

Hamilton City Development Manual	
Volume 3 : Standard Technical Specifications	Part 7 — Landscape Works
Authorised by : Parks & Gardens Manager	Section 5 Page 1 of 6

SECTION 5: STREET TREE PLANTING

1.0 GENERAL

This section describes the work to be carried out to prepare planting sites and complete planting of both street and Parks/Reserve specimen trees. It is to be read in conjunction with Approved Planting Plans supplied and is supplementary to them. The plan drawings shall show the nature and extent of the work in sufficient detail to enable the works to be carried out.

Specimen trees are those that are either of a larger grade than normally planted or have been specified as such by the Engineer.

In respect to the installation of specimen trees, this specification is supplementary to and takes precedence over the standard landscape technical specifications (Volume 3, Part 7, Section 1)

All other landscape planting within the road reserve shall be designed and implemented as per Volume 2, Part 7 Street Landscaping.

In respect to all street tree planting within Hamilton, the Parks and Gardens Unit Contract Supervisor — Street Trees shall supervise all street tree planting. The Contract Supervisor — Street trees or Parks and Gardens Unit Manager may also delegate the authority to supervise new street tree planting to a nominated Engineer. The term Engineer in these specifications therefore refers to either the Contract Supervisor — Street Trees or nominated Engineer.

2.0 SITE PREPARATION

Sawcutting of existing seal where required shall be undertaken between 250mm to 300mm from the back of the kerb. The design and measurements must be approved by the nominated Engineer in the Transportation Unit, Hamilton City Council prior to works commencing. The cut line shall be parallel the kerb lines wherever possible.

All cut-outs are to be square and be a minimum size of 1m x 1m.

3.0 SOIL FOR PLANTING PITS

Topsoil, both imported and existing on site, shall be a loam soil of good quality, free draining, free of perennial weeds and debris and capable of sustaining the required plant growth.

All topsoil shall be inspected at its source and shall not be placed without the Engineer' consent. Council reserves the right to request soil tests of the intended or existing topsoil as per Volume 3, Part 7, Section 1, Clause 2.2.

Hamilton City Development Manual	
Volume 3 : Standard Technical Specifications	Part 7 — Landscape Works
Authorised by : Parks & Gardens Manager	Section 5 Page 2 of 6

4.0 PLANT MATERIALS

All street trees, unless specified otherwise, shall be of a minimum grade of PB 95 and be first grade nursery specimens. Grades shall be supplied as follows;

- 1.5m - 2.5m specimens shall have a minimum calliper of 30 - 50mm
- 2.5m - 3.5m specimens shall have a minimum calliper of 50 - 70mm
- 3.5m - 5m specimens shall have a minimum calliper of 70 - 100mm

No substitution of species or grade shall be made without the written approval of the Engineer.

All plant material supplied shall be clearly labelled stating the plant's Latin name and the Supplier's name, (one label per plant group planted). These labels shall be removed on completion of planting.

The Contractor shall give the Engineer, not less than five days notice of dates upon which planting will commence.

Trees shall be well branched, symmetrical and of typical habit for the species. All plants shall be nursery stock of good form, healthy and vigorous with strong fibrous root systems and free of all pests and diseases.

All trees shall be supplied with the central leader intact, whereby no pruning of the central leader shall have taken place. All torn or damaged roots shall be pruned before dispatch. All stock shall be well rooted but not root bound. All root balls and containers shall be free of all weeds. Plants shall be well 'hardened —off' prior to supply.

The Contractor shall ensure that all plants and their roots shall be maintained in a moist environment, protected from adverse conditions such as drying winds, frost or water logging.

All roots must be covered during transit and stored to prevent desiccation or damage.

All trees are shall be transported in covered trailers from the nursery to the planting site.

5.0 INSTALLATION OF TREES

All specimen tree planting shall be undertaken between May 1 and September 31, especially deciduous stock. Evergreen stock may be planted outside this period at the Engineer's discretion, but will be subject to additional maintenance requirements.

All plants shall be planted on the day of delivery to the site. Plants shall be planted in the locations shown on the planting plans and in accordance with these specifications.

Unless otherwise indicated on the planting plans all plants shall be planted centrally within the road berm.

Hamilton City Development Manual	
Volume 3 : Standard Technical Specifications	Part 7 — Landscape Works
Authorised by : Parks & Gardens Manager	Section 5 Page 3 of 6

Planting holes shall be excavated, according to the following specification

Street trees:	Grade PB95:	1m x 1m x 600 minimum
Park/Reserve Trees	Grade PB95	2m diameter x 600mm depth
	Grade PB150	2.5m diameter x 600mm depth

The base of the planting hole shall be forked to a minimum depth of 200mm and any stones over 50mm diameter or poor quality subsoil shall be removed from the hole.

The sides of the planting hole shall also be loosened by yorking to 150mm minimum, and the surrounding ground to two times the root ball diameter shall be 'forked' over to reduce compaction.

Where topsoil is unsuitable for backfilling the Contractor shall use imported or modified top soil for backfilling. The imported topsoil shall be a free draining loam of a quality and subject to inspection by the Engineer prior to placement.

Modified backfill soil shall consist of a homogenous mixture of the following:

- 7 parts by volume of good quality, friable topsoil from the site or imported.
- 3 parts by volume of approved compost e.g. that produced from the Hamilton Organic Recycling Centre
- 2 parts by volume of coarse river sand

The Contractor shall not plant into waterlogged soil or holes that are full or part full with water. If the water table is high and the Contractor cannot disperse the water from the hole, the Contractor shall consult the Engineer as to whether planting can continue.

All plant containers or wrapping and if necessary any root bound roots shall be removed prior to planting.

Leaves and branches shall be pruned to assist plant establishment if necessary. Generally, the nursery soil level is clearly identifiable on the main stem of the plant and replanting shall be equal to or not exceed 10mm above this level.

The hole shall first be backfilled with consolidated soil or soil mix, mounding the soil in the centre to aid even spread of the roots in 150mm layers.

The plants shall be placed in the hole ensuring that the final soil level is equal to or not exceeding 10mm above the nursery soil level and at an appropriate depth to ensure sustained growth

6.0 PLANTING LOCATION

Unless otherwise stated all Street Trees are to be centrally located within all road berms.

All trees are to be planted a minimum of:

- 3m from any driveway
- 8m from any light stand
- 6m from any intersection
- 5m from any bus stop or school speed sign

Hamilton City Development Manual	
Volume 3 : Standard Technical Specifications	Part 7 — Landscape Works
Authorised by : Parks & Gardens Manager	Section 5 Page 4 of 6

All reserve plantings shall be marked out by the Engineer prior to planting works commencing.

7.0 IRRIGATION

All trees are to be thoroughly watered prior to dispatch from the nursery and are to be thoroughly watered-in after planting.

8.0 FERTILISER

All specimen tree plantings shall have two year slow release fertiliser tablets installed at the time of planting. This shall be implemented using eight minimum 10g tablets inserted in the base of the planting pit, prior to planting, 100mm below the root ball to stimulate root growth.

All fertiliser tablets shall have a balanced NPK.

9.0 MULCH

Where indicated in the Schedule of Prices and on the planting plans the Contractor shall provide mulching to newly planted Street and Reserve Trees.

All street trees must have a minimum 1m diameter mulching circle from the tree trunk.

Where required in small berms the entire berm from footpath to curb line shall be mulched and squared off for easy maintenance. Park/Reserve Tree planting will require a minimum mulching circle of 2m in diameter from the tree trunk.

Mulch shall be well rotted organic tree mulch. Mulch shall be free of foreign debris such as rocks and plastic.

Mulch shall be applied to a depth of no more than 150mm after planting. The final settled depth shall be no more than 120mm and no less than 100mm. Ensure that mulch is welled to a depth of 25mm around the tree trunk

10.0 STAKING AND PROTECTION

Newly planted specimen trees shall be staked with 2 no. 50 x 50 x 1.8m rough sawn Pine H5 treated stakes with at least one third of their length (600mm) in the ground and at least 1m exposed minimum, or as specified on the plan with the approval of the Engineer.

Two flexible ties per stake shall be attached. Ties shall be tensioned to avoid chafing of the tree against the stakes but with enough play for the tree to move in the wind. All ties shall be fixed to the stakes.

Hamilton City Development Manual	
Volume 3 : Standard Technical Specifications	Part 7 — Landscape Works
Authorised by : Parks & Gardens Manager	Section 5 Page 5 of 6

Ties shall be of a type approved by the Engineer prior to tying. Ties are to be fixed to the outer stake face with a minimum of 4 staples in a square pattern.

At the Engineer's discretion, Park/Reserve trees may require 3-4 stakes depending on the size of tree and canopy size.

All staking shall be parallel with the road kurb.

All stakes shall be inserted to avoid hitting the root ball. Stakes shall be at least 400mm away from the tree trunk and no more than 500mm away.

11.0 SERVICE LOCATIONS

All service locations shown on the planting plans are to be used as an indicative guide only. It is the Contractor's responsibility to locate and protect all services. Any repairs to damage will be at the Contractor's expense.

12.0 TRAFFIC CONTROL REQUIREMENTS

The Contractor will at all times comply with Transit temporary traffic control requirements and HCC traffic management requirements.

13.0 DEFECTS LIABILITY PERIOD

The Planting Defects Liability period shall be 12 months from Practical Completion and acceptance of the landscape planting works by the Engineer or upon release of any implementation bond held for uncompleted landscaping.

When planting is carried out between October 1 and April 31, the Defects Liability Period shall be extended for an additional 6 months.

During and at the end of the Defects Liability Period, the planting site shall be maintained according to Volume 3, Part 7 — Landscape works, Section 1, Clauses 11.1 and 11.2 standards.

If planting is completed outside the stated planting timeframes additional watering will be required at the Engineer's discretion.

14.0 AS-BUILT PLANS

The Contractor shall supply one copy of the as-built plans recording any variation from the approved landscape planting plans and this specification to the Contract Supervisor — Street Trees for council records.

15.0 DEFECTS LIABILITY PERIOD - INSPECTIONS

Hamilton City Development Manual	
Volume 3 : Standard Technical Specifications	Part 7 — Landscape Works
Authorised by : Parks & Gardens Manager	Section 5 Page 6 of 6

The Contractor, after completing all proposed works, shall advise the Contract Supervisor — Street Trees, Parks & Gardens, Hamilton City Council, at least 7 working days prior to the proposed commencement of the Defects Liability Period and shall be available for a joint pre-defects Liability period inspection.

16.0 DEFECTS LIABILITY PERIOD — FINAL

The Contractor at the end of the required Defects Liability Period shall advise the Engineer and Contracts supervisor, Parks & Gardens, Hamilton City Council, at least 7 working days prior to the proposed commencement of Council acceptance of the asset and its ongoing maintenance.