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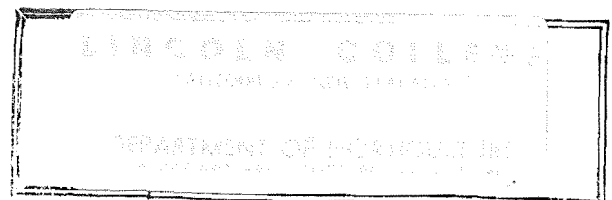
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**SPECIFICATIONS FOR:**

**THE DEVELOPMENT OF A PARK BESIDE THE STYX RIVER**

**GORDON GRIFFIN**



## SPECIFICATIONS

### A. GENERAL CONDITIONS

#### A. 1. Contract:-

The successful contractor will be required to abide by the specifications presented here.

#### A. 2. Plans:

Any discrepancy between plans or between plans and specifications must be referred to the landscape architect who shall decide which shall be followed. Failure to raise such points cannot be accepted as exoneration from liability.

#### A. 3. Labour, Plant etc.

The contractor shall supply all labour, tools, plant and equipment necessary for the effective execution of the works. The contractor is to replace and service existing lines damaged during the execution of the work.

#### A. 4. Duration of Work:

A Condition of Contract shall be that the whole of the work involved, as designated in the Detailed Area and Construction Detail drawings, shall be completed by 30th June 1977.

#### A. 5. Control of Landscape Works:

A competent foreman to work on the site for the duration of the operation must be appointed. The landscape architect shall undertake to instruct the foreman on the details of the drawings and landscape operations.

#### A. 6. Materials and Workmanship:

All materials, seeds, plants etc. to be of good stock, and approved by the landscape architect after submission by the contractor.

#### A. 7. Excavations:

Any artifacts discovered in the course of the work are to be placed in safe custody and reported immediately to the landscape architect.

A. 8. Variations and Extras:

No variation or extra will be allowed unless a written or verbal authority is given by the landscape architect. Verbal instructions are to be deemed as instructions for the proper execution of the work, not involving extra charges.

A. 9. Clear and Cart Away:

All rubbish to be cleared and carted away as it accumulates, and at completion. The site to be left in a clean and tidy condition.

B. PREPARATORY OPERATIONS:

B. 1. Site Enclosure:

Allowance to be made for providing temporary fencing if required to enclose any portion of the site during the carrying out of the work. Alter and adapt from time to time and remove on completion.

B. 2. Existing Services:

The location of all services, such as water supply, electricity, telephone, sewage and stormwater, to be ascertained before work is commenced. Where they will be affected by excavation, or where machines may be working nearby, they shall be carefully sealed off, diverted or protected.

B. 3. Existing Vegetation:

(i) Protection:

Precautions shall be taken to protect, during the course of work, all existing trees which are to be retained. No branches shall be lopped, and no roots over 50mm severed from growing trees without prior express permission of the landscape architect. No soil, spoil, constructional materials or rubbish shall be stored or tipped within the spread of existing trees.

(ii) Remedial Work:

Accidental damage which occurs during the execution of the work shall be carefully repaired to the satisfaction of the landscape architect.

B.3 (iii) Vegetation to be Cleared:

Willows to be cleared on north-west side of river, as decided by landscape architect. Felling of trees shall be the complete removal of a tree, including removal of the stump.

C. GROUNDWORKS:

Soil removed in construction of car park to be deposited in the lower end of the deep hollow east of the sand dune. Finished gradient to be harmonious with existing topography.

Retention of the existing topography is considered important. Minor fillings and excavations to be made as necessary to make paths, paving and tarmac continuous with surface of grass and planted areas. Soil deposition in hollow to be evenly distributed. All consolidated wheel tracks shall be forked over. After firming, five cm of topsoil shall be distributed over infilled area. The use of a heavy roller shall not be permitted in firming.

D. SEEDING OF GRASSED AREAS:D. 1. (i) Preparation:

Non top-soiled area - Areas not at present in grass to be harrowed in autumn and left to lie fallow during winter.

At this time chemical weed control to be used, one month and two months after harrowing.

(ii) Fertilizing:

As an initial measure to stimulate new growth the following fertilizer prescription shall be applied at least one month before seed sowing:

2500 kg of lime per hectare plus

100 kg of superphosphate per hectare.

Landscape architect to decide whether subsequent fertilizer is necessary.

(iii) Final Raking or Harrowing:

After three months fallow, the surface shall be lightly harrowed to a fine tilth to a depth of 3cm. Any stones over 5cm in any dimension shall be removed

from the surface.

(iv) Seed:

- 1 part certified brown-top
- 1 part crested dogstail
- 2 parts chewings fescue.

The germination capacity of each constituent shall not be less than 80% and the purity of the mixture not less than 90%. Total weed content shall not be more than .5%.

(v) Sowing:

To be sown in spring, after a period of winter consolidation. Sowing shall be carried out during suitable calm weather conditions at a rate of 150 kg/hectare, with an efficient broadcasting machine. The operation shall be carried out in equal sowings in transverse directions. After sowing the ground shall be rolled and cross-rolled with a light-weight roller.

(vi) Maintenance:

Maintenance shall consist of watering, weeding, cutting and re-seeding as necessary to establish a uniform and healthy stand of specified grasses, and shall continue until acceptance by the landscape architect.

Three weeks after germination a commercial flat-weed selective herbicide containing no more than 10% acid equivalent MCPA and no more than 20% acid equivalent MCPP as the active ingredients shall be sprayed over the sown areas at the manufacturer's recommended rates.

E. TREE PLANTING:

E. 1. Origin

Trees shall be true to name and, where possible, seedlings shall have been raised in Christchurch or the surrounding area.

E. 2. Planting Stock

Trees shall be sturdy transplants, about 250mm tall with a balanced root and shoot development, that is,

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with abundant fibrous roots and a shoot of length proportional to the root system.

E. 3.

Condition and Packaging

Plants shall be substantially free from pest, disease, discolouration and deformity, and shall be materially undamaged. Precautions must be taken to avoid damage after lifting, e.g. by exposure to drying wind, sun or frost, by subjection to water-logging or by unsuitable storage conditions. Packaging shall be such as to avoid heating and drying out. All plants shall be container grown.

E. 4.

Planting

(i) Positioning:

No tree pits shall be dug until final tree positions have been pegged out and approved by the landscape architect.

(ii) Time of Planting:

All planting shall be carried out in the late autumn. Planting to be discontinued during periods of frost or very cold winds.

(iii) Planting Method:

On excavation of the tree pit, the base shall be loosened to a depth of 10cm, the container removed with a minimum of root disturbance, and the plant set in the ground so that after settlement it will stand at the same depth as it was in the container. The plant hole shall be backfilled with soil and shall be carefully tamped into place, taking care to avoid injury to the roots.

E. 5.

Staking

All tree specimens (with the exception of conifers) shall be supported on their north-east sides with stakes which shall be inserted before the trees are placed in their holes. Stakes shall be of treated pine and shall have a minimum clear height of 125cm above the ground, and be no less than 5cm square. Trees shall be tied to them with rubber or plastic ties.

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E. 6.

Fertilizers

A complete palletized fertilizer such as "Nitrophoska", "Mag Amp with K", or "KP Diamp with K" shall be dressed about all plantings; dressings shall not exceed manufacturer's recommended rates.

E. 7.

Watering

All plantings shall be well watered immediately after planting and shall be kept well watered during the following growing season.

E. 8.

Soil Settlement and Frost Lifting

Where soil settlement occurs topsoil shall be forked over and built up to the natural grade. All plants shall be refirmed into the ground if lifted by frost.

E. 9.

Maintenance

Maintenance shall include watering, weeding, cultivating, control of insects, fungus and other diseases, by means of spraying with an approved insecticide or fungicide, pruning adjustment and repair of staking provisions and other horticultural operations necessary for the proper growth of the plants.

E. 10.

Blanking

The replacement of losses shall be carried out one year after planting.

F. ENCLOSURE:

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1. (i) Fencing

Fencing shall follow undulations of the ground, the actual line of the barriers to be decided by the landscape architect on site.

(ii) Excavation

Excavations for posts shall be 30cm by 30cm wide by 76cm deep.

(iii) Posts

Posts shall be 15.2cm diameter by 183.2cm long, of pressure treated larch logs, 76cm in ground, spaced 305cm apart. Below ground parts to be dipped in bitumen emulsion.



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(iv) Filling

Post holes shall be filled with soil, well rammed in 15cm layers to ground level.

(v) Rails

All rails shall be cut from 15.2cm (min.) pressure treated larch logs, side-trimmed to 12.7cm, and 320.2cm long. Rails to be spaced as shown on Working Drawing 9. Rails to be attached with 11.5cm galvanized nails.

F. 2.

Bollards

(i) Positioning: Bollards to be used within parking area to barricade areas which are not to be parked on, and to protect young trees. Positioning of the bollards to be decided by the landscape architect on site.

(ii) Excavation:

Excavation for bollards shall be 30cm by 30cm by 46cm deep.

(iii) Bollards:

Bollards shall be cut from 15.2cm diameter by 86.3cm long pressure treated larch logs, below ground parts dipped in bitumen emulsion. Bollard posts shall be set 152cm apart. Rails as for fencing, but 213cm long.

(iv) Filling:

Bollard holes shall be filled with soil well rammed in 15cm layers to ground level

G. HARD GROUND FINISHES

G. 1. (i) Area under picnic tables to be surfaced with exposed aggregate paving to a depth of 5cm, area covered shown on Working Drawing 9.

(ii) Area around barbecues to include a 15.2cm concrete strip, continuous with ground level, and laid out as depicted on Working Drawing 8 (aggregate exposed.)

G. 2. Grass Verge and Swale

(i) Junction of grass and hard surface.

Road pavement to be extended 15cm beyond its intended edge; this extension overlaid with 3cm of soil and grassed where verges at right angle to gradient.

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Where verges parallel to gradient, extension not to be overlaid, and to include 3cm deep depression, 10cm wide, for water run-off.

G. 3. Flexible Surfaces

(1) Tar-sealing:

For roads and car parks requiring sealing, the preparation of the base and laying of the surface dressing shall comply with County Council specifications.

(2) Unsealed Gravel:

For pathways, the preparation of the base and laying and consolidation of the surface dressing shall be as shown on sheet 9 of drawings.

(3) Paving:

Paving around changing sheds shall be as shown on sheet 8 of drawings.

H. SITE FURNITURE:

H. 1. Picnic Tables

Picnic tables shall be constructed of tanalized pine, painted with "Lumber-last" to the dimensions shown on sheet 9 of drawings.

Overall length	183cm
Table height	86.4cm
Seat height	58.5cm

All edges shall be chamfered and all joints shall be bolted with round-headed galvanized bolts. Nuts shall be counter-sunk and nail holes filled with mastic. Positioning as shown on sheet 8 of drawings.

H. 2. Outdoor Seats

Seats shall be constructed of pressure treated pine to the dimensions shown on sheet 9 of drawings. All edges shall be chamfered and all joints shall be bolted with round-headed galvanized bolts. Nuts shall be counter-sunk.

Seats to be affixed to concrete base as for table. Colour of seat top and edge of table to be decided by

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landscape architect on site (orange or yellow.)  
Other parts to be painted with "Lumber-last" as  
for tables.

H. 3. Litter Bins:

Receptacles for litter shall be of the dimensions  
shown on sheet 9 of the drawings. They should be  
fixed permanently, but include a removable inner  
container, painted to relate to other furniture.  
Location of individual receptacles as shown on  
sheet 8, but further receptacles to be provided  
if necessary. Siting of these to be decided by  
the landscape architect on site.

H. 4. Bridge:

Bridge shall be of the dimensions shown on sheet 9  
of the drawings. Platform height above normal water  
level to be 61cm. Depth of footing to be 61cm below  
sediment level.

Wooden parts to be of jarrah, treated with "Lumber-  
last". Bolt stringer to metal plate with 17.5cm  
galvanized round-headed 9.5mm di. bolts.

H. 5. Decking:

Decking shall be of the dimensions shown on sheet 9  
of the drawings. Platform height to be 15.2cm above  
normal water level. Depth of footing to be 61cm  
below sediment level.

Wooden parts to be of jarrah, treated with "Lumber-  
last." Unions to be of 9.52mm galvanized bolts,  
counter-sunk, of the lengths indicated on the  
drawings.