

## **FIELD                    ENGINEERING AND TECHNOLOGY**

***Review of Civil Infrastructure, Civil Plant Management, Civil Plant Operation, Civil Construction Supervision, Road Construction, Civil Construction Works, Civil Works and Services, and Roding Maintenance qualifications***

**National Certificate in Civil Construction Works (Foreperson) with optional strands in Kerb and Channel, Concreting, High Capacity Highways, and Roding Version 3 [Ref: 0208]**

**National Certificate in Civil Construction Supervision with optional strands in Demolition, Drainage, Earthworks, Survey and Set Out, High Capacity Highways, Road Construction, Road Maintenance, Traffic, and Training [Ref: 0209]**

**National Certificate in Civil Plant Management [Ref: 0253]**

**National Certificate in Civil Construction Works (Introductory Skills) [Ref: 0770]**

**National Certificate in Civil Works and Services [Ref: 0771]**

**National Certificate in Road Construction [Ref: 0772]**

**National Certificate in Roding Maintenance [Ref: 0773]**

**National Certificate in Civil Plant Operation with strands in Skilled, and Multi-Skilled [Ref: 0774]**

InfraTrain New Zealand has completed the review of the qualifications listed above.

### **Replacement Qualifications**

**National Certificate in Civil Construction Supervision (Level 4) [Ref: 1324]**

**National Certificate in Civil Plant Operation with strands in Culverts and Drainage Systems; Earthworks; Road Construction; and Road Maintenance [Ref: 1325]**

### **New Qualification**

**National Certificate in Civil Construction Works with strands in Concrete Kerb and Channel; Concrete Work; Culverts and Drainage Systems; Interlocking Paving; Retaining Structures; Road Construction; Road Maintenance; Road Safety Barrier; Roadside Amenities; and Traffic Signage [Ref: 1326]**

**Date new versions published**

**October 2007**

The next qualification review is planned to take place during 2012.

### **Summary of review and consultation process**

The structure and content of qualifications in the civil infrastructure sector have not always kept pace with the needs of a future focused industry and in some cases candidates have been constrained by qualification requirements no longer reflecting industry roles. In response to these issues, and the need to future proof education and training in the civil infrastructure sector, InfraTrain New Zealand has reviewed the structure, content and requirements of the civil infrastructure sector qualifications to ensure they are fit for purpose.

While InfraTrain New Zealand and the civil infrastructure sector will continue to recognise all previously registered qualifications; as a result of the removal of barriers to completion, and new qualifications designed to consider recent and possible future industry requirements and trends, it is recommended that individuals currently enrolled in the existing qualifications consider transferring to the new or reviewed versions of the appropriate qualifications.

The following is an overview of the process followed:

- InfraTrain New Zealand commissioned a review of industry training covering the wider civil construction sector, which resulted in a report in June 2003. The goal of the report was to enable InfraTrain New Zealand to establish:
  - a vertically and horizontally integrated framework for civil infrastructure sector qualifications;
  - a career pathway for trainees;
  - a framework for the review of qualifications and development of new qualifications for the civil sector.
- As a result of this report a review of Civil Construction Supervision, Civil Construction Works, Civil Plant Management, Civil Plant Operation, Civil Project Management, Road Construction, and Roothing Maintenance standards was undertaken.
- The reviewed and new qualifications are a result of these two projects, which included widespread consultation with the broader civil infrastructure sector.

### **Main changes resulting from the review**

The National Certificate in Civil Plant Management [Ref: 0253] has been reviewed and issued as a new version, in order to remove barriers to completion and focus on the core skills of the role.

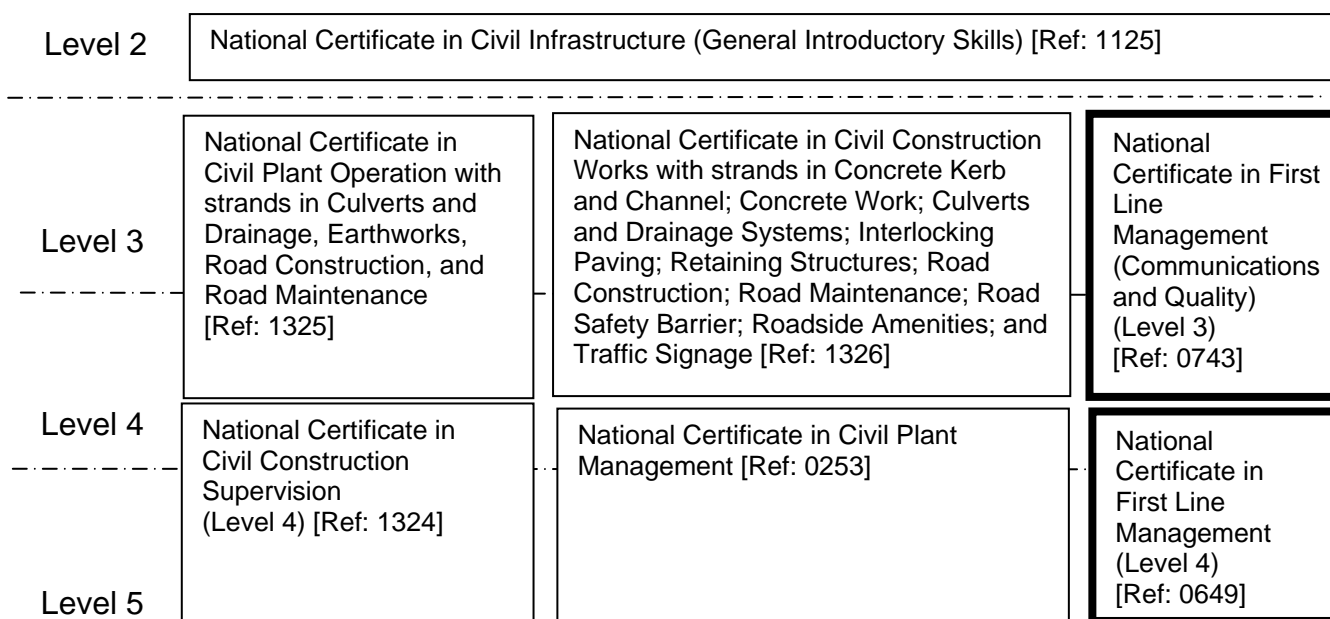
Both the National Certificate in Civil Construction Works (Foreperson) with optional strands in Kerb and Channel, Concreting, High Capacity Highways, and Roothing [Ref: 0208] and the National Certificate in Civil Construction Supervision with optional strands in Demolition, Drainage, Earthworks, Survey and Set Out, High Capacity Highways, Road Construction, Road Maintenance, Traffic, and Training [Ref: 0209] have been replaced by the National Certificate in Civil Construction Supervision (Level 4) [Ref: 1324].

The National Certificate in Civil Plant Operation with strands in Skilled, and Multi-Skilled [Ref: 0774] has been replaced by the National Certificate in Civil Plant Operation with strands in Culverts and Drainage Systems; Earthworks; Road Construction; and Road Maintenance [Ref: 1325].

The National Certificate in Civil Construction Works (Introductory Skills) [Ref: 0770], the National Certificate in Civil Works and Services [Ref: 0771], the National Certificate in Road Construction [Ref: 0772], and the National Certificate in Roothing Maintenance [Ref: 0773] have been designated expiring, as they no longer meet industry requirements.

A new qualification, the National Certificate in Civil Construction Works with strands in Concrete Kerb and Channel; Concrete Work; Culverts and Drainage Systems; Interlocking Paving; Retaining Structures; Road Construction; Road Maintenance; Road Safety Barrier; Roadside Amenities; and Traffic Signage [Ref: 1326] has been developed as a recommended alternative to the qualifications listed above designated as expiring.

## Qualification Relationship Diagram



 Complementary First Line Management qualifications

### National Certificate in Civil Plant Management [Ref: 0253]

Review category	<b>B</b>	See <a href="#">Key to Qualification Review Categories</a> at the end of report
-----------------	----------	---

### Transition

This qualification was reviewed following the review of Civil Construction Supervision, Civil Construction Works, Civil Plant Management, Civil Plant Operation, Civil Project Management, Road Construction, and Roading Maintenance standards.

#### Changes to structure and content

- Title of reviewed standard 6441 has been updated.
- Standard 6437 has been added to the compulsory section.
- Standards 111, 2780, 2784, 5958, 6469, and 17326 have been removed from the qualification.
- The elective section and all standards within it have been removed from the qualification.
- Minimum credit total has been reduced from 91 to 64.

People currently working towards version 2 of this qualification may either complete the requirements for that version or transfer their results to this version. As barriers to completion may be present in version 2, and this version has been designed to focus on the core skills of the role, InfraTrain New Zealand encourages all individuals currently enrolled in version 2 to consider transferring to version 3 of this qualification.

InfraTrain New Zealand and the civil infrastructure sector will continue to recognise the previously registered qualification.

National Certificate in Civil Construction Works (Foreperson) with optional strands in Kerb and Channel, Concreting, High Capacity Highways, and Roothing [Ref: 0208]

National Certificate in Civil Construction Supervision with optional strands in Demolition, Drainage, Earthworks, Survey and Set Out, High Capacity Highways, Road Construction, Road Maintenance, Traffic, and Training [Ref: 0209]

### **National Certificate in Civil Construction Supervision (Level 4) [Ref: 1324]**

Review category	<b>C</b>	See <a href="#">Key to Qualification Review Categories</a> at the end of report
-----------------	----------	---

### **Transition**

This qualification replaced both the National Certificate in Civil Construction Works (Foreperson) with optional strands in Kerb and Channel, Concreting, High Capacity Highways, and Roothing [Ref: 0208] and the National Certificate in Civil Construction Supervision with optional strands in Demolition, Drainage, Earthworks, Survey and Set Out, High Capacity Highways, Road Construction, Road Maintenance, Traffic, and Training [Ref: 0209].

Summary of differences between this qualification and the National Certificate in Civil Construction Works (Foreperson) with optional strands in Kerb and Channel, Concreting, High Capacity Highways, and Roothing [Ref: 0208].

- Core compulsory section
  - Credit total decreased from 120 to 90.
  - Standards 7744, 17499, and 17500 replaced by standards 22992, 22294, and 22290 respectively.
  - Standards 6471, 6479, 7108, 8559, 12565, 17319, 17325, 17328, 17330, and 17331 removed.
  - Standards 6428, 6434, 6442, 6455 and 6456 added.
  - Standards 6435, 6451, and 12564 were moved to, and 17321 added to, Elective 1.
  - Standard 5627 moved to Elective 2.
- Two elective lists have been added with minimum credit totals of 80 and 18 respectively.
  - Standards 6427, 6437, 6441, 6443, 6450, 6464, 11321, 17320, 22292 and 22293 added to Elective 1.
  - Standards 5628, 6400, 6401, 6402, 20879, and choices of standards from the domains of Civil Infrastructure Health, Safety, and Environment; and Occupational Health and Safety Practice added within Elective 2.
  - Standard 12572 moved from the Roothing Optional Strand to Elective 1.
- No optional strands exist in the new qualification, and all standards within optional strands except standard 12572 have been removed.
- Total credit values, excluding optional strands, have been increased from 120 to 188.

Summary of differences between this qualification and the National Certificate in Civil Construction Supervision with optional strands in Demolition, Drainage, Earthworks, Survey and Set Out, High Capacity Highways, Road Construction, Road Maintenance, Traffic, and Training [Ref: 0209].

- Core Compulsory section
  - Credit total decreased from 182 to 90.
  - Standard 12568 added.
  - Standards 7743, 17499, and 17500 replaced by unit standards 22992, 22294 and 22290 respectively.
  - Standards 6430, 6454, 6479, 7108, 11323 and 12563, removed.

- Standards 6427, 6435, 6437, 6443, 6450, 6451, 6464 and 12564 moved to Elective 1.
- Standards 5628, 6401 and 6402 moved to Elective 2.
- Standard 12567 replaced by standard 22292 and moved to Elective 1.
- Two elective sections added, with minimum credit totals of 80 and 18 respectively.
  - Standard 6441 added to Elective 1.
  - Standards 5627, 6400, and choices of standards from the domains of Civil Infrastructure Health, Safety; and Environment; and Occupational Health and Safety Practice added to Elective 2.
- Standard 6428 moved from Survey and Set Out Optional Strand to the Core Compulsory section.
- Standards 11321, 12572, 17320 and 17321 moved from the Drainage, Earthworks, Road Construction and Road Maintenance Optional Strands to the Elective 1 section.
- Standard 5630 from the High Capacity Highways Optional Strand replaced by standard 20879 and moved to Elective 2.
- Standard 17323 from the Road Construction Optional Strand replaced by standard 22293 and moved to the Elective 1.
- Remaining standards 111, 2780, 2784, 5958, 7104, 11322, 12569, 12570, 12571, 17322, 17324 and 17326 from optional strands removed.
- No optional strands exist in the new qualification.
- Total credit values, excluding optional strands, have been increased from 182 to 188.

People currently working towards either of the replaced qualifications may either complete the requirements for those qualifications or transfer their results to this one. As barriers to completion may be present in the replaced qualifications, and the new qualification has been designed to consider recent and possible future industry requirements and trends, individuals currently enrolled in the replaced qualifications should check the degree to which the standards they have achieved will satisfy the requirements of the new qualification, and consider transferring to it. Aspects of the new qualification design include improved flexibility from a smaller core compulsory section and two elective sections, and a greater emphasis on health, safety and environment. If transferring, candidates will need to gain credit for the additional unit standards required.

InfraTrain New Zealand and the civil infrastructure sector will continue to recognise all previously registered qualifications.

The last date for entry to training programmes or courses for the replaced qualifications is 31 December 2007. The last date for assessment of the replaced qualifications is 31 December 2010.

This qualification contains unit standards that replace earlier unit standards. For the purposes of this qualification people who have gained credit for the expiring unit standards are exempt from the requirement to gain credit for the replacement unit standards.

<b>Credit for</b>	<b>Exempt from</b>
5630	20879
6444	17320
6445	17321

Credit for	Exempt from
6446 or 17499	22294
7743 and 7744	22992
6474 or 17500	22290
6448 or 17323	22293
12567	22292

National Certificate in Civil Plant Operation with strands in Skilled, and Multi-Skilled [Ref: 0774]

**National Certificate in Civil Plant Operation with strands in Earthworks, Road Construction, Road Maintenance, and Culverts and Drainage Systems [Ref: 1325]**

Review category	<b>C</b>	See <a href="#">Key to Qualification Review Categories</a> at the end of report
-----------------	----------	---

## Transition

This qualification replaced the National Certificate in Civil Plant Operation with stands in Skilled, and Multi-Skilled [Ref: 0774] as part of a review of Civil Plant Operations and Management, and Civil Works and Services standards and associated qualifications.

### Summary of differences between qualifications

- The prerequisite qualifications have been removed. Standards 6400-6402 have been included in the Core Elective.
- Core Compulsory section:
  - Standard 5267 was moved to the new Core Elective.
  - Standard 12565 was removed from the qualification.
  - Standard 17500 was replaced by 22290.
  - Standard 17327 was added.
  - Credit total reduced from 27 to 15.
- New Core Elective section requires a minimum of 18 credits, of which 5 are at level 3 or above.
- The Skilled, and Multi-Skilled, strands were replaced by the Culverts and Drainage Systems; Earthworks; Road Construction; and Road Maintenance strands, with most of the elective standards from previous strands moved to one or more of the new strands.
- Standards 1736, 1755, 1759, 1760, 1766, 1768, 12565, 15158, 16701, 16702, 16703, and 17318 have been removed from the qualification.
- Minimum total credit has increased from 75-131 credits to 93-103 credits.

People currently working towards the replaced qualification may either complete the requirements for that qualification or transfer their results to this one. As barriers to completion may be present in the replaced qualification, and the new qualification has been designed to consider recent and possible future industry requirements and trends, individuals currently enrolled in the replaced qualification should check the degree to which the standards they have achieved will satisfy the requirements of the new qualification, and consider transferring to it. Aspects of the new qualification design include improved flexibility, a greater emphasis on health, safety and environment, and four new strands that allow candidates to demonstrate specialist skills. If transferring, candidates will need to gain credit for the additional standards required.

InfraTrain New Zealand and the civil infrastructure sector will continue to recognise the previously registered qualification.

The last date for entry to training programmes or courses for the replaced qualification is 31 December 2007. The last date for assessment of the replaced qualification is 31 December 2010.

InfraTrain New Zealand intends that no existing candidate is disadvantaged by this review. Any person who feels disadvantaged by the transition should contact InfraTrain New Zealand at the address below.

For detailed information see [Review Summaries](#) on the NZQA website.

This qualification contains standards that replace earlier standards. For the purposes of this qualification, people who have gained credit for the expiring standards are exempt from the requirement to gain credit for the replacement standards – see table below.

<b>Credit for</b>	<b>Exempt from</b>
6458	17309
6459	17310
6460	17311 and 17312 and 17313
6461	17314
6462	17315
6463	17316
6481	17501
11314	22288 and 22291
11318	22286 and 22287
17500	22290

National Certificate in Civil Construction Works (Introductory Skills) [Ref: 0770]

National Certificate in Civil Works and Services [Ref: 0771]

National Certificate in Road Construction [Ref: 0772]

National Certificate in Roothing Maintenance [Ref: 0773]

*Suggested alternative*

**National Certificate in Civil Construction Works with strands in Concrete Kerb and Channel; Concrete Work; Culverts and Drainage Systems; Interlocking Paving; Retaining Structures; Road Construction; Road Maintenance; Road Safety Barrier; Roadside Amenities; and Traffic Signage [Ref: 1326]**

Review category	D	See <a href="#">Key to Qualification Review Categories</a> at the end of report
-----------------	---	---

## Transition

This qualification was developed as part of a review of Civil Plant Operations and Management, and Civil Works and Services unit standards and associated qualifications. As a result of the review the following qualifications were designated as expiring, as they no longer meet industry requirements:

National Certificate in Civil Construction Works (Introductory Skills) [Ref: 0770];

National Certificate in Civil Works and Services [Ref: 0771];

National Certificate in Road Construction [Ref: 0772];

National Certificate in Roothing Maintenance [Ref: 0773].

The last date for entry to training programmes or courses for the expiring qualifications is 31 December 2007. The last date for assessment of the expiring qualifications is 31 December 2010.

There is no formal replacement relationship between this qualification and the expiring qualifications above, and this qualification is offered as an alternative rather than as a replacement to them. However, common elements exist between the expiring qualifications and this one. The National Certificate in Civil Construction Works (Introductory Skills) [Ref: 0770] has many standards common to the core compulsory and core elective sections of this qualification, while the National Certificates in Civil Works and Services [Ref: 0771], Road Construction [Ref: 0772], and Roothing Maintenance [Ref: 0773] each have many standards common to the core compulsory and core elective sections, and the strands of this qualification.

As barriers to completion may be present in the expiring qualifications, the new qualification has been designed to provide a wide range of flexible choices and to consider recent and possible future industry requirements and trends. Subsequently, individuals currently enrolled in any of the expiring qualifications should check the degree to which the standards they have achieved will satisfy the requirements of the new qualification, including the strand(s) best suited to their work requirements, and consider transferring to it. If transferring, candidates will need to gain credit for the additional standards required.

While this qualification is InfraTrain New Zealand's recommended transfer option for the qualifications listed above, the National Certificate in Civil Infrastructure (General Introductory Skills) [Ref: 1125] is identified as an alternative transfer option.

InfraTrain New Zealand and the civil infrastructure sector will continue to recognise all previously registered qualifications.

This qualification contains standards that replace earlier standards. For the purposes of this qualification people who have gained credit for the expiring standards are exempt from the requirement to gain credit for the replacement standards.

<b>Credit for</b>	<b>Exempt from</b>
536	8492
627	13026 and 13062
6473	22284 and 22285
11314	22288
11318	22287
12571	22289
17500	22290

This qualification contains standards that have the same outcomes as achievement standards. For the purposes of this qualification people who have gained credit for the achievement standards are exempt from the requirement to gain credit for the unit standards.

<b>Credit for achievement standard</b>	<b>Exempt from unit standard</b>
90149	5241
90151	5235

## Appeals

InfraTrain New Zealand intends that no existing candidate is disadvantaged by this review. Any person who feels disadvantaged by the transition should contact InfraTrain New Zealand at the address below.

The transition arrangements were publicised to trainees/apprentices and employers through InfraTrain New Zealand's Bulletin, which can also be viewed on their website, and through regional staff and sector committees.

InfraTrain New Zealand  
PO Box 2759  
WELLINGTON

Telephone 0800 486 626  
Email [askus@infratrains.co.nz](mailto:askus@infratrains.co.nz)  
Web site <http://www.infratrains.co.nz>

## Key to Qualification Review Categories

<b>Category A</b> The qualification is published as a new version with the same NQF ID	Changes are made to SSB name, contact details or purpose statement
	No change is made to title, rules or components of the qualification
	No transition arrangements are required
<b>Category B</b> The qualification is published as a new version with the same NQF ID	Changes are made to title, rules or components
	The new version of the qualification recognises a similar skill set to that recognised by the previous version
	The SSB is confident that people awarded the new or previous version are comparable in terms of competence
	Transition arrangements are required if candidates must gain additional/different credits for the new version
<b>Category C</b> A new (replacement) qualification is published with new NQF ID	Significant changes are made to the qualification in terms of components, structure, type or level
	The SSB views people with the replacement qualification as being significantly different in terms of competence from those with the replaced qualification
	Transition arrangements are required
	Transition may be limited to phase-out dates
<b>Category D</b> Qualification will expire. There is no replacement qualification	Qualification is no longer required by industry
	The qualification is designated as expiring and a last date for meeting the qualification requirements is set