



Australian Government

Department of Employment and Workplace Relations

Office of the Federal Safety Commissioner

3

The design and procurement stage

The model client: Promoting safe construction



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Document B1.1 Selection criteria for design consultants

A final selection is made after a number of potentially suitable design consultants are identified. The table below provides guidance on making an informed decision.

About the design company/organisation

Key Aspects	Evidence provided? Yes/No
About the design company/organisation	
Company OHS policy and strategic objectives	
Certified AS4801 or equivalent OHS system	
Commitment to and enthusiasm for OHS	
Workload and resources	
Relevant OHS experience (including examples of past projects)	
Ability to innovate	
References	
Compatibility with agency's needs	

Project-specific — the design team

Key Aspects	Evidence provided? Yes/No
Make up of the design team	
Authority levels of team members	
Logistics related to site, client and other consultants	
Expertise and demonstrated competence in and commitment to safety in design	

Key project personnel

Key aspects	Evidence provided? Yes/No
Qualifications and experience in considering safety in design relevant to the project	
Understanding the OHS project needs	
Innovation, flair, commitment and enthusiasm for balancing OHS with other project objectives, for example aesthetics, quality, cost	
Communication skills	
References	
Details and experience of any sub-contractors	

Project execution

Key Aspects	Evidence provided? Yes/No
Program, method and approach, that is consultation and communication with stakeholders throughout project, setting of OHS goals and targets, etc	
Integration of OHS into the whole lifecycle of the project, that is design, construct, use and demolition	
OHS risk management methodology, that is how will they identify, evaluate and manage OHS risk	
OHS management and control procedures	
Dedicated OHS resources to be applied to the project (personnel, costing etc)	

Completed by:

Signature

Date:

Witnessed by:

Signature

Date:

Document B2.1 Design OHS review guidelines

Overview

The identification of OHS hazard lifecycle of the building/structure to be constructed, including construction, occupation, maintenance and demolition /risks should involve a critical appraisal of activities involved in all stages of the. Comprehensive hazard/risk identification requires a good understanding of the working situation, whether it is during construction, use, maintenance or demolition. Pooling knowledge and experience is a key aspect of hazard/risk identification and control. It is highly recommended that input be sought from people who are directly involved at each stage, for example contractors, maintenance personnel, facilities managers and prospective occupants. The collective analysis of a group of people, with differing perspectives, is usually better than an individual, single-perspective analysis. This is because participants interact with one other, bring different viewpoints and experiences and produce a more balanced analysis of a hazard/risk.

Different projects will require different expertise and input. The relevant stakeholders who should participate in a project design OHS review should be carefully considered. Consideration also needs to be given to how the different participants to the design OHS review will work together. Participants should be sure that they fully understand the OHS objectives of the project and the management structure and contractual obligations.

Once OHS hazards/risks have been identified, the seriousness of each of these should be assessed using a robust and appropriate risk assessment method. An example of a way in which a risk assessment can be undertaken is provided in booklet 2, KMA A5. This risk management approach uses a three step process of:

1. identifying the hazard/risk
2. assessing the risk using a risk matrix
3. determining whether further action is required based on the outcome of risk rating and any supporting information.

Where OHS risks are too high to be accepted, the design team should consider ways in which they can modify the design so that these OHS risks can be eliminated or reduced. A 'safe' design will reflect the practical implementation of appropriate measures to control OHS risk.

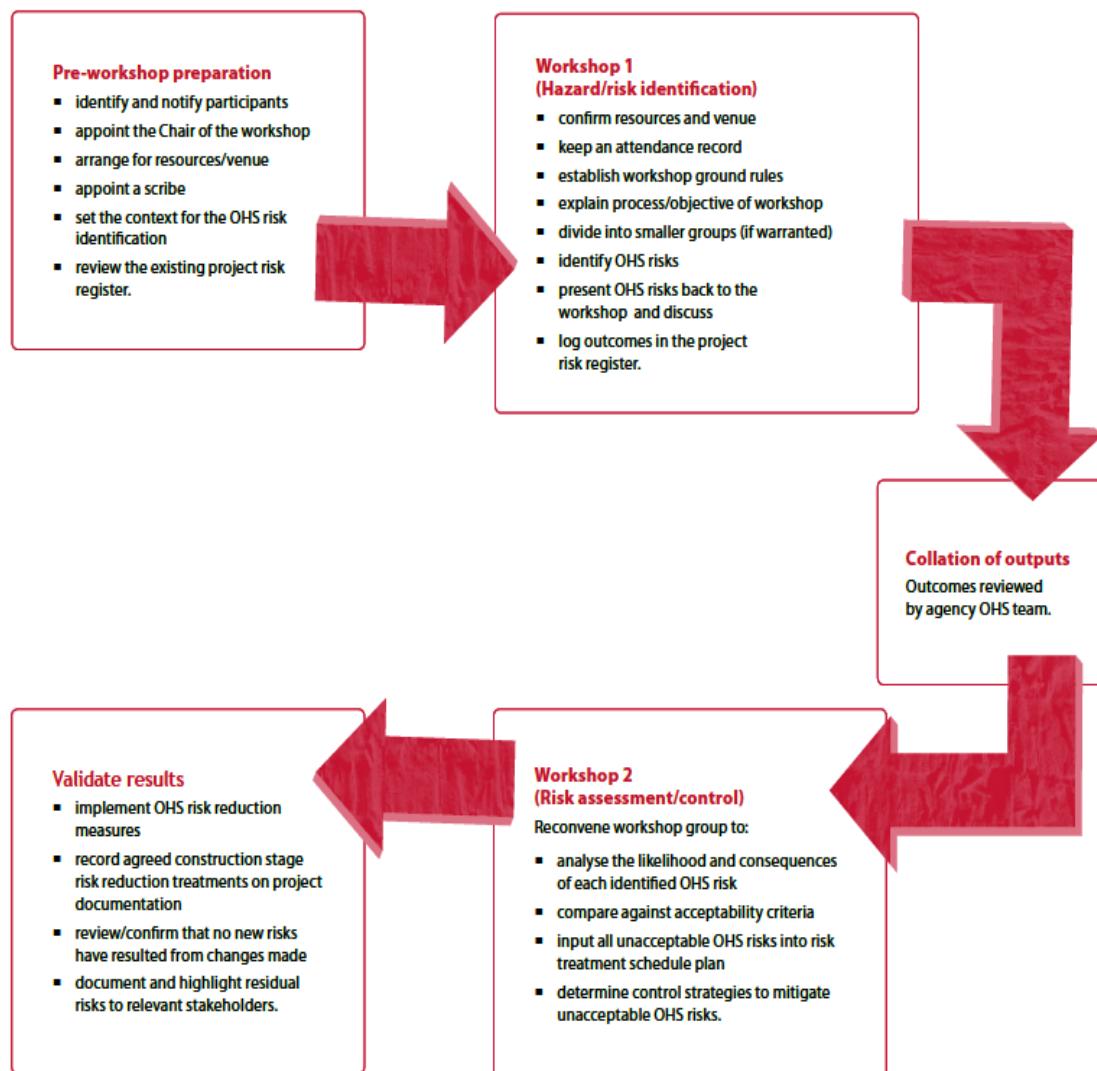
At the conclusion of the OHS design review, the OHS aspects of the design relevant to the construction of the project should be detailed fully and correctly on the design documents. Thus it is vitally important that the designer is aware of the OHS information, content and use requirements of these documents. It is important that there is clear OHS information in project documents, particularly the working drawings, and that this information is sufficiently detailed. It is helpful to consider the following questions when assessing whether this is the case.

- Is the OHS information consistent across all plans?
- Is there a better way of showing the OHS information?
- Are the dimensions complete?
- Are systems compatible (for example, can you run telecommunications in the same void as the plumbing)?
- Are the OHS specification notes on the drawings complete and accurate and adequately cross referenced?
- Have all the residual OHS risks to contractors arising as a result of non-standard design feature been included in the project documents?

Document B2.2 Process for design OHS review workshops

The diagram below represents the step-by-step process suggested to review the design OHS aspects of the project. The risk identification part of this process is the most important of all being undertaken. If not identified a risk cannot be effectively managed. A design checklist (document B2.3) and additional risk prompts (document B2.4) have been developed to assist the facilitator and workshop participants to identify relevant risks. When assessing the risk you may choose to use the risk management methodology presented in booklet 2, KMA A5. If it is not a large scale project, workshop 1 and workshop 2 may be combined.

OHS design review chart



Document B2.3 Design OHS review checklist

In most projects a number of different design consultants contribute to the design of the permanent structure/building to be constructed. Each consultant's area of design responsibility should be included in the design OHS reviews. The table below provides key contractors with prompts for the various design areas that may need consideration of OHS risk and for inclusion of relevant details on project drawings.

Please note that the table is designed to be used as a guide only for identifying hazard/risks and should not be treated as an exhaustive list. Further risk prompts are available in document B2.4 – The OHS risk prompt sheet.

Designers

Architect/draftsperson

Construct	Yes/No/NA	Use	Yes/No/NA	Redevelop/demolition	Yes/No/NA
Proximity to other building/plant/equipment	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Finishes schedule (for users)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Ability to redevelop for alternative uses/agencies	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Main services layout	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Compliance with building regulations	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Proximity to buildings/plant/etc	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Proximity to other activities	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Expected passenger use (lifts)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Public protection requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Proximity to overhead/buried services	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Access to risers	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Vehicular movement	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Access and vehicular movement	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Finishes schedule (for maintenance/cleaning)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Pitch of roof	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Elevations of all facades showing the characteristics and relationships between spaces	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Pitch of roof (maintenance/work space)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Perimeter protection	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Room sizes	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Construction site layout and emergency access	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Access requirements to all services and exterior of the building	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Adjoining property protection	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Pedestrian access and vehicular movement	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Falls from heights	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Future landscaping hazards (roots)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

Engineer

Construct	Yes/No/NA	Use	Yes/No/NA	Redevelop/ demolition	Yes/No/NA
Loading requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Acoustics	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Type of reinforcement	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Foundation design	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Long-term maintenance requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Method of de- construction	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Construction design/connections	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			Loading requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Restrictions on space for erection	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			Access to external areas for demolition	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Safe means of connecting components	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A				
Safe handling of components	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A				
Effect of erection sequence on stability	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A				
Incorporate offsite construction	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A				
Build into design features that contribute to safe access and work platforms	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A				

Mechanical

Construct	Yes/No/NA	Use	Yes/No/NA	Redevelop/ demolition	Yes/No/NA
Safe means of connecting components	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Location and size of plant rooms	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Isolation/disconnection	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Safe handling of components	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Nomination of type of plant	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Access for removal/upgrade	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Installation methods that generate hazardous substances	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Exhaust/Intake requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Hot work	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Access to services for maintenance	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
		Confined spaces	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
		Maintenance requirements for services	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

Construct	Yes/No/NA	Use	Yes/No/NA	Redevelop/ demolition	Yes/No/NA
		Heating and cooling	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

Electrical

Construct	Yes/No/NA	Use	Yes/No/NA	Redevelop/ demolition	Yes/No/NA
Safe means of connecting components	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Lighting internal/ external	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Isolation/disconnection	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Safe handling of components	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Security	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Access for removal/upgrade	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Temporary lighting requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Access to services for maintenance	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Installation methods that generate hazardous substances	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Confined spaces	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Hot work	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Maintenance requirements for services	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

Other issues

Cost and time

Construct	Yes/No/NA	Use	Yes/No/NA	Redevelop/ demolition	Yes/No/NA
Expected completion times for each stage	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Ongoing maintenance requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Temporary structures (scaffolding)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A				
Protection structures (hoarding)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A				
Security structures (hoarding)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A				

Approvals

Construct	Yes/No/NA	Use	Yes/No/NA	Redevelop/demolition	Yes/No/NA
Legislative restrictions on design	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Legislative restrictions on design	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

Other identified risks

Construct	Yes/No/NA	Use	Yes/No/N A	Redevelop/ demolition	Yes/No/NA
Effects on surrounding properties	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Impact on surroundings (for example, reflective glass causing glare)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

All design consultants should be required to acknowledge any residual OHS risks arising as a result of their contribution and ensure relevant OHS information is recorded on project drawings and specifications.

All OHS risks are to be recorded in the project risk register (A5.2).

Client:

Name:

Signature:

Date:

Architect:

Name:

Signature:

Date:

Engineer:

Name:

Signature:

Date:

Mechanical:

Name:

Signature:

Date:

Electrical:

Name:

Signature:

Date:

Trade/profession:

Name:

Signature:

Date:

Trade/profession:

Name:

Signature:

Date:

By signing this document you endorse that:

- An OHS review of the design has been completed and OHS risks identified have been eliminated or reduced so far as is practical. Where OHS risks have been accepted, this should be clearly stated in the project risk register.
- All relevant OHS risks are included in the project drawings and specifications.

Document B2.4 OHS risk prompt sheet

Below is a list of guide words to assist you in identifying hazards/risks associated with the design. These prompts can be used for the various stages of a project, ranging from possible construction safety hazards, through to maintenance safety hazards. Any risks identified from this prompt sheet should be incorporated into document B2.3—The design OHS review checklist and reflected on the project drawings, where appropriate.

Hazardous chemicals/dangerous goods
<ul style="list-style-type: none">▪ pesticides▪ fuel storage▪ cleaning products▪ dangerous goods▪ air pollution/water/waste water▪ explosives▪ asbestos▪ labelling

Slips and trips
<ul style="list-style-type: none">▪ electrical cables▪ uneven ground/finishes▪ cable covers▪ weather▪ use of amusement equipment▪ flooring design▪ poor design of barriers▪ poor lighting▪ gutters/steps▪ trees▪ branches▪ different flooring surfaces▪ outdoor event▪ access/egress▪ hidden hazards▪ edge protection▪ climbing▪ footwear

Working at height
<ul style="list-style-type: none">▪ scissor lifts▪ safety harness▪ scaffold▪ abseiling▪ winches▪ flying systems▪ prop zones▪ ladders▪ gantries▪ rigging on top of vehicles▪ overhead lines▪ raised platforms▪ appropriate certifications▪ edge protection▪ loading docks▪ platforms▪ lighting▪ type of materials used

Accessibility
<ul style="list-style-type: none">▪ lifts▪ ramps▪ parking▪ public transport▪ signage▪ disability▪ egress

Site/equipment	Materials handling
<ul style="list-style-type: none"> ▪ layout ▪ signage ▪ advertising/displays ▪ traffic management ▪ safe crossings ▪ overloading site ▪ appropriateness of signage ▪ access to site ▪ exclusion zones ▪ weather ▪ emergency egress ▪ site communication ▪ storage ▪ waste 	<ul style="list-style-type: none"> ▪ mechanical handling ▪ plant ▪ construction ▪ furniture fixtures and equipment ▪ precinct design ▪ functionality ▪ transport between precincts/locations and storage ▪ inaudible alarms ▪ excess weight and height ▪ method of erection
Security	Vehicle safety
<ul style="list-style-type: none"> ▪ site access ▪ building access ▪ vandalism 	<ul style="list-style-type: none"> ▪ site layout ▪ forklifts accidents (rollover etc) ▪ road closure ▪ vehicle/people segregation ▪ speed ▪ refuelling/recharging locations ▪ scissor lifts — driving from height ▪ permits and certification/licensing ▪ inappropriate use of paths ▪ accessibility during emergency management ▪ loading operations — docks and people
Plant	Fire safety
<ul style="list-style-type: none"> ▪ training ▪ certification ▪ personal protective equipment ▪ supervision ▪ maintenance ▪ isolation/segregation — people ▪ hand tools ▪ registered plant eg lifts, escalator 	<ul style="list-style-type: none"> ▪ evacuation plans ▪ fires — fire effects ▪ fire prevention plan — dangerous goods storage ▪ knowledge and use of equipment ▪ plant failure (air conditioning, electrical sub-station, etc) ▪ obstructing fire equipment ▪ pyrotechnics

Fire safety

- inappropriate fire fighting equipment
- security of fire prevention equipment
- isolating fire equipment/early warning
- appropriate location of fire equipment
- cutting and welding
- policies and procedures
- temporary electrical installations
- flammable goods
- lack of fire retardant

Electrical safety

- earthing
- unauthorised access
- lighting
- lack of power boards
- weather
- protection of leads
- cables/height/pathways
- location to other equipment

People

- first aid
- training
- hours of work
- fatigue
- weather — heat, cold
- competency/ suitability
- working alone
- confined spaces
- resources
- cultural conflict
- transport

Maintenance

- materials nominated
- access
- lighting
- vibration
- lifting
- plant registration
- slips and trips
- discharges including temperature
- noise
- frequency of maintenance
- operational requirements eg air intake
- storage facilities

Manual handling

- garbage/waste disposal
- trolleys
- waste materials

Electrical safety

- power supply — no spiking, lack of continuity
- overloading systems
- power tools
- underground services
- generators

Document B3.1 Design documentation review

The features below should be included in design documentation. The OHS risk issues associated with these features should be documented. This list may vary depending on the scope of the construction project and should only be used as a guide.

Architects

- floor plans showing the details of all spaces and their uses
- details of the main cores and risers
- sections through the building showing key relationships between spaces
- elevations of all facades showing the characteristics and relationships of all components
- site layout
- workspace layout including provisions and dimensions for telecommunication, computers etc
- main services layout
- existing overhead/buried services
- separation of public from construction site
- construction site layout
- finishes schedule for all spaces
- acoustic treatments (if applicable)
- protection works
- details of additional features that contribute to safe access and working places, for example handrails, attachment points for ladders, anchors for safety harnesses etc
- other OHS risks as identified

Engineer

- floor plan showing layout and sizes of all structural components
- key sections through the structure of the building
- sequenced construction program
- construction details including connections
- details of additional features that contribute to safe access and working places, for example areas doubling as temporary work platforms
- highlight special or unusual stability considerations
- identify the stage at which the permanent structure is self supporting
- principles of the foundation design
- schedule and specifications of all services systems and key components
- geotechnical survey
- acoustic treatment
- other OHS risks as identified

Mechanical services

- the principles of the heating, ventilation, cooling and plumbing systems together with critical dimensions in ceiling, floor and wall voids
- use of particular materials
- the principles of the fire protection and fire alarms systems together with critical dimensions
- plant room locations, sizes and weights and any installation requirements
- type, location and size of principal service ducts and risers together with critical dimensions in ceiling, floor and wall voids
- other OHS risks as identified
-

Electrical services

- the principles of lighting and power distribution, tenant and client supplies, power and lighting to common areas
- dimensions of electrical service voids
- emergency lighting details
- lighting protection
- security systems
- electrical intake and transformer with sizes and position of switch rooms along with critical dimensions
- other risks as identified

Document B4.1 OHS cost criteria

All parties involved in the construction of a project must recognise that there are both implicit and explicit OHS costs.

Tender/contract costs: These issues and their costs, where possible, should be included in the tender documents. The checklist below provides the model client with examples of OHS items a project team should consider. These items will vary with each project and should only be used as a guide. Use the checklist to ensure that a tenderer has met client expectations by acknowledging the safety requirements of the project and has allocated appropriate costs.

Project stage: Management cost

OHS issue	Agency considered? Yes/No/NA	Cost (\$)	Contractor considered? Yes/No/NA	Cost (\$)
Adequate site safety supervision	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Experienced safety professionals	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Adequate resources to undertake safety requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Total cost \$ =			Total cost \$ =	

Project stage: Project costs

OHS issue	Agency considered? Yes/No/NA	Cost (\$)	Contractor considered? Yes/No/NA	Cost (\$)
Project specific health and safety plan	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Inductions	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Training	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Subcontractor management	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Provision for personal protective equipment	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

OHS issue	Agency considered? Yes/No/NA	Cost (\$)	Contractor considered? Yes/No/NA	Cost (\$)
Monitoring and inspection program	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Audit and performance measuring	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Meetings and reporting	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Incident and accident reporting	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Adequate insurance	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Total cost \$ =				Total cost \$ =

Project stage: Construction costs

OHS issue	Agency considered? Yes/No/NA	Cost (\$)	Contractor considered? Yes/No/NA	Cost (\$)
Permits for example occupy footpaths, roads, etc	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Notifications (letter drops to adjoining properties)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Adjoining property protection	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Demolition/removal of materials	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Removal of hazardous substances	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Site layout (separation of people from plant/vehicles)	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	

OHS issue	Agency considered? Yes/No/NA	Cost (\$)	Contractor considered? Yes/No/NA	Cost (\$)
	<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	
Traffic management	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Scaffolding	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Hoarding/barriers	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Security	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Site and perimeter lighting	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Dust control	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Odours/fumes	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Hours of operation (there may be restrictions imposed by local authorities)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Excavation/substructure protection	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Fall protection for working at heights ie handrails	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Working platforms	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Plant provisions	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Loading/unloading provisions	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	

OHS issue	Agency considered? Yes/No/NA	Cost (\$)	Contractor considered? Yes/No/NA	Cost (\$)
	<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	
Transportation considerations (wide loads etc)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Specific construction techniques	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Temporary power supply (site and each floor)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Commissioning testing and certification	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Total cost \$ =			Total cost \$ =	

Model client costs: The following provides the model client with examples of some of the OHS costs that they should allocate sufficient financial resources to. These items should be factored into the allowable budget for the project, but are not included in the tender/contract documents:

- development of contract documents
- adequate OHS resourcing
- training (as required)
- project specific safety plan
- review of reports
- onsite monitoring and control.

Project costing

Model client project costing: \$

OHS contractor project costing: \$

Total \$

Budgeted allowance for OHS \$

Acceptance of OHS project costings:

Project name/number:

Project address:

Name:

Signature:

Date:

Name:

Signature:

Date:

Document B5.1 Change management procedure

When the full conceptual design stage has been completed, the design of the facility to be constructed is understood to have reached a state of acceptance of constructability whereby any further changes should not be permitted to the design without a formal change management process being followed.

Australian Government agencies should track the status of any design change requests through to implementation, or rejection, and should effectively assess and forecast the OHS impact of any proposed changes on the constructability, stakeholder impact and ability to achieve OHS KPIs.

A change management process should include the following steps:

Formalised mechanism for proposing a design change

Whenever any stakeholder determines that some safety aspect of the project should be changed, that stakeholder is to submit a change proposal to the project OHS team. The change proposal should:

1. identify the work process in question
2. describe the aspect of the work process that the stakeholder wishes to change
3. include a description of the OHS impact of the proposed change.

Assessing the impact of the proposed design change

The change proposal should be circulated to all project stakeholders who the applicant has identified as being affected by the proposed change, along with any other stakeholders the OHS team decides should be consulted. Feedback to the project OHS team is invited on the possible OHS effects of implementing the proposed change.

Approving or rejecting proposed changes

Once the impact of the proposed change/s has been assessed by all of relevant project stakeholders, the project OHS team should decide whether to recommend the acceptance or rejection of the proposed change. The project OHS team may reject a proposed change if it is determined that OHS risk to project participants (construction workers, maintenance personnel or facility users/occupants) would be unacceptably increased by the change.

Regardless of whether a change is approved or rejected, the following information should be recorded.

- the date, description, and stakeholder submitting the proposed change
- the proposed solution considered
- the estimated OHS impact of the change on the proposal
- the recommendation made (that is, acceptance or rejection)
- if recommended for acceptance, the overall impact on OHS in the project
- if recommended for rejection, the reason for rejection.

Document B6.1 Example contract provisions establishing specific OHS requirements for the construction stage

The model client should clearly establish the OHS requirements for the contractor and these should be identified at the tender stage in the tender documentation. This will ensure that the contractor understands their OHS responsibilities well in advance of any contract being negotiated and signed. To ensure that these requirements are met throughout construction stage they should be included as part of the contract documents. If the contractor is expected to comply with the agency's internal OHS processes, information about these processes should also be included in the construction contract documents. Below is a list of suggestions for inclusion.

OHS responsibilities

- requirements to carry out the work with the highest regard for the safety of employees and other people on the site or in the vicinity of the site
- requirements to comply with all relevant statutory obligation
- commitment to the model client's safety charter (a copy of the charter is to be included in the contract documents)
- allocation of resources to fulfil OHS requirements
- OHS roles and responsibilities

OHS training

- commitment that employees (and others that the contractor is responsible for) have been trained in working safely and provide evidence that this has taken place
- requirement to ensure that all employees (and others the contractor will be responsible for) are competent in the tasks required
- requirements to attend client and site-specific inductions

Supervision

- arrangements to ensure adequate supervision of people carrying out tasks
- engagement and management of subcontractors

Communication and consultation

- requirement to maintain effective consultation and participation with their employees and with you, the model client
- requirement to participate in design, construction and post construction meetings
- commitment to the model clients that all processes and formats forming part of the contract package will apply
- acknowledgement of model client's onsite participation throughout project

Reporting

- requirement to report data in specified formats and at specific times. Copies of report templates should be included as part of the contract package (for example change management, risk management). A list of templates should be included
- nominate targets and KPIs (see document B7.1 for guidelines on setting project OHS KPIs)
- requirements to regularly report OHS performance against project targets and KPIs

OHS planning

- requirement to develop and submit a project-specific OHS plan. No works will commence until the OHS plan has been reviewed and accepted by the model client based on the project and associated risks
- requirement for model client to review risk assessments and safe work method statements
- requirement to incorporate risks already identified into their OHS planning

Stop work

- acknowledgement of either party's right to stop the job on safety and health grounds where necessary
- model client's provisions for enforcement action of repeat OHS breaches

Administration

- required relevant insurances
- the cost of implementing the expected OHS requirements
- criteria that will be used to evaluate tender response.

Document B7.1 Guidelines on setting project OHS KPIs

OHS key performance indicators (KPIs) can vary widely in their characteristics and their utility. The following characteristics are suggested as a basis for judging the quality of an OHS performance indicator:

- reliable — indicators should be based on well-established principles and be applicable over a wide range of project situations
- relevant — indicators should relate to the important OHS features of the project
- simple — they should not be overly complex otherwise they will be less used and take more time and effort to apply. Simple indicators can facilitate communication and feedback about OHS
- direct — they should be closely linked to project OHS objectives and targets
- understandable — users should know exactly what indicators represent and how to determine their value
- ‘practical — the information required should be easily available and well based.

Example ‘lagging’ OHS indicators

- number of fatalities
- medically treatable injuries
- first aid incidents
- lost time injuries
- total days lost
- total recordable injury frequency rate (TRIFR)*
- members of the public injured
- low duration or severity rate and/or outstanding improvement trend
- safety infringements/fines
- number of accident investigations conducted
- follow-up of corrective actions including application of lessons learnt.

Example ‘leading’ OHS indicators

- project incident reporting — percentage incident reports acted on by the relevant project manager
- incident action tracking — the percentage of near miss incidents which have been closed out with appropriate records
- site safety inspections — number by supervisors, management and/or OHS representatives completed against a pre-agreed number
- management safety walks/inspections — number completed against a pre-agreed number
- site safety inspections — outstanding issues identified from previous period which have been closed out
- hazard identification — percentage reported rectified within the defined timeframe
- risk assessments — percentage of planned risk assessments completed
- site safety management walk — percentage of observations closed out
- safety audits (internal/external bodies) — percentage of audits completed as identified in the OHS project plan for the project
- review of audit reports — percentage of total internal/external audit reports reviewed by senior management
- outstanding issues identified through safety audit — the number closed out within a defined period (period to be nominated depending on severity of breach)
- sharing/communication of information — the number of toolbox talks, safety committee meetings conducted during a defined period

- demonstrated use of adopting a successful idea, practice or initiative from other construction sites — the number implemented across all other construction sites
- communication with the public — percentage of notifications completed as identified during the course of the project
- inductions — percentage of employees who have received site-specific OHS induction
- safety training — number of employees/managers who have received OHS training commensurate with their OHS responsibilities
- contracts — percentage of contracts with OHS specific clauses
- design changes — percentage of design changes made to address identified OHS issues over the life of the project
- The Total Recordable Injury Frequency Rate represents the total number of fatalities and injuries resulting in lost time, restricted work duties or medical-treatment per million work hours.

Document B7.2 Standard OHS report format

Reporting period:

Site/project details:

Workgroup/contractor details:

Task/s being performed:

For your reference Document B7.2 in Booklet 3 has a worked example of reporting of project OHS KPIs back to the client.

KPI description	Outcome	Target/measure	Results	Compliance achieved? Yes/No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No

Submitted by

Name:

Signature:

Date:

Position:

Document B8.1 Project OHS management plan guide

Provided below are some suggested content for the Project OHS Management Plan. However, it is recommended that agencies devise their own template, identifying relevant information to be included and leaving space for the construction contractor to respond. This will provide you standardised plans and enable easier comparison of prospective contractors' OHS management planning and processes. The requirements of each project will differ. Depending on the specific OHS risks, additional information may need to be sought.

1. Contractor profiles

- company/business name
- street address
- postal address
- contact person (including phone number, mobile number, fax, email)

2. Project management and leadership

- project details, such as address, work being undertaken, etc
- OHS roles and responsibilities
- OHS objectives and accountabilities for key positions
- how agency initiatives will be integrated into contractor program
- a project schedule that includes provisions for OHS

3. Training

- safety induction details relevant to site/project
- the allocation of adequate resources/facilities to conduct OHS training
- a training needs analysis specific to the project
- how training records will be reviewed, maintained and stored for the project

4. Design controls

- details on how design changes will be undertaken and recorded. Reference to the agency change management process should be made
- OHS considerations with purchase/operations of plant, equipment and supplies
- controls to ensure all plant and equipment on site is safe and compliant

5. Risk management

- description of how hazards will be identified and risks assessed during the contract
- details on how the agency's risk management processes and risk register will be integrated into the contractors procedures

6. Emergency procedures

- site-specific emergency plan. Note: the contractor should identify what procedures will be used during the course of their contract. Clarification should be sought regarding the details/type of emergency plan, for example does the plan only cover response or is it a full emergency management plan that includes preparation, response and recovery. An emergency response plan may not cover the statutory requirements of some states
- identification of specific equipment required for the contract

- testing and reviewing of emergency plan
- site security provisions
- contact details in the event of an emergency (including after hours details)

7. Inspections and audits

- audit program
- inspection program
- environmental monitoring program based on project, site conditions, adjoining property, etc

8. Work procedures/statements

- details of existing Safe Work Method Statements (SWMS) and their relationship to the contract
- acknowledgement and commitment to undertaking any new SWMS as identified
- traffic management and site layout details
- work permit processes

9. Consultation and communication

- how OHS information will be communicated to all relevant stakeholders and how they intend to identify who the relevant stakeholders are
- what methods of communication will be employed throughout the contract and the stakeholder involvement
- enforcement provisions for non-compliances/breaches/dangerous acts
- details of training and competency requirements
- targets and reporting of OHS
- communications plan applicable to surrounding properties

10. Incident reporting and investigation

- describe how incidents will be reported and investigated during the contract
- acknowledgement and inclusion of the agency in incident investigations
- details on the processes/procedures relating to the management of incidents including proactive and reactive processes
- details on the processes/procedures relating to the management of injury/illness
- details of the first aid program

11. Subcontractor OHS management

- roles and responsibilities of subcontractor to principal contractor
- subcontractor training requirements

12. Construction costs

- acknowledgement of and allocation of appropriate resources for effective OHS implementation throughout the contract. Refer to document B4.1 — OHS cost criteria.

13. Documentation

- how and where records will be kept relating to the dealings and operations associated with the contract.

Document B9.1 Contractor selection checklist

To aid in the selection of a contractor the following checklist has been developed. The checklist is not exhaustive and particular attention should be paid to project specific OHS issues.

1. Contractor details

Company/business name:
Street address:
Postal address:
Contact person:
Phone:
Mobile:
Fax:
Email:
Brief description of contract:
Duration of contract:
From:
To:

2. Insurance Requirements

Insurance requirement	Not required	Required	Sighted	Suitable coverage*	Expiry date	Policy number
Workers compensation						
Professional Indemnity						
Public/and or product liability						

3. Contractor project-specific OHS management

Criteria	Sighted? Yes/No	Comments
<p>OHS policy and procedures</p> <ul style="list-style-type: none"> ▪ contractor acknowledges at director level the client's strong commitment to OHS and is committed to achieve the requirements of the OHS contract specifications ▪ inclusion of model client participation of site safety monitoring program ▪ contractor demonstrates commitment to OHS charter ▪ confirmation that the contractor's OHS policy and procedures are of a standard not less than those required and expected for the project ▪ contractor confirms that the same standard will be required for subcontractors ▪ contractor confirms an understanding of and commitment to the client's procedures and relevant legislative requirements ▪ allocation of appropriate resources, for example personnel, equipment, etc ▪ allocation of OHS roles and responsibilities ▪ injury management ▪ OHS policy and procedures (continued) ▪ First Aid procedures ▪ procedures for hazard identification ▪ procedures for assessing risk of hazards 		

Criteria	Sighted? Yes/No	Comments
<ul style="list-style-type: none"> ▪ procedures outlining use of hierarchy of controls for risk minimisation and review 		
<p>OHS training</p> <ul style="list-style-type: none"> ▪ all contract staff (and those responsible for them) are adequately trained and are competent to undertake the required work/s ▪ make available training and qualification records on request ▪ a commitment to attend model client project inductions ▪ contractor project site-specific inductions program including agency residual risks ▪ includes a process for inducting subcontractors onto project site ▪ process for identifying and delivering training needs during the project 		
<p>Reporting</p> <ul style="list-style-type: none"> ▪ ensure contractor is committed to the model client's templates, that is change management, risk management, any other documents nominated in the contract specifications ▪ details on how health and safety performance will be monitored during works (including inspections and audits) ▪ procedures on reporting project wide OHS performance ▪ incident reporting and investigations (model client may require involvement in investigations) ▪ acknowledgement of and commitment to review of risk register prior to commencement of works 		
<p>Enforcement and stop work</p> <ul style="list-style-type: none"> ▪ understanding that any infringements of law, regulations or safe operating standards are to be remedied by the contractor ▪ understanding of the model client's right to stop work until any unsafe act or situation has been rectified ▪ understanding of enforcement provisions due to infringements of OHS requirements ▪ process for enforcing site safety rules and dealing with non-conformance 		
<p>OHS planning</p> <ul style="list-style-type: none"> ▪ project-specific OHS plan ▪ identification of the nominated senior manager with OHS responsibilities ▪ records the responsible person/s for onsite OHS and their responsibilities ▪ copy of current OHS policy ▪ procedures for design risk assessment ▪ process for incorporating and communicating design changes during project life ▪ acknowledgement of model client residual risks ▪ site-specific emergency management plan, as well as First Aid procedures ▪ details of policy for use of plant, materials and substances used in the project 		
<p>Communication and consultation</p> <ul style="list-style-type: none"> ▪ process for ensuring subcontractors are involved in developing SWMS, or are inducted into head contractor SWMS ▪ procedures for consultation on OHS during project life 		
<p>Administration</p> <ul style="list-style-type: none"> ▪ appropriate funds have been allocated for effective OHS implementation ▪ details of management structure and key staff with roles and responsible for safety 		

4. Evaluation and sign off

Evaluation and/or comment:

Submitted by:

Name:

Signature:

Date:

Position:

Stage Review

Design and procurement stage review template

This stage review template can be used to verify that the design and procurement stage KMA have been implemented, before proceeding to the next project stage: construction. Where appropriate, outstanding actions in relation to the KMA can be recorded.

Design and procurement stage review

B1 Select safe designers	Assessment	Actions
<ul style="list-style-type: none"> ▪ selection decisions based on OHS competence/performance 		
B2 Conduct design OHS reviews	Assessment	Actions
<ul style="list-style-type: none"> ▪ design OHS review conducted ▪ risk mitigation design changes recorded 		
B3 Review design documentation	Assessment	Actions
<ul style="list-style-type: none"> ▪ design documents have recorded appropriate OHS issues and information about residual risks 		
B4 Review project cost	Assessment	Actions
<ul style="list-style-type: none"> ▪ cost estimates, with comprehensive OHS-related costs, prepared for the assessment and comparison of contractors' bids 		
B5 Implement change management process	Assessment	Actions
<ul style="list-style-type: none"> ▪ change management process implemented with full procedure documentation ▪ all design changes comply with the change management procedures 		
B6 Include OHS in contract documents	Assessment	Actions
<ul style="list-style-type: none"> ▪ all construction contracts contain specific OHS clauses 		
B7 Select project OHS targets and KPIs	Assessment	Actions
<ul style="list-style-type: none"> ▪ KPI performance against agency targets ▪ completeness and consistency of reporting against KPIs 		

B8 Specify how OHS is to be addressed in tenders	Assessment	Actions
▪ all tenders contain complete, detailed, OHS information in a standard format		

B9 Select safe contractor	Assessment	Actions
▪ weight of consideration of OHS against other tender evaluation criteria (ensuring safety has been priced appropriately)		

Further information

This booklet is the third in a series about clients promoting safe construction. Further information about the Model Client Framework is available from the Office of the Federal Safety Commissioner.

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