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# Specifications

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SPECIFICATIONS AND SCHEDULE OF PRICES FOR:

The Development of approximately 20 acres of camping ground  
at The Domain, Tekapo.

Contract No. ....

Tenders close Noon .....

Deposit with Tender .....

Submitted in partial fulfilment  
of the requirements for the  
Diploma of Landscape Architecture  
in the University of Canterbury  
by  
T. C. Emmitt B. Hort  
Lincoln College  
1973

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PART (A)

CONDITIONS OF TENDER

1. Standard Conditions of Trade

The Conditions of Tender for this Contract shall be Part 2 of the Conditions of Contract N.Z. SS 623. 1964 (printed) together with the following amendements and additional clauses.

2. Amendments to Part 2 - Tender

Clause 2.1.1. The word "Engineer" shall be amended to read "Landscape Architect".

3. Additional Clauses

(i) Interpretation of Specification

Should there be any doubt or obscurity as to the meaning of any of the documents comprising the contract, or as to anything to be done or supplied, or as to any other matter or thing, the persons tendering must set forth such doubt or obscurity in writing and submit the same with the tender, together with a clear indication as to what is provided for in the tender.

(ii) Variations to Specification

Unless otherwise stated in the Tender, the Tenderer will be assumed to have accepted without reservation or amendment, the whole of the specification. If the Tender is conditional upon any amendments to the specification, such amendments must be clearly stated in a separate document to be submitted with the Tender. Any amendments or additions so submitted will not be binding on the client unless incorporated in any contract which may be made between the client and the Tenderer.

(iii) Accuracy of Tender

The client accepts no responsibility for the arithmetical or other accuracy of any tender. Should it transpire after the contract has been let, that there are arithmetical mistakes in the accepted tender which would have increased the total amount of the tender had such mistakes not been made, the contractor shall not be entitled to any payment in respect of such mistakes.

4. Withdrawal of Tender

Should any Tenderer withdraw his tender after tenders

close, then the amount of deposit accompanying the tender may without prejudice to any other rights or remedies of the client be forfeited absolutely to the client as for liquidated damages.

5. Tenders to be on the Official Forms

Tenders shall be on the Official Form of Tender and shall be accompanied by the Official Schedule of Bill of Costs, both duly completed by the Tenderer, signed and sealed and delivered to the Landscape Architect no later than noon of the ..... day of ....., 1974.

6. Informality in Tenders

The Landscape Architect reserves the right to waive any informality in the tender.

7. Validity of Tender

Tenders shall remain valid for a period of 90 days immediately following the date of the closing of tenders.

8. Bill of Costs

Tenderers shall submit with their tender a copy of the Bill of Costs duly priced and completed in all respects.

SPECIAL CONDITIONS OF CONTRACT

(Modifying or extending the General Conditions of Contract as published in New Zealand Standard Specification No. 623, 1964, and subsequent amendments.

1. Nature, Location and extent of Work

This is a lump sum contract for the development of approximately 20 acres of camping ground at the Domain, Tekapo, the area being defined on the Master Plan, Sheet No. 4.

It is intended to leave all the land in its existing form, with all proposed roads following the Layout Plan on Sheet No. 5.

On the site are to be constructed plantainers, seats, pathways and kerbing. There is also extensive tree planting as set out on Sheet No. 6.

The work is to be carried out in accordance with the provisions of the Contract Documents which include:-

- (a) These conditions of Contract
- (b) The conditions of Tenderers, and General Conditions of Contract for Civil Engineering Work, being N.Z.S.S. 623, (incorporating amendments No. 1 and 2) a copy of which is available for inspection at the Landscape Architects Office.
- (c) The Specifications
- (d) The Drawings
- (e) The Schedule of Quantities

2. Schedule of Quantities

The Contractor shall submit a complete schedule of quantities and prices showing how the lump sum has been calculated. Any alterations and additions will be based upon these prices. The contractor is required to verify for himself the accuracy of the schedule, and any items not scheduled or wrongly scheduled but required for the completion of the job must be inserted.

3. The Site

Tenderers shall inspect the site and make themselves conversant with it and verify the conditions regarding the contract, and shall also verify the ground levels, site B.M.

level and dimensions before submitting a tender.

The Contractor shall use only such means of access to the site as the Landscape Architect shall approve and shall confine stockpiling of soil to those areas shown on the site by the Landscape Architect.

#### 4. Completion

At the completion of the job, the site shall be left free of rubbish and generally clean and ready for commencement by the Landscape Contractor, and shall be to the satisfaction of the Landscape Architect, before the Contractor removes his equipment from the site.

#### 5. Drawings

The Drawings, being those indicated on Sheet No's 6 and 7 of the folio of plans; and this specification shall be read in conjunction; and anything shown on the drawings and not specified and vice versa, shall be equally binding as though shown in both. The drawings shall be held to illustrate the general character of the works, and parts not particularly detailed shall be constructed in accordance with the best trade practice for the class of work concerned.

#### 6. Dimensions

Figured dimensions on drawings shall take preference to scaled dimensions, and large scale drawings shall be given preference to smaller scale.

#### 7. Permits, Licences, Fees

All permits, licences and fees necessary for all portions of the work shall be obtained and paid for by the Contractor. The Contractor shall comply with the requirements of the Mackenzie County Council.

#### 8. Damage

The Contractor shall be responsible for, and shall make good at his own cost, any damage to any other portion of the Domain outside the boundary of the contract area, services and existing trees that are to remain.



Those trees to be retained within the area of contract work shall be protected by erecting a wire barricade at least four feet out from the trunk perimeter.

Should any tree require limbing to allow movement of equipment, the Contractor shall immediately notify the Landscape Architect and shall carry out his instructions accordingly.

#### 9. Variations

No extra charge will be payable unless ordered in writing by the Landscape Architect, any verbal instructions are deemed to be instructions for the proper execution of the work, not involving extra charges.

#### 10. Materials and Workmanship

All materials and workmanship shall comply with the N.Z. Standard Specifications, the various specifications being relevant to each part of the work.

All workmanship shall be carried out in accordance with best trade practice.

#### 11. Progress Payments

The Contractor shall submit a monthly claim in accordance with the Schedule of Quantities for work done during the month. Progress payments should be made monthly on the Certificate of the Landscape Architect and retention monies will be withheld in accordance with the Wages Protection and Contractors Liens Act, 1939, and subsequent amendments.

#### 12. Engineer

The word 'Engineer' as defined in the N.Z. Standard Specification No. 623 shall be interpreted, for the purpose of this contract to mean Landscape Architect.

#### 13. Alterations and Additions

Any alterations or additions shall be carried out at the schedule rate for such work.

#### 14. Commencement

Work shall be commenced no later than ....., 1974.

TECHNICAL SPECIFICATIONS

EARTHWORKS

Note:- General Conditions and Conditions of Tender shall be read as they apply to this trade.

1. General

This contract comprises the nature of work as shown on Sheet No. 6 Staking and Planting Plan.

Survey reference points will be supplied by the Council. The Contractor shall supply a registered surveyor or engineer to set up datum lines and level reference points for the proposed roads as directed by the Landscape Architect.

2. Stockpiling of Top Soil

All top soil removed during the stripping process for roads shall be stockpiled for future spreading and tree planting. The position shall be close to the site as instructed by the Landscape Architect and will be separate from imported topsoil to be used by the Contractor.

Subsoil and material not considered by the Landscape Architect to be suitable for re-use shall be transported to the proposed sifting area approximately 300m. east of the site.

3. Removal of Obstructions

The Contractor shall remove at his own expense all obstructions as and when required by the plans or where the proper construction and completion of the work require their removal. Material that is removed as specified on the drawings and not used in site filling or landscaping, shall be removed from the site and disposed of at the Contractor's own expense.

4. Stripping

All vegetation, such as roots, stumps, and all decayed vegetable matter, rubbish and unsuitable material within the area of the work shall be stripped or otherwise removed before grading is started. The burning of this rubbish is not to be permitted.

#### 5. Finish

All proposed roads shall be graded uniformly. The finished surface shall be reasonably smooth, compacted and free from any irregular surface changes. The degree of finish shall be that ordinarily obtainable from either blade grader or scrape operations. The finished surface shall not be more than 10mm above or below established grade.

#### 6. Tidying up of Works

The Contractor shall leave the site of the works in a neat and tidy manner and piles of vegetation refuse or other materials shall be dealt with to the satisfaction of the Landscape Architect.

#### 7. Maintenance of Work

The Contractor shall maintain all parts of the formation to the entire satisfaction of the Landscape Architect until the end of the maintenance period.

CONCRETOR

Note:- General Conditions and Conditions of Tender shall be read as they apply to this trade.

1. Scope of Work

All work as indicated in the drawings comprising of kerbing, pathways, plantainers and drain sumps.

2. Materials

(a) Cement: shall comply in every respect with the requirements of N.Z.S.S. 43. Quick setting cements shall not be used.

(b) Aggregate: Concrete aggregate shall consist of natural sands and gravels obtained from the borrow pit to the east of the ice skating rink, and shall be free from harmful amounts of alkali, organic matter, clay or any other deleterious substances. Aggregate shall not contain excessive quantities of thin, flakey or laminated fragments. The grading shall be such as to produce a dense concrete of the specified strength and consistency which may be worked readily into position.

Water used for mixing concrete shall be from the town supply and not from the lake.

3. Concrete Strength

All concrete used in the work is to attain a strength of 2,500lbs per sq. inch at 28 days. The cement content per cubic yard of finished concrete in place shall not be less than 470lbs in accordance with High Grade Concrete in Amendments No. 3 of N.Z.S.S. 1900, Chapter 9.3.

4. Placing

No concrete shall be placed under unfavourable weather conditions or into forms or trenches in which water is lying. Immediately before placing concrete, all form work shall be examined and all dirt, shavings, sawdust and other refuse completely removed. The inside face of all forms shall be wet with clean water immediately before concrete is placed. Concrete shall be poured so that the aggregates do not segregate and it shall be thoroughly worked and consolidated around the

reinforcing and into all parts of the form work taking care that no voids or cavities are left.

New concrete shall not be exposed to severe elements. All holding down bolts and box sections provided by the Contractor shall be positioned in the concrete whilst pouring and secured in place by templates. Confer with the Landscape Contractor for exact location of holding down bolts and box section for the seats.

#### 5. Boxing

All boxing shall be well fitted together and firmly secured into position for execution of works shown on Sheet No. 7. Brace, support and fix in a such a manner to prevent warp, twist, deformation or leakage of grout during the pouring and curing. All boxing shall be thoroughly wetted and cleaned out immediately before concrete is placed.

#### 6. Reinforcing Steel

Reinforcing fabric of mild steel shall be positioned in construction of the plantainers. All steel must comply with N.Z. S.S. 197, 1949, and subsequent amendments.

#### 7. Exposed Aggregate Finish

This finish shall apply to the surface of the pathways.

The concrete mix shall be poured to within 0.5mm of the finished level and single size 5mm clean lakeshore pebble spread uniformly, one stone thick over the surface. The selected aggregate shall then be forced into the mix by means of a beam tamper until the new surface is level with the tops of the forms and sufficient mortar has worked up to hold the stone in position. Before hardening, the surface should be brushed with a stiff brush using plenty of water until the surface aggregate is fully exposed but not deeper than half the depth of the stone. The surface should be covered to prevent it from drying out too quickly.

#### 8. Cleaning of Site

All concrete crustings around pours and all boxing shall be removed from the site. Any tipping of aggregates shall be raked up, and the site left in a clean position to the satisfaction of the Landscape Architect.

LANDSCAPE CONTRACTOR

Note:- General Clauses and Conditions of Tender shall read as they apply to this trade.

1. Scope of Work

The work comprises the laying of stormwater drains, erection of a post and rail fence, provision and securing of seating, planting of trees and general reinstatement of the area including sowing down.

2. Materials

All materials are to be the best of their respective kinds. Plant material shall be of quality and size to the satisfaction of the Landscape Architect.

3. Stormwater Piping

Piping of stormwater from sumps to the outlet at the lake shall be constructed to the alignment indicated on Sheet No. 6. The diameter of the pipes is also indicated on the plan and they shall be of unglazed earthenware first quality, free from chips and blemishes.

Drains shall be laid to 1 in 80 fall from the master sump. Trenches shall be boned level to grade tramped firm. If 300mm of backfill is not possible over piping, pipes shall be haunched in 75mm of concrete.

4. Seats and Fencing

(a) Timber quality. All timber shall be the best of its kind and class, graded and classified in strict accordance with the National Grading Rules, and suitable for its purpose.

(b) Treatment. All timbers specified to be of Pinus radiata shall be pressure treated by the Tonalith Class 2 or Bolidon 525 process in accordance with the provision of N.Z. S.S. C.P.4: N.Z. Standard Code of Practice for timber preservation and shall have the maximum retentions.

(c) The contractor will instruct the steelworker on the number and dimensions of all steel supports and to the method of treating the steelwork as indicated on the plan.

## 5. Planting Operations

(a) The Contractor shall be required to stake out on the ground locations for trees and shrubs planted, in accordance with Sheet No. 6, and obtain the approval of the Landscape Architect before planting is begun.

(b) After excavation of the plant pits, the bases shall be loosened to a depth of 75mm. Good quality topsoil shall be used for backfilling the pits. Adequately firm the fill and stake the tree with an approved staking method and tie as set out on Sheet No. 6.

Any pruning necessary to improve the shape of the tree must be discussed with the Landscape Architect before work is commenced.

End of Technical Specification

## PART (F)

SCHEDULE OF QUANTITIES

It should be noted that the following quantities are the estimated quantities of the work and are not to be taken as the actual and correct quantities of the work to be executed by the Contractor in fulfilment of his obligations under the contract.

Part C - Earthworks

Description	Qty	Unit	Rate	\$
1. Allow for all conditions of contract				
2. Allow for all setting out and survey work.				
3. Elevate & deposit topsoil where indicated.				
4. Provide, spread and compact base course for roads.				
5. Provide, spread and compact metal for secondary roads and Government tracks				
6. Removal of obstructions off the site				
7. Contingency figure 10%				
Total				
Carry to summary				



## PART (D)

CONCRETOR

Item	Description	Qty	Unit	Rate	\$
1.	Allow for complying with all conditions of contract				
2.	Allow for all setting out				
3.	Box, pour to required levels . plantainers				
4.	Provide box section support brackets and place in position				
5.	Box, pour to required levels all kerbing				
6.	Construct drain sumps and provide grates				
7.	Erect boxing for pathways				
8.	Pour and allow for exposed aggregate finish on above				
9.	Allow for any other item				
10.	Contingency figure 10%				
Total					

Carry to summary

## PART (E)

LANDSCAPE CONTRACTOR

Item	Description	Qty	Unit	Rate	\$
1.	Allow for complying with all conditions of contract				
2.	Dig, grade to level and back-fill stormwater trenches				
3.	Provide field tiles for above 4" 6" 8"				
4.	Obtain from Carpenters seats, deliver to site and secure in position				
5.	Erect and stain post and rail fencing				
6.	Plant trees as specified				
7.	Install trickle irrigation system				
8.	Allow for maintenance work over period specified				
9.	Allow for any other item				
10.	Contingency figure 15%				
Total					

Carry to summary

SUMMARY OF SCHEDULE OF QUANTITIES

\$

Part C Earthworks

Part D Concretor

Part E Landscape Concretor

Total Tender Price

Note:- This tender price does not include the actual pricing for the seats, post and rail fencing and trickles irrigation system.