

CONSTRUCTION PROJECT MANAGEMENT

CIVIL ENGINEERING PROJECT MANAGEMENT AND EIA

SUBCONTRACTORS



Reasons for use

Specialisation

Concentrates resources and expertise

Cost benefit

Known cost showing a saving on the tendered price

Spread of risk

Subcontractor technically competent and financially sound
It allows the contractors spread his risk

Resources

Ability to provide the necessary resources at the time needed

Specified or nominated

By the client



Problems arising

Poor subcontractor management

Lack of planning and coordination

Short interactions

Little opportunity to develop relationships of trust

Interested in their own well-being

Most profitable approach regardless of any adverse effects

Difficult to build a group mentality

Between subcontractors and managers or among subcontractors.



EXERCISE 1

Read the article given and develop a discussion per groups. Finally you will present your conclusions about how to reduce problems with subcontractors on site.





Selection

This responsibility is of the main contractor
Once a subcontractor has entered into, the main contractor assumes fully responsibility for his performance

The selection process will be through a tender process
It can be started with a pre-qualification





Selection

Basis for obtaining a quotation

Examples of parameters to consider when quoting price

- Materials
- Materials distribution
- Additional machinery or facilities
- Welfare services
- Waste management
- Health and safety





Selection

Basis for obtaining a quotation

Knowledge of the company could influence the final choice

Categories considered:

- 1.- Subcontractor known. Worked before with him and satisfied with financial stability and work
- 2.- Well known reputation. Need to confirm financial standing
- 3.- completely unknown. Need of full investigation about performance record and financial stability



Types of subcontractors

Domestic subcontractor

Subcontracted by main contractor to carry out part of the works

Named subcontractor

The client influences the main contractor's selection, but the responsibility for their performance is for the main contractor

Nominated subcontractor

Imposed on the main contractor by the client



Selection

Contractual arrangements

Nominated subcontractors are complicated to manage due to possible eventualities:

- Between the client and the main contractor
- Between the main contractor and the nominated subcontractor

The main contractor may or may not be responsible for failure of the nominated subcontractor

- Right to object to the nominated subcontractor
- Indemnify the main contractor against possible consequences
- the client may require a direct warranty with nominated subcontractor
- JCT no longer includes provision for nomination



Selection

Contract conditions

First of all, both parts fully aware of what is required of them

Matters that need to be incorporated into the formal terms of the subcontract:

1.- commencement date and duration of work

Overall programme known by the subcontractor to see interactions

2.- Resources needed by the subcontractor

The contractor can monitor resources



Selection

Contract conditions

- 3.- Attendance and provision of services
Electricity, welfare, hutting, storage, etc.
Important to know who has to do what
- 4.- Responsibility of design is for main contractor
If subcontractor is responsible for design the main contractor must incorporate a warranty certificate transferring responsibility out of the contract
- 5.- Payment dates, retention, discounts and method of valuation



Selection

Contract conditions

- 6.- Protection of work partially installed until acceptance by the main contractor
- 7.- Method and frequency of reporting progress on site
- 8.- Compliance with contract conditions for Insurance, taxation, registration, etc.
- 9.- Schedule of all work required to be executed



Selection

Contract conditions

10.- Details of special clauses that could affect the subcontractor (damages clause)

11.- Need for the subcontractor to provide adequate supervision on the site

12.- Submission at the earliest possible time (date specified) of a schedule of all information requirements by the subcontractor



EXAMPLE OF CONTRACTUAL CONDITIONS

3.13 Facilities. Services and Attendances. Unless shown below as to be provided by the Main Contractor (MC), all such items are to be provided by the subcontractor at his cost. The items provided by MC shall be limited to the period on site concerned in the Appendix to XXX.

Item	MC to provide	Subcontractor to provide
Shared toilets and mess room		
Shared first aid		
Shared drying room		
Shared 110V electricity outlet(s)		
Safety lighthing		
Task lighthing		
Shared water supply point(s)		
Space for materials/plant		
Space for hutting or the like		
Unloading		
Distribution		
Shared hoisting (with/without operator)		
Shared craneage (with/without operator)		



What are the main reasons for introducing subcontractors?

Why do we need a contract quotation between main contractor and subcontractor?

What categories can we have about the knowledge of subcontractors by the main contractor?

What matters should be incorporated in the contract between the main contractor and the subcontractor?



EXERCISE 2

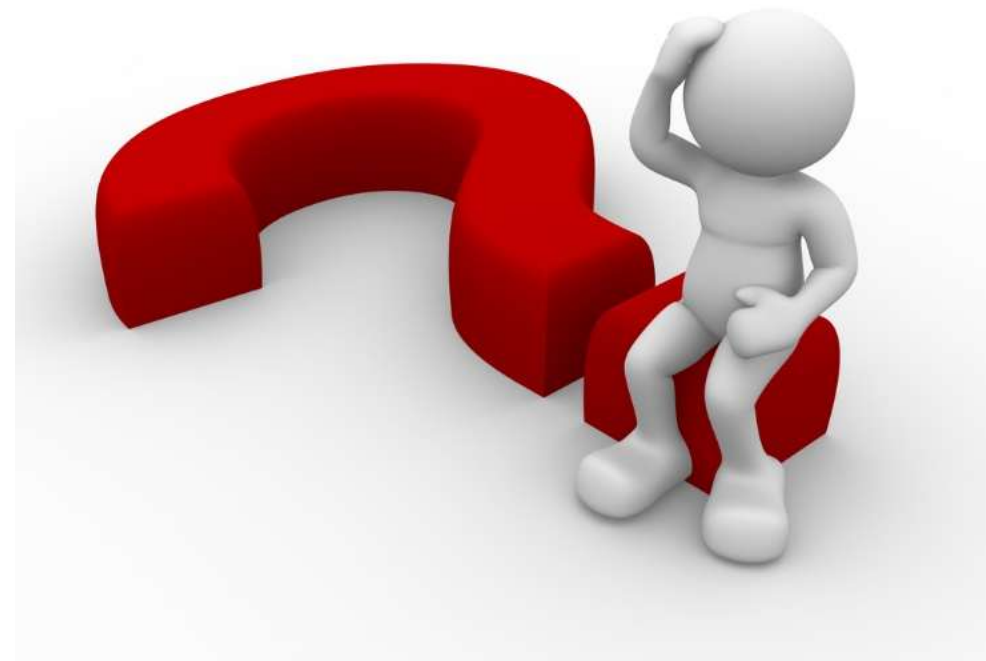
Explain what problems can happen with subcontractors in the following issues and possible solutions you can take.

Business knowledge

Scheduling

Delays

Cash flow





EXERCISE 2

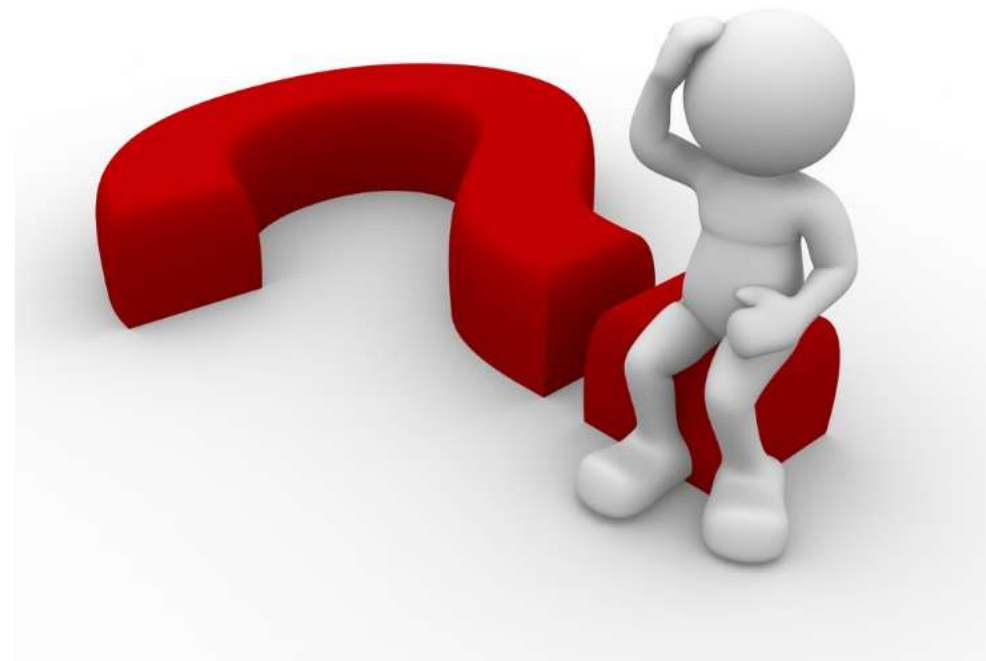
Explain what problems can happen with subcontractors in the following issues and possible solutions you can take.

Differing backgrounds. Get on with each other

Drawings

Meetings

BIM





Management

Control

Good control depends on the fullness of agreement on the contract conditions

Better control if mutual respect and understanding

Potentially problematic areas:

- 1.- Information
- 2.- Site progress
- 3.- Bottlenecks and key resources



Management

Control

Potentially problematic areas

1.- Information

Subcontractor: Full schedule indicating requirements and recording all working information

Information requirements

- Details and dates
- Submission and approval of working drawings
- Off site manufactured goods
- Builders work details
- Record of receipt of information



Management

Control

Potentially problematic areas

2.- Site progress

A regular reporting system should be devised

Information to report:

- Progress of work. In relation to short and long term programme
- Amount of work executed during last period
- Percentage of total work completed
- Record of resources in use, particularly labour
- Record of materials on site



Management

Control

Potentially problematic areas

3.- Bottlenecks and key resources

Reports outlining any anticipated problems in

- Work execution
- Manufacture
- Procurement of materials and labour

Purpose: understanding between the parties to enable action to be taken to minimise problems and achieve the targets

Regular means of monitoring all aspects of the work



Management

Variations

The subcontractor should record and communicate all information relating to variations to all interested parties

The main contractor should instigate a work authorisation system as the ONLY basis for execution and payment of additional works

For work on a daywork basis: advisable a time limit for the submission of record sheets



Management

Health and safety

The subcontractor should be aware of:

- Hazards on site
- Site rules and safety procedures
- What to wear
- Special equipment needed
- What to do in an emergency

Subcontractors must comply with HSWA and other H & S legislation

Cooperation and communication are needed to make sure all parties can meet their obligations



Management

Remedy on the event of non-performance

The ultimate action is to determine the contract

Essential that the procedures laid down in the contract are strictly adhered to

Nominated subcontractor: need of agreement of the Architect or Engineer before giving notice to subcontractor that the contract will be terminated if the situation is not rectified.

Notice by registered post, issued in a reasonable manner and completely without vexation



Post contract period

Once the executed work is to the satisfaction of the main contractor and client

Final account must be completed and agreed within the period in the contract

All work for the maintenance period should be notified to the subcontractor in time to enable him to organise his resources

The main contractor should gather all information from the subcontractor and keep on a central register

Feedback system to assist the selection of future subcontractors



What potentially problematic areas can we have when working with subcontractors?

How should a subcontractor inform about the site progress?

How can we avoid bottlenecks?

How should a subcontractor work about variations?



EXERCISE 3

Read one of the articles given as distributed in class and answer the following questions:

- 1. Why do you think this article is relevant?**
- 2. What problems are shown?**
- 3. How are they solved or should be solved?**
- 4. Explain one case study from your own experience, what the problem was, how it was solved and compare it to this article.**

