undertake.

## OCCUPATIONAL HEALTH AND SAFETY (OHS)

Services are to be provided safely and in accordance with relevant OHS regulations and with continual regard for the safety of the public and developer employees.

### MOWING

- All grassed areas shall be maintained in a weed free state. Weed growth with grass areas must not exceed 10% of the total grass area.
- Grass clippings shall be distributed evenly over the surface and at no time shall the layer of clippings be at such a depth that it will affect or damage the lawn area.
- The developer must not mow over any litter or debris. Prior to mowing, all areas shall be inspected and are to be cleared of litter and debris, including but not limited to paper, plastic, glass, rocks, branches, garden refuse, timber, spoil, etc. Such material shall be disposed of off-site at the developer's expense. The developer must take an environmentally responsible approach to the collection, sorting and recycling (where appropriate) of materials collected in the interests of waste minimisation. Green waste recycling is encouraged.
- Sharps are to be collected by the developer and disposed of appropriately. The developer should be fully aware of the associated problems of needle stick injury and therefore handle sharps accordingly.
- Grass height shall be kept between 40 mm – 70mm in height.
- All turf is to be cut evenly and sharply across the surface to a height of 40mm. The method of measurement of the mowing height shall be the average height from the ground to the uppermost extent of the blades when held up vertically. No more than one-third (1/3) of the grass length should be removed in any one mowing.
- Wherever possible grass shall be cut in parallel lines so that all grassed areas are left with a neat and tidy appearance. On successive cuts the grass must be mowed in the opposite direction or at variable directions, particularly sports fields, to avoid windrows developing and to prevent grass seed stalks lying in one direction and remaining uncut.
- After mowing, all hard surfaces such as footpaths and roads shall be cleared of cut material.
- The needs of the public using parks facilities must be considered before mowing commences. At all times, the developer must be courteous and respectful of the needs of these users.
- All nature strips abutting reserves or Council-managed facilities shall be mown and maintained to the same standard as the reserves or facilities.
- The developer should use discretion in the selection of appropriate machinery suited to the task and must take into consideration ambient site conditions. Ground surface damage as a result of the use of machinery inappropriate to the conditions will be the responsibility of the developer to reinstate.
- The developer shall provide additional resources to accommodate peak growth periods to ensure that intervention levels are never exceeded.
- The developer must comply with Vic Roads OH&S requirements for the maintenance of main roads.

## TRIMMING

- Grassed surrounds of trees with a trunk diameter greater than 150mm measured at a point 300mm above the ground level, poles, posts, seats, fences buildings, etc., shall be maintained by mechanical means only (herbicide is not to be used in these situations).
- Cord line trimmers shall only be used around trees with trunk diameter greater than 150mm, measured at a point 300mm above ground level. Bark must not be damaged by trimmer cord. Control of grass growth around the base of trees less than 150mm trunk diameter shall be with an appropriate non-residual herbicide.
- Cord trimming must not cause scalping around fixed objects and edges such as paths, kerbs, timber edge strips, etc.

## MAINTENANCE OF GARDEN BEDS

A garden bed is defined as a mulched area which may or may not have planting. Simply, it is any area other than a grassed or paved area. It may also include dense plantings in a garden bed which may not be mulched i.e. riparian zones or Water Sensitive Urban Design systems (WSUD). Mulch may consist of granitic sand, bark mulch, jute or any other type of moisture/weed retardant.

- All planted areas shall be maintained in a weed free state. Weeding shall take place once a month or when the weed content exceeds 5% of the total garden area.
- Emergent weeds shall be spot treated with herbicide or removed manually.
- At each attendance to the site, all garden beds are to be treated for weeds.
- Weeds must not detract from the appearance of the garden area. Garden beds are to be free of weeds at the completion of each attendance.
- Care should be taken in areas of high density planting - spray hoods must be used to prevent damage to non-target species. Large weeds should be removed by hand or with hand tools taking care not to damage non-target species.
- Noxious and declared weeds proclaimed under the Catchment and Land Protection Act (1994) and the City of Whittlesea Pest Plant Local Law are to be controlled in accordance with statutory and/or legislative requirements.
- Herbicides are not to be used in the vicinity of playgrounds, child care centres or maternal & child health centres when they are in use.
- Other areas for weed control include tree bases (trees less than 150mm diameter in grassed areas), paved areas, sand paths, water bodies, playgrounds and playing courts, etc.
- Water Sensitive Urban Design (WSUD) systems are generally designed to regulate water flow and perform particulate filtration with a view to effectively manage sediment and treat stormwater. The developer is responsible for the maintenance of weeds, plant health, plant replacement and to ensure that the 'throat' (inlet) of the flow path is clear of sediment, litter, weeds, etc.

## RIVER RED GUM & SIGNIFICANT TREE MAINTENANCE

- Ancient remnant River Red Gums (*Eucalyptus camaldulensis*) are characteristic of much of the municipality's open space areas. As an element of its Risk Management Program, Council undertakes an independent annual audit of the larger and older specimens for which it is responsible. Most of these trees are incorporated into garden beds or mulched areas that extend to the drip line of the trees.
- The developer is responsible for appropriate weed control within these mulched areas such that regeneration of new trees is facilitated and encouraged.

- In general, the developer will be required to reduce potential hazardous conditions in trees and improve tree structure by:
  - Removing dead and diseased branches.
  - Reducing the weight of branches or stems with included bark.
  - Reducing the weight of branches overhanging trafficable areas and fixed infrastructure.
  - Removing epiphytic plant material from within the canopy of the trees.
- Due care should be given when carrying out any of the above works to ensure that the integrity of the tree as habitat for native fauna is not compromised and that the non symmetrical form characteristic of remnant Rive Red Gums is retained.
- Dead branches greater than 40 mm in diameter (measured at the base of the branch) shall be removed from the canopy of all trees unless they contain hollows that are clearly being used as habitat.
- No live branches greater than 200 mm diameter shall be removed from the tree without authorisation from Council's Senior Arborist.
- Remove no more than 20 percent of live foliage from the tree unless specifically indicated by Council's Senior Arborist.
- Making good significant failures of River Red Gums under the care of the developer shall be the developer's responsibility. In general, larger material should be left on site for its habitat values but smaller material should be chipped/hammer milled for reuse in open space. Each case should be treated separately in consultation with Council's Senior Arborist.

## **EDGING**

- Edges of concrete paths, gutters, hard surfaces, shrub beds or other turf edges shall be maintained by mechanical means only. Herbicides must not be used as an edging technique except along sand and asphalt paths and along open fence lines, such as chain mesh fences.
- Cord trimmers or brush cutters may be used for edging but turf surface must not be scalped.
- Grass overhang to hard surfaces must be edged at each attendance to the site for general maintenance (once a month minimum).

## **SLASHING/MAINTENANCE OF UNDEVELOPED OPEN SPACE**

- Encompasses the maintenance of developer owned undeveloped urban tracts of open space prior to development to an approved landscape plan and includes unmaintained nature strips.
- Frequency of cut will be such as to minimise potential for illegal dumping of rubbish and to maintain fire hazard clearance. This frequency will be at least twice per year, one cut leading up to the fire season.
- Adjacent roadways, kerb and channel, pathways etc. shall be free of mown grass.
- Service level will continue until the site is developed to a higher standard from whence it will be subject to a normal cyclic maintenance program.

## TREE, SHRUB AND PLANT PRUNING

- Pruning techniques shall be to approved horticultural practices, have regard to AS4373-2007 and encompass pruning for safety, correct plant structure, maintaining vehicle and pedestrian access, removal of broken or damaged plant material, hedging, improved floral display, plant vigour, etc.
- All final cuts are to be approved arboricultural techniques in accordance AS4373-2007. Avoid bark tearing by using under cut, top cut and final cut.
- All pruning's are to be removed from site and disposed of by the developer for reuse as mulch or soil ameliorant. Recycling of prunings is encouraged.
- Only sharp, clean pruning equipment shall be used.
- Removal of lower branches of shrubs is not a permitted method of improving the ease of maintenance of the under lying area unless the development of a clean lower trunk is part of the natural development of the relevant plant species.
- Removal of lower branches is acceptable to alleviate identified traffic or safety hazards.
- All tree, shrub and plant maintenance and development works shall have regard to the age, size, shape, character, condition and situation of the relevant plants. All trees and shrubs shall be maintained with a good balance and growth, and be of aesthetic appearance.
- General pruning activities should aim to satisfactorily attend to the following:
  - Deadwood and dying branches.
  - All broken and split branches.
  - Weak limb structures.
  - All epicormic growth, watershoots and stump sprouts the main trunk.
  - Removal of spent flower heads.
  - Regular trimming of hedges.
  - Regular trimming of standard specimens for desired shape.
  - Seasonal pruning of herbaceous species and woody perennials.
  - Maintaining sight lines in traffic treatments.
  - Removal of dead plants.
- The developer shall ensure that the work methods avoid damage to existing branches, bark or foliage of surrounding trees and shrubs, irrigation systems, signs and signposts, bollards, kerbs, barriers or other Council assets. The cost and repair of these assets shall be the sole responsibility of the developer.

## PLANTING – PARKLAND AND OPEN SPACE

- The developer must replant failed, damaged or stolen plants as soon as practicable after identification of loss. Planting can be carried out at any time of the year, subject to ambient weather and irrigation conditions and availability of suitable species. The bulk of the planting program is to be expected to be completed during the period late autumn to early spring. Preparations for planting should be completed well in advance of this period. All planting is to be completed by the end of the first week in September for non-irrigated sites.
- All plant material is to be inspected by Council for quality, quantity and trueness to type prior to planting. Any material that is deemed to not be up to standard will be rejected and suitable replacement plants are to be procured at the developer's cost.

- Planting should incorporate any necessary preparation and protection of the plants to maximise their establishment capacity, including adequate herbicide treatment, group plantings in prepared and mulched beds, tree guards, mulching, weed competition control, etc.
- A planting success rate of 100% is expected to be achieved.
- Planting of individual trees in open grassed areas, generally required for shade provision, without suitable protection in the form of mulching and tree guards, is not encouraged unless suitable protection is provided.

### **MULCHING SHRUB BEDS**

- Mulch shall be maintained to an even depth not greater than 100mm and not less than 75mm (depending on material used) to cover exposed soil on all shrub and perennial beds and mass planted tree areas. In these mass planting areas and shrub beds, mulch cover shall be maintained such as to ensure satisfactory establishment of the plants and minimal weed growth. All mulched beds to be re-mulched annually to maintain a minimum depth of 75mm and to keep the beds looking fresh.
- Lawns and hard surface areas are to be kept free from mulch.
- Mulch shall not be cultivated or incorporated into the soil.
- Mulches that compact excessively restricting moisture penetration and aeration of the soil or synthetic mulches such as weed mat or plastic sheeting that have the same net effect and can be visually obtrusive, are not to be used, unless agreed to by Council.
- Mulch is not to be stockpiled on site for extended periods and is to be spread within one week of being deposited at the site.

### **WATERING**

- Newly planted trees and shrubs shall be watered immediately after planting.
- Where irrigation systems are installed, the system should be used to maintain vigorous, healthy plant and grass growth.

### **MAINTENANCE OF BARBEQUES**

- All surfaces (including pedestrian hardstand areas & grease receptacle) must be cleaned using appropriate methods that are both hygienic and safe for potential facility users.
- Barbeques shall be tested and cleaned weekly on the day before every weekend and on the day prior to public holidays. An allowance should be made for additional reactive cleaning on an as needs basis.
- Barbeques shall be cleaned twice per week during the daylight savings period.
- The developer must maintain the facility, arranging for rectification of breakdowns and vandal damage to be repaired to ensure usability within one (1) working day of the breakdown or damage being reported.
- An electrical Certificate of Compliance shall be provided at landscape Practical Completion.

### **MAINTENANCE OF PATHWAYS AND HARD STAND AREAS**

- All pedestrian paths and hard stand areas within parks are to be maintained free of debris such as garden mulch, loose stones, weeds, grass clippings, etc.
- The control of weeds within these areas is the responsibility of the developer.
- Paths shall be maintained safe for public use at all times.
- Paths shall be kept free from weeds

- Only herbicides approved by Council shall be used on paths.
- Paths shall be clear of debris (garden mulch, loose stones, weeds, grass clippings, etc) on completion of mowing, brush cutting and maintenance activities.
- Paths constructed with granitic sand, gravel, Lilydale toppings etc. must be re-topped as needed with matching quality material, compacted and kept evenly graded throughout the year to ensure a surface free of unnecessary undulations, washouts openings due to ground movement and low points capable of holding water. These paths should be kept crowned to the centre to allow for water to be readily shed and to minimise erosion.
- Sand or gravel “beaches” associated with waterbodies and stone “dry creek beds” or similar are to be kept free of weeds and must not be allowed to silt up. Where such treatments abut grassed or paved pedestrian trafficable areas, changes in level that could become trip points must not be allowed to develop. The beaching material must be topped up as needed, with the same material, to address this issue as it arises.
- Weed encroachment from the edges of all paths is to be controlled such that the design width of the path is maintained at all times.
- Paths and associated gutters shall be cleaned using equipment and vehicles that cause no damage to the paths.
- Hard paved surfaces that are deformed or damaged as a result of soil movements, construction faults or any other reason during the landscape maintenance period are to be repaired/replaced by the developers at the developers expense.

#### **DRAINAGE INFRASTRUCTURE**

- After the issue of landscape practical completion, the functional maintenance of drainage infrastructure will be undertaken by Council’s Infrastructure Department.

#### **MAINTENANCE OF SIGNAGE**

- The developer shall supply, replace and maintain existing interpretative, identifier, park advisory signs and memorial/naming/commemorative plaques in open space as required.
- The developer shall clean, replace and/or repair any damaged or inadequate signs within five (5) working days of being advised or within a suitable time as agreed with Council. Inadequate signs include those fading, flaking, chipped or displaying incorrect information.
- Signs shall be made, constructed & installed in accordance with Australian Standards: AS1743-1992, AS1742.11-1989, AS1742.1-1989, AS1742.10-1990.

## **MAINTENANCE OF FENCES, GATES AND LOCKS**

- All park or reserve access gates are to remain secured with a suitable heavy duty lock.
- Replacement of lost or damaged locks will be at the developer's expense.
- The Service Provider will be responsible for the provision of new Abloy park locks keyed to Council's appropriate restricted system prior to handover.
- The provision of fencing, gates and locks on reserves and open space areas will be at the discretion of Council and be such as to ensure relevant areas are used and maintained in a safe and functional manner and strictly for their designated purpose. The developer is not to prevent access to any additional sites or parts thereof without the permission of Council.
- Replacement of damaged fences, gates and locks shall utilise the same elements as the original structure unless otherwise approved by Council.
- The service provider should ensure the security of the site at all times even if this requires the provision of temporary securing mechanisms for short periods of time as agreed with Council.
- Herbicide is not to be used for the control of grass growth around the base of bollards, fence posts, etc.

## **MAINTENANCE OF FURNITURE AND FIXTURES**

- Park furniture and fixtures includes but is not limited to:
  - Bollards.
  - Seats.
  - Tables.
  - Shelter and shade structures.
  - Exercise trail markers and structures.
  - Retaining walls and structures.
  - Masonry walls, including dry stone walls.
  - Drinking fountains.
  - Tree guards and grates.
  - Flag and banner poles.
  - Internal and frontage fencing and gates.
  - Timber edging plinths.
  - Hit up walls.
  - Water meter covers.
  - Open spoon drains (grassed or hard paved).
  - Bridges.
  - Boardwalks and decking within parks and reserves.
  - Litter bins.
  - Bike racks.
- All elements should be maintained clean, hygienic and safe and be available to be used at all times for their designated purpose.

- All bollards and fencing to be maintained vertical. Painted, stained and oiled elements require regular maintenance to retain the quality of the original finish and must be retreated prior to hand over.
- All seats to be maintained free of splinters, painted, oiled or stained, securely fixed in place. Painted oiled and stained seats to be inspected every 18 months.
- All damaged masonry walls require reinstatement by a professional stone mason unless otherwise agreed to by Council.
- All elements repaired or replaced are to match the existing unless otherwise approved by Council.
- A plumbing Certificate of Compliance shall be provided at landscape Practical Completion for drinking fountains.

### **MAINTENANCE OF ORNAMENTAL WATER BODIES**

- Includes artificially created formal or informal ornamental water bodies but does not include natural creeks, rivers, and drains.
- The integrity of the structure and its constituent elements is the responsibility of the developer.
- For ornamental waterbodies, the quality and cleanliness of the water and health and integrity of associated vegetation is the responsibility of the developer.
- Ornamental water bodies will be maintained to minimise unsightly and potentially dangerous algae blooms.
- All ornamental waterbodies and their surrounds shall be kept weed free. The regenerative growth of indigenous wetland plant species although encouraged, must not be allowed to dominate such as to substantially decrease the area of open water. Although indigenous, *Typha sp* are undesirable, invasive wetland plants and should be treated as a weed. Use of horticultural chemicals is prohibited in and around water bodies unless otherwise approved by Council. If approved, such use shall be strictly in accordance with the manufacturers' instructions and the relevant Activity Description within this specification.
- Water bodies shall be kept in such a condition so as to perform their design function.
- The margins of the water bodies will be kept free of floating and visible submersed litter and debris. The developer is responsible at the time of each attendance at the park for general maintenance for litter and debris clearance from water bodies and their margins.
- Water bodies are to be kept filled to an optimum level (subject to prevailing water restrictions).
- Water body plants are to be maintained and/or replaced to ensure vigorous, healthy plants at all times subject to the natural growth characteristics of the plant.
- Warning and advisory signage is to be kept in good order at all times.

## LITTER COLLECTION

- The developer is responsible for collection and disposal off site of litter prior to mowing or at other times as required, to maintain the area under maintenance to a standard commensurate with community expectations.
- Litter is deemed to be any material that has been deposited unlawfully or unintentionally on the grass surface that would interfere with the mowing activity or would remain visually unacceptable after the completion of the activity. Materials include but are not limited to paper, cardboard, plastic, glass, rocks, branches, garden refuse, timber, construction related products, spoil, etc.
- Sharps are to be collected by the developer and disposed of appropriately. The developer should be fully aware of the associated problems of needle stick injury and therefore handle sharps accordingly.
- After the issue of landscape practical completion, the clearance of litter bins will be undertaken by Council's Infrastructure Department.
- The rectification of physical damage to litter bins during the landscape maintenance period is the responsibility of the developer.

## HORTICULTURAL CHEMICAL APPLICATION

- Application of horticultural chemicals shall only be carried out by operators holding an approved certificate from the relevant authority or an operator supervised by a certificate holder in addition, must be experienced and responsible in the application of horticultural chemicals in public places.
- All horticultural chemicals and fertilisers shall only be stored in accordance with manufacturers' recommendations and relevant Australian Standards.
- Signage nominating the chemical being used should be clearly displayed on the applicator's vehicle. For extended periods of chemical application at a given site, advisory signage must be displayed.
- Vegetable dyes must be incorporated into the mix at the manufacturer's recommended rates for all herbicide application.
- At all times, herbicides should only be used as a tool where other forms of maintenance are potentially destructive or impractical. Their use should be minimal.
- Glyphosate based herbicide, mixed in accordance with manufacturer's recommendations and used in accordance with those recommendations, is the only knockdown herbicide approved for the control of weeds along fence lines, in garden and shrub beds, around trees in grassed areas, along sand or similar pathways and around equipment and structures or in the preparation of new landscape areas. Where necessary Glyphosate bio active or a similar product type should be used in and around water bodies.

- Knockdown herbicide shall only be used as follows:

<b>Situation</b>	<b>Limit Of Application</b>
Chain mesh fence line	150mm strip along base of fence.
Tree surrounds	300mm out from trunk of tree.
Mass planted tree/shrub beds	within area defined by shrub bed
Sand paths	to limit of sand surface.
Asphalt paths	to limit of asphalt surface.
Playground equipment	sofffall area only.
Carparks and access roads primarily servicing the park or open space area	to the limit of the carpark or access road
Concrete Paths/Segmental Paving	joints only

- Knockdown herbicides are not to be used along continuous solid perimeter fences or open fence lines such as bollards and post and rail fences, around signposts, along the edges of hard surfaces (except sand and asphalt) and around furniture and other fixtures.
- Broad leaf weed control in general grassed areas must only be implemented utilising suitable non-residual selective herbicides as approved by Council.
- Care must be taken to avoid drift or over spray onto non-target species including dripping from spray lines and transferal of herbicide via applicators, footwear or vehicle tyres. Spray hoods should be used where drift may be a problem.
- Herbicide application shall not take place at playgrounds, child care centres or maternal & child health centres whilst they are in use. Use at child care and maternal & child health centres is restricted to weekends or during school holidays.
- When applying herbicides in reserves and open space adjacent to schools, common sense dictates that its usage should only take place when outside activities are not occurring.
- Horticultural chemicals should only be used for the control of other insect infestation and disease outbreaks only when other means of control do not satisfactorily resolve the issue.
- The developer is responsible for the control of noxious and declared weeds proclaimed under the Catchment and Land Protection Act (1994) and the City of Whittlesea Pest Plant Local Law, growing in sites defined in this specification, in accordance with statutory and/or legislative requirements.
- The control of weeds, especially Cape Weed and Paterson's Curse should be in the germination/preliminary stages of growth.

## **MANAGEMENT OF PESTS**

- European wasp or bees nests within parks and reserves shall be treated if endangering or an inconvenience to the public.
- Snakes sited or reported in parks and reserves should be referred to Council for appropriate referral.

## GRAFFITI REMOVAL

- Graffiti removal is the responsibility of Council's Infrastructure Department.

## NATURE STRIP REINSTATEMENT

- Topsoil is to be spread over nature strips that have subsided over time and the area is to be seeded, for naturestrips abutting parkland and similar open space areas.
- The works are to be undertaken at an appropriate time for grass establishment, preferably over the autumn period however, this will be dependent on the season.
- The developer is to top dress all subsided areas within the nature strip with topsoil that is free from perishable matter, lumps or balls of clay or other deleterious matter. The soil is to be a loam that is comparable with local soils. Topsoil to be placed and firmly compacted/rolled behind the footpath and kerb and channel edging to the level of the edging. The area is to be seeded with a turf type rye grass with a medium textured leaf and rolled in.

## INDIGENOUS VEGETATION MANAGEMENT (IVM)

There are a number of sites within Council's hierarchy of open space that are managed and maintained for the protection and enhancement of remnant natural vegetation and conservation values. These "island" patches within otherwise typically developed parkland consist of varying quality remnant vegetation. Fencing of these conservation sites is critical and shall be designed to minimise unauthorised access. Passive recreation may be suitable for some areas, in which case the provision of paths, seating and interpretive signage should guide users away from areas of higher conservation significance or sensitivity.

Areas of indigenous vegetation may be identified as bushland or conservation zone and may have been protected through the development process. In most instances the development process will have included site evaluation, flora and fauna survey, net gain assessment or conservation management plan. All actions listed below may be supplemented by additional site specific recommendations made by an ecologist in relevant reserve management plans.

Areas of indigenous vegetation within neighbourhood and other parks will be managed in accordance with the following standards.

- **Weed Control** will be undertaken for the primary purpose of promoting natural recruitment of indigenous vegetation and removal of competing processes that will impact upon the growth and reproduction of remnant indigenous species. Selective herbicides only will be used for the control of broadleaf weeds in remnant indigenous vegetation areas. Non-specific herbicides such as glyphosate will be used to control exotic grasses and other monocotyledons. Chemical control of exotic grasses will be complimented by biomass reduction through slashing and/or brush cutting. Mature woody weeds are to be removed using the *cut-and-paint* method with the weed biomass to be removed from site or stockpiled for burning in consultation with Council. Follow up of woody weed removal will involve the use of appropriate woody weed herbicide such as triclopyr or metsulfuran to poison stump and seedling regrowth. Hand weeding or manual removal using hand tools of exotic grasses and herbaceous weed species is to be engaged when the use of chemical or mechanical weed control will damage indigenous vegetation. These weed removal techniques must occur prior to seed set of plants, with all biomass removed to be taken off site. Where other weed control methods are required the contractor is to consult with Council.

- **Mulching** for the suppression of weeds is to occur only in areas where remnant native vegetation is absent or constitutes less than 10% of vegetation coverage. Mulching should be used in mass plantings for the purposes of interface treatments to park tracks / trails or other infrastructure, entrance treatments, or as weed buffers to adjacent threatening disturbances and/or IVM perimeters.
- **Planting** Active plant recruitment through revegetation will be guided by the prescribed species and planting densities as advised by the Department of Sustainability and Environment, Ecological Vegetation Class (EVC) benchmarks. Planting should occur on the perimeter of native vegetation areas or in highly disturbed weedy patches only.
- **Burning** It is expected that where appropriate, ecological burns within the IVM areas will occur. Preparation of sites for burning will install appropriate fire breaks using slashing equipment that has been thoroughly cleaned as to avoid the introduction of weed progenies. Burns will be conducted in accordance with the Parks and Gardens department document 'Controlled and Ecological Burning Guidance and Procedures' under a permit issued by the City of Whittlesea Municipal Fire Prevention Officer. Operational support for each burn will have minimum resources comprising two (no.) one thousand litre water tanks and four staff with training in Wildfire Behaviour and Control Level 1. Burnt areas should be temporarily fenced and signed accordingly for a period of six months for exclusion of park users. Spot burning with the use of a flame torch is to be engaged for the control of specific annual grasses through spring periods to remove viable seed heads.
- **Staffing:** It is expected that operators working within IVM areas will have a high level of indigenous and exotic plant identification skills for the effective completion of required works. Staff should hold a minimum qualification of Certificate III Conservation and Land Management or greater in addition to relevant industry experience.

#### **MAINTENANCE OF PARK LIGHTING**

- Blown globes are to be replaced within 7 days of advice unless otherwise approved by Council.
- All park lighting must be inspected at night and tested for proper operation on a quarterly basis and the results reported to Council. All Park lighting must be certified by a suitably qualified electrical contractor on an annual basis.
- An electrical Certificate of Compliance shall be provided at landscape Practical Completion.

#### **MAINTENANCE OF ARTWORK**

Artworks that will be included on Council's Arts Registry are highly valued works developed by 'known' artists. These artworks will be managed by the Arts and Cultural Department within Council:

- Maintain and repair artwork in conjunction with the artist.
- The developer may be required to assist with the repair/maintenance and reinstatement of surrounds under instructions from the artist.

#### **MAINTENANCE OF ART FEATURES**

Artistic features and/or structures have more recently been developed in Council's newer parks in growth areas, through developer landscape embellishments and are typically designed by landscape architects. These structures/features are generally robust and are not listed on Council's Art Registry.

- Proactively maintain the structures such as to ensure their integrity and continuing positive contribution to the landscape.

## **IRRIGATION MAINTENANCE**

- The developer shall supply and replace necessary component parts using correct plumbing procedures, to ensure irrigation systems are fully functional during dry periods. Substitution of non-original parts shall only be with the approval of Council.
- Underground irrigation devices, including but not limited to tap boxes, quick coupling valves, pop up sprinklers etc. must be maintained level and flush with the soil. Pop up risers should be fully retracted when not in use.
- The developer will be responsible for isolating or re-programming irrigation systems to suit special events or changed activities as advised by the Supervisor.
- All irrigation systems are to be audited and proven fully operational prior to handover. From this point in time all systems are to be set to run a minimal run period (1-2 minutes per station) twice per week until full operation is required, depending on seasonal conditions, to identify problems with system.
- Back up batteries and batteries for battery operated controllers must be replenished during the initial audit and at the end of January each year.
- All irrigation system settings need to be monitored and changed to reflect changing seasonal conditions and to ensure cost effective irrigation.
- Testable Backflow Prevention Device's (BPD) are installed at all irrigation sites and all parks sites with a water meter. The BPD's must conform to AS 2845 and AS 3500.1 and are designed to protect drinking water and must be tested annually. It is the responsibility of the service provider to carry out an annual test of the BPD's by a licensed backflow plumber (Plumbing Industry Commission) and provide the report to Council.
- Council utilises a Toro Irrinet Irrigation Control System in order to effectively and efficiently manage the irrigation of sportsfields, the Civic Centre and a small number of parks. The developer is required to ensure irrigation is compatible and connected to the Irrinet system prior to handover if endorsed as a function of the landscape plan.
- A plumbing Certificate of Compliance shall be provided at landscape Practical Completion for irrigation.
- Irrigation utilising recycled water shall be compliant with the approved Environmental Improvement Plan (EIP) endorsed by the water supplier and Environmental Protection Agency.

## **GRASS TURF RENOVATION AND REINSTATEMENT**

- Turf areas in poor condition through uneven growth, wear, damage, compaction etc. shall be renovated as necessary. Turf shall be top dressed, levelled, fertilised, watered, aerated and over sown to maintain a healthy, vigorous and uniform grass sward and a safe and even surface.
- Repairs as a result of unforeseen circumstances e.g. vehicle damage, are the developer's responsibility.
- Soils used for renovation and top dressing should be friable, free of foreign matter, of even particle size distribution, within the neutral range of pH and as similar structure as possible to existing soil.
- Seed sown should be of high quality with a blend of grasses appropriate to the facility being treated.
- Broad leaf weed establishment must be treated appropriately with selective herbicide and if necessary, the grassed area should be over sown with suitable turf grass or in the case of a warm season grass (couch etc) surface, the area should be sodded or sprigged.

- The developer will be expected to identify the need for and instigate programs for the control of insect infestations and fungal diseases of soil and turf, such as African Black Beetle, as necessary.
- During dry periods when water restrictions are in force, sportsfields may deteriorate in different ways. The service provider is responsible for minor repairs to sportsfields including, but not limited to, top soiling minor cracks in the surface, levelling edges of cricket pitches and top soiling of major divots.
- The developer must allow for the 'resetting' of garden beds and grass surface levels adjacent to busy roadways including splitter islands where dust and sediment build up results in unacceptable changes to the levels and difficulty in maintaining.
- Extra scarifying may be required throughout the year at the discretion of Council.
- The turf must not be stressed during or after renovations.
- Thatch levels should be maintained between 10-15 mm in order to maintain stability and healthy turf grass.
- The following processes may have to be carried out depending on the results of pre-renovation testing and reporting to establish thatch depth, mat depth, surface and sub-surface infiltration rates, grass root depth, grass density and surface levels:
  - Scarifying
  - Collection of all debris from surface
  - Over sowing
  - Re-sprigging of couch and similar warm season grasses
  - Topdressing
  - Addition of amendments
  - Coring and/or Vertidrainage.

## **MAINTENANCE OF TENNIS COURTS**

- The developer is responsible for repair and maintenance (including normal wear and tear) of:
  - Perimeter fencing and gates including locks.
  - Court surfaces (minor maintenance including asphalt cracking, weed and moss control, sand replenishment for synthetic grass, base line replacement as required).
  - Line markings of all court types including en-tout-cas and synthetic.
  - Lighting.
  - Irrigation systems.
  - Net posts.
  - Surface drainage.

## **NETBALL, BASKETBALL AND HANDBALL COURTS AND HIT UP WALLS**

- Surfaces are to be maintained free of debris including, but not limited to broken glass, branches, etc. and even and without ridges, depressions and trip points. Surface drains should be free of debris and fully functional.
- Line markings and goal posts to be clearly defined and functional according to the appropriate sporting code at all times.
- The developer is required to carry out a formal structural inspection by a qualified structural engineer of all basketball towers prior to handover.
- The developer is responsible for repair and maintenance of court surfaces including asphalt cracking line marking, lighting, net posts and surface drainage.

## **PLAYGROUNDS**

Council will independently audit playgrounds during the maintenance period. The developer will be responsible for rectifying any defects identified in the audit that are deemed to be non-compliant with Australian Standards.

The developer is responsible for reactive maintenance. This will include the repair/replacement of any parts or equipment damaged through normal wear and tear, vandalism or similar damage. Notified hazardous situations will be attended to and made safe or rendered inoperable within two hours of notification and then repaired within one (1) working day unless otherwise agreed.

- Playground equipment, under-surfacing and edging treatments shall be provided and maintained to current Australian Playground and Equipment standards AS1924 parts 1 and 2, AS2155 and AS2555.
- Playground equipment should be regularly serviced in accordance with the manufacturer's recommendations including lubricating bearings, re-tensioning of fastenings, sanding of wooden components for the elimination of potential splinters, painting, etc.
- Playground soft fall is to be maintained to ensure a minimum depth of approved soft fall of 250mm at all times incorporating regular decompacting of compacted soft fall and topping up soft fall lost due to dispersal and decomposition.
- Scuffed soft fall at the base of slides, under swings and similar situations should be raked or swept back into place at each attendance to the park for general maintenance.
- Mulch should be level with rubber underlay softfall mats or over the top and with no trip points between the edge of the rubber mat and mulch. This should be checked and rectified at each attendance to the park.
- Graffiti shall be immediately reported to Council upon identification.

## **STREET TREE MAINTENANCE**

- The developer is responsible for watering street trees.
- The developer is responsible for the control of identified insect pest infestations in street trees in accordance with generally accepted horticultural and arboricultural procedures.
- The developer is responsible for the removal and disposal of grass clippings or other build-up of material around the base of street trees on a reactive basis.

- The developer is required to remove stakes, tree ties and mulch from the base of the tree, cut the watering pipe off flush with ground level and reinstate the base and tree surrounds to an even surface grassed naturestrip. This will be at handover of new sites.
- Trees installed in a container size greater than 45 liters are subject to extended maintenance, specifically, the maintenance period is extended from two summers + 3 months to the duration of the subdivision (ie 2 summers after the issue of the Certificate of Practical Completion of landscaping for the last stage of the subdivision, unless by mutual agreement, the trees are considered well enough established to flourish without artificial watering).
- Failed street trees shall be replaced as needed and not immediately prior to handover.

## **STREET TREE PRUNING**

- Pruning techniques will be in accordance with AS4373-2007 “Pruning of Amenity Trees”, approved horticultural practices and shall encompass pruning for safety, correct tree structure, maintaining vehicle and pedestrian access, removal of broken or damaged plant material, plant vigour, street and traffic sign clearance, street lighting, clearance of electrical and communication cables, etc.
- The developer is responsible for formative pruning during the landscape maintenance period. Pruning shall occur in winter or early spring to ensure the structure/form of the tree is appropriate for streetscape requirements (apical dominance and minimal cross branching). If applicable, the secondary leader shall be reduced to 1/3 of its length.
- Remove no more than 40% of live foliage from the tree without first seeking approval from Council’s Senior Arborist. All pruning’s to be removed from site.
- Only sharp, clean pruning equipment shall be used.
- The developer should exercise discretion within the time allocated to avoid disturbance to residents, motorists, pedestrians and cyclists.
- All tree maintenance and development works shall have regard to the tree’s age, size, shape, character, condition and situation. All trees shall be maintained with a good balance and growth, and be of aesthetic appearance.
- Pruning activities should generally aim to satisfactorily attend to the following:
  - Deadwood and dying branches
  - All broken and split branches
  - Weak limb structures
- The developer shall ensure that the work methods avoid damage to existing branches, bark or foliage of surrounding trees and shrubs, irrigation systems, signs and signposts, bollards, kerbs, barriers, other Council assets and private property. The cost and repair of these assets and other items shall be the sole responsibility of the developer.
- All damaged tree works should be carried out only when the tree can continue to be maintained in a safe and generally aesthetically pleasing condition and will continue to contribute positively to the landscape. Otherwise the tree should be replaced.
- Appropriate signage is to be displayed, in line with VicRoads regulations and the Signage Code of Practice during pruning operations.

- Due to the recognised potential hazards associated with co-dominant leaders, the subordination or removal of one side of a co-dominant leader is the primary objective. Branches, trunks, or leaders not considered the main leader, 30mm diameter or larger should be subordinated or removed. The main leader shall not be subordinated or removed. Co-dominant leaders are considered to be two or more branches, trunks, or leaders of approximately the same size, originating in close proximity to one another. If there is no stem considerably larger than others, subordinate all but one of them.

## **STREET TREE PLANTING**

- Appropriate signs are to be displayed, in line with VicRoads regulations and the Signage Code of Practice.
- All plant material is to be inspected by Council for quality, quantity and trueness to type prior to planting. Any material that is deemed to not be up to standard will be rejected and suitable replacement plants are to be procured at the developer's cost.
- The minimum container size of reactive replacement street trees to be 300 mm.
- Each tree is to be marked with a minimum of two hardwood stakes 1.2 metres in length and 40mm square driven into the ground beside the tree but not within the rootball. Only hessian or similar webbing type ties are to be used, tied in a loose figure of 8 around the tree's trunk and stapled to the tree stake.
- Trees are to thoroughly watered on planting and during the initial establishment period to establish a healthy canopy and encourage growth.

## **CONCLUSION**

Unless specifically addressed in the body of this report, the developer is responsible for attending and making safe all hazardous situations within 2 hours of notification and repairing/replacing hazardous defects within one (1) working day. All other defects that are not considered hazardous shall be repaired / replaced within five (5) working days to the satisfaction of Parks and Gardens.

Council will independently audit open space and will report defects directly to the developer but it is the responsibility of the developer to monitor and upkeep open space in accordance with the standards identified in this manual.

Similarly, it is Council's expectation that, open space areas inclusive of all horticultural and infrastructure assets contained within will be handover to Council upon the completion of the nominated maintenance period free of any damage or defect above normal wear and tare.

For clarification in relation to the requirements of the above mentioned specification, please contact Council's Parks and Gardens Department on 9401 0524.