

40113 Install data cable support systems and flush boxes

Kaupae Level	3
Whiwhinga Credit	15
Whāinga Purpose	<p>This skill standard recognises the skills required to install data cable support systems and flush boxes in medium to large complex environments.</p> <p>This skill standard aligns with the New Zealand Certificate in Data Cabling (Level 3) [Ref: 5057].</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Explain the types of data cable pathways and their use.	a. The types of cable pathways are identified, and their use is explained.
	b. Locations where cables can and cannot be installed in relation to building structures and building services are identified and the reasons explained.
2. Install data cable support systems.	a. Cabling trays or baskets are installed according to plans and specifications.
	b. Cabling conduit or trunking are installed according to plans and specifications.
	c. Catenary wires and support structures are installed according to plans and specifications.
3. Install flush boxes in timber and steel framing.	a. Flush boxes are installed according to plans and specifications using industry standard methods of fixing to timber frames and steel frames.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Assessment evidence must be from worksites where the scope of work provides the opportunity to demonstrate the skills and knowledge in medium to large complex environments where the work may span multiple rooms, multiple floors, or be campus topologies.

Building services refer to plumbing, electrical, Heating, Ventilation, Air Conditioning (HVAC), security and access control devices, audio/visual services, nurse call, and fire protection services.

Building structures refer to the walls, floor, ceilings, roof, and risers.

Cable pathways refers to catenary wires, cable trays and baskets, trunking, conduit, ducting and building structures.

Medium to large complex environments may include hotels, hospitals, prisons, schools, universities, factories, multi-room office buildings, data centres, shopping malls that may be 200m² or larger.

Assessment evidence for this standard must comply with relevant legislation, technical standard AS/NZS 11801, manufacturers specifications, and meet worksite health and safety requirements.

Cable support systems are securely attached using fastenings appropriate to the weight of the components and the material of the mounting.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

Safe working practices

- Working at heights.
- Hazard identification and minimisation.
- Working with other trades people and around other installed services.
- Waste product disposal and removing debris from the worksite.

Tools

- Identification, safe use, and maintenance of tools used in cable support systems.
- Selection and use of tools for timber and steel framing.

Cable pathways

- Structured cabling solutions and design.
- Catenary, cable trays, basket, trunking, and building structures.
- Industry standards for where cables should be installed.
- Patch panels, building distributors, communication cabinets, outlets.
- Data cabling terminology.

Cable support systems

- Reading plans and identifying cabling pathways.
- Identification of industry standards.
- Installing catenary wire, tensioning, mounting methods.
- Installing cable trays, conduit, trunking.

Mounting flush boxes

- Reading plans and specifications and identifying locations.
- Working with steel and timber framing.
- Installing flush boxes.

Rauemi | Resources

- Standards available from www.standards.govt.nz.
 - NZS 3604:2011 Timber Framed Buildings.
 - AS/NZS 11801.1:2019 Information Technology – Generic cabling for customer premises: Part 1: General requirements.

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Waihanga Ara Rau Construction and Infrastructure Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Engineering and Technology > Telecommunications > Telecommunications - Service Delivery
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	CMR 0101

Hātepe Process	Putanga Version	Rā whakaputa Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	27 June 2024	N/A
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	31 December 2029		

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@waihangaarau.nz to suggest changes to the content of this skill standard.