



Australian Government

MSL975027 Classify building sites

Release: 1

MSL975027 Classify building sites

Modification History

Release 1. Supersedes and is equivalent to MSL976001A Classify building sites

Application

This unit of competency covers the ability to classify building sites, including residential, light industrial, commercial and institutional structures for the purpose of providing guidance for the design of footing systems.

This unit of competency is applicable to senior technical officers working in the construction materials testing industry sector. Site classification is applicable to single dwelling houses, townhouses and commercial, institutional or light industrial buildings. The classification depends on reactivity of the foundation soils and other potential problems, such as mine subsidence, groundwater conditions and slope. These influence the design of footings, so as to minimise damage due to foundation movement during the life of the building. Operations are performed in accordance with laboratory and/or workplace procedures, and appropriate legislative requirements.

This competency is typically performed by paraprofessionals working under the supervision of an engineer.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

MSL974014 Classify soils

MSL973010 Conduct laboratory-based acceptance tests for construction materials

MSL973009 Conduct field-based acceptance tests for construction materials

Competency Field

Testing

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|---|--|---|
| 1 | Prepare to classify site | <div style="margin-left: 20px;">1.1 Review job request and any accompanying documentation to identify purpose of site classification, proposed structure, client's information needs and timeframe</div> <div style="margin-left: 20px;">1.2 Review relevant building codes or regulations, standards and workplace procedures for classifying site</div> <div style="margin-left: 20px;">1.3 Locate any previous site classifications conducted in same area</div> <div style="margin-left: 20px;">1.4 Review supplied site drawings, topography, borehole locations and logs, photographs and design plans for planned structure</div> <div style="margin-left: 20px;">1.5 Inspect supplied samples and investigation data for completeness and obvious errors</div> <div style="margin-left: 20px;">1.6 Confirm that investigation data meets depth requirements for the type of site and location</div> <div style="margin-left: 20px;">1.7 Liaise with client when supplied documentation, samples, investigation data and/or job request do not comply with workplace procedures and resolve any problems</div> |
| 2 | Analyse site information and test results | <div style="margin-left: 20px; padding-top: 20px;">2.1 Locate and assess site features, such as slope, structures, drainage, trees and vegetation or abnormal soil conditions that may affect site classification</div> <div style="margin-left: 20px;">2.2 Determine if fill is present on-site, whether controlled or uncontrolled, and its depth and extent</div> <div style="margin-left: 20px;">2.3 Determine bearing capacity of soil</div> <div style="margin-left: 20px;">2.4 Review shrink/swell or correlated clay index test results to determine soil reactivity</div> <div style="margin-left: 20px;">2.5 Review bore log data in conjunction with soil reactivity and calculate potential soil movement</div> |

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| | | 2.6 | Recognise obvious errors, insufficient or inconsistent data and limitations of test results |
| | | 2.7 | Arrange for, or conduct, additional sampling and/or testing to ensure reliable data for site classification, as required |
| 3 | Report site classification | 3.1 | Use standard symbols and descriptors to assign a valid site classification that accurately reflects soil reactivity, surface movement and any problematic features |
| | | 3.2 | Summarise field observations, calculations and test results used to determine site classification |
| | | 3.3 | Accurately describe site features that will affect the design of the proposed structure |
| | | 3.4 | Provide adequate data to inform footing system design |
| | | 3.5 | Authorise release of site classification report to the client, or forward the report to a signatory for review and release |
| 4 | Finalise site classification | 4.1 | Store client's documentation, samples and test data, and site classification in accordance with workplace procedures |
| | | 4.2 | Maintain confidentiality of client information |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories, laboratory safety, and quality and environmental management
- national work health and safety (WHS) standards and codes of practice, national measurement regulations and guidelines, and environmental legislation and regulations
 - specific codes, guidelines, standards and methods, such as:
 - State/Territory Building Codes and Regulations
 - AS 2870-2011 Residential slabs and footings
 - AS 3798-2007 Guidelines on earthworks for commercial and residential developments
 - AS 1726-1993 Geotechnical site investigations
 - AS 1289 Set Methods of testing soils for engineering purposes
 - National Association of Testing Authorities (NATA) documents regarding construction materials testing (Field application document)
- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; calibration and maintenance schedules; material safety data sheets (MSDS) and safety procedures; material, production and product specifications; production and laboratory schedules; workplace recording and reporting procedures; waste minimisation and safe disposal procedures; maps and site plans
- sampling and testing procedures for specific sites, clients and samples

WHS and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples

Unit Mapping Information

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Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>