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Contractor Design and standard form contracts: A problem solved?

John Adriaanse

Department of Property, Surveying and Construction,
London South Bank University, London SE1 0AA,
United Kingdom

Email: adriaajs@lsbu.ac.uk

Abstract:
The 'fuzzy edge' between design and construction has always caused problems in the traditional contract. This is especially so when liability for faults in workmanship or design have to be resolved later. This interaction has been resolved by the growth of D&B contracts. This has been followed by the express inclusion in traditional contracts of a design element. The JCT 05 SFQ provides a design portion and the NEC 3 a design option. Including design in the contract poses the question of what that design liability should be? The common law imposes a fitness for purpose obligation onto contractors who carry out design. By contrast, the standard forms of contract limit this liability to the exercise of the reasonable care and skill. By doing so, it raises a number of potentially difficult questions. These are examined through the analyses of the case law on the requirement of reasonable care and skill in the context of professional design. Early cases involving contractors where there was no express allocation of design liability are examined in the light of the current contractual provisions. These express clauses in the standard forms and their requirements are dissected together with the way they deal with the consequences of design failure. This involves limitation of liability and the difficult issue of consequential losses. The allocation of the consequences of design failure in professional contracts is not an easy matter. Allocating it in contracts with contractors and subcontractors creates the illusion that this aim has been satisfactorily achieved. In reality it leaves all the parties exposed to litigation in order to allocate responsibility for design failure later. What is clear is that despite comprehensive drafting of the SFC contracts, the position is no clearer now than it was in the early cases where a solution was required of the common law.

Keywords:
Common law, design liability, limitation of liability reasonable care and skill, standard forms of contract

1 Introduction

The growth of Design and Build contracts (D&B) has been taken one step further by the introduction in the traditional standard forms of contract of a contractor's design portion.

This provides the employer with much needed flexibility in the design and construction process. To make this possible the standard forms have become more complex in their drafting, in order to make this change in emphasis and practice work.

This paper examines the effect of these provisions and analyses the resulting changes required in the standard forms. Provisions have to be made for the contractor's design liability, for consequential losses, and for limitation of liability. At the same time it has to be emphasised that the modern contractor neither designs nor builds. In fact it manages the process by subcontracting the actual carrying out of the design and the construction work. This is so whether the contract is a traditional one or a design and build contract (Adriaanse: 2007).

In order to demonstrate the nature of the problem, a number of cases on earlier attempts to impose design liability at common law will first be examined. The nature of professional liability will be analysed in order to demonstrate the problem with contractor design liability in the standard forms. The drafting requirements of the traditional contract with contractor design will then be evaluated.

2 The position at common law

In the cases that follow, the employer had to prove that the contractor's design had been carried out negligently. In *Independent Broadcasting Authority v Bicc Construction* Ltd (*IBA*) [1] a television mast constructed at the frontiers of knowledge collapsed. This was due to ice forming on the stays where the design assumed that it would fall way in the high winds. The contractor played no part in the design. However, its tender it stated that the offer was 'for the *design*, supply and delivery of a 1,250 ft. high stayed cylindrical mast in accordance with our line diagram drawing No. 3SP5134/4'. The use of the word 'design' allowed the House of Lords to conclude that the contractor had expressly accepted liability for the design. It justified this on the grounds that it could recover the costs from the subcontractor. In doing so the House considered *Norta Wallpaper Ltd v John Sisk*[2] which on the facts were similar but came to a different conclusion.

Tenders were invited for the construction of a factory. The employer negotiated and approved the design of the factory superstructure. By a process of nomination the contractor was instructed to enter into a subcontract for the design and erection of the superstructure. This design itself was approved by the employer's engineers. The roof leaked due to faults with the design. As a consequence, the building contractors were sued for damages for breach of contract but in the event, were held not liable. In the course of his judgment Kenny J. said at p 130

> It seems to me that if the design has been prepared by the sub-contractor and approved by the employer, and if the contractor has had nothing to do with the preparation of it and has not been consulted in relation to it, and indeed is bound

[1] [1955-95] P.N.L.R. 179
[2] (1978) 14 BLR 49

> to accept the sub-contractor and his design, then no reason exists why the sub-contractor should be liable for defects in it [but not the contractor].

This case was decided on the basis of nomination. Prior to the use of D&B contracts, nomination of specialist subcontractors was dealt with by the employer's advisers. These specialists provided design services and carried out the resulting work required. In such an arrangement the contractor facilitates the work but has no involvement or liability for the design. Although the subcontractor in *IBA* was also nominated, the court decided that the contractor was in a position to check the design.

A failure in the design was also the issue in *Cable (1956) v Hutcherson Bros Ltd*[3]. Though the documents described it as a 'turn-key' project, the high court of Australia decided that at the time such a phrase had no legal content. They decided that it was in fact a traditional contract in which the contract had no design input or responsibility. The fault lay in the drawings which required the approval of the engineer.

What this selection of cases demonstrates is that there are circumstances where the contractor can be held to be liable for design, in the traditional contract. This is however a costly exercise and subject to the lottery of litigation. Each case was decided on its facts and could as easily have had the opposite result. Why else were there appeals against the judgments made at first instance (including in *Cable (1956)* the award of the arbitrator)? A further question that arises is whether the parties could have arranged matters differently and whether the outcome would have been different as well? Do the provisions described below improve the situation?

3 The provisions in the standard forms

The JCT 05 Standard form of Building Contract with Quantities (JCT O5 SFQ) has a complex clause that limits the design liability of the contractor to the exercise of reasonable care and skill. The wording of the clauses does not make it *that* clear. Instead Clause 2.19.1 states the contractor shall have in 'respect of any inadequacy in such design' the same or similar liability of an architect or that of any other appropriate professional designer holding himself/herself out to be competent to take on work of such design. The clause also limits the duty to that created by statute or otherwise. Statute would be for example s 13 of the Supply of Goods and Services Act 1982. It implies a duty of reasonable care and skill into a contract for services: see: QV *Limited* v. *Frederick F Smith & others*[4]. The designer under the JCT contract would have fallen into the category of 'other appropriate' professional as the designer was a chartered builder. The phrase 'otherwise' refers to the duty at common law of reasonable care and skill in a professional designer's contract: see *Lanphier* v. *Phipos* [5]. This liability is also described the same as that of a professional who enters into a separate contract with an employer.

[3] (1969) 43 ALJR 321
[4] [1998] CILL 1403
[5] (1838) 8 C&P 475

The wording of the clause is the same as in *Co-operative Insurance Society Ltd v Henry Boot Scotland Ltd and ors* In a contract demolish, design and reconstruct a building in Glasgow was let under the JCT 80 condition[6]s of contract with contractor's design supplement 1981 edn., (revised July 1994). Clause 2.2.1.4 contained the same wording as Clause 2.19.1. The court held that the wording included checking the suitability for the pre-contract design. JCT 05 through in Clause 2.13.1 specifically excludes this duty. Instead it makes the contractor not be responsible for the contents of the Employer's Requirements or for verifying the inadequacy of any design contained therein.

By contrast the NEC 3 deals with design liability in a much clearer manner. Where Option X15.1 The Contractor's design is adopted - Clause X15.1 merely states that the contractor is not liable for defects in the work due to his design so far as he proves that he used reasonable care and skill to ensure that his design complied with the works information. What if he does not? The requirement that the contractor proves that he used reasonable care and skill is that the employer's runs into the difficulty created by civil litigation of having to prove its case in the first place. Eggleston too considers that the wording is open to different interpretations (2007).

The JCT avoids this uncertainty by making addition provisions should the design prove to be defective. In Clause 2.19.2 liability under 2.19.1 includes liability under the Defective Premises Act 1972 (DPA). This duty according to Section 1(1) applies to: A person taking on work for or in connection with the provision of a dwelling (whether the dwelling is provided by the erection or the conversion or enlargement of a building) owes a duty…to see that the work which he takes on is done in a workman-like or ... professional manner, with proper materials and so that, the dwelling will be fit for habitation when completed.

In *Bole & Anor v Huntsbuild Ltd & Anor* [7] both the contractor and the structural engineers were held liable under the DPA for foundation failures in a newly constructed house. HHJ Toulmin CMG QC at 179 decided the house as built was unfit for habitations it was unsuitable for its purpose. The unstable foundations resulted in movement and cracking and other defects caused by heave fell under s1 of the DPA. The contractor had failed to do the work in workman-like manner and engineer had failed to do it in a professional manner. Such a duty is excluded where commercial development is carried out.

4 Consequential loss

In addition to the costs of repair, claims resulting from a defect in design can cause consequential losses that can far exceed the cost of the work. In *British Sugar plc v NEI Power Projects Ltd*[8] the contract between the parties for the design, supply, delivery, testing and commissioning of electrical equipment was for price of £106,585. The buyer claimed damages of over £5 million due to increased production cost and the losses of

[6] [2002] EWHC 1270 (TCC)
[7] [2009] EWHC 483 (TCC)
[8] (1997) 87 BLR 87

profits caused by breakdowns to the supply of power. This was due to a poor design and faulty installation of equipment. The clause excluding consequential loss had been agreed after lengthy negotiations.

Clauses limiting consequential loss are quite common in such contracts. They are essentially about risk allocation. Chadwick LJ in *Watford Electronics Ltd v Sanderson* [9](with whom LJ Gibson and Mr Justice Buckley agreed) at 55 as observed that:

> Where experienced businessmen [and women] representing substantial companies of equal bargaining power negotiate an agreement, they may be taken to have regard to matters known by them…They should be taken to be the best judge on the question whether the terms of the agreement are reasonable.

Gibson LJ too went on to say that a court should not assume that where they have agreed the risk allocation, that either party was likely to commit their company to unfair or unreasonable terms. If the price agreed reflected the risk taken, then there was little scope for a court to unmake the bargain of commercial people.

Clause 2.19.3 limits the Contractor's liability for 'loss of use, loss of profit or any other consequential loss arising in respect of liability of the Contractor referred to in clause 2.19.1. Clearly a claim for loss of use and loss of profit might not be considered as consequential loss as these are direct losses: see *Hotel Services Ltd v. Hilton International Hotels (UK) Ltd*[10]. This leaves the generic phrase consequential loss whose meaning is unclear. It is therefore preferable to state the limit of such losses in the contract particulars. This is not compulsory under the contract *and* does not apply where the contractor is not involved in work to which the DPA applies**.**

5 Proving design liability of a professional

A professional has a duty of reasonable care and skill in carrying out the work. This duty exists at common law but may also be expressly provided for in the express terms of the contract. On the surface, this obligation is reasonably straightforward. The duty is to exercise the reasonable care and skill of the ordinary competent professional and this duty arises both in contract and in tort. The standard of care required was explained it particularly well *Eckersley v Binnie and parts* [11] by Bingham LJ. His judgment sums up the degree of care needed not to be judged to be negligent. Ward LJ adopted it without qualification in *Michael Hyde and Associates Ltd v JD Williams and Co Ltd* [12].

The law requires a professional to live up in practice to the standard of the ordinary skilled person exercising their special professional skills. He or she does not need to possess the highest possible skills.

[9] [2001] EWCA Civ 317
[10] [2003] EWCA Civ 74
[11] (1988) 18 Con LR 1
[12] [2000] EWCA Civ 211

- The law does not impose liability for damage resulting from errors of judgment unless the error was such that no reasonably well informed or competent member of that profession could have made it.

- He or she should possess the body of knowledge which forms part of the professional equipment of the ordinary member of their profession.

- He or she does not lag behind other hardworking and intelligent members of their profession in knowledge of new advances, discoveries and developments in their field.

- He or she should have awareness as an ordinary competent practitioner of the deficiencies in their knowledge and the limitations in their skills.

- To their professional tasks he or she need not bring more that the ordinary competent skills of their profession; the law does not require him or her to be a paragon, combining the qualities of polymath and prophet.

Relatively speaking therefore, this standard of care is not particularly high. It applies to the standard of care which is that of the ordinary competent practitioner and then only to obligations of reasonable skill and care. For the difficulty of proving negligence, the case of *Wimpey Construction UK v Poole*[13] showed the difficulty of tying to prove that your own designer had been negligent. Although the design failed the designer used the current British standard. Thus under *Bolam v Friern Hospital Management Committee*[14] it was entitled to the state of the art defence and thus not negligent in doing so.

Only in exceptional cases has a professional been found liable to produce a result. In *Greaves (Contractors) Ltd* v *Baynham Meikle & Partners* [15], the court found an implied term in the contract with a D&B contractor that the engineer had to produce a result by designing a floor to carry specified dynamic loadings without distress. The application of this principle which was based on the agreement of the parties is quite rare. Recently in *CFW Architects (A Firm) v Cowlin Construction Ltd* [16] the architect was found to be under a duty to produce the information in a timely manner to fit the D&B contractor's programme. There are 30 years between these cases and illustrate the rareness of judicial decisions making a professional obligated to produce a result.

Where designers have been sued at common law for not producing a result, the court has had no difficulty in deciding the legal liability of a professional. Lord Denning in *Greaves*s stated that no general assumptions could be drawn from this case about implying any term of fitness for purpose. He went on consider the position where an architect or engineer is employed to design a house or a bridge. Was he under an implied warranty that if the work was carried out to his design, it would be reasonably fit for its purpose or is he only under a duty to use reasonable care and skill? He declined to answer

[13] (1984) 2 Lloyd's Rep 499
[14] [1957] 1 WLR 582
[15] [1975] 3 All ER 99
[16] [2006] EWHC 6 (TCC)

this question as a matter of law but observed in a future case it might need to be considered. Brown LJ too emphasised the the decision laid down no general principle as to the obligation and liability of professional men.

These questions raised in *Greaves* were considered in *George Hawkins* v *Chrysler (UK) Ltd and Burne Associates*[17]. This was whether the engineer was liable for the injuries caused by a defectively designed floor. An employee was injured when he slipped on the newly laid floors of a shower room. The employer argued for an implied term that (a) the engineer would use reasonable care and skill in selecting the material to be used for the floor of the showers; and (b) there was an implied warranty that the material used for the floor would be fit for use in a wet shower room. The court *declined to imply terms* into the contract either as a matter of fact or of law. It decided that there was nothing in this case that gave rise to any inference that a higher duty than reasonable care and skill was required to be exercised by the designers. It stated that while there may be anomalies between the position of contractor and sub-contractor in this respect (i.e., obligations of fitness for purpose), as opposed to professional people: however it was not open to the court to extend that duty except in special circumstances. It is this anomaly though that creates the problem when the contractor carries out design. At common law a contractor who carries out design has a fitness for purpose obligation[18].

6 Application

What would the position be if in the three cases mentioned earlier in this paper, the contract had included a design component? Would the results at common law be different where the parties had made express provision for the allocation of design liability?

In *IBA* the arguments against the contractor was based on the common law. The contractor's defence was that it was at the frontiers of known knowledge and no tower that high had been constructed before. It was held liable at common law for failing to produce a product fit for its purpose. Had it been under the JCT contract its design liability would have been reasonable care and skill. This question was never argued before the House of Lords although it was before the court of Appeal. It is arguable that the contractor might have had a defence that it did use reasonably care and skill had it had that responsible for the design in the first place.

Norta raises quite different issues. Nomination has been deleted the from the JCT contract. The sub-contractor could either have been named in which case the contractor would be expressly liable for the design. If the JCT standard subcontract had been used instead, both parties would have had their design liability limited to reasonable care and skill.

As for *Cable* the result might have been that the contractor accepted liability for the design. In such a case the engineer would have no input. The contractor might well have been liable if it fell below the standard of reasonable care and skill of the average

[17] (1986) 38 BLR 36 CA
[18] Viking Grain Storage Ltd v. T H White Installations Ltd (1985) 33 BLR 103

competent professional. However would it have designed the works without a site investigation?

7 Suing contractors

In *Associated British Ports v Hydro Soil Services NV & Ors* [19] the contractor undertook to a fitness for purpose obligation in its contract. The contractor in its defence argued that unforeseen conditions had been the cause of the failure of the quay wall. HHJ Havery QC rejected that claim. This was because the contractual term requiring the works to be fit for its purpose was perfectly clear. He observed that what clause 12 (which offers protection from unforeseen conditions) enable a contractor 'to claim extra payment in certain circumstances but does not relieve him from the obligation, or modify the obligation, as to the fitness for purpose of the works. The burden remains on the contractor to prove his clause 12 claim. There was however the burden also on the claimant to prove the ensuing works was not fit for their intended purpose. This it did in a trial lasting 35 days and requiring the services of 10 very eminent expert witness (para 10).

The contractor in *Shepherd Homes Ltd v Enica Remediation Ltd and Green Piling Ltd* [20]conceded that it had failed to use reasonable care and skill. Instead it concentrated its arguments on showing that the developer had not mitigated its losses in reasonably. This boiled down to what means it should have used to repair the houses that had settled and cracked because of the ground conditions. The developer chose to buy the worst damaged properties and to use an internal pilling system to stabilise the properties. The contractor argued that it would have been cheaper to demolish and rebuild those houses.

Giving judgment Mr Justice Jackson held that the developer was entitled to substantial damages and indemnities in respect of 54 properties. In respect of the other 40 properties it was entitled to nominal damages of £2 per house. Ironically this was in the words of the judge a result of the pattern of water flow at the end of the last ice age, not the design skill of the contractor. These houses were in areas where the contours of the glacial till were high. It was only due to this fact that the foundations of these houses were adequate. It could be argued that in fighting a 5 week trial the contractor did at least mitigate its loss on 40% of the damaged properties.

8 Conclusion

The inclusion of a design element in the standard form contract does provide an employer with flexibility. It is easier to make changes with which the contractor is involved. Once this is done, provisions have to be made for the allocation of design liability, responsibility for errors in the employers' proposal and consequential losses which may result. The result is that the employer will need to prove that the contractor was negligent in carrying out the design. Now the standard form such as NEC 3 requires the contractor to prove it was not negligent but it is difficult to se how this will work in

[19] [2006] EWHC 1187 (TCC)
[20] [2007] EWHC 70 (TCC)

practice. The claimant in civil litigation has to prove negligence to win its case, so requiring the contractor to prove it was not negligent will be a matter for litigation in the future. It seems strange to have express clauses in a contract that may need litigation be sort out what the parties intended by the words they used in their contract.

In applying the contract terms to old cases decided at common law, it seems that the results are not very clear if those provisions had been available at the time. The general advantage of clear express terms is that it enables the parties to resolve issues between them if the words used are clear. In attempting to limit the design liability of the contractor, the outcome has been left unclear, a rather unsatisfactory outcome. In order to decide who is responsible the parties may well have to litigate in the future to decide what was agreed.

The anomaly between the common law's treatment of contractors and subcontractors, who carry out design, has not been resolved by the drafting. Even where the contractor has accepted a fitness for purpose obligation, the contractor can make the employer prove its case. The result is that the very problem identified earlier lack a clear solution in the standard forms examined. Risk allocation is ultimately a matter of price and provided all parties are aware of that risk, and can price for it, the compromises in the standard forms may well provide a satisfactory solution to the parties. Whether this is indeed true may well need to be decided by the courts at a future date.

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