

Overview

This unit is about identifying what outputs are required from the survey and choosing appropriate survey methods and selecting people to carry out the work.

You will need to summarise priorities and costs in an investigation brief. You will need to contact people and organisations affected by the investigation.

You will need to identify the data needed required from the survey. You will need to analyse and assess existing information and investigate any access problems. You will also need to choose suitable survey methods and commission surveys.

You will need to assess any constraints which may affect the planning of the survey. You will also need to obtain permissions from owners of the sites and legal authorities, estimate the costs of the survey, plan and schedule surveys and identify and implement quality assurance and safety standards.

You will need to identify the factors for investigation, selecting any critical aspects of the site and surrounding area. You will need to choose methods and techniques for the investigation. You will need to identify, collect, and collate the investigation data and analyse and evaluate it. You will need to identify and record the opportunities and constraints and assess previous solutions to similar problems. You will need to present the findings and important factors and also assemble any supporting data which is not included in the report. You will also need to decide on the best course of action based on your evaluation of the results of your investigation.

Performance criteria

You must be able to:

Identify investigation requirements

- P1 identify the **factors for investigation** that may be significant for the planned development by examining documents, setting up and facilitating discussions and meetings
- P2 select the critical aspects of both the site and the surrounding areas which require **investigation** and prioritise them
- P3 agree the priorities for **investigation**, an accurate estimate of the time and costs involved, and summarise both the priorities and estimates in an **investigation** brief
- P4 obtain any **permission** that will be needed to carry out the **investigation** and confirm that they are valid before the **investigation** starts
- P5 contact people and organisations who will be affected by the **investigation**, provide them with clear and accurate information and ask for their cooperation

Identify survey requirements

You must be able to:

- P6 identify what **survey** information is needed, how accurate it needs to be and what information outputs are required from the **survey**
- P7 analyse and assess how accurate, up to date and complete the **existing information** is, and decide what additional information is needed
- P8 make a preliminary **investigation** to identify any access problems and equipment which will be needed, and assess the implications for the **survey**
- P9 choose **survey methods** which are suitable for the type of **survey** and the site
- P10 commission **surveys** by selecting people and organisations that are competent to do the work

Select survey processes and operations

You must be able to:

- P11 assess any constraints which might affect the planning of the **survey** and limit the processes which are selected
- P12 consult with experts for advice where additional, specialist **information** is needed
- P13 ask for and obtain **permission** to carry out the **survey** from owners of sites who will be affected and from any legal authorities which have to be notified
- P14 plan the **surveys** which will be needed and schedule them to meet the requirements of the project
- P15 estimate and justify the cost of the **survey**
- P16 develop a clear and concise method statement, a programme and a budget for the **survey**, and agree them with the stakeholders
- P17 identify and implement quality assurance and safety standards which are suitable for the **survey**

Performance criteria

P18 check and confirm that insurance has been taken out to provide full cover against accidents and negligence

Investigate and evaluate project factors

You must be able to:

P19 choose **methods and techniques for the investigation** which are valid, reliable, consistent with legal requirements and which recognise concerns raised by the public

P20 identify **investigation sources** and collect and collate relevant **information**

P21 analyse and evaluate the investigation **information** which has been collected about all of the significant **factors** affecting the project development

P22 consult with experts on specific problems which are relevant to the investigation by providing them with an accurate summary of the problems

P23 identify and record the **opportunities and constraints** for project development options

P24 identify and assess previous solutions which are similar to the current circumstances to see whether they are relevant and useful

P25 **present** accurate findings which clearly describe all the important **factors**

P26 state clearly the authority for assumptions and projections used in the report

P27 assemble any supporting **information** which is relevant to the study, but which is not included in the report, store it safely and index it clearly for future reference

P28 evaluate the results of the investigation and decide on an appropriate course of action

Knowledge and understanding

You need to know and understand:

Identify investigation requirements

- K1 what to identify as the **factors for investigation** that may be significant for the planned development by examining documents, setting up and facilitating discussions and meetings (understanding)
- K2 how and why to select the critical aspects of both the site and the surrounding areas which require **investigation** (evaluation)
- K3 how and why to prioritise the critical aspects of both the site and the surrounding areas which require **investigation** (analysis)
- K4 how and why to agree the priorities for **investigation**, an accurate estimate of the time and costs involved, and summarise both the priorities and estimates in an **investigation** brief (evaluation)
- K5 how to obtain any **permission** that will be needed to carry out the **investigation** and confirm that they are valid before the **investigation** starts (application)
- K6 how to contact people and organisations that will be affected by the **investigation**, provide them with clear and accurate information and ask for their cooperation (application)

Identify survey requirements

You need to know and understand:

- K7 what to identify as the **survey** information needed, how accurate it needs to be and what information outputs are required from the **survey** (understanding)
- K8 how and why to analyse and assess how accurate, up to date and complete the **existing information** is (analysis)
- K9 how and why to decide what additional information is needed (evaluation)
- K10 how and why to make a preliminary **investigation** to identify any access problems and equipment which will be needed, and assess the implications for the **survey** (analysis)
- K11 how and why to choose **survey methods** which are suitable for the type of **survey** and the site (evaluation)
- K12 how and why to commission **surveys** by selecting people and organisations who are competent to do the work (evaluation)

Select survey processes and operations

You need to know and understand:

- K13 how and why to assess any constraints which might affect the planning of the **survey** and limit the processes which are selected (analysis)
- K14 how to consult with experts for advice where additional, specialist **information** is needed (application)
- K15 how to ask for and obtain **permission** to carry out the **survey** from owners of sites who will be affected and from any legal authorities which have to be notified (application)

Knowledge and understanding

- K16 how and why to plan the **surveys** which will be needed (synthesis)
- K17 how and why to schedule **surveys** to meet the requirements of the project (analysis)
- K18 how and why to estimate the cost of the **survey** (analysis)
- K19 how and why to justify the cost of the **survey** (evaluation)
- K20 how and why to develop a clear and concise method statement, a programme and a budget for the **survey** (synthesis)
- K21 how and why to agree a clear and concise method statement, a programme and a budget for the **survey** with stakeholders (evaluation)
- K22 what to identify as quality assurance and safety standards which are suitable for the **survey** (understanding)
- K23 how to implement quality assurance and safety standards which are suitable for the **survey** (application)
- K24 how to check and confirm that insurance has been taken out to provide full cover against accidents and negligence (application)

Investigate and evaluate project factors

You need to know and understand:

- K25 how and why to choose **methods and techniques for the investigation** which are valid, reliable and consistent with legal requirements and which recognise concerns raised by the public (evaluation)
- K26 what to identify as **investigation sources** (understanding)
- K27 how to collect and collate relevant **information** (application)
- K28 how and why to analyse the investigation **information** which has been collected about all of the significant **factors** affecting the project development (analysis)
- K29 how and why to evaluate the investigation **information** which has been collected about all of the significant **factors** affecting the project development (evaluation)
- K30 how to consult with experts on specific problems which are relevant to the investigation by providing them with an accurate summary of the problems (application)
- K31 what to identify as the **opportunities and constraints** for project development options (understanding)
- K32 how to record the **opportunities and constraints** for project development options (application)
- K33 what to identify as previous solutions which are similar to the current circumstances to see whether they are relevant and useful (understanding)
- K34 how and why to assess previous solutions which are similar to the current circumstances to see whether they are relevant and useful (analysis)

Knowledge and understanding

- K35 how to **present** accurate findings which clearly describe all the important **factors** (application)
- K36 how to state clearly the authority for assumptions and projections used in the report (application)
- K37 how to assemble any supporting **information** which is relevant to the study, but which is not included in the report, store it safely and index it clearly for future reference (application)
- K38 how and why to evaluate the results of the investigation and decide on an appropriate course of action (evaluation)

Scope/range

Identify investigation requirements

- 1 Factors for investigation:
 - 1.1 historical
 - 1.2 conservation
 - 1.3 social
 - 1.4 visual and spatial
 - 1.5 ecological and environmental
 - 1.6 construction
- 2 Permission from:
 - 2.1 client
 - 2.2 site owner and occupiers
 - 2.3 adjoining owners and occupiers
 - 2.4 notifiable authorities

Identify survey requirements

- 3 Survey:
 - 3.1 land
 - 3.2 building
 - 3.3 engineering
 - 3.4 environmental
- 4 Existing information:
 - 4.1 photographs
 - 4.2 maps
 - 4.3 charts
 - 4.4 drawings
 - 4.5 digital data
 - 4.6 archive records
 - 4.7 legal documents
- 5 Investigation - sources:
 - 5.1 client records
 - 5.2 tenants
 - 5.3 site owners
 - 5.4 site managers

Scope/range

- 5.5 previous owners
- 5.6 local authorities
- 5.7 statutory authorities e.g. government departments, heritage bodies and environmental agencies
- 5.8 local knowledge
- 5.9 public utilities
- 5.10 public and specialist libraries and archives
- 5.11 commercial organisations
- 5.12 original designs
- 5.13 contractors and suppliers
- 5.14 experts including experienced craftspeople
- 6 Survey - method:
 - 6.1 visual
 - 6.2 approximate measured
 - 6.3 detailed measurement of all specified features
 - 6.4 graphic
 - 6.5 instrumental

Select survey processes and operations

- 7 Survey:
 - 7.1 land
 - 7.2 building
 - 7.3 engineering
 - 7.4 environmental
- 8 Information:
 - 8.1 photographs
 - 8.2 maps
 - 8.3 charts
 - 8.4 drawings
 - 8.5 digital data
 - 8.6 archive records
 - 8.7 legal documents
- 9 Permission from:
 - 9.1 client

Scope/range

- 9.2 site owner and occupiers
- 9.3 adjoining owners and occupiers
- 9.4 notifiable authorities
- 10 Survey - method:
 - 10.1 visual
 - 10.2 approximate measured
 - 10.3 detailed measurement of all specified features
 - 10.4 graphic
 - 10.5 instrumental

Investigate and evaluate project factors

- 11 Methods and techniques for the investigation:
 - 11.1 documentary and record search
 - 11.2 investigative research
 - 11.3 field research
- 12 Investigation sources:
 - 12.1 client records
 - 12.2 tenants
 - 12.3 site owner
 - 12.4 site managers
 - 12.5 previous owners
 - 12.6 local authorities
 - 12.7 statutory authorities (e.g. government departments, heritage bodies & environmental agencies)
 - 12.8 local knowledge
 - 12.9 public utilities
 - 12.10 consultative bodies
 - 12.11 public and specialist libraries and archives
 - 12.12 original designs
 - 12.13 contractors and suppliers
 - 12.14 experts including experienced craftspeople
- 13 Information:
 - 13.1 photographs
 - 13.2 maps

Scope/range

- 13.3 charts
- 13.4 drawings
- 13.5 digital data
- 13.6 archive records
- 13.7 legal documents
- 13.8 surveys
- 14 Factors
 - 14.1 historical
 - 14.2 conservation
 - 14.3 social
 - 14.4 visual and spatial
 - 14.5 ecological and environmental
 - 14.6 construction
- 15 Opportunities and constraints:
 - 15.1 project type, purpose, location
 - 15.2 cost and time
 - 15.3 durability
 - 15.4 occupancy
 - 15.5 significance/status
 - 15.6 legal and regulatory constraints
 - 15.7 physical and technical constraints
 - 15.8 health and safety
 - 15.9 anticipated development timetable
 - 15.10 environmental quality and sustainability
 - 15.11 community benefits
 - 15.12 energy resources management
 - 15.13 renewable energies technologies
 - 15.14 waste management
 - 15.15 standardisation
- 16 Present:
 - 16.1 orally
 - 16.2 in writing
 - 16.3 graphically

COSCCOMO05 (SQA Unit Code - HA38 04)
Plan measured surveys in construction contracting
operations management



Scope/range 16.4 electronically

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