Title	Develop solutions for electronic security surveillance systems		
Level	4	Credits	10

Purpose	This unit standard is intended for the training and assessment of people working in or intending to work in the electronic security industry and covers planning and installation of electronic security surveillance systems.
	People credited with this unit are able to:
	– confirm client's electronic security surveillance system requirements;
	– select system components for electronic security surveillance system;
	– select electronic security surveillance system devices; and
	– install, commission, and hand over electronic security surveillance systems.

Classification	Electronic Engineering > Electronic Security

Available grade	Achieved

Guidance Information

1   This unit standard has been developed for learning and assessment on-job.

2   Persons working or intending to work as a security officer or in related security employment may require a Security Guards Licence or, if an employee of a Security Guard Licence holder, a Certificate of Approval to be the Responsible Employee of a Security Guard. These licences are issued by the Private Security Personnel Licensing Authority available through: www.justice.govt.nz/tribunals/licences-certificates/pspla/.

3   References
Building Act 2004;
Electricity (Safety) Regulations 2010;
Health and Safety at Work Act 2015;
Private Security Personnel and Private Investigators Act 2010;
Privacy Act 1993;
Telecommunications Act 2001;
AS/NZS 3000:2007, *Electrical installations (known as the Australian/New Zealand Wiring Rules)*;
New Zealand Security Association (Inc), Codes of Practice available at https://security.org.nz/;
New Zealand Telecommunications Forum Incorporated cabling requirements;
Local territorial authority requirements;

and all subsequent amendments and replacements.

4   Guidelines for connection of electronic security systems to telephone lines are
        contained in *Access Standards Newsletters* issued periodically by Spark NZ,
        available from www.telepermit.co.nz.

5   Definitions
        Environment – may include sunlight, heat sources, halogen lights, pets, drafts,
        insects, rodents, weather, electrical interference, lightning, radio interference.
        Industry practice – practice used and recommended by organisations involved in the
        electrotechnology industry.
        Safe working practices – work practices designed to prevent personal injuries and
        damage to equipment and plant. This includes practices relating to personal attire
        and use of safety clothing and equipment, use of machinery and tools, and handling
        of materials and waste.

6   Range
        a   Candidates must refer to current legislation and Standards during assessment.
        b   Demonstration of safe working practices in accordance with *safe and sound
            practice* are essential components of assessment of this unit standard.
        c   All activities and evidence presented for all outcomes and performance criteria in
            this unit standard must be in accordance with:
            i   legislation;
            ii   policies and procedures;
            iii ethical codes;
            iv   Standards;
            v   applicable site, enterprise, and industry practice; and,
            vi   where appropriate, manufacturer instructions, specifications, and data sheets.
        d   Surveillance systems may include but are not limited to – camera fixed lens, auto
            iris lens, video monitor, video intercom, lighting, CCTV, audio only systems, audio
            video systems, all master systems, master slave systems. Systems may be hard
            wired audio or video, or radio closed circuit television.
        e   Three separate surveillance systems, with at least five networked cameras, at
            least one of which will have a minimum of 16 cameras.

Outcomes and performance criteria

Outcome 1

Confirm client's electronic security surveillance system requirements.

Performance criteria

1.1   Identify the client's objectives and budget.

1.2   Use supplied job/project documentation to confirm with the client that all
           surveillance system objectives have been identified.

1.3   Review the specification and identify and document specific programming
           requirements.

1.4   Agree the installation timeframe and milestones with the customer, installation team, and any other trades.

Outcome 2

Select system components for electronic security surveillance system.

Performance criteria

2.1   Select system components to meet all installation requirements and ensure that they are compatible.

          Range   may include but is not limited to – network equipment, digital recorder or network video recorders, displays/viewing systems, matrix switcher, power supplies, racks, consoles.

2.2   Establish connection requirements for the system components.

2.3   Confirm power supply capacity and cabling are suitable for specified load.

Outcome 3

Select electronic security surveillance system devices.

Range   may include but is not limited to – cameras, lenses, housings, power supplies, cabling, luminaries.

Performance criteria

3.1   Select devices to meet all installation requirements and ensure that they meet customer requirements.

          Range   cable support systems, cable types environment.

3.2   Position selected devices to maximise system effectiveness and reliability.

          Range   may include but is not limited to – environment, insects, bright sunlight, radio frequency interference, audible interference, vibrations, running water, monitoring link disconnect.

Outcome 4

Lead the installation, commissioning, and handover of electronic security surveillance systems.

Range   may include but is not limited to – methodology, regulatory requirements, timeframes, health and safety, customer expectations, waste management, workflow, team roles, tool box meetings, tailgate meeting.

Performance criteria

4.1   Explain installation requirements to supervised persons and any other trades.

4.2   Ensure appropriate installation of cabling and cable support systems.

4.3   Ensure appropriate installation of selected components and devices.

4.4   Power up and test system for initial operation.

4.5   Ensure system programming meets client's operational requirements and system specifications.

          Range   may include but is not limited to – masking, detection zones, event triggers.

4.6   Commission the system and prepare for handover to client.

          Range   includes but is not limited to – waste and unused materials removed, site left clean and tidy, system operational tests, site restored to client expectations, as-built documentation.

4.7   Communicate equipment operation, warranty, test and maintenance schedule, and service options to the customer.

4.8   Complete the handover process and documentation in the agreed format, and in accordance with customer and industry requirements.

          Range   may include but is not limited to – administration login and password, technician password, service and support details, backup management and system restoration, data archiving.

4.9   Provide feedback to staff and management on project and performance of supervised staff.

Replacement information	This unit standard replaced unit standard 5906.

Planned review date	31 December 2026

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 January 2019	N/A
Rollover	2	26 September 2024	N/A

Consent and Moderation Requirements (CMR) reference	0003

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.