SA102 Smart Awards Fibre Cabling Overhead

QUALIFICATION SPECIFICATION

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Introduction

This qualification covers the installation of a fibre cable and associated fibre equipment in the overhead network for network build activities. Learners are provided with the knowledge and skills to identify the hazards and potential risks involved in working safely on ladders and wooden poles when installing fibre cables and equipment in a telecommunications environment. It also helps learners' awareness of compliance with health and safety legislation.

This qualification is aimed at those individuals who undertake work in a telecommunication (or similar utility) environment. This qualification tests learners' knowledge, skills and ability when installing cable and associated fibre equipment in the overhead network. The module covers the dangers associated with working overhead and the safety precautions required while installing fibre.

This qualification ensures that learners involved in the installation of overhead fibre cables and equipment are suitably trained. This qualification is aimed at those working in the overhead network in a telecommunications environment. This qualification does not cover rooftop working.

Key Information	
Name	SA102 Smart Awards Fibre Cabling Overhead
Accreditation	This qualification is approved by: • Industry qualification SA102
Level	2
Duration	2 days
Guided Learning Hours (Ofqual)	16 hours
Time/Notional Learning Hours (SQA Accreditation)	
Ofqual Total Qualification	
RQF - Ofqual Credit - Credit value represents the size of a unit which is determined by the learning time. One credit = 10 hours of notional learning.	2
Age	16 Plus
Qualification Type	Vocationally Related Qualification
Smart Awards Product Area	Safety and Craft Qualifications
Sector Subject Area	5.2 - Building and construction
Certification	This qualification is valid for a period of three (3) years from the date of certificate issue. To remain compliant and eligible to work on

	telecommunications networks, individuals must renew their qualification before the expiry date.
Network Operative Passport Scheme (NOPS)	This qualification is fully aligned with the requirements of the Network Operative Passport Scheme (NOPS). Successful completion of this qualification is recorded within the NOPS system, ensuring operatives are visible and verifiable to employers and site access systems across the industry.
Prerequisites and Entry Requirements	Learners MUST complete either SA001 Overhead Safety or SA009 Overhead Safety & Cable Installation over LV Power Crossings in advance of this qualification. There are no formal entry requirements and Smart Awards will not restrict access on the grounds of prior academic attainment, employment, geographic location, or any other grounds. There are no barriers that restrict access or progression, thereby promoting equality. Learners must have a basic understanding of the English language to ensure they can meet the requirements of the qualification. **Please note:** The New Roads and Street Works Act 1991 (NRSWA) require at least one person on site to hold a Street Works card to work on the highway. This Smart Awards accreditation is based on a pre-requisite that any work on the highway requires appropriate Street Works accreditation to be held by an individual working on site, and that this individual is qualified to check that the planned provision of footways, traffic lanes and safety zones determined by the site survey meets with the requirements of the site location and approved procedures and practices required by the NRSWA 1991. Some companies' policies may vary where more than one person on site is required to hold a valid Street Works card.
Mandatory units and optional routes to completion.	Learners must complete the Smart Awards Fibre Cabling Overhead unit in full to achieve this qualification. No optional units or routes are available.
Additional requirements to achieve this qualification.	None
Methods of Assessment	This qualification will be assessed through a practical and theory test. The aim of the assessment is to ensure successful learners have adequate knowledge and understanding of Fibre Cabling Overhead. Assessment guidance, assessor requirements and additional qualification documentation is supplied to approved Smart Awards centres via Quartz.
Theory test	Learners are required to pass a 20-question multiple-choice test, with questions randomly selected from a secure question bank to ensure comprehensive coverage of all assessment criteria. The test is timed, and learners will have 30 minutes to complete it.

	All multiple-choice tests are conducted online via the Smart Awards online assessment platform.
Practical assessment	Learners will be required to demonstrate their practical skills through a series of tasks set by Smart Awards. These will be assessed by direct observation of the learner performing the task under assessment conditions. The assessment area must be equipped sufficiently so that the learner can be assessed in their competencies safely and without anyone providing guidance to help the learner. Assessor Role: To observe, record performance, question learners where clarification is needed, and verify competence against set criteria. Assessors should evaluate learners against the following categories: • Learners must be assessed individually, even in a team simulation. • Use Smart Awards standardised observation checklist for consistency. • Ensure opportunities for questioning are built into the simulation, particularly regarding reasoning behind technique and decision-making. • In cases of unsupervised elements, probe for ownership of work through reflective questioning. • Provide a brief debriefing session after the assessment to give feedback and confirm understanding. The learner will have 7 hour 30 minutes to complete the practical assessments.
Grading	Learners will be graded (Fail or Pass) on an achievement or non-achievement basis. The final grade will be determined by collective performance in the two assessment tools (theory and practical). Learners are required to achieve both the theory and practical assessments to achieve the qualification. Theory – to achieve a pass 80% or more is required Practical • If one major fault is given the learner will automatically fail. • If 5 or more minor faults are given the learner will fail. • The learner needs to achieve 4 or less minor faults to pass. If there are major health and safety failures due to learners' actions or understanding, the assessment MUST be stopped. The learner should be taken to a suitable area to be explained the reason for stopping the assessment and that his assessment is deemed as failed. Guidance on the major failures that should result in stopping the assessment is provided in the practical assessment.

Reasonable adjustments and special considerations	Smart Awards approved centres that have learners with specific requirements should refer to the Smart Awards Reasonable Adjustments and Special Considerations Policy and Procedure. This document outlines the support available to ensure fair access to assessments. It can be found on the Smart Awards website at www.smartawards.co.uk
Recognition of Prior Learning	Smart Awards is committed to supporting Recognition of Prior Learning (RPL) and has established a dedicated policy and set of procedures to guide and assist approved centres in its implementation. The full policy is available on the Smart Awards website at www.smartawards.co.uk
Required resources and site requirements for delivering this Qualification	Site Requirements • A minimum of 2 poles (minimum height 9m) per learner with a marked-out road crossing between them • Ability to span a cable pole to pole or pole to a solid structure, not over a carriageway • A full size or training/nursery pole for the pole step exercise, this can be completed at low level • Gate guards, ladder fastening/lashing rope (securing the ladder to pole), ladders, pole test equipment, measuring rods • Ladder fall arrest system (equipment) where applicable The following equipment must be available and in safe working condition for the practical assessment. Use of the specific tools and equipment issued by the learner's employer or utility is encouraged and may be required, depending on operational policy: • Ring heads on poles • Appropriately checked and safe ladder and pole climbing equipment. Use of specific equipment used by the learner is encouraged and, in some cases, may be mandatory requirement of the utility and/or the employer • Fibre block terminal • Fibre Locking mechanisms • Cable dispenser • Cable fixings • Cable clamps • Flat fibre cable • Round fibre cable • Sash line • Pole belt 1B • Pulleys • Overhead cable grip (Come along) • Back-to-back or 3-way brackets • Pole step no 1 • Ring pole head standoff • Plugs creosoted • Coach screws 3 inch • Brace coach screw or similar

	• Hammer

Qualification Structure

The Level 2 Award in Fibre Cabling Overhead qualification consists of one mandatory unit, which learners must complete to achieve the qualification. Attainment at Level 2 demonstrates the learner's ability to apply relevant knowledge, skills, and procedures to carry out clearly defined tasks and resolve straightforward problems with appropriate direction or supervision.

SMART AWARDS Level 2 Award in Fibre Cabling Overhead								
Minimum TQT for this pathway = 16 Minimum number of credits = 2 Minimum number of units = 1				Minimum number of GLH = 16 Minimum number of assessment time = 8 Other learning time = 0				
Unit Number	**Unit title**	**Level**	**M/O**	**GLH**	**ASS**	**OTHER LEARNING**	**TQT**	**CREDITS**
	Fibre Cabling Overhead	2	M	16	8	0	16	2

Learner Support and Assessment Conditions

Learners will have access to support throughout the training period via their trainer. Trainers are responsible for ensuring that each learner is adequately prepared and competent before presenting them for assessment.

No support or assistance may be given to the learner during either the theory or practical assessments, to maintain the integrity and validity of the qualification.

Qualification objectives and requirements

This qualification confirms that the learner has demonstrated the required competence to perform Fibre Cabling Overhead. To successfully obtain this qualification, the learners will need to demonstrate the knowledge and ability requirements set out in the learning outcomes and assessment criteria.

Unit Title:	Smart Awards Fibre Cabling Overhead
Unit Reference Number:	SA102

Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Be able to work safely.	1.1. Identify the hazards and risks associated with the working area and the proposed work. 1.2. Complete work in a way which maintains health and safety and is consistent with relevant legislation and industry good practice. 1.3. Apply correct manual handling techniques. 1.4. Select and use correct climbing equipment and personal protective equipment (PPE). 1.5. Complete pre-use safety checks on ladders.

	1.6. Carry out work to minimise environmental damage.
2. Be able to access a pole using a ladder.	2.1. Perform a hazard evaluation and Work at Height assessment of the pole prior to commencing the work. 2.2. Perform all pre climb checks. 2.3. Inspect access equipment to ensure it is safe and fit for use under manufacturer's instructions and relevant legislation. 2.4. Use access and positioning methods appropriate to the assessed risk. 2.5. Use appropriate positioning techniques. 2.6. Carry out safe climbing of a ladder. 2.7. Demonstrate the ability to ascend and descend pole in a controlled manner and remove equipment appropriately.
3. Be able to safely install a fibre cable using the lift and fix method.	3.1. Prepare area for safe cable installation. 3.2. Demonstrate safe erection of a cable where the span does not cross a carriageway. 3.3. Use the correct cable clamps to attach cable to pole ring head or bracket. 3.4. Install cable with adequate tension. 3.5. Safely recover the cable.
4. Be able to safely install a round fibre cable over a carriageway using a sash line.	4.1. Prepare area for safe cable installation. 4.2. Demonstrate installation of sash over a carriageway, between 2 poles. 4.3. Use sash line to pull up new fibre cable. 4.4. Install correct clamps. 4.5. Position and route cable and restrain correctly without compromising minimum bend radius. 4.6. Install fibre locking mechanisms in correct location and route cable through it. 4.7. Install temporary cable coils safely and to the quality standard. 4.8. Check that minimum wire height has been achieved.
5. Be able to safely install a flat fibre cable over a carriageway using the cut and draw method.	5.1. Prepare area for safe cable installation. 5.2. Replace existing cable with a flat fibre cable using cut and draw method. 5.3. Use a cable dispenser. 5.4. Install the correct number of anti-oscillation twists 5.5. Use an overhead cable grip. 5.6. Install correct clamps. 5.7. Position and route cable and restrain correctly without compromising minimum bend radius. 5.8. Install temporary cable coils safely and to the quality standard. 5.9. Check that minimum wire height has been achieved.

6. Be able to install fibre equipment/block terminals on poles safely and to a quality standard.	6.1. Install block terminal in the correct position on pole using a 3 way or back-to-back bracket. 6.2. Position new equipment so it is not obstructing future climbs or access to existing components. 6.3. Use correct fixings. 6.4. Demonstrate that site is cleared away and all waste removed.
7. Be able to move the top bass step safely to increase space in the top pole envelope and install a ring pole head stand-off.	7.1. Demonstrate safe removal of pole step. 7.2. Install creosoted plugs correctly. 7.3. Install ring pole head standoff safely, in the correct position, and to a quality standard.
8. Know relevant health and safety legislation and industry good practice.	8.1. Outline the key health and safety legislation and industry good practice. 8.2. Outline the key health and safety regulations that need to be observed when working at height. 8.3. Describe how to use and maintain tools, equipment, and personal protective equipment. 8.4. Outline the emergency planning procedures relevant to the work area.
9. Know the safety and quality standards for working on a pole.	9.1. Describe the method of reporting unsafe or below standard plant/network. 9.2. List the different types of labelling on a pole and why they are important. 9.3. Describe what DILOR is and why it is important. 9.4. Recognise the requirement for route stability and the effects of pole loadings. 9.5. Describe the wire height requirements and maximum span length rules. 9.6. Describe what a Joint User Pole is and the rules for working on them. 9.7. Recognise types of overhead power and know the clearances required.
10. Know how to install fibre cables, equipment, block terminals and pole steps safely and to a quality standard.	10.1. List the different methods of installing fibre equipment in the top pole envelope. 10.2. Describe the different types of cable clamps and when to use them. 10.3. Recognise back-to-back brackets, 3-way brackets, and a composite face plate, understanding their use and benefits and how to install them. 10.4. List the methods of temporarily and permanently attaching cable coils to poles. 10.5. Describe the importance of not compromising a cable's minimum bend radius. 10.6. Describe the process for safe cable erection. 10.7. Describe how to lower the top bass step and install ring pole head stand-off.