This topic guide examines the writing of a method statement, which can be used for several purposes in the construction process including:

- as a vehicle by the estimator to plan the pricing of work activities
- as a planning tool for management to coordinate the integration of a work activity into the overall contract programme
- as a health and safety tool for planning risk assessments under the Construction (Design and Management) (CDM) Regulations 2007.

This topic guide will provide some examples of method statements, and give you the knowledge and understanding to write a detailed method statement within a work context. You will cover:

- planning for a health and safety task to be undertaken on the project
- preparation of an estimate for a work section
- planning the time element within a contract programme.


1 Planning for health and safety

Working conditions (health, safety and welfare)

Working conditions have a major impact on any method statement with regard to health and safety on site. Variables that may have to be written into a method statement, or alterations to an existing one, are:

- the weather – rain, snow, sun and cold conditions will have an effect on operatives’ working conditions
- high winds – they can have a dramatic effect on the use of cranes and lifting
- the time of day – this will affect the amount of daylight and visibility conditions
- working within confined spaces
- working at height.

Each component that has to be installed as part of the work item should be mentioned in the method statement so a logical sequence is built for operatives to follow.

Planning work operations

In order to produce a method statement you need to reference it to the activity associated with the main contract programme. The method statement needs to reflect any sequencing and must be integrated so it fits within the logic of the programme-linked activities. Sitting down with the planner and site/contracts manager will provide lots of information and data that you require for the writing of a method statement. In order to plan an effective method statement, you will need to establish the data that relates to the work activity for which you are writing the method statement.

This data is initially obtained from the estimate or budget for the contract. You will need to analyse the financial element of the work item to establish the value of person hours that have been used to compile the rate or final total.

Access

Access and egress are factors associated with any work activity on a construction site that must be carefully considered in the method statement. Factors to think about include:

- working at height
- confined space rescue
- working space allowances
- breathing apparatus
- permit to work
- additional supervision
- watchers
- training.

These must all be carefully considered and evaluated with regard to the safety of operatives undertaking the work.

Key terms

Egress – a way out, or exit.
Watcher – a person who watches work activities, acting as a second pair of eyes, and who can raise the alarm if required.
Security

Third-party security must be carefully considered within a method statement. A contractor has a general ‘duty of care’ to protect visitors to the site and any operatives undertaking work activity. This care must extend to the protection of the general public, who must be prevented from straying into any construction site activity. This can be achieved by providing:
- adequate and suitable boundary hoardings so no one can climb into the site and potentially cause harm to themselves
- a set of lockable gates with appropriate signage
- adequate lighting during winter months
- secure plant and equipment to avoid unauthorised use
- visiting security (this may need to be considered in high crime areas).

Transportation, traffic generation and management

The health and safety of operatives is greatly improved if plant and machinery are segregated from any operatives on site. The methods employed to achieve this will need to be carefully planned, implemented and maintained.

Methods that can be examined may include:
- one-way systems
- stop–go boards
- temporary traffic lights
- fencing between site roads and pathways
- audible reversing warnings
- traffic signage
- site speed limits
- access controls for large plant.

You can find out more by visiting the HSE website: www.hse.gov.uk/construction/safetytopics/vehiclestrafficmanagement.htm

Plant, equipment and people capability

The PUWER cover the use, inspection and maintenance of work equipment. Method statements need to reflect the following aspects of construction plant operation on a complex site:
- training required to certify operation of the plant
- rough terrain capability
- reach, extension and height capacity
- capacity in terms of weight and volume
- off-road/on-road capability
- any supervision required by way of plant operation
- noise considerations.

Plant has to be operated safely and this may mean the inclusion of bankspersons to watch excavation work, to ensure that a visual inspection of any cables, pipes or obstructions can be maintained. Similarly, with any lifting, additional pairs of eyes will be needed. These appropriate measures need to be written into the method statement and communicated to all involved with plant activity on site.
Skills’ needs, including certification, accreditation and training

Any construction plant that is operated on site requires certification, including:

- a UK road licence – as it may need to be driven on the highway
- an approved operator’s licence.

The approved scheme is run within the UK by the CITB, who offer approved training courses for specific items of plant, for example excavators and dumper trucks.

IPAF is another training association that provides certification for the use of mobile access platforms.

The CDM Regulations 2007 place a duty on employers to ‘arrange for or instruct a worker to carry out or manage design or construction work unless the worker is competent, or under the supervision of a competent person’. Providing training qualifications and certification is one method of ensuring this for a worker or plant operative.

2 Preparation of an estimate for a work section

Preparing a method statement for the estimator to establish time, labour and resource constraints against a safe production output will be examined in this section.

Location, organisation and storage of resources

You will need to explore the following aspects which will have an effect on the writing of a method statement.

Location

Many aspects of location need to be carefully considered. Height produces additional problems with regard to the WAH regulations. Safety measures slow down and take precedence over production methodology. Temperature, working conditions, access, egress, confined spaces and night-time working all have an impact on the content of the method statement.

Key terms

CITB – the Construction Industry Training Board, which delivers and develops training courses for vocational construction applications.

IPAF – the International Powered Access Federation provides approved training courses for operation of some types of construction plant.

Key term

WAH – The Work at Height Regulations cover aspects of health and safety regarding risk assessment, control measures, inspection and supervision.
Unit 3: Planning construction work processes and efficient use of resources in construction and the built environment

3.2: Method statements

**Organisation**

Any organisation may have a ISO 9000 certification process in place. This will require a procedural and organisational manual to be utilised for any processes applied to a construction project. Within this, certain documents will have to be accessed and completed as part of the quality process.

As with any total quality system, documentation will need to be formally completed to comply with an organisation’s own internal quality processes.

**Storage**

The method of storage for different construction materials will have an effect on the control requirements for access and egress. Valuable construction materials are normally stored in box containers that are secured with locking systems. Loose-fill materials are normally stockpiled and excavator buckets are used to transport them with dumper trucks. Each will have its own method of handling that will need some evaluation to enter into a method statement.

**Portfolio activity (4.1)**

This assessment criterion requires that you undertake the evaluation of ‘selected work methods and resources for their activity content to enable a method statement to be prepared’.

This evaluation could be undertaken using:
- a brainstorming session based on the method employed to ensure that it complies with all health and safety legislation
- an analysis of methodology using building information modelling (BIM) digital technology in terms of ‘buildability’, ensuring that maximum efficiencies are obtained
- cost–benefit analysis
- a recording of discussions with the contract team in a planning meeting.

**Construction and installation techniques, including new materials and technologies**

Many new, exciting and innovative products are entering the construction materials supply chain. Examples include:
- engineered timber materials – eco-joists
- prefabricated masonry systems
- advanced composite materials – fibre cement concrete
- energy reduction measures – facade retro fitting systems.

Each will be a very young product that will require careful investigation to ensure that its handling, use and installation is in accordance with the specific instructions.

**Portfolio activity (3.1)**

This assessment criterion requires that you ‘produce specific method statements based on preferred work methods’.

Taking three items of work activity from a contract master programme, produce three detailed method statements in a suitable organisational or personal choice format. The preferred work methods could be taken from manufacturers’ instructions, historical methods employed onsite or those employed by a specialist contractor.

Then show it to your supervisor for checking.
3 Planning the time element within a contract programme

The preparation of a contract programme by the contracts manager or planner must carefully consider labour or plant production outputs through:
- supply chain management
- temporary works
- prefabrication
- building component interrelationships
- buildability
- waste management
- attendances and service support
- handling operations
- labour
- pre-construction demolition.

Portfolio activity (3.4)
This assessment criterion asks you to ‘produce method statements for planned activities that efficiently control workflow, the use of resources, time and waste’.
Show them to your supervisor for checking.

Supply chain management
This has an effect because, very often, the mode of delivery may be carefully considered by the supplier in terms of its sustainability. For example, cement and mortar can be delivered in silo format connected to a water supply and mortar delivered on tap. This leaves no wastage and is energy efficient in delivering full loads. Similarly, supply chains now offer recycling facilities for many offcut products, for example plasterboard. Each supplier should be contacted for their Control of Substances Hazardous to Health (COSHH) safety data sheets so a library can be formed for the compilation of any method statements.

JIT systems provide efficiency savings that have to be written into any method statement. Materials can arrive an hour before they are required to be installed. This provides savings in time, delivery costs, storage onsite and packaging, and avoids any breakages and damage. Handling, offloading and positioning need to be written into the method statement for the use of the material.

Case study: The London Construction Consolidation Centre
In 2008, The London Construction Consolidation Centre was formed and operated across four construction sites, with Transport for London primarily chairing the initiative. It used off-site warehousing to take deliveries from the supply chain. These were then broken down and delivered using JIT on a 7.5 tonne vehicle with removable side curtains. The final report showed that freight journeys had been reduced by 40 per cent and 120 minutes removed from supplier delivery times. Delivery reliability was 97 per cent.
Temporary works

By their nature these works do not form part of the permanent structure and are often provided for health and safety reasons; for example:
- scaffolding for operatives to work on while building elevations
- mobile elevated platforms for steelwork installation
- trench support systems for excavation support
- handrails to control falls from heights.

As such, temporary works often need to be designed to support their safe loading. This design element must be written into the method statement as it will contain details about:
- loading conditions
- duration of use
- the inspection regime.

In civil engineering works, the temporary works element often forms the bulk of the work, for example the implementation and use of tunnel boring machines for constructing transport and service ways.

Prefabrication, standardisation and off-site manufacture (volumetric pods, panelised hybrid)

Prefabrication provides many benefits for site construction and its details need to be known when producing the method statement for any site assembly of prefabricated components. Prefabrication involves the assembly of a number of individual components into a larger section or module that can then be transported in one piece to site, picked up and put in position.

Method statements therefore have to contain elements of:
- transportation onsite
- offloading by crane
- set-down areas
- manual handling
- lifting operations regulations.

The following link takes you to the Waste & Resources Action Programme (WRAP):
www.wrap.org.uk/

WRAP is a not-for-profit company that was established in 2000 and it works in England, Scotland, Wales and Northern Ireland. It offers many solutions for the reduction of resources on site by the use of prefabrication methods, and encourages businesses, local authorities, communities and individuals to reduce waste, develop sustainable products and use resources in an efficient way.

Degree of interconnectedness between building components

Different components can be prefabricated into functional areas. For example:
- bathrooms in hotels and student accommodation (e.g. kitchens) can be prefabricated as a ‘pod’ that is lifted into place and connections are already installed for hot and cold water services
timber-framed engineering now allows a SIPS house to be erected with all wall, floor and roof panels prefabricated off site.

If the services are already installed into the pod, any method statement must reflect the different trades that will be required to connect, test and commission the pod to ensure its safe use by occupants.

Buildability

Anything that can be undertaken at ground level (especially with high-rise buildings) should be done before it is placed in position. This will need to be written into any method statement prepared for the operation as it may involve external factors off site during manufacturing processes.

The following link opens the ‘design best practice’ website:

www.dbp.org.uk/buildability.htm

This site is supported by several major contractors and it enables the best practices in lean, buildable and prefabrication construction to be shared among its members.

Case study: AMEC Construction

AMEC Construction had pockets designed into the precast concrete stairs for a project. This removed the drilling of the concrete stairs when they had been fixed for the installation of temporary handrails. The holes were capped and vinyl floor sheeting laid over them. Time savings and the efficient erection of handrails were achieved.

Materials recovery/reuse, and waste and recycling management

Materials wastage is a primary sustainability concern. Method statements should reflect the efficient use of materials that reduce the amount of wastage from the installation for a product.

Features that could be written into a method statement are:

- SWMPs detailing the disposal or recycling of waste
- the packaging methods and disposal and/or return to supplier – pallet, plastic shrink-wrapped or cardboard
- modular coordination of dimensions prior to ordering of materials.

The following link illustrates a holistic example of a method statement that covers the running of the whole site with specific regard to site management of resources:


This document can also be found as a pdf on this Higher Apprenticeship website.

Key terms

SIPS – structural insulated panels.
SWMP – site waste management plan; now a legal obligation for construction sites.
Unit 3: Planning construction work processes and efficient use of resources in construction and the built environment

### Portfolio activity (4.4)

For this assessment criterion you have to explain how to produce method statements for planned activities that efficiently control workflow, the use of resources, time and waste.

The key elements of this explanation need to address:

- **Workflow** – the sequencing of the activity that is described within the method statement must clearly link in with the preceding and the following activity (clear logic needs to be applied within the method statement).

- **Use of resources** – the use of labour, plant and materials will need clearly identifying, along with their volumes, capacity, organisation and safety measures.

- **Time** – the number of hours allocated to each work item should be detailed within the method statement to enable effective planning.

- **Wastage** – sustainable measures need to be included within the method statement; these could be an explanation of the use of prefabrication for many building components, or the waste reduction measures that will be employed to conserve resources.

### Attendance and service support

These items often accompany nominated or named contractors. Main contractors will be asked to provide certain attendances for the nominated contractors, including any or all of the following:

- assistance with unloading equipment and plant
- providing lifting equipment
- providing temporary works in support of the installation
- provision of site accommodation
- provision of waste disposal
- provision of specific fixings and platforms for service connections and equipment.

In order to write these attendances and services into a method statement, you need to obtain some or all of the following documents:

- a copy of the original accepted quotation from the nominated contractor that lists the attendances that are required to support their operations
- the relevant specification page that contains the detailed specification of the nominated contractor’s works
- a copy of the bill of quantities (BoQ) page that lists the attendances that have been priced for within the overall tender
- a copy of the contract conditions that are applicable to the client/nominated sub-contractor agreement.

Read all the information so you can gain an understanding of the nominated works and their requirements, as this will make the writing of any method statement so much easier. You may also like to contact the nominated sub-contractor’s supervisor and ask for assistance with this task. One-to-one discussions are very beneficial in gaining as much information as possible.

### Handling operations

The Lifting Operations and Lifting Equipment Regulations 2008 specify that lifting works must be planned. One of the ways in which this can be undertaken is with a detailed method statement. Similarly, the Manual Handling...
Operations Regulations 1992 require risk assessment and planning procedures to be in place.

Handling any construction resource should be carefully planned with regard to:
- its size
- its weight
- the centre of gravity
- working space required during handling
- segregation of workers and general public to the lifting operations
- removal of packaging
- protection of equipment and plant during lifting
- the composition of the materials, i.e. are they easily damaged?
- environmental conditions
- checks on competency of lift coordinator/banksperson/slinger/driver
- capacity and service history of lifting equipment.

Before including any comments within a method statement you should read the manufacturer’s material data sheet, which will provide details of handling and transportation of any material.

**Labour**

The classification of labour operations within a method statement can take several different forms, including:
- the use of labour-only sub-contractors
- the use of domestic sub-contractors supplying labour, plant and materials
- the use of accredited manufacturer-approved contractors
- directly employed operatives, craft persons and supervisors.

Obviously, each construction site, work activity or location will direct what type of labour is employed for the construction of the project. You may need to discuss this with the project or contracts manager to establish what the preferred strategy is. It is best to establish direct communication with any external labour contractors to discuss and agree the content of the method statement. Specialist labour contractors may have pre-prepared method statements that can be utilised and adapted for your purposes. Similarly, the manufacturer of the product that is being installed may have detailed method statements available to download and utilise.

**Demolition and decommissioning**

The NFDC provides a list of demolition contractors who are certified members following the code of conduct and the federation rules. Members are well versed in providing detailed method statements on the demolition of construction buildings and structures. Demolition in any form must be ‘controlled, planned and managed competently’ to conform to the procedures outlined within the Construction Design and Management Regulations:


Decommissioning may also involve several procedures that will need detailing within the method statement, including:
- removal of gases from air conditioning and refrigerant equipment
- removal of oil-based compounds from equipment
3.2: Method statements

- removal of any asbestos-based compounds or materials
- removal of any ionising radiation components
- disconnection of monitoring equipment data feeds
- isolation of all service supplies
- protection of existing service connections.

The critical document regarding any decommissioning prior to demolition is the health and safety file on the existing structure. The following section, taken from the ACOP L144, lists the contents of a typical file.

**The contents of the health and safety file**

When putting together the health and safety file, you should consider including information about each of the following where they are relevant to the health and safety of any future construction work. The level of detail should allow the likely risks to be identified and addressed by those carrying out the work:

(a) a brief description of the work carried out

(b) any residual hazards which remain and how they have been dealt with (for example, surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services, etc.)

(c) key structural principles (for example, bracing, sources of substantial stored energy – including pre- or post-tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there

(d) hazardous materials used (for example, lead paint, pesticides, special coatings which should not be burnt off, etc.)

(e) information regarding the removal or dismantling of installed plant and equipment (for example, any special arrangements for lifting, order or other special instructions for dismantling, etc.)

(f) health and safety information about equipment provided for cleaning or maintaining the structure

(g) the nature, location and markings of significant services, including underground cables, gas supply equipment, fire-fighting services, etc.

(h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentalisation, etc.).

Source: Managing Health and Safety HSE L144 leaflet

[www.hse.gov.uk/pubns/priced/l144.pdf](http://www.hse.gov.uk/pubns/priced/l144.pdf)

The file will identify any risks associated with a structure that will need writing into the method statement. Reference to any asbestos register for a site must also be sought to establish any identified asbestos locations, its type and what measures are required to deal with it.
Checklist
You should now have produced evidence to show that you have:
✓ evaluated the work methods in terms of health and safety and other appropriate factors
✓ prepared an estimate for a work section that includes all of the relevant elements
✓ planned the time element for a contract programme activity.

Further reading and resources
A very good guide on workplace transport safety, which provides useful information that can be specifically written into method statements:
Workplace Transport Safety (HSE, 2013) ISBN 9780717664917
The following publication covers the use of fork lift trucks:

Acknowledgements
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