

Contract and Procurement Solutions

Project Control and Contract Administration

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Contents

- 1.0 Introduction
- 2.0 Contract Types
 - 2.1 JCT (Joint Contracts Tribunal)
 - 2.2 NEC (New Engineering Contract)
- 3.0 Procurement Method
 - 3.1 Traditional Contractual Agreement
 - 3.2 Design & Build
 - 3.3 Management Contracting
 - 3.4 PFI (Private Finance Initiative)
- 4.0 Cardiff Office Project (Cardiff)
 - 4.1 Procurement Route and Contract type
 - 4.2 Justification
- 5.0 Swansea HTC Hospital (Swansea)
 - 5.1 Procurement route and contract type
 - 5.2 Justification
- 6.0 Small World Theatre (Mumbles)
 - 6.1 Procurement route and contract type
 - 6.2 Justification
- 7.0 Factory Distribution Centre (Llanelli)
 - 7.1 Procurement Route and Contract Type
 - 7.2 Post Contract
 - 7.3 Justification
 - 7.4 Alternative
- 8.0 UWTSD Holiday Park
 - 8.1 Procurement Route and Contract Type
 - 8.2 Post Contract
 - 8.3 Justification
 - 8.4 Alternative
- 9.0 Conclusion

1.0 Introduction

The following document aims to give legal advice on the choice of procurement that is of relevant appropriateness and suitability to each given case. Each case will be dissected to prioritise the needs of each client therefore allowing us to advise a more accurate procurement route. Contract types will also be stated so each client can understand where the given procurement route has derived from, as well as industry statistics attached in the file to provide our clients with broader industrial knowledge. For each method of procurement given, advantages and disadvantages will be taken into consideration to give the lay person an understanding of why the given method is best.

2.0 Contract Types

In construction there are two types of contracts that contractors and clients can choose from when preparing for the tendering process. The contracts are the Joint Contracts Tribunals (JCT) and the New Engineering Contract (NEC), this section will define the two contract types in order to give you a brief understanding of them and how the different contracts facilitate for works to be carried out in an orderly manner.

2.1 JCT

The Joint Contract Tribunals also known as the JCT produces standard forms of construction contracts that are accompanied by guidance notes and other forms of documentations that help with the construction of a building. There are three methods of procurement set out by the JCT to suit the type of construction one may be working on and the amount of control one may wish to have on a project, these are Package Deal or Turnkey, Design and Build and Management contract. Furthermore, under the procurement methods there are contracts that contain all the legal information and explains the type of project the contractor will be working on. The contracts also help dictate the cost and duration of the project whilst individual clauses in each contract help protect both the lay person and the professional from any misconduct or bias that may occur during the works.

2.2 NEC

The New Engineering Contract is another institution that offers standard forms of construction contracts, however, where the JCT only considers construction works in its contracts the NEC also considers civil engineering works. The NEC is the birth child of the Latham Report that was commissioned by the government in 1990 to review procurement and contractual arrangements in the UK construction industry. With the conclusions of the report the first edition of the NEC was written in 1993 and the second addition only two years after that in 1995, then NEC3 in June 2005 (Pinsent Mason, 2011). Underlying principles that make the NEC so successful are its clarity and simplicity because the contracts

are supported with additional information including detailed flow charts as well as guidance notes. NEC3 intends to be clear, simple and easy to read and is written in the present tense using simple English eliminating the risk of confusion because it does not use any legal terminology. The NEC3 is also popular because it is a stimulus to good management as it focuses on real time management of the project rather than looking on what parties should have done. Furthermore, NEC3 offers flexibility to contractors and clients as it can be composed of nine sections of core clauses, six main options, two dispute resolution options and seventeen secondary options. The flexible approach is intended to avoid the need for lots of bespoke amendments, reduce the need for prolonged negotiations and reduce the potential for dispute.

3.0 Procurement Method

Listed below are the various processes of finding and agreeing on terms and acquiring goods, services, or works from contractors done through a tendering or competitive bidding process. Both the JCT methods of procurement and NEC methods of procurements will be discussed because although they are similar, they both contain different clauses to suite their contract form.

Methods of Procurement
3.1 Traditional (Conventional)- Became standard method of practice in the building industry, it works by separating the design process from construction and the full documentation is required before a contractor can be invited to tender for the works that need carrying out. Traditional procurement usual covers three contract types which are: 4.0 Lump Sum Contracts- when a contract sum is agreed in advance to the commencement of the works. The contractor undertakes a defined amount of work in return for agreed sum of money. Contracts ‘without quantities’ are priced based on drawings and another document — usually a specification or work schedules (JCT (Joint Contractual agreement), 2011). 5.0 Measurement Contract- A contract where the sum is not agreed until the completion of the works but is assessed on remeasurement on a previously agreed basis. Measurement contracts are used in situations where the works cannot accurately be measured for good reason before the tenders are invited. Design will be reasonably complete, and an accurate picture of the quality required will be available for the tenderer. 6.0 Cost Reimbursement Contracts (Cost Plus)- where the sum of the contract is based on the actual price of the labour, plant and materials, to which there is an added amount to cover overheads and profit. 3.2 <u>Design and Build</u> In design and build procurement the contractor is responsible for the design stage of the building and they are also responsible for the construction stage of the building in return for a lump sum of money. It’s a low-risk procurement method for the clients in terms of time and project financing. However, its high risk in terms of build quality.

7.0 Package Deal or Turnkey Contract – where the client settles on a complete package, usually to some standard specification from a commercial firm.

Such arrangements sometimes result in a specially drafted contract, but they will usually be based on the provider's standard terms.

8.0 Design and Build Contracts – where project documents will be written with the contractor's design obligations relating to the whole of the works in mind. These contracts differ fundamentally from traditional 'work and materials' contracts in that they expressly provide for contractor's design obligations. The wording used in contracts which require a material level of design input from the contractor is often the same as in those which are used for a 'develop and construct' approach.

9.0 Contractor's design for specific elements only

Strictly, these are not design and build contracts, but traditional 'work and materials' contracts which include for limited design provision relating to an identified portion of the work.

3.3 Management Contract

- Management Contracts – where the management contractor undertakes to manage the carrying out of the work through works contractors, who are contractually accountable to him.
The contract will usually include both a pre-construction phase and the construction phase. Documentation will start with project drawings, a project specification and a cost plan, and this information will allow the transmutation into documents on which competitive tenders can be obtained for the work packages. The management contractor is responsible for the administration and operation of the works contractors. However, the management contractor is not liable for the consequences of any default by a works contractor so long as the management contractor has complied with the particular requirements of the management contract. Obviously, the management contract and the works contracts for each package must be compatible.
- Construction Management – where the construction manager undertakes to manage the carrying out of the work through trade contractors, but the client is involved in the directing of the project, and the contracts with the trade contractors are directly with him.
The construction management appointment will be for the services as defined in that document. Although the trades contracts are arranged and administered by the construction manager, contractually they are the client's risk. Obviously, the construction management appointment and the trade contract for each package must be compatible.
- Design – Manage – Construct
This and other variants of management procurement exist but such contracts are invariably on the basis of specially drafted forms to suit the particular situations.

3.4 PFI

This method is mainly used by government agencies and large firms as it helps the achieve promises.

Case projects:

Extensive research has been done to provide a tailored procurement method for each individual case, project specific points were taken into consideration and weighted against recent industry statistics which are also discussed in this section in order to come to an informed decision on which procurement method was best fit for each of the cases. Furthermore, as construction professionals it is our duty to provide clients with a fair procedure to acquire our services therefore, bodies such as the JCT and NEC aid lay persons in choosing adequate procurement methods and contract types because they provide both the contractor and lay person refined contract documents that take into consideration the speed, cost, quality, risk, specific project constraints and financings of both specialist and domestic projects whilst also giving a step by step guide on how the management process will take place to achieve both client and contractor satisfaction.

According to research carried out by the Chartered Institute of Building in 2010 stated that 87% of professionals think that a good procurement method is synonymous for a good project, therefore emphasising the importance of procurement. The research then goes on to state budget appropriate procurement methods based on the two things client ratings and project successfulness. One example is that they found that on projects of up to five million Traditional procurement route is seen most efficient and suitable, followed by Design and Build because they are deemed relatively simple to understand (The Chartered Institute of Building (CIOB), 2010). See the following figures below on the suitability of projects:

Fig.2.1 Projects up to £5m

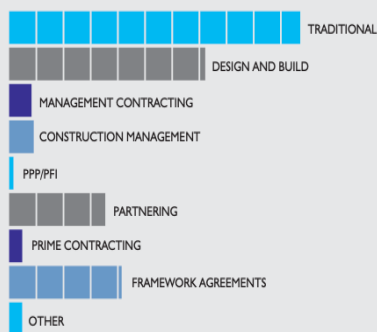


Fig.2.2 Projects between £5m-£50m

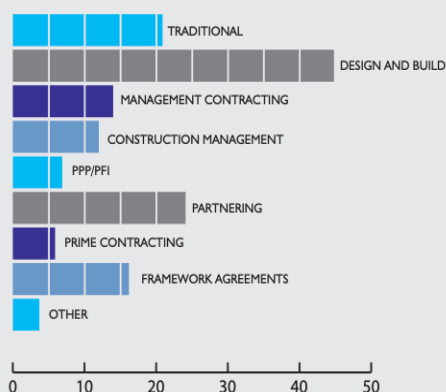
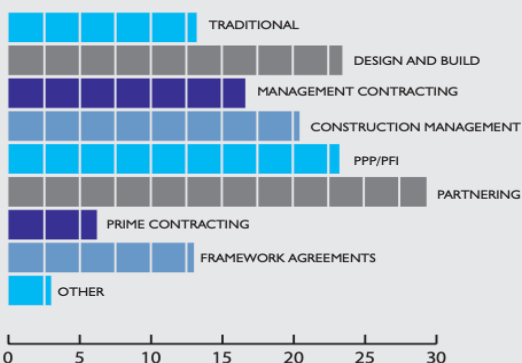
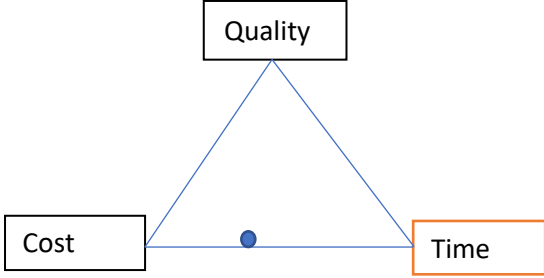


Fig.2.3 Projects over £50m



(The Chartered Institute of Building (CIOB), 2010)

4.0 Case	Cardiff City Office Building Development
4.1	<u>Project Priorities-</u> • Preservation or removal of the bats on the adjacent site. • Getting plant and machinery on to the site. • A priority for the client is to reduce the amount of disturbance caused by the works on her site to neighbouring offices and other residents. • Making sure that the project stays under the given valuation. <u>Client Priority Chart</u>  Procurement method – It would be advised that the client pursue a traditional method of procurement with a two-stage tendering process where in the first stage the client seeks experts to advice on neighbouring species of bat and design documentation is prepared by their own design team. The second stage will require the client to open tendering for an experienced contractor who has worked in a city location and knows the complexity of getting plant on to the site. Contract type – A Measurement Cost contract would be advised as there maybe additional cost for getting plant and machinery onto the site, also delays in work due to having restricted work hours at different stages of the project, for example piling would only be permitted at certain hours as it may disturb the bats. Measurement contracts can allow an early start on site, before design is complete, and they can allow changes to be made to the works relatively easily.

4.2 Post Contract

The client will be required to speak to environmentalist to get the go head on the bats and once that is done, they will hand over the bill of quantities to the tenders and they will quote against each item on the bill of quantities. The contractor will enter a rate or unit rate price to build up the total contract sum on the basis of the bill of quantity. Then construction may begin however, during the construction period the actual quantity of the work carried out under each bill of quantity will tallied and evaluated to their quoted interim payment purpose.

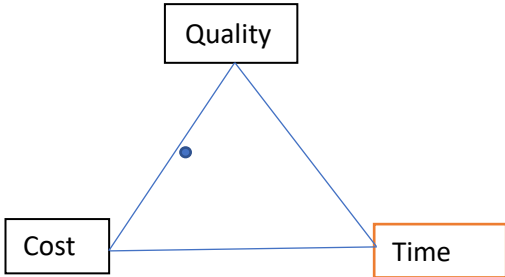
4.3 Justification

The chosen method of procurement is Traditional procurement with a two-stage tendering process given the nature of the project, it would have to be a measurement cost contract as additional surveying cost may apply to the project and are not factored in until the works are completed. Furthermore, conservation measures will need to be put in place to protect the bats and any other species that may be disturbed during the duration of the works. The first stage of tendering will offer the client an opportunity to consult environmentalist on the promotions that need to be put in place to protect the bats and for the client to design the building to promote conservation of local architecture. The second stage of the tendering process allows for a tender to compete to complete

the building. Although the project has been given valuation of £20 million pounds it may cost less or more than the given amount therefore, the contract type allows for financial flexibility on behalf of the clients and contractor as the final cost can be measured at the end of the project.

4.4 Alternatives

An alternative would be to go for a Design and Build approach where the contractor completes the designs documentation and the building is constructed offering the client a faster service, however it does not offer assurance that the species of bat will be taken care of accordingly which may lead to further costs down the line and the contractor may lack the expertise in working on city centre sites.

5.0 Case	Swansea HTC Hospital Development
5.1	<u>Project Priorities –</u> • Must re-house the existing hospital in the uplands area of Swansea therefore time is key factor. • The client design brief needs to be met exact specification and the quality of the final construction will be important because this is a healthcare facility and will be in service for years to come. <u>Client Priority Chart</u>  Procurement method- It would be advised that the client pursue the Design and Build method of procurement because it offers advantages that the client may benefit from. One being that the contractor is appointed early on this project as the specifications are already known therefore, they do not have to consult the design with an expert and the responsibility of running both the design and construction stage of the project is handed to the contractor. Assurance is also given to the client because the designers are also liable for any design errors that may arise as they have a duty to review the design for the client, this was set in precedence in the case of (New Islington and Hackney Association Ltd v Pollard Thomas and Edwards , 2001). The case states that the architect’s duties do not end when construction starts on site in the client’s case this will be the contractors design team. Here, it was held that the architect’s conditions of engagement did not require him to review his design after practical completion unless something happened to put him on notice. However, it was held that a designer who also supervises or inspects the work is generally obliged to review their design until it is incorporated into the works. Contract type- Using a Design and Build contract for this project will help achieve the client specification to high standard as design and build preforms well to develop a high specification building as there are no incentives for the contractor to save money which may be seen as a disadvantage in over projects. Unlike

	Management Construction, PFI and Management Contracting the cost sum of the project are known from the outset of the project once the design has been completed and unlike traditional methods of procurement most of the Design and Build finish on project. The use of the Design and Build contract means that the project only requires a one stage tendering process, as the client will utilise the chosen contractor for both part of the project. However, it is vital that contractor ensures that the proposal being submitted to them matches HTC's specifications before finalising any contractual agreements.
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5.2 Post Contract

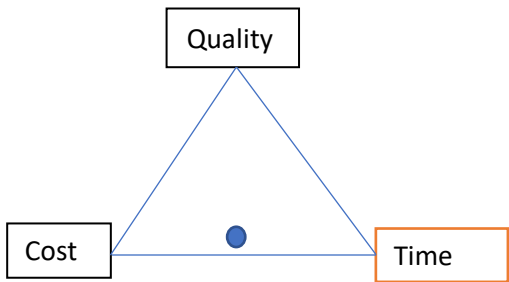
Once the client has accepted the tenderers design proposal the contractor can commence the construction process. However, it's important that a member of the clients in house team push the client's agenda if the work is carried out in parallel with the construction.

5.3 Justification

Design and Build are suitable for such projects because clients can rely on contractors to complete their project on time and within budget as contractors have no incentive other than a good recommendation. According to research by The Chartered Institute of Buildings, Design and Build is seen as reliable in delivering projects on time as it offers both the client and the contractor mutual benefits as there will be no delay in payments and the building will be delivered to the client on time.

5.4 Alternative

An alternative method of procurement that the client may consider is Management Construction because it allows the client to seek a construction expert that has worked on a hospital building project before therefore, handing allow risks to the construction manager as they are responsible for the completion of the project and for the budgeting, management construction also for project design alteration during the construction whereas with design and build does not always allow for such alterations to be made once construction has begun, although this is not top of the agenda for the client as there design specification appears to be specific. However, design and build still offers a faster process from the conceptual stage to the physical building than management construction.

6.0 Case	Small World Theatre (Mumbles, Swansea) Renovation Project
6.1	<u>Project Priorities-</u> • The clients need the work completed fast so that the building can become operational. • The clients funding is limited therefore value for money is important to the client as its run by volunteers. • The project requires contractors that have previously fitted commercial kitchens and disabled access. <u>Client Priority Chart</u>  Procurement – It would be advised that the client pursue the Design and Build method of procurement because the responsibilities of the renovation project and design choice are carried out by the contractor therefore offering the client the chance to achieve all design specifications. Design and Build also means that the renovation works can be done as a package deal where contractors that specialise in such renovations offer an off the shelf construction, eliminating any risk for the clients both financially and structurally. Additionally, the Design and Build process is fairly easy for all to understand (Nicholas Gould, 2012). Contract type- Using a Package deal contract ensures that the client take no risk at all, as the contractor is tasked with sourcing all the project components, furthermore, it means that the clients project can be done for a set price with no fluctuation therefore protecting the client’s capital.

6.2 Post Contract

The winning tenderer can begin work on the site immediately because they will be using a pre-existing design, however notice will need to be given to the performers and building users that the building will be out of use for the duration of the project.

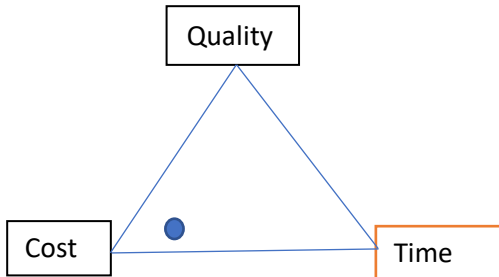
6.3 Justification

Design and Build package deal offer the client financial security as the project cost sum is determined from the outset (Jeyakumar, 2016). Furthermore, due to the clients inexperience in construction the use of D&B package deal allows for them to make basic decision such as colour and tiling choices as

the design model of the project is based on a pre-tested design. Therefore, mitigating financial risk and eliminating any uncertainties that may prolong the period of the project (CQSA, 2021).

6.4 Alternatives

An alternative method of procurement that the client may pursue is Management contracting because the construction manager can offer package deal that can provide what the client needs in term of commercial kitchens and stage extensions. Also, the use of Management contracting means that the main design responsibilities are passed on the construction managers team which would be beneficial because the client may not be knowledgeable in renovation works. However, one area where Management contracting does not preform is in the budget management sector as most projects where management contracting is used do not finish on budget.

7.0 Case	Factory Distribution Centre (Llanelli)
7.1	<u>Project Priorities-</u> • To create a building that can accommodate the client's machinery. • To produce an affordable factory that suites the needs of the client and can handle operation. • Time will be the client's priority because they would want to open their new business venture as soon as possible to prevent any losses in profit and fulfil orders. • Quality will be on the client's agenda however they would rather the construction be simple and practical. <u>Client priority chart</u>  Procurement- It would be advised that the client use the Management contracting procurement method because it offers the opportunity to have control over what happens on the project as they can have someone from their own team manage the project. Another advantage is that they can incorporate elements of Design and Build where they can use a design from a previous manufacturing site as a blueprint for their project. However, the client may find that they are taking on a greater degree of risk because their financially responsible for the default of the sub-contractor (Jeyakumar, 2016). Contract type- Using the Construction Management method offers Create4 the opportunity to use a previous design from there other factories through the appointment of their own design expert. However, should the client appoint a member of their own team to prepare the design documentation and manage the project, they will be required to be provide the design documentation to

	tenderers before beginning the tendering process for a contractor that will carry out the construction phase. An advantage of using Management is that it offers the client a single point of responsibility, also it leads for a less confrontational relationship between the contractor's design team and the client.
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7.2 Post Contract

Once the contract has been drafted the client's chosen representative work takes the role of the design and project manager and co-operates with the contractor's design team to work on the design while works on the site may begin.

7.3 Justification

Overall, the advised procurement route offers the client design flexibility which is important to the client because it enables the incorporation of the clients request to install their own machinery therefore, allowing them to have their own representative run the project. Given Create4's experience having a representative run the project would give them a 'hands-on' approach where an earlier start is required, and work is fast tracked than can be made by proceeding with the design process and tendering in a more traditional way. It is achieved by overlapping design, preparation of tender documents and construction (CQSA, 2021).

7.4 Alternative

Design and Build could be an alternative procurement method for the clients as they required fast erection of the building because Design and Build contracts can give convenience to the client by combining the project cost, schedule, design and quality into a single point of responsibility. It also improves the project quality because the contractor is required to engage with the design team to achieve the client requirement. The lack in client involvement may result in a lack of project interest from the client affecting client-contractor communication causing conflict in the transition process, whereas with Management contracting the client can appoint a representative that pushes client agenda throughout the project.

8.0 Case	UWTSD Holiday Park
8.1	<u>Project Priorities-</u> • UWTSD's priority will be to assess the extent of the fire damage to gain an idea of how much work needs to be done to get the site ready. • Time is also important for the client to mitigate any profit loss and damage to park reputation as they have made a promise to their customers that they will be open for Christmas 2020. • To have specialist services re-fitted on to the site in time for the opening. <u>Client Priority Chart</u> Quality

	Procurement- It would be advised that UWTSD use Traditional procurement with a two-stage tendering process to allow for tenders to first assess the extent of the damage caused by the fire and then to let them draft out suggestions. It would be beneficial because then the client can partially understand the financial implications of the project. Contract type -Cost Reimbursement contract offers the client the advantage of only paying for what needs to be done as the cost sum of the project will not be finalised until work on the site is finished. However, if the client chooses a two-stage tendering process it will reduce the sum of the project because the contractor is given the opportunity to evaluate the type of work that will need to be done once works begin. This is important as it mitigates some of the financial risks that come with project on the client's side as tenders can make bids on how much he works will cost. By using Cost Reimbursement, the contractor is also protected should any extra labour or material cost arise the client is liable to pay the contractor. The client must also decide the reimbursement of the direct contract cost plus the contractor fee. The fee is determined at the outset of the project, for the client it would be advised that they select a cost-plus fixed fee to avoid any conflict or price fluctuations by the contractor (Hendrickson, 2008).
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8.2 Post Contract-

Once the contract is drafted the contractor may commence working on the site any further damage found by the contractor will be covered for in the 'plus fee' in the contract, giving the client peace of mind.

8.3 Justification

Given that there was fire damage at the site the project poses a financial risk for the client because of the unknown amount of damage to the site. Therefore, using Traditional procurement with two-stage tendering and Cost-plus fixed fee contract in which the contractor receives designated amount over the cost of materials. Then upon project completion a cost report must be submitted to the vendor for a fee to be received. Due to its nature, it offers the vendor a number of advantages, one such advantage is that there are less likely to receive a project overbid. Another advantage is that the client gets the best quality of work as the contractor gains an incentive through the use of his best labour force and materials.

8.4 Alternative

An alternative method of procurement that may result in a successful project is Management contract as the management contractor takes on the project associated risk for the client which in the case of the UWTSD project is the fire damage and time frame, it also allows for the work to begin before the

final design has been completed therefore enabling the for the work to be completed in time for the Christmas season. However, final project cost may be higher than that of use cost reimbursement contract as the cost of Management contract projects are not set from the outset.

9.0 Conclusion

For all the above projects, JCT contracts were used, due to the directive nature of the contracts and the lack of expert knowledge from the majority of the clients. In addition to this, JCT contracts were used to reduce the complexity of each contract as NEC3 contracts may overcomplicate said projects due to their ability to incorporating multiple clauses from different contract types. Each report aimed to advise the client on the best procurement method by taking into consideration project constraints, client finances, time and these gave us the basis to choose the contract from. In conclusion, it is believed that the pivotal factors for each of the cases were project finances and project constraints because not all the procurement methods accommodated for a low-cost project as some of the projects may have contained hidden cost caused by constraints. However, as professionals we need to aim at move towards using procurement methods that offer a high-quality final product rather than low-cost alternatives that may lead to future conflicts and client dissatisfaction.

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