



Level 5 Diploma in Utility Mapping and Surveying
Qualification Specification

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Introduction

The Level 5 Diploma in Utility Mapping and Surveying is aimed at those working in a surveyor role, and covers topics relating to planning site surveying operations; forming and working with project teams; using surveying instruments; establishing and maintaining dimensional control; working with technical systems; assessing and producing mapping data.

The qualification units cover provision of surveys, meeting some of the requirements of planning, managing and delivering a PAS128 Survey at Quality Level B (M1-M4).

The awarding body for this qualification is ProQual Awarding Body and the regulatory body is the Office of Qualifications and Examinations Regulation (Ofqual). The specification for these qualifications has been approved by the Welsh Government for use by centres in Wales and by the Council for the Curriculum Examinations and Assessment (CCEA) for use by centres in Northern Ireland.

This qualification has been accredited onto the Regulated Qualifications Framework (RQF), and is a pre-requisite for progression to the ProQual Level 6 Diploma in Utility Mapping and Surveying qualification.

Qualification Profile Level 5 Diploma in Utility Mapping and Surveying

Qualification title	ProQual Level 5 Diploma in Utility Mapping and Surveying
Ofqual qualification number	600/5171/1
Level	Level 5
Total qualification time	450 hours
Guided learning hours	300
Assessment	Pass or fail Internally assessed and verified by centre staff External quality assurance by ProQual verifiers
Qualification start date	1/5/12
Qualification end date	

Entry Requirements

ProQual Level 3 Certificate in Utility Mapping and Surveying is a pre-requisite for candidates undertaking this qualification.

Centres should carry out an **initial assessment** of candidate skills and knowledge to identify any gaps and help plan the assessment.

Qualification Structure

Candidates must completing **6 Mandatory** units.

Mandatory Units		
Unit Reference Number	Unit Title	Unit Level
Y/507/1370	Agree project requirements and plan site surveying in geomatics and site surveying management	6
D/507/1371	Plan methods, resources and systems to meet project requirements in geomatics and site surveying management	5
H/507/1372	Site surveying procedures for construction and the built environment	4
K/507/1373	Establish and maintain the dimensional control and setting out of construction projects in geomatics and site surveying	4
M/507/1374	Establish and operate technical information systems in geomatics and site surveying management	5
T/507/1375	Identify, assess and present spatial data in geomatics and site surveying management	6

Centre Requirements

Centres must be approved to offer this qualification. If your centre is not approved please complete and submit form **ProQual Additional Qualification Approval Application**.

Staff

Staff delivering this qualification must be appropriately qualified and/or occupationally competent.

Assessors/Internal Quality Assurance

For each competence-based unit centres must be able to provide at least one assessor and one internal quality assurance verifier who are suitably qualified for the specific occupational area. Assessors and internal quality assurance verifiers for competence-based units or qualifications will normally need to hold appropriate assessor or quality assurance verifier qualifications, such as:

- Award in Assessing Competence in the Work Environment
- Award in Assessing Vocationally Related Achievement
- Certificate in Assessing Vocational Achievement
- Award in the Internal Quality Assurance of Assessment Processes and Practices
- Certificate in Leading the Internal Quality Assurance of Assessment Processes and Practices

Support for Candidates

Materials produced by centres to support candidates should:

- enable them to track their achievements as they progress through the learning outcomes and assessment criteria;
- provide information on where ProQual's policies and procedures can be viewed;
- provide a means of enabling Internal and External Quality Assurance staff to authenticate evidence

Assessment

Candidates must demonstrate the level of knowledge and competence described in the units.

Each candidate is required to produce evidence which demonstrates their achievement of all of the learning outcomes and assessment criteria for each unit.

Evidence can include:

- assignments/projects/reports
- worksheets
- portfolio of evidence
- record of oral and/or written questioning
- candidate test papers

Learning outcomes set out what a candidate is expected to know, understand or be able to do.

Assessment criteria specify the standard a candidate must meet to show the learning outcome has been achieved.

Learning outcomes and assessment criteria for this qualification can be found from page 9 onwards.

Internal Quality Assurance

An internal quality assurance verifier confirms that assessment decisions made in centres are made by competent and qualified assessors, that they are the result of sound and fair assessment practice and that they are recorded accurately and appropriately.

Adjustments to Assessment

Adjustments to standard assessment arrangements are made on the individual needs of candidates. ProQual's Reasonable Adjustments Policy and Special Consideration Policy sets out the steps to follow when implementing reasonable adjustments and special considerations and the service that ProQual provides for some of these arrangements.

Centres should contact ProQual for further information or queries about the contents of the policy.

Results Enquiries and Appeals

All enquiries relating to assessment or other decisions should be dealt with by centres, with reference to ProQual's Enquiries and Appeals Procedures.

Certification

Candidates who achieve the requirements for qualifications will be awarded:

- A certificate listing all units achieved, and
- A certificate giving the full qualification title -

ProQual Level 5 Diploma in Utility Mapping and Surveying

Claiming certificates

Centres may claim certificates for candidates who have been registered with ProQual and who have successfully achieved the requirements for a qualification. All certificates will be issued to the centre for successful candidates.

Unit certificates

If a candidate does not achieve all of the units required for a qualification, the centre may claim a unit certificate for the candidate which will list all of the units achieved.

Replacement certificates

If a replacement certificate is required a request must be made to ProQual in writing. Replacement certificates are labelled as such and are only provided when the claim has been authenticated. Refer to the Fee Schedule for details of charges for replacement certificates.

Learning Outcomes and Assessment Criteria

Unit Y/507/1370

Agree project requirements and plan site surveying in geomatics and site surveying management

This unit covers the key responsibilities for understanding client and project requirements and for planning site surveying accordingly, as well as maintaining and developing his/her skills. It is about understanding and communicating project and client requirements. It is also concerned with the planning for site surveying, including obtaining any advice and permissions needed.

This covers provision of surveys, meeting some of the requirements of planning and managing a PAS128 Survey at Quality Level B (M1-M4). It does not cover post processing of GPR data.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Be able to identify, assess and agree project requirements for site surveying	<ul style="list-style-type: none">1.1 Identify and agree with the client what the goals and priorities are, in terms of immediate requirements and future site scope1.2 Identify what data is needed, how accurate the data needs to be, and what data outputs are required from site surveying1.3 Clarify the client's requirements and the options available to the client, and identify, inform and offer solutions to the constraints and risks which might apply to the project1.4 Analyse and assess how accurate, up-to-date and complete the existing information is, and decide what additional information is needed1.5 Make a preliminary investigation to identify any access problems and equipment which will be needed, and assess the implications for site surveying1.6 Summarise and present the project requirements and client's preferences to the client for comment1.7 Explain the importance of timescales and the budgets associated with the project1.8 Justify any alterations in terms of timescale and resource to decision makers which may enable successful project completion
2 Understand how to identify, assess and agree project requirements for site surveying	<ul style="list-style-type: none">2.1 Explain how to identify and agree with the client what their goals and priorities are, in terms of immediate requirements and future site scope2.2 Describe how to identify what data is needed, how accurate the data needs to be and what data outputs are required from site surveying

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
	<p>2.3 Explain how to clarify the client's requirements, the options available to the client, and identify, inform and offer solutions to the constraints and risks which might apply to the project</p> <p>2.4 Examine how to analyse and assess how accurate, up-to-date and complete the existing information is, and decide what additional information is needed</p> <p>2.5 Examine how to make a preliminary investigation to identify any access problems and equipment which will be needed, and assess the implications for site surveying</p> <p>2.6 Explain how to summarise and present the project requirements and client's preferences to the client for comment</p> <p>2.7 Examine the importance of timescales and the budgets associated with the project</p> <p>2.8 Explain how to justify any alterations in terms of timescale and resource to decision makers which may enable successful project completion</p>
<p>3 Be able to plan site surveying processes and operations</p>	<p>3.1 Explain the importance of working to site surveying method statements related to any existing specification and a programme of potential works</p> <p>3.2 Assess any constraints which might affect the planning of site surveying and limit the processes which are selected, and make appropriate amendments if approved to do so</p> <p>3.3 Communicate with decision makers where additional, specialist site surveying, equipment or specialist operations and information is needed</p> <p>3.4 Obtain permission to carry out the site surveying from owners of sites who will be affected and communicate with decision makers if any legal authorities are to be notified</p> <p>3.5 Identify the quality assurance and safety standards which are to be implemented and are suitable for site surveying</p>
<p>4 Understand how to plan site surveying processes and operations</p>	<p>4.1 Propose how to deploy the agreed site surveying method statement related to any existing specification and a programme of potential works</p> <p>4.2 Examine how to assess any constraints which might affect the planning of site surveying and limit the processes which are selected, and make appropriate amendments if approved to do so</p> <p>4.3 Explain how to communicate with decision makers where additional, specialist site surveying equipment or information is needed</p> <p>4.4 Explain how to obtain permission to carry out the site surveying from owners of sites who will be affected and communicate with decision makers if any legal authorities have to be notified</p>

Learning Outcome - The learner will:

Assessment Criterion - The learner can:

4.5 Explain how to implement quality assurance and safety standards which are suitable for site surveying

Assessment

Candidates must produce documentary evidence against each of the assessment criteria. Where the work place evidence does not cover the whole range, knowledge evidence must be provided to cover the remaining items of the range for each relevant assessment criteria.

Unit D/507/1371

Plan methods, resources and systems to meet project requirements in geomatics and site surveying management

This unit covers the candidate's competence in planning and coordinating site surveying activities, including appointing project team members, addressing organisational and communication needs, and producing appropriate documentation.

It is about planning work programmes and resources. It also concerns the appointment of people. It is about understanding organisational and communication needs, and agreeing and setting up systems to address those needs.

This covers provision of surveys, meeting some of the requirements of planning and managing a PAS128 Survey at Quality Level B (M1-M4). It does not cover post processing of GPR data.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Be able to plan site surveying activities and resources to meet work requirements	<ul style="list-style-type: none">1.1 Identify significant site surveying activities, evaluate the resources provided against the information available about the site, based on a typical Utility Mapping Survey undertaken to existing specifications1.2 Investigate alternatives if the resources needed are not available such as hire, replacement and replenishment1.3 Analyse planned site surveying activities against project requirements and the potential effect of significant external factors1.4 Calculate how long each activity will take, identify activities which influence each other and sequence them logically and realistically so that they make the best use of the resources available1.5 Compare significant surveying activities against programme and/or schedule of planned works which are consistent with the project requirements1.6 Evaluate alternations to the works programme which will meet changed circumstances or offer cost and time benefits1.7 Complete a post survey check list, show how it could be used to improve future production and planning
2 Understand how to plan site surveying activities and resources to meet work requirements	<ul style="list-style-type: none">2.1 Describe how to identify significant site surveying activities, evaluate the resources provided against the information available about the site, based on a typical Utility Mapping Survey undertaken to existing specifications2.2 Examine how to investigate alternatives if the resources needed are not available such as hire, replacement and replenishment

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
	<p>2.3 Examine how to analyse planned site surveying activities against project requirements and the potential effect of significant external factors</p> <p>2.4 Explain how to calculate how long each activity will take, identify activities which influence each other and sequence them logically and realistically so that they make the best use of the resources available</p> <p>2.5 Explain how to compare significant surveying activities against programme and/or schedule of planned works which are consistent with the project requirements</p> <p>2.6 Describe how to evaluate alternations to the works programme which will meet changed circumstances or offer cost and time benefits</p> <p>2.7 Describe how to complete a post survey check list and how it could be used to improve future production and planning</p>
3 Be able to select and form a project team	<p>3.1 Identify if the people and services provided are sufficiently skilled and equipped to meet the project requirements and programme</p> <p>3.2 Identify what the significant factors are which will affect the availability of people, resources and outside services</p> <p>3.3 Evaluate the quality, reliability and availability of the selected services and resources</p> <p>3.4 Agree potential changes to team membership and resources with decision makers based on the factors identified which are likely to produce an effective project team</p>
4 Understand how to select and form a project team	<p>4.1 Describe how to identify if the people and services provided are sufficiently skilled and equipped to meet the project requirements and programme</p> <p>4.2 Describe how to identify what the significant factors are which will affect the availability of people, resources and outside services</p> <p>4.3 Explain how to evaluate the quality, reliability and availability of the selected services and resources</p> <p>4.4 Propose how to agree potential changes to team membership and resources with decision makers based on the factors identified which are likely to produce an effective project team</p>
5 Be able to agree and maintain site surveying project organisation and communication systems	<p>5.1 Identify what the organisational and communication needs are for the project</p> <p>5.2 Describe how to work to systems which are compatible with those used by the client and which enable clear and effective management, communication, administration and operational controls</p>

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
	<p>5.3 Identify information about project team members' roles and responsibilities within the organisational structure, including lines of communication in the event of an emergency, and communicate this information to the people and organisations involved</p> <p>5.4 Agree methods of communicating, reporting, recording and retrieving information which are appropriate to the needs of the project and monitor the methods regularly for effectiveness</p> <p>5.5 Identify and investigate breakdowns in communication, and take action to restore effective communication</p> <p>5.6 Describe systems for recording and providing feedback on the ways in which resources are allocated and used</p>
<p>6 Understand how to agree and maintain site surveying project organisation and communication systems</p>	<p>6.1 Describe how to identify what the organisational and communication needs are for the project</p> <p>6.2 Examine how to work to systems which are compatible with those used by the client and supply chain which enable clear and effective management, communication, administration and operational controls</p> <p>6.3 Explain how to use information about project team members' roles and responsibilities within the organisational structure, including lines of communication in the event of an emergency and how this can be made available to people and organisations involved</p> <p>6.4 Describe methods of communicating, reporting, recording and retrieving information which are appropriate to the needs of the project and monitor the methods regularly for effectiveness</p> <p>6.5 Describe how to identify and investigate breakdowns in communication, and take action to restore effective communication</p> <p>6.6 Describe systems for recording and providing feedback on the ways in which resources are allocated and used</p>

Assessment

Candidates must produce documentary evidence against each of the assessment criteria. Where the work place evidence does not cover the whole range, knowledge evidence must be provided to cover the remaining items of the range for each relevant assessment criteria.

Unit H/507/1372

Site surveying procedures for construction and the built environment

This unit is about the principles of site surveying, using survey instruments and computer software in surveying.

This covers provision of surveys, meeting some of the requirements of delivering a PAS128 Survey at Quality Level B (M1-M4).

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Understand and carry out technical aspects of an Underground Utility Mapping Survey to recognised guidance and specifications	<ul style="list-style-type: none">1.1 Describe the instrumentation required to carry out and record an Underground Utility Mapping Survey, including the uses and limitations1.2 Explain the principles of electro-magnetic/radio frequency location for the detection of buried utilities1.3 Explain the principles and practice of Ground Penetrating Radar and other geo-physical methods of buried utilities detection and the identification of anomalies1.4 Describe the use of electronic measuring and recording equipment used to collect data as part of a location survey1.5 Describe how to confirm the accurate positioning of the survey control in terms of the geographical environment and the survey area
2 Be able to use site utility surveying instrumentation	<ul style="list-style-type: none">2.1 Demonstrate the use and operation of the instrumentation required to carry out and record an Underground Utility Mapping Survey, including the uses and limitations2.2 Demonstrate the advantages and disadvantages of using multiple Radio Location frequencies during buried utilities detection and surveying, in accordance with a relevant survey quality level and specification2.3 Identify and position a gridded system to allow the use of Ground Penetrating Radar or other geo-physical methods for utility detection and the identification of anomalies, in accordance with a relevant survey quality level and specification2.4 Record underground utility survey information accurately and in accordance with a relevant survey quality level and specification2.5 Confirm the accurate positioning of the survey control in terms of the geographical environment and the survey area

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
3 Understand cartographic detailing of underground utility mapping works	2.6 Evaluate the use of GPS/GNSS within a site utility mapping survey environment 3.1 Evaluate the benefits of computer software for the transference of raw survey data from site and into the desired drawing format 3.2 Evaluate the benefits of computer software to identify and solve typical surveying problems 3.3 Explain how the raw survey information can be incorporated into data taken from digital mapping databases 3.4 Describe the advantages and disadvantages of obtaining full topographical information about the site and how this information can benefit the final survey output 3.5 Explain how to correct coordinate points within control traverse networks
4 Understand the software available for site surveying	4.1 Describe how site surveying software can determine the true height relative to datum of buried utilities from raw survey data and how this can relate to the final utility survey drawing output 4.2 Describe the advantages of the post processing of collected utility survey raw data and how this can effect the final production 4.3 Describe the advantages of 3D-enabled software packages in terms of a utility mapping survey, and how this can relate to regulatory standards, current specifications and relevant guidance 4.4 Evaluate the importance of collecting raw utility survey information accurately to allow the final output to be in accordance with the specification 4.5 Evaluate the importance of producing planimetric information in accordance with prescribed guidance and specification

Assessment

Candidates must produce documentary evidence against each of the assessment criteria. Where the work place evidence does not cover the whole range, knowledge evidence must be provided to cover the remaining items of the range for each relevant assessment criteria.

Unit K/507/1373

Establish and maintain the dimensional control and setting out of construction projects in geomatics and site surveying

This unit is about obtaining and checking survey information, establishing grid systems, setting out reference markers, and recording and storing setting out information.

It is about observing and measuring dimensional controls, identifying and correcting any deviations and revising work methods as necessary.

This covers provision of surveys, meeting elements of the requirements of the location survey of a PAS128 Survey at Quality Level B (M1-M4). It does not cover post processing of GPR data.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Understand how to establish dimensional control	<ul style="list-style-type: none">1.1 Obtain available survey information, check that it is up-to-date and accurate, and resolve any problems1.2 Carry out an evaluation of any existing control and its usefulness prior to the carrying out of a utility detection survey1.3 Identify where there may be variations between the specified and the actual site dimensions, record the differences accurately and update records where necessary1.4 Identify appropriate survey grid systems to be used on the project1.5 Use site reconnaissance methods which will allow appropriate and efficient positioning of survey stations1.6 Check and be able to use measuring and recording equipment which meets the specified accuracy criteria and manufacturers' tolerances1.7 Set out reference markers which are suitable placed, accurate, clearly identified and can be used to fix the survey control1.8 Set secure reference points which are appropriate, accurate, identified clearly and protected from movement or removal during the project
2 Be able to describe how to establish dimensional control	<ul style="list-style-type: none">2.1 Explain how to obtain available survey information, check that it is up-to-date, accurate and resolve any problems2.2 Explain how to carry out an evaluation of any existing control and its usefulness prior to the carrying out of a utility detection survey2.3 Describe how to identify where there may be variations between the specified and the actual site dimensions, record the differences accurately and update records where necessary2.4 Describe how to identify appropriate grid systems to be used on the project2.5 Explain how to use site reconnaissance methods which will allow appropriate and efficient positioning of survey stations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
	<p>2.6 Explain how to check and use measuring and recording equipment which meets the specified accuracy criteria and manufacturers' tolerances</p> <p>2.7 Explain how to set out reference markers which are suitably placed, accurate and clearly identified, and can be used to fix the survey control</p> <p>2.8 Explain how to set secure reference points which are appropriate, accurate, identified clearly and protected from movement or removal during the project</p>
<p>3 Be able to maintain the dimensional accuracy of projects</p>	<p>3.1 Ensure sufficient clear and accurate reference marks are available to enable the accurate positioning, identification and clear marking of the positions of buried utilities</p> <p>3.2 Observe and measure dimensional controls, lines and utility information accurately and record the results to meet quality standards, specification and current guidance</p> <p>3.3 Identify any locational conflicts and correct them as appropriate</p> <p>3.4 Revise work procedures and practices to minimise conflicts and to allow for protection of markings, accounting for changeable conditions</p> <p>3.5 Record any information which may be of later use, and store it securely according to company practices, so that it is available when needed</p>
<p>4 Understand how to maintain the dimensional accuracy of projects</p>	<p>4.1 Explain how to ensure sufficient clear and accurate reference marks are available to enable the accurate positioning, identification and clear marking of the positions of buried utilities</p> <p>4.2 Explain how to measure dimensional controls, lines and utility information accurately and record the results to meet quality standards, specification and current guidance</p> <p>4.3 Describe how to identify locational conflicts and correct them as appropriate</p> <p>4.4 Explain how to revise work procedures and practices to minimise conflicts and to allow for protection of markings, accounting for changeable conditions</p> <p>4.5 Explain how to record any information which may be of later use, and store it securely according to company practices, so that it is available when needed</p>

Assessment

Candidates must produce documentary evidence against each of the assessment criteria. Where the work place evidence does not cover the whole range, knowledge evidence must be provided to cover the remaining items of the range for each relevant assessment criteria.

Unit M/507/1374

Establish and operate technical information systems in geomatics and site surveying management

This unit is about setting up and maintaining a technical information system (including paper based and electronic). It also deals with storing and providing information.

This covers provision of surveys, meeting some of the requirements of planning and managing a PAS128 Survey at Quality Level B (M1-M4). It does not cover post processing of GPR data.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Be able to use technical information systems	<ul style="list-style-type: none">1.1 Define what the requirements are for technical information systems in terms of utility detection, location and verification1.2 Identify the types of technical information systems which are available, evaluate them against the defined requirements1.3 Agree access to the technical information system through discussions with senior managers and system users, describe the operations and functions, and use technical information systems1.4 Define and understand valid procedures for obtaining, selecting, classifying and recording the information1.5 Assess the relevance of information and classify the relevant information using the agreed system1.6 Record information accurately and store it using the agreed procedure1.7 Describe the agreed methods for control and access which make the best use of the technical information system and maintain confidentiality
2 Understand how to use technical information systems	<ul style="list-style-type: none">2.1 Evaluate what the requirements are for a technical information system in terms of utility detection, location and verification2.2 Describe how to identify the types of technical information systems which are available, and evaluate them against the defined requirements2.3 Evaluate how to agree access to the technical information system through discussions with senior managers and system users, demonstrate an understanding of the operations and functions, and use the technical information system2.4 Describe valid procedures for obtaining, selecting, classifying and recording information2.5 Examine how to assess the relevance of information and classify the relevant information using the agreed system2.6 Explain how to record information accurately and store it using the agreed procedures2.7 Describe methods for control and access which make the best use of the technical information system and maintain confidentiality

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
3 Be able to operate technical information systems	3.1 Collate information and organise it into a suitable form for display and use within the technical information system 3.2 Classify stored information so that it can be quickly identified and retrieved when needed 3.3 Advise and offer guidance to people who are unable to find the information they need and suggest alternative sources 3.4 Demonstrate an understanding of the control of use of the technical information systems by using procedures which have been agreed, so that the technical information systems remain reliable and useful 3.5 Operate to appropriate and valid procedures for maintaining up-to-date information, identify information which is not needed and highlight redundant information for archiving 3.6 Identify, summarise and issue information which might be of use to other people
4 Understand how to operate technical information systems	4.1 Explain how to collate information and organise it into a suitable form for display and use within the technical information system 4.2 Explain how to classify stored information so that it can be quickly identified and retrieved when needed 4.3 Propose how to advise and offer guidance to people who are unable to find the information they need and suggest alternative sources 4.4 Describe the control of the use of the technical information systems, and demonstrate an understanding of procedures which have been agreed so that the technical information systems remain reliable and useful 4.5 Propose how to operate to appropriate and valid procedures for maintaining up-to-date information, identify information which is not needed and highlight redundant information for archiving 4.6 Describe how to identify, summarise and issue information which might be of use to other people

Assessment

Candidates must produce documentary evidence against each of the assessment criteria. Where the work place evidence does not cover the whole range, knowledge evidence must be provided to cover the remaining items of the range for each relevant assessment criteria.

Unit T/507/1375

Identify, assess and present spatial data in geomatics and site surveying management

This unit is about ensuring that the necessary data is collected and processed and also about checking and presenting data. It is concerned with identifying data needs and arranging for data to be collected. It also deals with the checking of data and putting it into a suitable format for use. It is about processing and presenting mapping data.

This covers provision of surveys, meeting some of the requirements of planning, managing and delivering a PAS128 Survey at Quality Level B (M1-M4). It does not cover post processing of GPR data.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Be able to identify utility mapping data quality assurance requirements	<ul style="list-style-type: none">1.1 Identify the recorded survey information, check it against known information and identify any deviations1.2 Check that all survey information produced conforms with the method statement and was completed in line with the survey programme1.3 Assure that chosen utility mapping methods conform to the published guidance and specification which has been worked to1.4 Check that the management of collected data has been carried out in accordance with quality assurance procedures1.5 Check that individuals associated with the project have carried out their respective roles in accordance to their competence and the requirements of the survey
2 Understand how to identify utility mapping data quality assurance requirements	<ul style="list-style-type: none">2.1 Describe how to identify the recorded survey information, check it against known information and identify any deviations2.2 Propose how to check that all survey information produced conforms to the method statement and was completed in line with the survey programme2.3 Evaluate how to assure that chosen utility mapping methods conform to the published guidance and specification which has been worked to2.4 Evaluate how to check that the management of collected data has been carried out in accordance with quality assurance procedures2.5 Evaluate how to check that individuals associated with the project have carried out their respective roles in accordance to their competence and the requirements of the survey
3	<ul style="list-style-type: none">3.1 Review and confirm that the mapping deliverable is in accordance with the specified specification quality level

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
Be able to assess and produce the final deliverable from the mapping data	<p>3.2 Confirm that metadata presented accurately reflects the survey information collected from site</p> <p>3.3 Identify that the application of attribute data has been made in accordance with the utilities identified in compliance with the specification</p> <p>3.4 Identify that areas containing questionable or anomalous data have been clearly identified on the deliverable</p> <p>3.5 Identify any compilation material used and maintain accurate compilation records and histories throughout the project</p> <p>3.6 Demonstrate that all third party data included within the final production has been done so with the permission of the data owner</p> <p>3.7 Check data selected from all the specified sources is correctly archived in accordance with quality assurance procedures</p> <p>3.8 Assure that the final product is clear, interpretable, fit for purpose and available to be reviewed in compliance with the specification</p>
4 Understand how to assess and produce mapping data	<p>4.1 Explain how to review and confirm that the mapping deliverable is in accordance with the specified quality level</p> <p>4.2 Evaluate how to confirm that metadata presented accurately reflects the survey information collected from site</p> <p>4.3 Describe how to identify that the application of attribute data has been made in accordance with the utilities identified in compliance with the specification</p> <p>4.4 Describe how to identify that areas containing questionable or anomalous data have been clearly identified on the deliverable</p> <p>4.5 Describe how to identify any compilation material used and maintain accurate compilation records and histories throughout the project</p> <p>4.6 Explain how to show that all third party data included within the final production has been done so with the permission of the data owner</p> <p>4.7 Explain how to check data selected from all the specified sources is correctly archived in accordance with quality assurance procedures</p> <p>4.8 Examine how to assure that the final product is clear, interpretable, fit for purpose and available to be reviewed in compliance with the specification</p>

Assessment

Candidates must produce documentary evidence against each of the assessment criteria. Where the work place evidence does not cover the whole range, knowledge evidence must be provided to cover the remaining items of the range for each relevant assessment criteria.



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