



Office of Government Commerce

Construction projects **A manager's checklist**

Achieving Excellence in Construction



Construction projects

A manager's checklist



This document outlines the key questions that a Senior Responsible Owner (SRO) should ask about a construction project in addition to the questions described in the companion document *The Gateway Process: A Manager's Checklist*.

The first part of this document outlines the main considerations for a construction project.

The second part sets out the essential questions about health and safety, sustainability, design and the integrated project team that should be considered by the SRO before each of the Gateway Reviews.

NAO endorsement

The NAO recognise that proactive client leadership and robust project management are prerequisites to the successful delivery of construction procurement.

They consider that procurement of construction should be on the basis of whole-life value for money and endorse the use of the good practice promoted by this suite of guides. They may investigate whether this good practice is applied in practice in any future examination.

Acknowledgement

This guide has been published after extensive consultation within government and valuable contributions from leading individuals and organisations across the construction industry.

OGC would like to thank all who have contributed.

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What are the critical things you must get right?

Success is associated with projects that:

- are clearly the best option to meet the business need
- reflect the ethos of the business
- have a clear commitment throughout the integrated project team to clearly defined objectives
- are led by clients committed to whole-life best value, including health and safety, sustainability and design quality
- have the visible support of the top of the office
- are managed through defined and accepted accountabilities, supported by clear and short reporting lines
- have adequate resources allocated to deliver the project.

Project organisation and process

Projects should be organised in such a way that everyone in the integrated project team (client and supply team) is committed to successful delivery. Resources, roles and responsibilities for delivery should be assigned to effective individuals who are empowered to deliver, who are drawn from the business unit that owns the project. There must be short and effective lines of communication to senior management so that they can take prompt action when needed. Successful delivery requires an integrated process in which design, construction, operation and maintenance are considered as a whole. It also requires effective use of project management techniques such as risk management and value management. Sound project management is essential for projects to be delivered to the agreed quality,

within budget and on time. It requires a thorough understanding of the key stages of design, construction, operation and disposal that are critical to its success.

Health and safety

Clients should create an environment through all stages of the project that delivers excellence in health and safety performance. There are good business and ethical reasons to do so during the construction process and afterwards during operational use by their employees or members of the public. There are also legal requirements.

Clients should:

- set requirements for healthy, safe working conditions and facilities on construction sites, so as to attract and retain a high quality workforce, on whom the quality of the finished product is largely dependent
- make health and safety of their customers, staff and everyone they work with, or for, a business priority when commissioning construction
- select supply teams with demonstrable commitment to health and safety
- use integrated project teams to ensure the effective contribution of the entire supply chain to delivering a safe site and a facility that is safe to operate and maintain.

Sustainability

Construction has a vital role in the delivery of the Government's sustainability agenda. Sustainability includes environmental, social and economic factors, and construction impacts on all three areas. All public sector construction clients should also adopt the Sustainability Action Plan, included in *Achieving Sustainability in Construction*

Procurement. The Framework for Sustainable Development on the Government Estate has sections covering procurement and estate management, which will include relevant targets for construction clients.

Design quality

It is the responsibility of all clients, but especially public sector clients, to commission projects of which present and future generations can be proud. There is a significant role for clients in promoting good design, which is not primarily a question of style and taste. It is adherence to a set of time-honoured, objective principles that determine whether or not a facility works well for all users and the community. It does not necessarily involve high cost, and it is not purely about aesthetics. Good design will provide whole-life value for money.

It is at the design stage that most can be done to optimise the value of a facility to its users and the public. Good design takes account of functionality, appropriate build quality and impact. Badly designed facilities can fail to meet the needs of end users, cause operational problems, have high maintenance or running costs and can be inefficient, dangerous and costly to build and maintain.

The integrated project team

The best projects and the best clients put time into getting the right project team. They assess the quality of the individuals, their ability to work together and their experience. The principle is simple: the client and the supply team working together can reduce waste, improve quality, innovate and deliver a project far more effectively

than in a fragmented and adversarial relationship. Putting it into practice requires real commitment from all parties involved, but brings benefits that far outweigh any perceived disadvantages.

Risk and value management

Risk and value management should be carried out throughout a project's lifecycle, with early involvement of the entire integrated project team to manage risks through a joint risk register and active risk management. The risk management plan should deal with all risks, whether retained by the client or allocated to others.

Value management is about enhancing value and not about cutting cost, although this may be a by-product. The principles and techniques of value management aim to provide the required quality at optimum whole-life cost during the process of developing a project.

Procurement and contract strategies

The primary consideration in defining a procurement strategy is the need to obtain overall value for money in the whole life of the service or facility. Design, construction, operation and maintenance should not be considered in isolation from one another. The recommended procurement routes allow the integrated project team members to work together, whether they are involved in the design, construction and/or service delivery. An integrated approach ensures early involvement of all team members to advise on buildability of the design and the ongoing operation and maintenance of a facility.

Clients with regular construction requirements should seek long term relationships with their supply teams, within EC procurement rules. This should ensure that key members of the project team can provide valuable input from the earliest stages of the project, together with support from independent client advisers as required.

Whole-life cost

The lowest price tendered for construction rarely leads to best value for money: quality and costs over the life of the asset are the real indicators of value for money. The focus should always be the optimum balance of required quality and the whole-life costs of a facility – the costs of acquiring it, the costs of maintaining it and the costs of operating it over the whole life of the asset to its disposal. The use of incentives can be a valuable tool in optimising whole-life value – for example, pain/gain sharing of energy costs with those responsible for the maintenance of a facility. This can contribute significantly to whole-life value by driving down energy costs and helping to achieve sustainability targets.

Performance measurement

Measuring the performance of construction projects is essential for ensuring that planned improvements in quality, cost and time are achieved. It helps clients to compare achieved performance with that of similar projects, identify potential for doing things better and assess how suppliers compare with other potential suppliers. Clients also need to measure their own performance and benchmark with other clients to identify areas for improvement.

By Gate 0

Strategic assessment

Establish business need

Once a business need is identified, the SRO should consider whether a construction project would be the best way of meeting it.



Health and safety

- Is there a demonstrable departmental commitment to health and safety in construction projects?

Sustainability

- Have we identified the major risks and issues relating to sustainability?
- Can we demonstrate compliance with current sustainability initiatives?

Design

- Have we appointed a senior design champion, and for smaller projects have we assigned the role of design champion to a specific individual?
- Does the project timescale allow enough time for the development of a high quality design?

By Gate 1

Business justification

Develop business case

As the business case is developed, the SRO should ensure that the scope of the project is clearly defined and that opportunities for adding value have been explored thoroughly.



Health and safety

- Have we assessed the main risks?
- Is health and safety considered as part of the project brief?

Sustainability

- Have we reassessed sustainability risks, focusing attention on priority areas?
- Have sustainable requirements been set out in the brief?

Design

- Is the project brief robust enough to deliver good design without compromise?
- Have we identified and consulted appropriate sources of design advice?
- Have tools such as Design Quality Indicators been used to ensure the requirements of all stakeholders are met?

Integrated project team

- Have the independent client adviser or relevant members of the integrated project team been involved in development of the business case?
- Are outline plans in place for how risks might be allocated between team members, taking account of their likely attitudes to risk?

By Gate 2

Procurement strategy

Develop procurement strategy

The SRO needs to ensure that the most appropriate procurement route has been taken to procure the integrated project team and that the commercial arrangements will deliver value for money.



Health and safety

- Are we using output-based specifications that give relevant weighting to health and safety?
- Is the health and safety performance measurement strategy developed?
- Is health and safety a key selection and award criterion for the integrated supply team?

Sustainability

- Are sustainability requirements covered in output specifications, and included in selection and award criteria, while not restricting innovation or further improvements in sustainable performance?

Design

- Is appropriate weighting given to design quality and design capability in selecting the potential teams and in the development of output based specifications?

Integrated project team

- Have we adopted an integrated procurement route – that is, Private Finance Initiative, Prime Contracting or Design and Build?

By Gate 3

Investment decision

Competitive procurement

At this stage the whole-life costs should be clear enough to enable the SRO to commit to a maximum budget; the scope of the project is finalised.



Health and safety

- Are we awarding the contract to an integrated supply team that has project-specific plans for managing health and safety that clearly demonstrate a commitment to zero tolerance of accidents?
- Has a planning supervisor been appointed?

Sustainability

- Have we ensured that proposed on-site construction practices are sustainable – eg recycling, clean, safe site and can the team demonstrate these proposals?

Design

- Have we optimised the whole-life design quality, cost and time as far as possible?
- Are we satisfied about the buildability of the preferred option? Can we confirm this with the whole integrated supply team?

Integrated project team

- Can we confirm that the client and supply team will work together as an integrated team and are committed to continuous improvement?

By Decision Point 1

Outline design

At this point the SRO/design champion signs off the outline design. After this point no client changes should be made.



Health and safety

- Has the integrated project team provided a health and safety plan that complies with CDM regulations?
- Does the plan address key health and safety issues during construction and operation?

Sustainability

- Have we checked compliance with (or improvement on) the sustainability requirements set out in the contract?

Design

- Will the proposed design help to achieve the benefits set out in the business case?
- Are we using Design Quality Indicators to check that we will achieve an acceptable level of design quality?
- Have risks been reduced through good design whenever possible?

By Decision Point 2

Detailed design

At this point the SRO/design champion signs off the detailed design.



Health and safety

- Has the health and safety plan been reviewed and updated to a satisfactory standard for the construction phase?

Design

- Does the design take full account of maintenance, operating and disposal costs?

During construction

Health and safety

- Are health and safety proposals being applied on site with measures and data collection as agreed in the plan?

Sustainability

- Are sustainable processes being applied and monitored, including recycling?

By Gate 4

Readiness for service

Construction completed

At this stage the SRO confirms that the facility has been commissioned, is fit for purpose and ready for use.



Health and safety

- Have all relevant health and safety risks been managed satisfactorily by the team during construction?
- Does the facility meet the specified health and safety targets and is it safe to maintain and operate?
- Has the health and safety file been passed to FM operators?

Sustainability

- Does the facility meet or improve on sustainability targets?

Integrated project team

- Has the team demonstrated a commitment to continuous improvement?
- Has the team provided FM operators with all required operating and maintenance documentation?
- Are key lessons learned from the project being used to improve future projects?

By Gate 5

Benefits evaluation (repeated as required)

Operate facility

The business benefits that have resulted from the investment in the facility are checked against what was expected in the business case. There may be several Gateway 5s throughout the life of the facility.



Health and safety

- Is the facility safe to operate and maintain?
- Is a full record being kept in a health and safety file?

Sustainability

- Have we met or exceeded our targets for sustainable use of the facility, including utility consumption?
- Can we demonstrate compliance with current sustainability initiatives?

Design

- Have tools such as Design Quality Indicators been used to assess how well stakeholder requirements have been met?

Integrated project team

- Has a Post Project Review been undertaken using Clients' Charter KPIs?
- Are FM operators making effective use of operating and maintenance documentation?
- Has a Post Implementation Review been undertaken?

Closure

End of contract, workpackage, etc

Further information

The Achieving Excellence Procurement Guides

AE 01 *Initiative into action*

AE 02 *Project organisation:
roles and responsibilities*

AE 03 *Project procurement lifecycle:
the integrated process*

AE 04 *Risk and value management*

AE 05 *The integrated project team:
teamworking and partnering*

AE 06 *Procurement and contract strategies*

AE 07 *Whole-life costing and
cost management*

AE 08 *Improving performance:
project evaluation and benchmarking*

AE 09 *Design quality*

AE 10 *Health and safety*

AE 11 *Sustainability*

Additional sources of information

Construction Projects Pocketbook

The Gateway Process: A Managers' Checklist:

www.ogc.gov.uk

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