Field Engineering and Technology

Review of *Civil Works and Services, Infrastructure Works, and Highway Construction and Maintenance* unit standards

Subfield	Domain	ID
Civil Works and Services	Civil Construction Supervision	12568, 22992
	Civil Construction Works	22993
Highway Construction and	Roading Maintenance	11308, 11313, 11317, 22286,
Maintenance		22287
Infrastructure Works	Generic Infrastructure Works	6451, 22290
	Generic Road Works	22293
	Infrastructure Civil Works	11309, 11311, 11316, 20616,
		20624, 22284, 22288, 22291,
		25833, 28711, 28712, 28948
	Road Construction	6486, 22289
	Road Maintenance	11303, 11306, 11307, 11310,
		11319

The Connexis Infrastructure ITO has completed the review of the unit standards listed above.

Date new versions published

September 2018

Planned review date

December 2023

Summary

These unit standards were reviewed as part of a comprehensive review of qualifications, programmes, and unit standards relating to the Civil sector of the Infrastructure industry. The standards were reviewed in groups according to the programmes for which they are intended.

The review took place between March 2017 and July 2018, with most of the work completed by a Working Group representing the Civil Works sector of the industry. Working Group meetings were held in June, September, and October 2017 and in February 2018. Drafts were circulated among the Working Group and a wider industry consultation group as well as being made available for comment on the Connexis website between March and July 2018.

Main changes

- Groups of standards containing similar or transferable skills were consolidated into single unit standards to reduce repetition in assessment and recognise the scope of applicable contexts.
- Standards covering similar topics, but developed at different times, were reviewed for consistency with each other and current industry need.
- Standards from expiring domains were reclassified to current domains.
- Standards with inappropriate levels or credits were updated to reflect current industry requirements.
- New unit standards were developed to address skills and knowledge currently required by people operating at Level 4 in the Civil sector.

Category C unit standards will expire at the end of December 2021

The last date for assessment of superseded versions of Category B unit standards is December 2021

Impact on existing organisations with consent to assess

Current con	sent for		Consent extended to			
Nature of consent	Classification or ID	Level	Nature of consent	Classification or ID	Level	
Subfield	Civil Works and Services	4-7	Standards	22992, 31471	4	
Subfield	Civil Works and Services	3-7	Standard	31482	4	
Subfield	Highway Construction and Maintenance	3-7	Standards	31486, 31487	4	
Subfield	Infrastructure Works	3	Standards	31482, 31484, 31487	4	
Domain	Civil Construction Supervision	4-5	Standards	22992, 31471	4	
Domain	Civil Construction Works	3-4	Standard	31482	4	
Domain	Infrastructure Civil Works	3-5	Standards	31482, 31485, 31489	4	
Domain	Infrastructure Civil Works	3	Standard	31478	4	
Domain	Infrastructure Civil Works	4-5	Standard	31481	4	
Domain	Road Construction	4-5	Standard	31469	4	
Domain	Roading Maintenance	4	Standards	31486, 31487	4	
Standard	6486	4	Standard	31469	4	
Standard	11303	3	Standard	31484	4	
Standard	11306	3	Standard	31484	4	
Standard	11313	3	Standard	31486	4	
Standard	11309	3	Standard	31485	4	
Standard	11310	3	Standard	31485	4	
Standard	11311	3	Standard	31485	4	
Standard	11316	3	Standard	31482	4	
Standard	11319	3	Standard	31488	3	
Standard	20616	3	Standard	31478	4	
Standard	20624	3	Standard	31478	4	
Standard	22286	3	Standard	31486	4	
Standard	22287	2	Standard	31486	4	

Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Ke	y to review category
Α	Dates changed, but no other changes are made - the new version of the standard carries the
	same ID and a new version number
В	Changes made, but the overall outcome remains the same - the new version of the standard
	carries the same ID and a new version number
С	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

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ID	Subfield	Domain	Title	Level	Credit	Review Category
12568	Civil Works and Services	Civil Construction Supervision	Plan and supervise site drainage and dewatering work on civil construction sites	4	8	O
31471	Infrastructure Works	Infrastructure Civil Works	Demonstrate and apply knowledge of drainage management systems for infrastructure works	4	10	
22992	Civil Works and Services Infrastructure	Civil Construction Supervision Generic	Prepare and maintain records for civil construction works	4	10 6	В
	Works	Infrastructure Works				

Engineering and Technology

ID	Subfield	Domain	Title	Level	Credit	Review Category
11316	Infrastructure Works	Infrastructure Civil Works	Installing and maintain traffic signs and delineators	3	8	С
22289	Infrastructure Works	Road Construction	Install traffic service poles, signage, and roadside furniture	3	4	С
22993	Civil Works and Services	Civil Construction Works	Install guard rails or wire rope barriers on civil construction works	3	15	С
28712	Infrastructure Works	Infrastructure Civil Works	Mount a sign gantry	3	5	С
31482	Infrastructure Works	Road Construction	Install road furniture	4	5	

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ID	Subfield	Domain	Title	Level	Credit	Review Category
11313	Highway Construction and Maintenance	Roading Maintenance	Maintain footpath in road reserve	3	5	С
11317	Highway Construction and Maintenance	Roading Maintenance	Install and maintain roadside amenities	2	3	С
22286	Highway Construction and Maintenance	Roading Maintenance	Maintain roading kerb lines and channels	3	4	С
22287	Highway Construction and Maintenance	Roading Maintenance	Maintain roading median strips, berms and traffic islands	2	2	С
31486	Infrastructure Works	Road Maintenance	Maintain and repair road furniture	4	4	

Engineering and Technology > Infrastructure Works > Generic Infrastructure Works

ID	Titles	Level	Credit	Review Category
6451	Carry out notifiable work and permit requirements on an infrastructure works site	4	5	В
22290	Demonstrate knowledge of and carry out infrastructure works quality assurance requirements	4	5 6	В
31470	Demonstrate knowledge of, and implement, environmental controls for an infrastructure works site	4	6	New

Engineering and Technology > Infrastructure Works > Generic Road Works

ID	Title	Level	Credit	Review Category
22293	Demonstrate knowledge of pavement stabilisation for road works	4	8	В
	Demonstrate knowledge of stabilisation of pavement layers for road works		5	
31483	Stabilise and modify layers for road construction or maintenance	4	6	New

Engineering and Technology > Infrastructure Works

ID	Domain	Title	Level	Credit	Review Category
11309	Infrastructure Civil Works	Maintain road by manually cleaning and repairing open drainage system	3	7	С
11310	Road Maintenance	Maintain road subsoil drainage systems	3	3	С
11311	Infrastructure Civil Works	Maintain road drainage structures	3	7	С
31485	Road Maintenance	Maintain and repair road drainage systems	4	7	
20616	Infrastructure Civil Works	Demonstrate knowledge of earthworks in relation to the environment	3	4	С
20624	Infrastructure Civil Works	Demonstrate knowledge of bulk earthmoving	3	4	С
31478	Infrastructure Civil Works	Demonstrate knowledge of earthworks and determine bulk earthmoving requirements for a specific infrastructure works site	4	8	
22288	Infrastructure Civil Works	Maintain road clear of ice	3	5	С
22291	Infrastructure Civil Works	Maintain road clear of snow	3	5	С
31489	Road Maintenance	Maintain roads clear of ice and snow	4	6	
25833	Infrastructure Civil Works	Demonstrate knowledge of civil construction material compaction, soil mechanics, and testing devices	4	5	С
31473	Infrastructure Civil Works	Demonstrate knowledge of infrastructure construction materials and their properties	4	4	
28711	Infrastructure Civil Works	Interpret infrastructure plans and set-out information Interpret and apply infrastructure plans and set-out information	4	5 6	В

ID	Domain	Title	Level	Credit	Review Category
28948	Infrastructure Civil Works	Construct and install an earth retaining structure	4	12	C
31481	Road Construction	Install earth retaining structures for road construction	4	5	
31472	Infrastructure Civil Works	Prepare for compaction, and apply compaction techniques for infrastructure works	4	10	New
31474	Infrastructure Civil Works	Execute a work plan specific to own role for infrastructure works	4	10	New
31475	Infrastructure Civil Works	Interpret and communicate daily operational requirements for infrastructure civil works	4	4	New
31476	Infrastructure Civil Works	Describe and address issues that affect operations on an infrastructure works site	4	4	New
31479	Infrastructure Civil Works	Carry out subgrade formation and compaction for infrastructure earthworks	4	10	New
31480	Infrastructure Civil Works	Carry out cut and fill formation for infrastructure earthworks	4	12	New

Engineering and Technology > Infrastructure Works

ID	Domain	Title	Level	Credit	Review Category
6486	Road Construction	Construct concrete vehicle crossings	4	5	С
22284	Infrastructure Civil Works	Construct kerb and channel	4	8	С
31469	Infrastructure Civil Works	Carry out non-structural concrete operations for infrastructure works	4	6	
31477	Road Construction	Construct roads	4	20	New

Engineering and Technology > Infrastructure Works > Road Maintenance

ID	Title	Level	Credit	Review Category
11303	Maintain road by repairing unbound pavement layers	3	5	С
11306	Restore pavement using stabilisation techniques	3	4	С
31484	Use dig-out and stabilisation or modification methods	4	7	
	for road maintenance tasks			
11319	Trim and remove vegetation for road maintenance	3	4	С
31488	Mow verges and trim and remove vegetation for road maintenance	3	6	
31490	Clear slips from roads	4	3	New

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ID	Subfield	Domain	Title	Level	Credit	Review Category
11307	Infrastructure Works	Road Maintenance	Maintain road bridge surface and furniture	3	5	С
11308	Highway Construction and Maintenance	Roading Maintenance	Maintain road bridge waterways	2	3	С
31487	Infrastructure Works	Road Maintenance	Maintain and repair bridges	4	5	