



Australian Government

Department of Education, Employment and Workplace Relations

LGAWORK405A Plan and supervise roadworks

Release 2

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Modification History

LGAWORK405A Release 2: Layout adjusted.

LGAWORK405A Release 1: Primary release.

Unit Descriptor

This unit covers planning and supervising manual and mechanical operations undertaken to maintain or repair roads within council areas. It covers the identification and application of appropriate materials for particular roadworks. The unit is appropriate for supervisors and team leaders of council roadworks.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation, codes and regulations that provide the boundaries for the operation of council roadworks is essential. The ability to use appropriate materials, construction methods and processes and adhere to relevant standards must be demonstrated.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

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 Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Plan and prepare for roadworks and maintenance	1.1. Requests for <i>roadworks</i> are received and prioritised. 1.2. Site of roadworks and cause of defect are assessed to determine required <i>materials</i> , resources and safety precautions. 1.3. Quality assurance requirements are identified and incorporated into preparation for roadworks. 1.4. Traffic management requirements are assessed and adequate <i>notification</i> to the public of future roadworks and expected delays is arranged. 1.5. Work schedules are established outlining required equipment, resources, materials and optimum timing to complete works. 1.6. Appropriate plans, specifications or <i>drawings</i> are referred to, to ensure quality assurance is adhered to and maintained.
2 Evaluate road construction materials	2.1. Type and quantity of construction or repair materials are determined and delivery to site is arranged in accordance with established work schedule. 2.2. Required pre-mix and hot-mix materials are identified to suit job requirements. 2.3. Impurities in raw and processed materials are identified and recorded in accordance with council and quality assurance requirements. 2.4. Appropriate type of repair and repair material is recommended for defective road <i>surfaces</i> . 2.5. Manufacture and testing of all materials are conducted and recorded in accordance with appropriate Australian standards.
3 Supervise road construction and repair work	3.1. Appropriately skilled workforce is selected and scheduled to conduct roadwork. 3.2. Job specifications and required tasks are communicated effectively to scheduled workforce. 3.3. Road construction or repair work is monitored to ensure it satisfies quality assurance requirements and relevant legislation. 3.4. On-site occupational health and safety (OHS) requirements are monitored and observed at all times. 3.5. <i>Emergency equipment</i> is in working order and available at the work site. 3.6. <i>Contingencies</i> are managed to ensure quality of roadworks is maintained and work is completed within agreed time frames.
4 Monitor	4.1. Site drainage requirements are assessed in accordance

ELEMENT**PERFORMANCE CRITERIA****environmental****impact of roadworks**

- with legislative requirements.
- 4.2. Quality of drainage water and run-off from the site is monitored to ensure compliance with legislation.
 - 4.3. Issues relating to damage from environmental impact are identified and processes are implemented to prevent or minimise impact.
 - 4.4. Reinstatement of the surrounding environment is planned and carried out in accordance with relevant legislation.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- interpreting, applying and communicating technical information
- problem solving
- contingency planning and management
- interpreting technical drawings and site plans
- supervisory and leadership skills
- communication
- project management
- time management
- organisation
- working under pressure and within time constraints
- using construction equipment
- using surveying equipment, including optical square, clinometer, dumpy level, tilting level, automatic level, change plates, laser level and laser plane

Required Knowledge

- site and equipment safety requirements
- appropriate state or territory legislation, regulations and codes
- quality assurance procedures relevant to roadworks
- equipment characteristics, technical capabilities and limitations
- manual handling techniques used in accordance with WorkSafe standards
- roadwork activity procedures
- basic geological and technical data
- diagnostic techniques
- properties, characteristics and uses of various road construction or repair materials
- relevant survey methodologies and calculations

Evidence Guide

Overview of assessment requirements

A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit must be demonstrated.

Critical aspects of evidence to be considered

The demonstrated ability to:

- comply with OHS regulations applicable to workplace operations and consistent with state or territory legislative requirements
- communicate roadworks information clearly to team members and others
- plan and supervise safe work practices in a range of environments
- understand emergency procedures and appropriate responses
- transfer skills to changing circumstances and environmental conditions
- provide job specifications to maintain sealed roads

Context of assessment

Competency is demonstrated by performance of all stated criteria, with particular attention to the critical aspects of evidence and the knowledge and skills elaborated in the Evidence Guide, and within the scope of the Range Statement. Assessment must take account of the endorsed Assessment Guidelines in the Local Government Training Package. Assessment of the performance requirements in this unit should be undertaken in an actual workplace or simulated environment.

Assessment should reinforce the integration of the key competencies for the particular AQF level. Refer to the key competency levels at the end of this unit.

Relationship to other units (prerequisite or co-requisite units)

To enable holistic assessment this unit may be assessed with other units that form part of the job role. This unit of competency is dependent upon acquiring relevant prerequisite underpinning knowledge in the road construction industry.

Method of assessment

Competency should be assessed through direct simulated or actual workplace activities and questions related to underpinning knowledge. Competency in this unit may be determined concurrently,

based upon project work.

Competency may be assessed while work is undertaken under limited guidance, checking at various stages of the process and at the completion of the activity against the Performance Criteria and specifications.

Evidence required for demonstration of consistent performance

Evidence should be collected over a set period of time that is sufficient to include an appropriate range and variety of situations.

Resource implications

- interpreting, applying and communicating technical information
- problem solving
- contingency planning and management
- interpreting technical drawings and site plans
- supervisory and leadership skills
- communication
- project management
- time management
- organisation
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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.

Roadworks activities may include:

- rectifying imperfections in road surfaces (e.g. potholes)
- new road constructions
- existing road reconstructions
- work on different road types, including asphalt, bitumen, dirt or gravel

Materials may include:

- bituminous mixes
- asphalt
- gravel

Notification to the public may require:

- monitoring traffic volumes
- advertisements in local newspapers
- signage in the area of planned roadworks

Drawings may include:

- site plans and detailed plans
- roadworks
- plans of subdivision
- earthworks

Surfaces may include:

- haul roads
- formed or prepared roads, including highways, arterial roads, residential streets and secondary roads
- access roads
- pads

Emergency equipment may include:

- firefighting equipment
- medical and first aid kits
- personal protective clothing and equipment

Contingencies may include:

- weather changes
- worker injuries or illnesses
- worker absences
- supply breakdowns
- machinery failures

Unit Sector(s)

Operational Works