22520VIC Course in Skylight Installation and Repair

This course has been accredited under Part 4.4 of the Education and Training Reform Act 2006.

Accreditation period: 1 August 2019 to 31 July 2024

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Section A: Copyright and course classification information

1. Copyright owner of the course	Copyright of this material is held by the Department of Education and Training Victoria; and managed by the Office of the Victorian Skills Commissioner. © State of Victoria (Department of Education and Training) 2019
2. Address	Office of the Victorian Skills Commissioner Level 1, 21 Degraves Street Melbourne, VIC, 3000 **Postal address:** Office of the Victorian Skills Commissioner PO Box 354 Flinders Lane VIC, 8009 **Organisational contact:** Andrew Donnison Project Manager Office of the Victorian Skills Commissioner PO Box 354 Flinders Lane VIC, 8009 *andrew.donnison@vsc.vic.gov.au* and *enquiries@vsc.vic.gov.au* **Day to day contact:** Building Industries Curriculum Maintenance Manager Holmesglen Institute PO Box 42 Holmesglen Vic 3148 Telephone: (03) 9564 1987 Email: *teresa.signorello@holmesglen.edu.au*
3. Type of submission	Accreditation
4. Copyright acknowledgement	Copyright of the following units of competency from nationally endorsed training packages is administered by the Commonwealth of Australia and can be accessed from training.gov.au see website *here*. © Commonwealth of Australia The following units of competency: • CPCCCM1015 Carry out measurements and calculations • CPCCCM3001 Operate elevated work platforms up to 11 meters • CPCCWHS1001 Prepare to work safely in the construction industry are imported from the **CPC Construction, Plumbing and**

	Services Training Package**. The following units of competency: • CPCCCM2010B Work safely at heights • CPCCLSF2001A Licence to erect, alter and dismantle scaffolding basic level • CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry are imported from the **CPC08 Construction, Plumbing and Services Training Package**. The following unit of competency: • RIIWHS202D Enter and work in confined spaces is imported from the **RII Resources and Infrastructure Industry Training Package.** The following unit of competency: • SIRXSLS001 Sell to the customer is imported from the **SIR Retail Services Training Package**. The following unit of competency: • TLII1002 Apply customer service skills is imported from the **Transport and Logistics Training Package**.
5. Licensing and franchise	 The Office of the Victorian Skills Commissioner will establish licensing or franchising arrangements with interested parties and reserves the right to levy a licensing or franchising fee. Information can be obtained from: Andrew Donnison Project Manager Office of the Victorian Skills Commissioner Address: Level 1, 21 Degraves Street, Melbourne VIC 3000 Phone: 03 8892 1454 Email: *andrew.donnison@vsc.vic.gov.au* and *enquiries@vsc.vic.gov.au*

6. Course accrediting body	Victorian Registration and Qualifications Authority
7. AVETMISS information	**ANZSCO code** _Australian and New Zealand Standard Classification of Occupations_ 334111 **_ASCED Code_** _Field of Education_ 0403 – Building **National course code** 22520VIC
8. Period of accreditation	1 August 2019 to 31 July 2024

Section B: Course information

1. Nomenclature	*Standard 1 AQTF Standards for Accredited Courses*
1.1 Name of the qualification	Course in Skylight Installation and Repair
1.2 Nominal duration of the course	114 – 134 nominal hours
2. Vocational or educational outcomes	*Standard 1 AQTF Standards for Accredited Courses*
2.1 Purpose of the course	The *22520VIC Course in Skylight Installation and Repair* provides an accredited training program and vocational outcomes for a person to be employed as a 'skylight installation technician' for the installation of skylight and roof windows in residential, commercial and industrial buildings.
3. Development of the course	*Standards 1 and 2 AQTF Standards for Accredited Courses*
3.1 Industry/enterprise/ community/education needs	Skylights are a type of window product that are positioned within the roof of a new or existing building. When installed correctly, they offer many sustainable and energy efficient benefits; Improvements in material technology, and the impost of energy rating schemes associated with building construction, has led to an increase in the range of skylight product available, and demand for installation. In Victoria, only licenced roof plumbers can penetrate a roof for skylight installation purposes; in practice however, very few roof plumbers undertake skylight installation work. Further, the Skylight Industry Association (SIA), the national organisation/peak body representing the skylight installation industry, reports that less than 50% of installation work actually involves roof plumbing. The identified issues related to skill application and certification have been the subject of long standing discussions (pre 2000) between the SIA, the Plumbing Industry Commission (PIC), and more recently the Victorian Building Authority (VBA), with the SIA advocating for the establishment of a restricted roof licence specifically for skylight installers. While these discussions continue, the need to formalise vocational outcomes for skylight installers has been acknowledged as an important step in the evolution of this industry's skill recognition. As a thin market within

the roofing industry, affected by an aging workforce and few new entrants, development of accredited curriculum is considered vital in upholding industry quality and compliance practices, as well as limiting potential skill shortages. Support from the Office of the Victorian Skills Commissioner (OVSC) in 2018 for course development prompted project commencement and further evidences industry endorsement of skylight installation skill formalisation.

Target group for the course

The identified cohort represents school leavers, people with some work experience and those from diminishing industries e.g. automotive manufacture. The course will therefore provide a pathway for either initial, or further skill building and skill recognition. Participants are not expected to have knowledge of the building and construction industry prior to enrolling into the course.

Course consultation and validation process

Project steering committee (PSC) members comprised executive representation from the Skylight Industry Association, one RTO committed to piloting the course, and key individual enterprises consisting of small to medium skylight installation firms.

Consultation with the group involved:

- email and telephone consultation to form the PSC and confirm draft content

- a review of the skills and knowledge profile of a skylight installation technician

- three PSC meetings held on 3rd September 2018, 3rd December 2018 and 25 February 2019 to review and evaluate the course structure and content in reference to contemporary skylight installation practices.

A desktop review of current skylight industry installation methods and related skylight product research was also undertaken to support the development of the accredited course.

Project Steering Committee

The project steering committee (PSC) guided the development of the accredited curriculum, members include:

- Laurie Baker (chair) - General Secretary, Skylight Industry Association (SIA)

- Tom Lloyd - General Manager, Diamond Skylights

- Paul Jones - Custom Skylights

- Moses Auvale - Sales & Marketing Director, Atlite

	Skylights
	• Ross Digby/Elizabeth Jansz- Head of Department: Building Construction Trades, Holmesglen Institute
	In attendance:
	Teresa Signorello Curriculum Maintenance Manager Building Industries Holmesglen Institute Susan Fechner Project Officer Building Industries Holmesglen Institute Jenny Lehman Curriculum Maintenance Support Administrator Holmesglen Institute
	The role of the PSC was to evaluate, confirm and validate the outcomes of the course. The members also provided technical information throughout the project.
	The outcomes of several national CPC units were carefully considered by the PSC with respect to their potential application to the course context. Roof installation units related to drainage and ventilation components, inspection openings and industrial roof components were considered irrelevant and beyond the scope of the curriculum. It was determined that focused attention for specific skylight installation and repair / replacement methods was required to support the vocational outcome of a skylight installation technician.
	This course:
	• does not duplicate, by title or coverage, the outcomes of an endorsed training package qualification
	• is not a subset of a single training package qualification that could be recognised through one or more statements of attainment or a skill set
	• does not include units of competency additional to those in a training package qualification that could be recognised through statements of attainment in addition to the qualification
	• does not comprise units that duplicate units of competency of a training package qualification.
3.2 Review for re-accreditation	Not applicable, this is a course accreditation.
4. Course outcomes	***Standards 1, 2, 3 and 4 AQTF Standards for Accredited Courses***
4.1 Qualification level	*22520VIC Course in Skylight Installation and Repair* meets an identified industry need, but does not have the

	breadth, depth or volume of learning of a qualification.
4.2 Employability skills	Not applicable.
4.3 Recognition given to the course **(if applicable)**	Not applicable.
4.4 Licensing/ regulatory requirements **(if applicable)**	Participants who visit a construction site will require a Construction Induction Card (CIC) issued by WorkSafe Victoria, which can be achieved through the completion of the unit, CPCCWHS1001 Prepare to work safely in the construction industry. Further information is available on the WorkSafe website. There are licensing requirements for this course. Competency in the high risk unit CPCCLSF2001A Licence to erect, alter and dismantle scaffolding basic level, will result in the attainment of the licence from Worksafe through an application process. Licensing, legislative, regulatory and certification requirements that apply to the units: • CPCCCM3001 Operate elevated work platforms up to 11 meters and • RIIWHS202D Enter and work in confined spaces can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the units.
5. Course rules	***Standards 2, 6, 7 and 9 AQTF Standards for Accredited Courses***

5.1 Course structure

To be awarded the *22520VIC Course in Skylight Installation and Repair*, a total of 7 units of competency must be completed:

• 6 core units

• 1 elective unit from the list of electives.

Where the full course is not completed, a Statement of Attainment will be issued for any units completed.

Unit of competency code	Field of Education code (6 digit)	Unit of competency title	Pre-requisite	Nominal hours
Core units				
VU22784	040399	Install prefabricated skylight product	Nil	15
VU22785	040399	Repair or replace skylight installation	Nil	15
CPCCCM2010B	061301	Work safely at heights	CPCCOHS2001A	8
CPCCWHS2001	061301	Apply WHS requirements, policies and procedures in the construction industry	Nil	20
CPCCWHS1001	061301	Prepare to work safely in the construction industry	Nil	6
RIIWHS202D	061301	Enter and work in confined spaces	Nil	30
Elective units				
CPCCCM1015	010101	Carry out measurements and calculations	Nil	20
CPCCCM3001	030717	Operate elevated work platforms up to 11 meters	Nil	32
CPCCLSF2001A	040329	Licence to erect, alter and dismantle scaffolding basic level	Nil	40
SIRXSLS001	080501	Sell to the retail customer	Nil	20
TLII1002	080501	Apply customer service skills	Nil	30
Total nominal hours				**114 - 134**

5.2 Entry requirements	There are no entry requirements for the *22520VIC Course in Skylight Installation and Repair*. Learners enrolling in the *22520VIC Course in Skylight Installation and Repair* are best equipped to successfully undertake the course if they have as a minimum, language, literacy and numeracy skills that align to Level 2 of the Australian Core Skills Framework (ACSF). The ACSF can be accessed from the education department's website available *here*. Learners with language, literacy and numeracy skills at a lower level than suggested will require additional support to successfully undertake the 'course in'.
6. Assessment	**Standards 10 and 12 AQTF Standards for Accredited Courses**
6.1 Assessment strategy	All assessment, including Recognition of Prior Learning (RPL), must be compliant with the requirements of: - Standard 1 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration and Guidelines 4.1 and 4.2 of the VRQA Guidelines for VET Providers, or - the Standards for Registered Training Organisations 2015 (SRTOs), or the relevant standards and Guidelines for RTOs at the time of assessment. Assessment strategies for the course should reflect the practical nature of the work undertaken; It is recommended that assessment include: - oral and written questioning related to underpinning knowledge - practical demonstration of activities which combine a number of learning outcomes to provide depth and context to the training - holistic assessment that reflects realistic job tasks. Assessment of imported units of competency from nationally endorsed training packages must comply with the assessment requirements detailed in the source training product.
6.2 Assessor competencies	Assessment must be undertaken by a person or persons in accordance with: Standard 1.4 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration and Guidelines 3 of the VRQA Guidelines for

	VET Providers,
	or
	• the Standards for Registered Training Organisations 2015 (SRTOs),
	or
	• the relevant standards and Guidelines for RTOs at the time of assessment.
	All assessment of units imported from Training Packages must reflect the requirements for assessors specified in the relevant source training product.
7. Delivery	***Standards 11 and 12 AQTF Standards for Accredited Courses***
7.1 Delivery modes	The course aims to develop practical competencies within an industry setting. Practical demonstrations and opportunity for application are considered to provide the most suitable strategy to reflect the objectives of the course. Some areas of content may be common to more than one element or more than one unit, therefore integration may be appropriate.
	Delivery options, including grouping of learners and learning activities, should recognise the varying learning needs, educational backgrounds, preferred learning styles and constraints of the individual learner and the specific requirements of each unit. The units may be delivered singularly, or they may be integrated holistically with a number of units.
	As the role involves practical skill development, the practical skill component of the course must be delivered in a:
	• workplace,
	or
	• simulated workplace that accurately reflects workplace conditions. Practical exercises may take the form of realistic, holistic projects to provide the learner with a 'real work' experience.
	The knowledge components of the course may be delivered using face-to-face, online or blended modes.
7.2 Resources	Training must be undertaken by a person or persons in accordance with:
	• Standard 1.4 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration and Guideline 3 of the VRQA Guidelines for VET Providers,
	or
	• the Standards for Registered Training

	Organisations 2015 (SRTOs), or
	• the relevant standards and Guidelines for RTOs at the time of assessment.
	Delivery and assessment materials should reflect the local work environment as far as possible.
	Refer to the individual units for specific tool and equipment requirements.
	Trainers of nationally endorsed units of competency must meet any additional requirements specified in the relevant training product.
8. Pathways and articulation	***Standard 8 AQTF Standards for Accredited Courses***
	There are no formal articulation arrangements in place.
	Completion of imported units of competency provides credit into a range of vocational qualifications from nationally endorsed training packages.
9. Ongoing monitoring and evaluation	***Standard 13 AQTF Standards for Accredited Courses***
	The Curriculum Maintenance Manager for Building Industries is responsible for the ongoing monitoring and evaluation of the *22520VIC Course in Skylight Installation and Repair.*
	Formal course evaluations will be undertaken halfway through the accreditation period and will be based on student and teacher evaluation surveys and industry stakeholder surveys/consultations.
	The Victorian Registration and Qualifications Authority (VRQA) will be notified of any changes to the course.

Section C – Units of competency

The following is a list of imported units of competency for the course, which can be downloaded from the National Register (more information is available *here*):

CPCCCM1015	Carry out measurements and calculations
CPCCCM2010B	Work safely at heights
CPCCCM3001	Operate elevated work platforms up to 11 meters
CPCCLSF2001A	Licence to erect, alter and dismantle scaffolding basic level
CPCCWHS2001	Apply WHS requirements, policies and procedures in the construction industry
CPCCWHS1001	Prepare to work safely in the construction industry
RIIWHS202D	Enter and work in confined spaces
SIRXSLS001	Sell to the retail customer
TLII1002	Apply customer service skills

The following is a list of the units of competency developed for the course that complies with the current requirements from the Training Package Development Handbook and is detailed in this section of the course document:

VU22784	Install prefabricated skylight product
VU22785	Repair or replace skylight installation

Unit code	VU22784
Unit title	Install prefabricated skylight product
Unit Descriptor	This unit of competency describes the performance outcomes, skills and knowledge required to install a prefabricated skylight product within a roof structure.
	Licensing, legislative, regulatory or certification requirements may apply to this unit. Refer to relevant State/ Territory regulator for guidance.
	Completion of the general induction training program specified by the National Code of Practice for Induction Training for Construction Work (ASCC 2007) is required before entering a construction work site. Achievement of unit, *CPCCWHS1001 Prepare to work safely in the construction industry*, meets this requirement.
Employability Skills	This unit contains Employability Skills.
Application of the Unit	This unit of competency supports the attainment of skills and knowledge required for skylight installers to apply installation practices to a range of prefabricated skylight products and roof types.
	The work context relates to residential construction, renovation or extension environments predominantly, however commercial and industrial environments are equally applicable.
	The unit applies to those working with supervision, sometimes as part of a small team. Work parameters are established in consultation with a supervisor. Responsibility for the quality of work outputs is expected.

ELEMENT		PERFORMANCE CRITERIA	
Elements describe the essential outcomes of a unit of competency.		*Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.*	
1	Determine job requirements	1.1	Obtain authorised job sheet, work instruction or job specification and identify job requirements.
		1.2	Assess job specification and confirm appropriateness of skylight location and compatibility of ***prefabricated skylight product*** with customer requirements.
		1.3	Notify supervisor of any anomalies between planned skylight location and product type to actual location

			and customer requirements.
		1.4	Clarify and confirm final skylight location and skylight product with supervisor and/or customer to ensure compliance with approved job specification.
		1.5	Determine applicable **occupational health and safety (OHS)/work health and safety (WHS) requirements**, in accordance with safe work method statement (SWMS) and relevant workplace policies.
2.	Prepare to undertake skylight installation	2.1	Select and dress in appropriate **personal protective equipment (PPE)** ensuring all items are secure and intact, as per workplace safety regulations.
		2.2	Erect **safety system** according to **roof type** and regulatory and manufacturers specifications, where required.
		2.3	Access roof cavity, identify potential **hazards / obstructions and structural modification** to skylight location.
		2.4	Refer presence of asbestos or asbestos containing material (ACM) to supervisor and confirm safe work area according to workplace procedures.
		2.5	Select **materials**, **tools and equipment** for skylight installation task, according to job specification requirements.
		2.6	Review sequence of skylight installation task and assemble materials, tools, equipment and skylight product elements for efficient access and use.
3.	Modify internal and external roofing material	3.1	Locate ceiling joists within building interior using stud finder.
		3.2	Measure and mark position of internal skylight diffuser ensuring placement is unobstructed and aesthetically pleasing.
		3.3	Score and cut ceiling plaster to create a hole consistent with internal skylight perimeter.
		3.4	Measure and mark **exterior roof material** using skylight product perimeter as a template reference.
		3.5	Remove exterior roof material, where appropriate, to access obstructions identified for removal.
		3.6	Cut **roof battens** to remove obstruction and brace with structural supports according to plans, specifications and National Construction Code (NCC)

			requirements, where required.
		3.7	Cut exterior roof material to customised skylight space using appropriate tools.
4.	Install skylight	4.1	Fit *flashing* to exterior roof material to prevent water leakage according to job specifications, NCC and VBA requirements.
		4.2	Fit and secure skylight product to external roof flashing according to manufacturer's specifications.
		4.3	Apply sealant to secure and seal flashing to exterior roof material in compliance with specifications and manufacturers recommendations as required.
		4.4	Secure skylight shaft through roof cavity and secure to customised ceiling opening, where required.
		4.5	Fit skylight diffuser to internal ceiling and secure according to product specifications, if required.
5.	Complete work processes	5.1	Contain, label and store materials for reuse, or dispose of material, in accordance with environmental requirements, legislation, such as regulations/codes of practice and workplace procedures.
		5.2	Clean tools and equipment and check for serviceability in accordance with manufacturers' recommendations and standard workplace procedures.
		5.3	Clean and tidy *work area* to ensure space is free of *waste* that may cause harm to self and others, in accordance with OHS /WHS regulations.
		5.4	Dismantle safety system according to regulations and manufacturers specifications, where required.
		5.5	Remove and/or dispose of PPE, according to OHS/WHS regulations.
		5.6	Confirm customer satisfaction with completed skylight installation and complete appropriate documentation.
		5.7	Report job completion to supervisor and process documentation according to workplace procedures.

REQUIRED SKILLS AND KNOWLEDGE
This describes the essential skills and knowledge and their level, required for this unit.
Required skills:

- planning and organising skills to:
  - complete work tasks in a logical and efficient sequence
  - prepare to work safely
- problem solving skills to:
  - position skylights effectively
  - identify inappropriate skylight product applications
  - refer product issues to appropriate personnel
  - identify and report asbestos and asbestos containing material
- self-management skills to apply PPE and manual handling techniques
- literacy skills to:
  - read and interpret:
    - product information and MSDS
    - job sheet/specifications and instructions
  - apply OHS/WHS, SWMS and other relevant workplace procedures
- numeracy skills to make measurements and calculations for skylight positioning
- learning skills to modify work processes to suit changing circumstances
- initiative skills to:
  - act on discrepancies with job specification to customer requirements
  - act on faults with product, tools and materials
  - work sustainably
- communication skills:
  - verbal skills to:
    - use skylight product and installation terminology
    - question and confirm customer requirements
    - report skylight installation anomalies
- writing skills to complete workplace documentation
- teamwork skills to consult with colleagues to develop ad hoc job specific solutions
- technology skills to:
  - use and maintain tools safely
  - apply hand and power tool techniques effectively
  - use new materials to industry standard

Required knowledge:

- terminology used for skylight installation
- metric system of measurement
- basic work planning principles
- characteristics of material types and their effects on each other, and appropriateness of use with prefabricated skylight product
- prefabricated skylight product types, features and uses

- types of tools and equipment, usage methods and maintenance

- common faults associated with materials, tools and equipment

- efficient work processes

- hazardous material types (including asbestos and asbestos containing material)

- relevant OHS/WHS regulations, policies and codes of practice concerning manual handling, PPE, working at heights, fall protection, electrical safety, confined spaces, hazardous substances (including asbestos)

- roof types and styles

- types of structural supports

- fixing and jointing techniques

- preparation requirements prior to installation

- skylight installation methods

- effective sealing methods

- consequences of poor sealing practices

- thermal expansion

- corrosion prevention treatment requirements (for cut metal sheets)

- material and skylight product compliance with property boundary requirements

- effects of sealing methods on material and skylight product

- reporting processes (faults with materials, tools and equipment, processes and emergencies)

- communication technologies and appropriate use

- workplace documents (location and types e.g. MSDS, JSA, SWMS)

- site policies (e.g. clean work area, drug, alcohol, etc.)

- material usage compatible with applicable BAL ratings

- National Construction Code (NCC) related to roof structure modifications.

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Prefabricated skylight product may include:	- moulded dome - acrylic, polycarbonate - glass - non ventilated or ventilated skylight - openable skylights (manual or automated)/roof windows - tubular daylighting devices.

***Occupational health and safety (OHS/work health and safety (WHS) requirements** may include:*	• state or territory legislation and regulations, including, permits for drop zones and requirements around temporary structural supports • organisational safety policies and procedures • material safety management systems • hazardous and dangerous goods codes of practice • relevant health regulations • manual handling procedures • the use of personal protective equipment • organisation insurance requirements.
***Personal protective equipment (PPE)** may include:*	• safety glasses • ear muffs • gloves • dust mask • foot wear.
***Safety system** may include:*	• harnessing • roof rails • scaffolding • edge protection.
***Roof type** may include:*	• pitched • curved • flat.
***Hazards / Obstructions** may include:*	• asbestos • battens • ceiling insulation • electrical wiring • plumbing • ducted systems • solar systems.
***Materials** may include:*	• sealant • flashing • foam • screws

	• nails • timber • pop rivets • tape.
Tools and equipment may include:	• drill • plaster saw • stud finder • grinder (with a diamond blade) on non-metal rooves • handsaw • hammer • tape measure • pencil • silicon gun • tin snips • power shears • hacking knife.

Exterior roof material may include:	• metal deck
	• tile
	   ○ glazed
	   ○ terra cotta
	   ○ concrete
	• corrugated iron
	• concrete with asbestos fibres
	• decramastic
	• slate
	• shingles.

Roof battens may include:	• non load bearing structures.
Flashing may include:	• generic flashing • custom flashing
Work area may include:	• external roof • internal roof cavity • interior of building.
Waste may include	• grinding dust

	· metal shavings
	· pop rivet stems
	· insulation particles
	· plaster powder.

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.	

Critical aspects for assessment and evidence required to demonstrate competency in this unit	A person who demonstrates competency in this unit must be able to provide evidence of the ability to:
	
	• read, interpret and apply information for skylight installation operations
	
	• comply with appropriate workplace procedures and safety regulations related to skylight product installation
	
	• position and install to workplace quality standards, one skylight to each of the following roof types:
	   o a pitched tile
	   o a corrugated iron
	   o metal deck.

Context of and specific resources for assessment	The application of competency is to be assessed in the workplace or realistically simulated workplace. Assessment is to comply with relevant regulatory or Australian Standards requirements. Resources for assessment must include: • one dome and one other prefabricated skylight product • tools and materials relevant to skylight installation tasks • documentation including job plans and product specifications, job safety analysis (JSA), safe work method statement (SWMS), material safety data sheets (MSDS), and industry standards.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • direct observation of the candidate performing skylight installation operations in a real workplace setting or simulated environment • written and oral questioning to test underpinning knowledge and its application to determining the preparation, application and clean up requirements of skylight installation operations • project activities that allow the candidate to demonstrate the application of skills and knowledge related to skylight installation tasks • portfolio evidence and third party workplace reports of skylight installation tasks performed by the candidate.

Unit code	VU22785
Unit title	Repair or replace skylight installation
Unit Descriptor	This unit of competency describes the performance outcomes, skills and knowledge required to diagnose and repair or replace a prefabricated skylight product within a roof structure.
	Licensing, legislative, regulatory or certification requirements may apply to this unit. Refer to relevant State/ Territory regulator for guidance.
	Completion of the general induction training program specified by the National Code of Practice for Induction Training for Construction Work (ASCC 2007) is required before entering a construction work site. Achievement of unit, *CPCCWHS1001 Prepare to work safely in the construction industry*, meets this requirement.
Employability Skills	This unit contains Employability Skills.
Application of the Unit	This unit of competency supports the attainment of skills and knowledge required for skylight installers to diagnose faults in, and replace or apply repair practices to, a range of prefabricated skylight product installations within a variety of roof types.
	The work context relates to residential buildings predominantly, however commercial and industrial environments are equally applicable.
	The unit applies to those working with supervision, sometimes as part of a small team. Work parameters are established in consultation with a supervisor. Responsibility for the quality of work outputs is expected.

ELEMENT		PERFORMANCE CRITERIA	
Elements describe the essential outcomes of a unit of competency.		*Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.*	
1.	Prepare to diagnose skylight fault	1.1	Obtain authorised work instruction or job specification/sheet and identify job requirements.
		1.2	Liaise with customer to obtain and interpret observed *diagnostic information*, view location of skylight installation from ground level and reconcile to job sheet details.

		1.3	Determine applicable **occupational health and safety (OHS)/work health and safety (WHS) requirements**, and complete safe work method statement (SWMS) where applicable.
		1.4	Select and dress in appropriate **personal protective equipment (PPE)** ensuring all items are secure and intact, as per workplace safety regulations.
		1.5	Erect **safety system** according to **roof type** and regulatory and manufacturers specifications, where required.
		1.6	Select **diagnostic tools and equipment** for skylight fault identification according to diagnostic information obtained and job sheet requirements.
2.	Diagnose skylight fault	2.1	Inspect and assess skylight and surrounding ceiling from building interior for evidence of fault.
		2.2	Access external roof and roof cavity to inspect surrounding area of skylight for potential **hazards / obstructions**.
		2.3	Refer presence of any hazards to supervisor and confirm safe work area according to workplace procedures.
		2.4	Inspect and assess skylight and surrounding area for evidence of fault.
		2.5	Perform **diagnostic testing** and analyse results according to workplace procedures.
		2.6	Identify **faults** and related causes from approved diagnostic tests.
		2.7	Determine appropriate **repair method/s** and document on job specification according to workplace procedures.
		2.8	Notify supervisor to discuss skylight installation fault and confirm proposed repair method on job specification to ensure compliance with workplace regulations.
3.	Repair or replace skylight fault	3.1	Select and check repair or replacement **materials, tools and equipment** according to job specification.
		3.2	Undertake skylight replacement, or repairs to skylight components, without causing residual damage to existing components, according to manufacturer's specifications, safety requirements and workplace procedures.

4.	Complete work processes	4.1	Contain, label and store materials for reuse, or dispose of material, in accordance with environmental requirements, legislation, such as regulations/codes of practice and workplace procedures.
		4.2	Clean tools and equipment and check for serviceability in accordance with manufacturers' recommendations and standard workplace procedures.
		4.3	Clean and tidy **work area** to ensure space is free of **waste** that may cause harm to self and others, in accordance with OHS /WHS regulations.
		4.4	Dismantle safety system according to regulations and manufacturers specifications, where required.
		4.5	Remove and/or dispose of PPE, according to OHS/WHS regulations.
		4.6	Confirm customer satisfaction with completed skylight replacement or repair and complete appropriate documentation.
		4.7	Report job completion to supervisor and process documentation according to workplace procedures.

REQUIRED SKILLS AND KNOWLEDGE
This describes the essential skills and knowledge and their level, required for this unit.

Required skills:
 	
• planning and organising skills to:
 	
   o complete work tasks in a logical and efficient sequence
   o prepare to work safely
 	
• problem solving skills to:
 	
   o diagnose skylight installation faults
   o determine causes of skylight installation faults
   o identify inappropriate skylight product applications
   o refer product issues to appropriate personnel
   o identify and report asbestos and asbestos containing material (ACM)
 	
• self-management skills to apply PPE and manual handling techniques
 	
• literacy skills to:
 	
   o read and interpret:
      – product information and MSDS
      – job specification/specifications and instructions
   o apply OHS/WHS, SWMS and other relevant workplace procedures

- numeracy skills to make measurements and calculations for material applications

- learning skills to modify work processes to suit changing circumstances

- initiative skills to:
  - act on faults with product, tools and materials
  - work sustainably

- communication skills:
  - verbal skills to:
    - use skylight product and installation terminology
    - question customer for product/installation fault identification

- writing skills to complete workplace documentation

- teamwork skills to consult with supervisor to develop appropriate repair methods

- technology skills to:
  - use and maintain tools safely
  - apply hand and power tool techniques effectively
  - use new materials to industry standard.

Required knowledge:

- terminology used for skylight installation

- metric system of measurement

- basic work planning principles

- characteristics of material types and their effects on each other, and appropriateness of use with prefabricated skylight product

- prefabricated skylight product types, features and uses

- types of tools and equipment, usage methods and maintenance

- common faults associated with skylight products, materials, tools and equipment

- efficient work processes

- hazardous material types (including asbestos and asbestos containing material)

- relevant OHS/WHS regulations, policies and codes of practice concerning manual handling, PPE, working at heights, fall protection, electrical safety, confined spaces, hazardous substances (including asbestos)

- roof types and styles

- types of structural supports

- fixing and jointing techniques

- preparation requirements prior to installation

- skylight installation methods

- effective sealing methods

- consequences of poor sealing practices

- thermal expansion

- corrosion prevention treatment requirements (for cut metal sheets)

- material and skylight product fire rating requirements

- effects of sealing methods on material and skylight product fire ratings

- reporting processes (faults with materials, tools and equipment, processes and emergencies)

- communication technologies and appropriate use

- workplace documents (location and types e.g. MSDS, JSA, SWMS)

- site policies (e.g. clean work area, drug, alcohol, etc.)

- material usage compatible with applicable BAL ratings

- National Construction Code (NCC) related to roof structure modifications.

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.	
Diagnostic information may include:	• water damage to ceiling • water leakage • draught • air whistling • temperature change • vermin access.
Occupational health and safety (OHS/work health and safety (WHS) requirements may include:	• state or territory legislation and regulations, including, permits for drop zones and requirements around temporary structural supports • organisational safety policies and procedures • material safety management systems • hazardous and dangerous goods codes of practice • relevant health regulations • manual handling procedures • the use of personal protective equipment • organisation insurance requirements.
Personal protective equipment (PPE) may include:	• safety glasses • ear muffs • gloves

	• dust mask • foot wear.
Safety system may include:	• harnessing • roof rails • scaffolding • edge protection.
Roof type may include:	• pitched • curved • flat.
Diagnostic tools and equipment may include:	• bucket • water hose • torch.
Hazards / Obstructions may include:	• asbestos • battens • ceiling insulation • electrical wiring • plumbing • ducted systems • solar systems.
Diagnostic testing may include:	• visual • customer information • insurance reports • water • adequate structural support.
Faults may include:	• weathered sealant • rusted/damaged flashing • rusted/damaged cladding • condensation channels • damage from debris accumulation e.g. leaves • wear and tear over time.
Repair method/s may include, but not limited to:	• resealing • replacing component parts • refitting flashing

	• replacing flashing.
Materials may include:	• sealant • flashing • foam • screws • nails.
Tools and equipment may include:	• drill • plaster saw • stud finder • grinder (with a diamond blade) • handsaw • hammer • tape measure • pencil • silicon gun • tin snips • power shears • hacking knife.
Work area may include:	• external roof • internal roof cavity • interior of building.
Waste may include:	• grinding dust • metal shavings • insulation particles • plaster powder.

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.	

Critical aspects for assessment and evidence required to demonstrate competency in this unit	A person who demonstrates competency in this unit must be able to provide evidence of the ability to:
	
	• read, interpret and apply information for skylight replacement or repair
	
	• comply with appropriate workplace procedures and safety regulations related to skylight product replacement or repair
	
	• diagnose and replace to workplace standards, one skylight installation, to one of the following roof types:
	    o a pitched tile roof
	    o a corrugated iron roof
	    o metal deck
	
	• diagnose and repair, to workplace quality standards, at least two components, one flashing and one glazing, to one of the following roof types:
	    o a pitched tile roof
	    o a corrugated iron roof
	    o metal deck.

Context of and specific resources for assessment	The application of competency is to be assessed in the workplace or realistically simulated workplace. Assessment is to comply with relevant regulatory or Australian Standards requirements. Resources for assessment must include: • one dome and one other prefabricated skylight product • tools and materials relevant to skylight installation repair tasks • documentation including job plans and product specifications, job safety analysis (JSA), safe work method statement (SWMS), material safety data sheets (MSDS), and industry standards •
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • direct observation of the candidate performing skylight installation repair operations in a real workplace setting

	or simulated environment
	• written and oral questioning to test underpinning knowledge and its application to determining the preparation, application and clean up requirements of skylight installation repair operations
	• project activities that allow the candidate to demonstrate the application of skills and knowledge related to skylight installation repair tasks
	• portfolio evidence and third party workplace reports of skylight installation repair tasks performed by the candidate.