COSBEDCL4O14 Survey, assess and record the condition of assets in conservation

Overview

This unit concerns the surveying the condition of heritage asset(s). It covers the preparation phase, the completion of the survey and recording the results. You will need to recommend the appropriate way of carrying out the condition survey and agree it with interested parties. This involves evaluating existing information and identifying significant factors and selecting appropriate methods and techniques.

You will need to observe, measure and record aspects of the asset(s) in relation to actual and potential causes of failure and decay. This will enable you to assess the condition of the asset(s).

You will need to be able to summarise the findings of a property condition survey and make recommendations based upon it. You will need to answer clients’ questions and provide clarification.
Performace criteria

Agree asset condition

You must be able to:

P1 identify and confirm the asset which require to be inspected
P2 identify the objectives, purpose and approach of the condition survey and collate available information and documents
P3 ensure risk assessment is carried out to determine safe working practices
P4 select valid, accurate and relevant information for the condition survey process
P5 evaluate relevant existing information and advice and identify significant factors which may influence the condition survey approach
P6 identify and confirm the levels and types of technical professional specialist support which will be needed and brief them with clear and accurate summaries of the relevant information available and the survey objectives and purpose
P7 select methods and techniques for the chosen approach and condition survey which meet the requirements of relevant codes of practice and legislation
P8 recommend a condition survey process which is justified by the evaluation, present it clearly and explain it to the stakeholders
P9 assess the validity of technical and professional and specialist support included in the recommendation
P10 agree and confirm the client's instructions, permissions and rights of access for the condition survey before work starts

Inspect assets for condition

You must be able to:

P11 evaluate existing available data and permissions, confirm the objectives, purpose and approach of the inspection and obtain the equipment and resources and specialist advice that will be needed
P12 manage risk assessment and safe working practices in relation to inspections
P13 take accurate observations, records and measurements of aspects of the asset which are necessary for the inspection
P14 examine actual and potential causes of failure deterioration and decay and assess conditions
P15 identify gaps in information and obtain and evaluate additional data needed
P16 make further investigations when observations are inconsistent with existing data and findings, and accurately identify the cause of inconsistencies
P17 state clearly the authority for assumptions and projections used in the report and indicate any instances where and why accurate inspection
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Survey, assess and record the condition of assets in conservation

and measurement has not been possible
P18 identify and obtain specialist advice where complex issues are found
P19 record observations and measurements clearly, accurately and completely using agreed formats and conventions

Prepare and submit asset survey reports and records

You must be able to:

P20 assemble and collate information on the objectives, purpose and approach of the condition survey
P21 analyse all relevant evidence and information using appropriate methods and techniques and make a realistic assessment of condition
P22 analyse and identify the implications and consequences of the decay
P23 prepare and submit a condition survey report which is accurate, contains all relevant information and describes aspects of the asset
P24 present findings and conclusions in formats that are suitable for circulation and discussion by non-specialists
P25 answer the client's questions about the condition survey and give appropriate clarification and justification
P26 archive records which are clear, accurate and complete and conform to accepted professional and statutory requirements
COSBEDCL4O14
Survey, assess and record the condition of assets in conservation

Knowledge and understanding

You need to know and understand:

<table>
<thead>
<tr>
<th></th>
<th>Agree asset condition</th>
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<tbody>
<tr>
<td>K1</td>
<td>what to identify as the <strong>asset</strong> which requires to be inspected (understanding)</td>
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<tr>
<td>K2</td>
<td>what to identify as the <strong>objectives, purpose and approach</strong> of the condition survey (understanding)</td>
</tr>
<tr>
<td>K3</td>
<td>how to ensure that risk assessment is carried out to determine <strong>safe working practices</strong> (application)</td>
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<tr>
<td>K4</td>
<td>how to collate available <strong>information</strong> and documents (application)</td>
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<tr>
<td>K5</td>
<td>how and why to select valid, accurate and relevant <strong>information</strong> for the condition and/or survey process (evaluation)</td>
</tr>
<tr>
<td>K6</td>
<td>how and why to evaluate relevant <strong>information</strong> and advice (evaluation)</td>
</tr>
<tr>
<td>K7</td>
<td>what to identify as <strong>significant factors</strong> which may influence the condition and/or survey approach (understanding)</td>
</tr>
<tr>
<td>K8</td>
<td>how to confirm the levels and types of technical and professional and specialist support which will be needed (application)</td>
</tr>
<tr>
<td>K9</td>
<td>what to identify as the levels and types of technical and professional and specialist support which will be needed (understanding)</td>
</tr>
<tr>
<td>K10</td>
<td>how to brief technical and professional and specialist support with clear and accurate summaries of the <strong>information</strong> available and the survey objectives and purpose (application)</td>
</tr>
<tr>
<td>K11</td>
<td>how and why to select methods and techniques for the chosen approach and condition and/or survey (evaluation)</td>
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<tr>
<td>K12</td>
<td>how and why to recommend a condition survey <strong>process</strong> (synthesis)</td>
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<tr>
<td>K13</td>
<td>how to present and explain the condition survey <strong>process</strong> to the <strong>stakeholder</strong> (application)</td>
</tr>
<tr>
<td>K14</td>
<td>how and why to assess the validity of technical and professional and specialist support included in the recommendations (analysis)</td>
</tr>
<tr>
<td>K15</td>
<td>how to confirm the client's instructions, permissions and rights of access for the condition and/or survey before work starts (application)</td>
</tr>
<tr>
<td>K16</td>
<td>how and why to agree the instructions and agreements for the condition and/or survey before work starts (evaluation)</td>
</tr>
</tbody>
</table>

Inspect assets for condition

You need to know and understand:

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<tr>
<td>K17</td>
<td>how and why to evaluate existing available <strong>data</strong> and permissions (evaluation)</td>
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<tr>
<td>K18</td>
<td>how to confirm that the <strong>objectives, purpose and approach</strong> of the inspection (application)</td>
</tr>
<tr>
<td>K19</td>
<td>how to obtain the equipment and resources and specialist <strong>advice</strong> that will be needed (application)</td>
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<tr>
<td>K20</td>
<td>how to manage risk assessment and <strong>safe working practices</strong> in relation to inspections (evaluation)</td>
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Survey, assess and record the condition of assets in conservation

You need to know and understand:

K21 how to take accurate observations and measurements of aspects of the asset which are necessary for the inspection (application)

K22 how and why to examine actual and potential causes of failure and deterioration and assess condition (analysis)

K23 how and why to evaluate additional data needed (evaluation)

K24 how to obtain additional data needed (application)

K25 how to state clearly instances where and why accurate inspection and measurement has not been possible (application)

K26 what to as identify gaps in information (understanding)

K27 how and why to make further investigations when observations are inconsistent with existing data and expected findings (analysis)

K28 what to identify as specialist advice (understanding)

K29 what to identify as the cause of inconsistencies with existing data (understanding)

K30 how to obtain specialist advice where complex issues are found (application)

K31 how to record observations and measurements clearly, accurately and completely using agreed formats and conventions (application)

Prepare and submit asset survey reports and records

K32 how to assemble and collate information on the objectives, purpose and approach of the from the condition survey (application)

K33 how and why to analyse all relevant evidence and information using appropriate methods and techniques (analysis)

K34 how and why to make a realistic assessment of condition (analysis)

K35 how and why to analyse the implications and consequences of the decay (analysis)

K36 what to identify as the implications and consequences of the decay (understanding)

K37 how to prepare and submit a condition survey report (application)

K38 how to present findings and conclusions in formats that are suitable for circulation and discussion by non-specialists (application)

K39 how to answer the clients question about the condition survey and give appropriate clarification (application)

K40 how to archive records which are clear, accurate and complete and conform to accepted professional and statutory requirements (application)
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Scope/Range

Agree asset condition

1 Assets:
   1.1 individual buildings
   1.2 ensemble (setting & surroundings)
   1.3 garden, designed or other cultural landscape
   1.4 Conservation Area
   1.5 list of scheduled monuments and listed buildings
   1.6 furbishments and fittings
   1.7 system & service installation
   1.8 archaeology
   1.9 evidential, historical, aesthetic, communal locations (including intangible assets)
   1.10 access and highways

2 Objectives, purpose and approach
   2.1 conservation
   2.2 restoration
   2.3 preservation
   2.4 refurbishment
   2.5 maintenance work
   2.6 consolidation
   2.7 reparation
   2.8 repair
   2.9 retrofit/eco-upgrade
   2.10 scheduled preventative maintenance
   2.11 unscheduled corrective maintenance
   2.12 emergency maintenance
   2.13 disaster planning

3 Information:
   3.1 land registry
   3.2 local search
   3.3 statutory identification
   3.4 local authorities
   3.5 existing surveys
   3.6 legal documents
   3.7 historical/archival records
   3.8 graphical information
   3.9 consultations
   3.10 field research
   3.11 forensic research
   3.12 maps/drawings
Survey, assess and record the condition of assets in conservation

3.13 meteorological data
3.14 geological data
3.15 photographic baseline study: review existing or create new material
3.16 published sources
3.17 technical guidelines
3.18 archaeological research
3.19 specialist reports

4 Safe working practices:
4.1 personal safety
4.2 equipment and clothing
4.3 safe use of access equipment
4.4 health and safety practice and regulations
4.5 industry Codes of Practice
4.6 regulations applying to the survey site

5 Stakeholders:
5.1 internal to the organisation
5.2 external to the organisation

6 Significant factors:
6.1 degree of urgency
6.2 gaps in information
6.3 susceptibility to damage
6.4 health and safety requirements
6.5 security requirements
6.6 access
6.7 current legislation and regulations
6.8 survey costs & methods
6.9 comprehensiveness/completeness of survey
6.10 charters and conventions

7 Process:
7.1 inspection/field survey
7.2 documentary/archival research

Inspect assets for condition

8 Data:
8.1 land registry
8.2 local search
8.3 statutory identification
8.4 local authorities
8.5 existing surveys
8.6 legal documents
Survey, assess and record the condition of assets in conservation

8.7 historical/archival records
8.8 graphical information
8.9 consultations
8.10 field research
8.11 forensic research
8.12 maps/drawings
8.13 meteorological data
8.14 geological data
8.15 published sources
8.16 photographic baseline study: review existing or create new material
8.17 technical guidelines
8.18 archaeological research
8.19 specialist reports

9 Objectives, purpose and approach
9.1 conservation
9.2 restoration
9.3 preservation
9.4 refurbishment
9.5 maintenance work
9.6 consolidation
9.7 reparation
9.8 repair
9.9 retrofit/eco-upgrade
9.10 scheduled preventative maintenance
9.11 unscheduled corrective maintenance
9.12 emergency maintenance
9.13 disaster planning

10 Advice:
10.1 line manager
10.2 specialist conservators

11 Safe working practices:
11.1 personal safety
11.2 equipment and clothing
11.3 safe use of access equipment
11.4 health and safety practice and regulations
11.5 industry Codes of Practice
11.6 regulations applying to the survey site

12 Aspects of the asset:
12.1 age
12.2 type
12.3 location
Survey, assess and record the condition of assets in conservation

12.4 natural built environment
12.5 features and characteristics
12.6 character
12.7 evidential, historic, aesthetic, communal location
12.8 use factors
12.9 structure - construction methods & techniques & technologies
12.10 fabric - building materials & their properties & interactions
12.11 sources of materials
12.12 service installation
12.13 embodied energy & use
12.14 effects of previous repairs & maintenance
12.15 condition rating
12.16 emotional, cultural & use significance

13 Causes of failures, deterioration & decay:
13.1 building defects and failures
13.2 rising damp, penetrating damp and condensation problems
13.3 dry rot, wet rot and timber decay
13.4 infestation
13.5 physical, chemical and environmental processes
13.6 sick building syndrome including indoor air quality
13.7 lack of use, total or partial, or use insufficient to justify investment in repair
13.8 structural (including ground conditions)
13.9 interaction of materials
13.10 poor workmanship
13.11 inappropriate materials
13.12 wear and tear
13.13 fire
13.14 theft
13.15 vandalism
13.16 flora & fauna
13.17 weathering
13.18 flooding
13.19 thermal expansion

14 Complex issues:
14.1 technical
14.2 historic & heritage - status & value

15 Record:
15.1 written
15.2 graphical
15.3 photographic
15.4 electronic
Survey, assess and record the condition of assets in conservation

15.5 industry standard
15.6 industry conventions

Prepare and submit asset survey reports and records

16 Information:
16.1 inspection, observations and measurements
16.2 investigation and research findings
16.3 industry standard and legislation
16.4 published technical data

17 Objectives, purpose and approach on the condition survey
17.1 conservation
17.2 restoration
17.3 preservation
17.4 refurbishment
17.5 maintenance work
17.6 consolidation
17.7 reparation
17.8 repair
17.9 retrofit/eco-upgrade
17.10 scheduled preventative maintenance
17.11 unscheduled corrective maintenance
17.12 emergency maintenance
17.13 disaster planning

18 Condition survey report:
18.1 meets relevant codes of practice and standards
18.2 recommended courses of action
18.3 any qualifying factors
18.4 specialist reports
18.5 need for further investigation
18.6 Standard Report Forms
18.7 Non-Standard

19 Methods and techniques:
19.1 comparison
19.2 quantitative
19.3 qualitative
19.4 risk assessment of the asset
19.5 building pathology

20 Prepare:
20.1 written
20.2 graphical
20.3 photographic
Survey, assess and record the condition of assets in conservation

20.4 electronic

21 Submit:
21.1 to client
21.2 organisational records
21.3 public records
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Survey, assess and record the condition of assets in conservation

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<th>Developed by</th>
<th>ConstructionSkills</th>
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<tr>
<td><strong>Date Approved</strong></td>
<td>March 2012</td>
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<tr>
<td><strong>Relevant occupations</strong></td>
<td>Town planners; chartered surveyors (not quantity surveyors); building inspectors; construction project manager and related professions</td>
</tr>
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<td><strong>Suite</strong></td>
<td>Town Planning, Conservation and Building Control</td>
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<td><strong>Key Words</strong></td>
<td>Condition survey; status survey; heritage asset; property condition</td>
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