

Design and Build Contracts and Liability Seminar

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1 Introduction

- 1.1 The aim of this seminar is to consider:
 - 1.1.1 The liability of a contractor generally (and for design) under a traditional contract (i.e. where design is carried out by the employer's design team) such as the standard form JCT SBC; and
 - 1.1.2 The liability of a contractor in particular for design under a design and build contract, comparing a "simple" contract with a standard form contract such as the JCT DB.
- 1.2 In order to do that, this paper considers:
 - 1.2.1 Design liability generally;
 - 1.2.2 Express contract terms;
 - 1.2.3 Liability in tort; and
 - 1.2.4 The sources of legal liability of a building contractor.

2 Design Liability

2.1 The starting point under common law is the case of *Bolam v Friern Hospital Management Committee* [1957] 1 WLR 582. A professional person or consultant must exercise "reasonable skill and care" in the carrying out of their duties:

"The law requires of a professional man that he live up in practice the standard of an ordinary skilled man exercising and professing to have a special professional skill. He need not possess the highest expert skills; it is enough if he exercises the ordinary skill of an ordinary competent man exercising his particular art."

- 2.2 Approved in the Court of Appeal case of *Eckersley v Binnie & Partners* [1988] Con LR 1 by Bingham LJ.
- 2.3 The Bolam test requires consideration of two principles:
 - 2.3.1 Is the conduct of the professional below the standard of the ordinary competent professional?
 - 2.3.2 Is there a substantial body of opinion held by the particular profession that supports the course taken by the Defendant?
- 2.4 The Court of Appeal re-examined this approach in the case of *JD Williams & Co Limited v Michael Hyde & Associates Limited* (2001) 3 TCLR 1:
 - 2.4.1 In a rare case, a Claimant may demonstrate that an opinion held by a respectable body of a profession cannot in fact withstand any logical analysis (see also *Bolitho v City of Hackney Health Authority* [1998] AC 232);
 - 2.4.2 Evidence might establish that an alleged opinion that is apparently held by a respectable body might turn out simply to be the personal view of the expert in that case. If so, this is not expert evidence at all and the Judge must discount it;
 - 2.4.3 If the advice given does not require any special skill then the Bolam test is simply ignored. If no special skill is required then the Judge can simply apply the law without the need for any expert evidence. The Judge is in fact simply applying his own logical view to the particular circumstances.

3 Distinguishing Workmanship from Design Obligations

- 3.1 The primary starting point will be the contract (appointment) between the designer and the client.
- 3.2 However, certain terms may be implied by statute, and indeed will be implied if the contract is based simply on an exchange, perhaps in correspondence or by email.

3.3 The implied terms are:

3.3.1 Sale of Goods Act 1979

Section 14 - Implied terms about quality or fitness

- (2) Where the seller sells goods in the course of a business, there is an implied term that the goods supplied under the contract are of satisfactory quality.
 - (2A) For the purposes of this Act, goods are of satisfactory quality if they meet the standard that a reasonable person would regard as satisfactory, taking account of any description of the goods, the price (if relevant) and all the other relevant circumstances.
 - (2B) For the purposes of this Act, the quality of goods includes their state and condition and the following (among others) are in appropriate cases aspects of the quality of goods—
 - (a) fitness for all the purposes for which goods of the kind in question are commonly supplied,
 - (b) appearance and finish,
 - (c) freedom from minor defects,
 - (d) safety, and
 - (e) durability.

3.3.2 Supply of Goods and Services Act 1982

Part I - Supply of Goods

Section 4 Implied terms about quality or fitness

[this section is virtually identical to s14(2) and s14(s) of the Sale of Goods Act 1979 stated above]

Part II - Supply of Services

Section 13 Implied term about care and skill

In a contract for the supply of a service where the supplier is acting in the course of a business, there is an implied term that the supplier will carry out the service with reasonable care and skill.

Section 14 Implied term about time for performance

(1) Where, under a contract for the supply of a service by a supplier acting in the course of a business, the time for the

service to be carried out is not fixed by the contract, left to be fixed in a manner agreed by the contract or determined by the course of dealing between the parties, there is an implied term that the supplier will carry out the service within a reasonable time.

- (2) What is a reasonable time is a question of fact.
- 3.4 The key distinction here is between simply carrying out workmanship to someone else's design, the carrying out of design independently and then a combination of the two.
- 3.5 A Designer or Architect's Liability
- 3.6 An Architect's liability is wide-ranging. The following is a selection of recent cases that demonstrate just some of the Architect's obligations:
- 3.7 Meeting the brief
 - 3.7.1 Stormont Main Working Men's Club v J Roscoe Milne Partnership (1998) 13 Con LR 126
 - 3.7.2 Here, the architect was sued because the space around the snooker tables was less than that needed for international competitions. The claim failed because the brief had not stipulated that the building was to be suitable for competition snooker. The judge noted that had there been any doubt as to what the brief called for, the architect should have sought clarification.
- 3.8 Duty to review design (depending on your appointment)
 - 3.8.1 New Islington and Hackney Association Ltd v Pollard Thomas and Edwards [2001] 1 BLR 74
 - 3.8.2 This case confirms that the architect's duties do not end when construction starts on site. 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:
 - 3.8.2.1 A designer who also supervises or inspects work is generally obliged to review their design until it is incorporated into the works;
 - 3.8.2.2 An architect employed under the RIBA standard terms to design and supervise the construction of the entire work usually would have a duty to review their design up to practical completion;
 - 3.8.2.3 A duty to review usually only arises if there is a good reason to reconsider the design (i.e. reading an article in a trade journal that suggests that the materials used are not fit for purpose);

- 3.8.2.4 Where there is a duty to review the design, it is limited to matters related to the "good reason" that gave rise to the duty to review in the first place.
- 3.9 Tender documentation and procurement
 - 3.9.1 Plymouth & South West Co-operative Society Ltd v Architecture, Structure & Management Ltd (2006) 108 ConLR 77
 - 3.9.2 Here, the architects were found to be negligent in proceeding with the approach to construction works which they recommended when they should have realised that that approach would result in cost overruns. The Employer was awarded some £1.4m for the architects' failure to give detailed and cogent advice, particularly in regard to procurement advice, project planning and the production of timely design information.
- 3.10 "Periodic Inspection" v "Supervision"
 - 3.10.1 Ian McGlinn v Waltham Forest Contractors Ltd (2007) 111 ConLR 1
 - 3.10.2 "Periodic inspection" is generally regarded as less onerous than "supervision".
 - 3.10.3 Previous versions of the RIBA Conditions of Engagement for the Appointment of an Architect referred to "periodical supervision" of the works (see for example the 1962 version). However, more recent versions have restricted the scope of the Architect's role in this respect, particularly following the case of Sutcliffe v Chippendale and Edmondson (1982) 18 BLR 149.
 - 3.10.4 HHJ Peter Coulson QC held that (at paragraph 218 of the judgment):

"The frequency and duration of inspections should be tailored to the nature of the works going on at site from time to time ...

Depending on the importance of the particular element or stage of the works, the inspecting professional can instruct the contractor not to cover up the relevant elements of the work until they have been inspected ...

The mere fact that defective work is carried out and covered up between inspections will not, therefore, automatically amount to a defence to an alleged failure on the part of the architect to carry out proper inspections; that will depend on a variety of matters, including the inspecting officer's reasonable contemplation of what was being carried out on site at the time ...

If the element of the work is important because it is going to be repeated throughout one significant part of the building ... then the inspecting professional should ensure that he has seen that element of the work in the early course of construction...

However, even then, the reasonable examination of the works does not require the architect to go into every matter in detail...

... The architect does not guarantee that his inspection will reveal or prevent all defective work ..."

4 State of the Art Defence

- 4.1 London Borough of Newham v Taylor Woodrow (Anglian) Limited (1981) BLR 99 the "Ronan Point" case.
 - 4.1.1 This case arises out of the damage that occurred as a result of the Ronan Point disaster in May 1968. Ronan Point was one of nine blocks of multi-storey flats which Taylor Woodrow contracted to design and build for Newham. Once the flats were completed and the tenants moved in, one morning at 5.45am in May 1968, there was an explosion in the kitchen of one of the flats. This explosion caused the structural failure of the load-bearing external flank wall. As a result, this corner of the tower block progressively collapsed, killing four of the occupants and injuring many others.
 - 4.1.2 The tower had been constructed using prefabricated units for all walls and floors. The question arose as to whether or not the design complied with the building legislation at the time.
- 4.2 Independent Broadcasting Authority v EMI Electronics and BICC Construction Ltd (1980) 14 BLR 1
 - 4.2.1 In this case, the claimant, IBA, had engaged the first defendant, EMI, to design and build three cylindrical aerial masts. The second defendant, BICC, was the nominated subcontractor and had in fact carried out the design for the masts.
 - 4.2.2 In March 1969, the first of the three masts broke and collapsed. IBA commenced proceedings against EMI for breach of contract and negligence and also against BICC for negligence and breach of warranty and negligent misstatement.
 - 4.2.3 It had been argued and accepted that the mast was "both at and beyond the frontier of professional knowledge at that time".
 - 4.2.4 However, the House of Lords did not regard the fact that there was no precedent for the design of a tall mast such as this as being a reason to excuse the designer for its failure. The House of Lords took the view that designers need to take added precautions in circumstances where there is a novel design.
- 4.3 Blair and Anor v AWG Residential Ltd and Ors [2005] NIQB 58
 - 4.3.1 Blair v AWG is a more recent case that exemplifies the principles set out in IBA v EMI and BICC.

4.3.2 Here, an untried method of soil stabilisation was used on a large development which subsequently failed. The Judge held, when determining whether or not the specialist design and build subcontractor was negligent:

"In individual cases, however, where the new technique had failed, the defendant usually faces the allegation that he was negligent to depart from general and approved practice ... It is doubted that any general principle can be formulated in respect of such cases, beyond that stated above. However, important matters in determining whether the defendant exercised reasonable care and skill are:

- (i) Whether there was any necessity to attempt a new technique in the first instance.
- (ii) Whether the client was adequately informed.
- (iii) The risks involved, and the amount and quality of preliminary research carried out (Jackson and Powell on Professional Negligence, para 2-123)."

5 Express Contract Terms

- 5.1 The terms of the appointment will govern the duty of skill and care required of the designer. It is possible that the designer might take on a strict liability, in other words the duty of result of fitness of purpose obligation. Care is needed in considering the duty of the appointment which is empty.
- 5.2 Note that simply avoiding signing an appointment does not avoid the formation of a contract.
- Standard Form of Agreement for the Appointment of an Architect (SFA/99, S-Con-07 and the RIBA Agreements 2010)
- Over the past 10 years, the construction industry has seen two major revisions to the RIBA Standard Form of Agreement.
- Arguably, the most well known of the RIBA standard forms is the SFA/99. Then in 2007, the RIBA launched a new suite of agreements which received a lukewarm welcome from the industry. The Association of Consultant Architects ("ACA") refused to support this new suite and ultimately published its own standard form in 2008, the ACA SFA/08. Finally, in June 2010, the RIBA published a new suite of agreements, this time with the endorsement of the ACA.
- 8.1 Of all the revisions made to the standard form, "timing" appears to be one of the most controversial clauses. The previous SFA/92 adopted a slightly different approach in respect of timing:

"The architect does not warrant that the Services will or can be completed in Accordance with the Timetable."

- 8.2 Then, the approach in the SFA/99 was to make all of these provisions subject to Clause 2.1. So, the test for negligence is reasonable skill and care, but if negligence could be proved then the architect would remain liable for failing to exercise that level of skill and care in respect of any service or obligation under the SFA/99.
- 8.3 In the 2007 version (S-Con-07), Clause A2.1.2 stated:

"[The Architect] performs the Services, so far as reasonably practicable, in accordance with the Brief and any time-scale or cost limit agreed with the client."

- 8.4 This clearly extended the architect's duties from the SFA/99 and left the architect liable if the project was not completed on time or on budget.
- 8.5 Now, in the 2010 RIBA Agreements, clauses 2 and 3 are more in line with the previous SFA/99.
- 8.6 Clause 2.1 again confirms the architect's duty of care:

"The Architect shall exercise reasonable skill, care and diligence in accordance with the normal standards of the Architect's profession in performing the Services and discharging all the obligations under this clause 2."

8.7 Clause 2.2 ("Duty to inform") now states:

"The Architect shall keep the Client informed of progress in the performance of the Services and of any issue that may materially affect the Brief, the Construction Cost, the Timetable, or the quality of the Project."

8.8 In addition, Clause 3.10 ("Time and Cost") provides:

"The Client acknowledges that the Architect does not warrant:

- 3.10.1 that planning permission and other approvals from third parties will be granted at all, or if granted, will be granted in accordance with any anticipated time-scale;
- 3.10.2 compliance with the Construction Cost and/or the Timetable, which may need to be reviewed for such matters as, but not limited to:
 - (a) approved variations arising from design development or requested by the Client;
 - (b) delays caused by any Other Person; and/or
 - (c) any other factors beyond the control of the Architect."
- 8.9 GC/works/five General Conditions for the Appointment of Consultants (1998) provides that the design is to:

"Perform the services in accordance with all statutory requirements and the reasonable skill, care and diligence of a properly qualified and competent

consultant experienced in performing such services on projects of a similar size, scope, timescale and complexity as the Project."

8.10 Clause 10(2) requires the consultant to "perform the Services in accordance with the time periods detailed in the Appointment Particulars ...". In other words, this requires the consultant to meet the client's expectations with regard to timetabling and programme. It might mean that the standard of skill and care is raised, and that the consultant needs to pay particular attention and apply themself to a greater level in order to meet the timetable or the programme.

9 Architect's Errors

- 9.1 HOK Sport Limited v Aintree Racecourse Co Limited [2003] BLR 155 (TCC Thornton 12 November 2002)
 - 9.1.1 Here, HOK Sport was engaged by Aintree Racecourse to provide architectural services in connection with the replacement of a new stand. A dispute arose in connection with the number of spectators to be provided for in the new stand. It was Aintree's case that the stand was to have a standing capacity of at least 2,800 spectators on the viewing terrace and a further 300 in front of boxes. Owing to various design changes, the stand as constructed only provided for 2,000 spectators on the viewing terrace.
 - 9.1.2 The dispute was referred to arbitration and the arbitrator found that HOK Sport was liable for the financial consequences of the loss of 685 standing places.
 - 9.1.3 HOK Sport appealed to the TCC. The question of law that was considered was: On what basis should the quantum of damages, recoverable by Aintree as a consequence of HOK Sport's breaches of its duty to warn, be determined?
 - 9.1.4 The Judge held that it was HOK Sport's duty to warn Aintree of the loss of capacity and this duty was confined to a duty to avoid such losses as would result from a failure to give the warning and from Aintree's decision to proceed with the project on the basis that the stand has significantly less capacity.
 - 9.1.5 With respect to damages, the Judge found that Aintree was entitled to:
 - 9.1.5.1 The foreseeable consequence of HOK Sport's failure;
 - 9.1.5.2 The amount attributable to HOK Sport's failure to warn and which Aintree had suffered by reason of constructing the new stand on the assumption that HOK Sport had complied with the brief; and
 - 9.1.5.3 An amount in respect of Aintree's loss of opportunity to postpone construction and reconsider the ramifications thereof.

10 Liability in Tort

10.1 A professional may of course be liable in contract, but they can also be concurrently liable in tort. This is a complex area, but basically the duty requires a relationship of sufficiently close proximity between the defendant and the claimant that justifies the

- defendant having a duty to take care to avoid the particular harm or loss that the claimant has suffered.
- 10.2 The duty of care that arises for a consultant is not to cause personal injury or damage to "other" property.
- 10.3 Bellfield Computer Services Limited v E Turner & Sons Limited and Others (CA 18 December 2002; [2002] BLR 97)
 - 10.3.1 This case considers the situation where a duty of care may arise in respect of economic loss and exemplifies the meaning of "other" property.
 - 10.3.2 Here, the contractor was negligent when constructing an internal fire compartment wall in a dairy. Accordingly, when a fire broke out, it spread from a storage area and damaged the rest of the dairy. It was held that the rest of the dairy was not considered to be damage to "other" property as it had been built by the same contractor. However, the contractor was held liable for the equipment, plant, stock and other items in building beyond the storage area as these items were distinctly items of "other" property.
- 10.4 Headley Byrne & Co Ltd v Heller & Partners Ltd [1964] AC 465
 - 10.4.1 Establishes the principle that a Claimant can bring an action in tort for loss caused by a negligent statement if there is a special relationship.
 - 10.4.2 In this case, Hedley Byrne, a firm of advertising agents, obtained a free report from the bank of one of their customers, Easipower Ltd, in order to check its financial status and credit. The bank reported a favourable financial status which Hedley Byrne relied on. Ultimately, Easipower Ltd went into liquidation and Hedley Byrne sued the bank for negligence, claiming that the information provided was negligent and misleading.
 - 10.4.3 The House of Lords (as it then was) held:
 - 10.4.3.1 There was a "special relationship" based upon an assumption of responsibility between the parties;
 - 10.4.3.2 The Defendant (the bank) knew or ought to have known that Hedley Byrne was likely to rely upon this statement; and
 - 10.4.3.3 It was reasonable for Hedley Byrne to rely on the Defendant's statement.
- 10.5 Mirant Asia Pacific Limited and Another v Ove Arup & Partners [2004] EWHL 1750
 - 10.5.1 Here, Arup was engaged by Mirant for the provision of various engineering services, including the design and ground investigations for the foundations of a coal-fired power station at Sual in the Philippines.
 - 10.5.2 Two of the foundations failed during construction and Mirant brought a claim against Arup for some US\$63m in negligence.

- 10.5.3 Arup argued that their concurrent duty of care at common law did not extend to a duty to protect their client against economic loss. The Judge rejected this argument and held that the principles established in *Henderson v Merrett Syndicates Ltd* [1995] 2AC 145 (the leading case which establishes that a concurrent duty of care can be owed in tort as well as in contract) applied to a professional designer as they did to other professionals.
- 10.5.4 This case also confirmed that an engineer responsible for the design of foundations must ensure that appropriate ground investigations are undertaken to verify his design assumptions.

11 Contributory Negligence

- 11.1 If a claimant shares some of the liability then the damages awarded to that person might be reduced because he has "contributed" to his own loss. In addition, a defendant that is found liable might be able to claim a contribution from another party.
- 11.2 Sahib Foods Limited (in liquidation) v Paskin Kyriakides Sands (a firm) [2003] EWCA Civ 1832
 - 11.2.1 This case concerned a defendant architect's sole liability for a fire that destroyed a food factory.
 - 11.2.2 Here, the claimant ("Sahib") was a manufacturer of chilled and frozen food for supermarkets. It engaged the defendant ("Paskin") for architectural services in relation to the refurbishment of one of its factories.
 - 11.2.3 A fire started as a result of the actions of one of the Sahib's employees. HHJ Bowsher QC held at first instance in the TCC that the fire was caused by the fault of Sahib. He further held that the spread of the fire outside the room in which the fire had started was due to a breach of contract on the party of Paskin to exercise reasonable skill and care. Though Paskin had alleged contributory negligence on the part of the claimants, the Judge found that Paskin was solely liable for the spread of the fire and that Sahib was not guilty of contributory negligence.
 - 11.2.4 On appeal, the Court of Appeal found that Sahib had contributed to the spread of the fire. Though it had been Paskin's responsibility to ascertain the cooking processes that would be carried out in the room and guard against the risk of fire, Sahib contributed to the failure to fit non-combustible panels by its fault in not giving accurate information as to the processes to be carried out in that room.
 - 11.2.5 Accordingly, Sahib was found to be liable for two-thirds of the damages, thereby only recovering one-third of its damages attributable to the spread of the fire from Paskin.

- 12 Liability of a Building Contractor
- 12.1 This is governed by:
 - 12.1.1 Common law
 - 12.1.2 Statute
 - 12.1.3 The express terms of the contract.
- 13 Common Law
- 13.1 If a contractor simply supplies materials, he is warranting that those materials are:
 - 13.1.1 Reasonably fit for the purpose for which they will be used; and
 - 13.1.2 Of good quality unless the express terms of the contract or the surrounding circumstances demonstrate that the parties intended to exclude that warranty.
- 13.2 Young & Marten v McManus Childs (1969) 1 AC 454.
- 13.3 Independent Broadcasting Authority v EMI Electronics Limited and BICC Construction Limited (1980) 14 BLR 1.
- 14 Statute
- 14.1 Statute is, as referred to above, a very clear distinction between the liability of a building contractor and that of a professional person. The main legislation is:
 - 14.1.1 Sale of Goods Act 1979
 - 14.1.2 Supply of Goods and Services Act 1982
 - 14.1.3 Both of the above amended by the Sale and Supply of Goods Act 1994
 - 14.1.4 Defective Premises Act (DPA) 1972.
 - 14.1.4.1 S1(1) of the DPA 1972 imposes a duty on:
 - "A person taking on work for or in connection with the provision of a dwelling (whether the dwelling is provided by the erection or by the conversion or enlargement of a building)."
 - 14.1.4.2 Accordingly, this has been interpreted widely and to "take on work" will relate not only to the contractor, but also to the architect, structural engineer, specialist subcontractor, etc.
 - 14.1.4.3 A contract does not need to be in place between the parties for a claim to be made under the DPA 1972 and the obligations created by the DPA 1972 cannot be excluded or restricted by agreement (s6(3) DPA 1972).

14.1.4.4 S1(1) goes on to state:

"to see that the work which he takes on is done in a workmanlike or, as the case may be, professional manner, with proper materials and so that as regards that work the dwelling will be fit for habitation when completed."

- 14.1.5 Therefore, the claimant must show that inadequate work and/or inadequate materials have led to a defect(s) which has resulted in the dwelling being *not fit for habitation*. It is not enough for a claimant to show that there is simply a defect.
- 14.1.6 Bole & Anor v Huntsbuild Ltd [2009] EWHC 483 and [2009] EWCA Civ 1146

In this recent case, HHJ Toulmin CMG QC held that a failure to properly address tree roots when laying foundations, which led to the completed dwelling suffering from significant heave, rendered it unfit for habitation. His decision was upheld by the Court of Appeal.

Even though the Claimants were still able to continue living in the house, it was deemed to be "unfit for habitation". It was held that unfitness for habitation extends to what Lord Bridge described as "defects of quality" rendering the dwelling unsuitable for its purpose as well as "dangerous defects".

15 Express Contractual Terms

15.1 JCT Standard Form of Building Contract with Contractor's Design 1998, Clause 5.2:

"Insofar as the design of the works is comprised in the Contractor's Proposals and in what the Contractor is to complete under Clause 2 ... the Contractor shall have in respect of any defect or insufficiency in such design the liability to the Employer, whether under statute or otherwise <u>as would an architect</u> or, as the case may be, other appropriate professional designer ... who acting independently under a separate contract with the Employer, had supplied such design."

15.2 JCT 2005 Design and Build Contract at Clause 2.17.1 states (so in very similar terms):

"Insofar as its design of the works is comprised in the Contractor's Proposals and in what the Contractor is to complete in accordance with the Employer's Requirements ... the Contractor shall in respect of any inadequacy in such design have the like liability to the Employer, whether under statute or otherwise as would an architect or, as the case may be, other appropriate professional designer ... who, acting independently under a separate contract with the Employer, had supplied such design for or in connection with the works ..."

- 15.3 The intention seems to be to limit liability to a reasonable skill and care obligation, although the contract is for the production of the product.
- 15.4 It seems unlikely that this clause is in fact sufficiently clearly worded to exclude liability under statute.
- 15.5 Further, the Unfair Contract Terms Act 1977 requires exclusion clauses to fulfil a "reasonableness" test.
- 15.6 Co-operative Insurance Society Limited v Henry Boot Scotland and Crouch Hogg Waterman [2002] EWHC 1270 (TCC HHJ Seymour QC, 1 July 2002)
 - 15.6.1 This case concerns the contractor's design responsibility in relation to design and contracts, and in particular, responsibility for design development.
 - 15.6.2 Here, Henry Boot was engaged by CIS in a written agreement to carry out works to their property at 9 George Square in Glasgow. The works were described as "demolition (including façade retention), design and reconstruction". The Contract was a JCT 80 with a contractor's design supplement and Henry Boot had engaged Crouch Hogg Waterman ("CHW") as their consulting engineers.
 - 15.6.3 One of the contract amendments stipulated that the Contractor was required to report any defects in the design supplied to him which should have been apparent to a reasonably experienced contractor. He would be deemed to have inspected the site and satisfied himself as to various issues that might affect the works.
 - 15.6.4 During construction, water and soil flooded the sub-basement excavations, as a result of the inadequate design of a contiguous bored pile wall, causing considerable damage.
 - 15.6.5 Henry Boot argued that it had relied on a site investigation report provided by CIS in the tender documents and had detailed the contiguous bored pile wall accordingly.
 - 15.6.6 One of the most important issues before the Judge was whether or not this report had been incorporated into the Contract and, if so, what were the consequences of its incorporation.
 - 15.6.7 The Judge held that the contractor had a duty to examine the initial design, raise any queries in respect of it or accept it and then be responsible for the whole design. Henry Boot had argued that "complete the design" simply meant preparing working drawings; however, the Judge disagreed and stated:

"That process of completing the design must, it seems to me, involve examining the design at the point at which responsibility is taken over, assessing the assumptions on which it is based and forming an opinion whether those assumptions are appropriate ... The concept of 'completion' of a design of necessity, in my judgment, involves a need

to understand the principles underlying the work done thus far and to form a view as to its sufficiency."

15.7 NEC Third Edition. It states at Clause 21.2:

"The Contractor designs the parts of the works which the Works Information states he is to design."

- 15.8 This means that a contractor will need to examine very carefully the works information in order to determine the extent of a design. As a result, it is much harder to determine the extent of any design required.
- 15.9 The NEC form also relies heavily on implied statutory terms. The express provisions mean that these terms will be implied.

16 A Brief Word on Nomination

16.1 In respect of nominating subcontractors, Clause 35.21 provides:

"The Contractor shall not be responsible to the Employer for:

- .1 The design of any nominated subcontractor works insofar as such nominated contractor works have been designed by a nominated subcontractor;
- .2 The selection of the kinds of materials and goods for any nominated subcontractor works insofar as such kinds of materials and goods have been selected by a nominated subcontractor;
- .3 The satisfaction of any performance specification or requirement insofar as such performance specification or requirement is included or referred to in the description of any nominated subcontractor works included in or annexed to the numbered tendered documents enclosed with any NSC/T Part 1."
- 16.2 The JCT 1998 provisions are somewhat circular, but attempt to leave the main contractor with no design liability whatsoever.
- 16.3 The 2005 versions have abandoned nomination.

17 Employers' Requirements

- 17.1 As a very basic definition, the term "Employers' Requirements" generally refers to a set of requirements defining what the employer wants constructed in a design and build contract.
- 17.2 In the JCT 2005 Design and Build Contract, the definition of "Employer's Requirements" refers to whatever the parties decide to enter at the First Recital of the Contract and list at Article 4 of the Contract Particulars. The drawings and specifications prepared on behalf of the Employer can either be listed here or appended to the Contract in the form of an Annex.

- 17.3 One question regarding the Employer's Requirements which continuously seems to arise is the extent to which the Employer bears the responsibility or risk of the site conditions.
- 17.4 In general, the risk of adverse site conditions lies with the contractor.
 - 17.4.1 Sharpe v San Paulo Brazilian Railway Co (1873) LR 8 Ch App 597
 - 17.4.1.1 In this case, the contractor had been engaged to complete a railroad line "from terminus to terminus complete". Ultimately, the contractor found that the engineer's original design was inadequate and had to be redesigned. Further excavation works and materials were required, nearly doubling that originally contemplated.
 - 17.4.1.2 However, it was held that as this work was deemed to be included in the original scope of works, the contractor was to carry it out and could not claim additional payment for it even though he had not contemplated that this work would be necessary for the completion of the contract.
- 17.5 Furthermore, in general, an employer does not impliedly warrant that the documents submitted to the contractor for tender are accurate or practical.
 - 17.5.1 Thorn v London Corporation (1876) 1 AppCas 120, HL
 - 17.5.1.1 Here, the contract was for the demolition and replacement of Blackfriars Bridge. The plans and specifications of the employer's engineer called for the use of caissons to enable the works to be constructed. As a result, the contractor was delayed and suffered additional expense as the caissons were not required.
 - 17.5.1.2 It was held that there was no implied guarantee by the employer that the bridge could be built in the manner specified.
 - 17.5.2 Bacal Construction (Midlands) Ltd v Northampton Development Corporation (1975) 8 BLR 88
 - 17.5.2.1 Here, the general principle that the employer does not impliedly warrant the accuracy of the tender drawings was not followed.
 - 17.5.2.2 The contractor tendered to design and build six blocks of dwelling houses. Their instructions were to design the foundations on certain assumptions as to the ground conditions. These assumptions proved to be incorrect. It was held that, on these facts, the employer had warranted that the ground conditions would be as they had indicated to the contractor.
- 17.6 Clauses 2.11 and 2.12.1 of the JCT 2005 Design & Build Contract does address the adequacy of the Employer's Requirements:

"Clause 2.11 - Preparation of Employer's Requirements

Subject to clause 2.15 [Divergences from Statutory Requirements], the Contractor shall not be responsible for the contents of the Employer's Requirements or for verifying the adequacy of any design contained within them.

Clause 2.12.1 - Employer's Requirements - inadequacy

If an inadequacy is found in any design in the Employer's Requirements to which 2.11 applies, then, if or to the extent that that inadequacy is not dealt with in the Contractor's Proposals, the Employer's Requirements shall be altered or modified accordingly."

17.6.1 However, contractors should note that these clauses are often deleted or amended.

18 Contractor's Proposals

- 18.1 The "Contractor's Proposals" are then the documents which the contractor uses to respond to the Employer's Requirements and will include design and production drawings.
- 18.2 Again, in the JCT 2005 Design and Build Contract, the definition of "Contractor's Proposals" refers to whatever the parties decide to enter at the Second Recital of the Contract and list at Article 4 of the Contract Particulars.
- 18.3 The level and extent of design required by the contractor will depend on the contract itself and the extent to which the employer had already engaged others to carry out any aspects of the design.
- 18.4 The Contractor's Proposals therefore may include schematic design drawings, detailed design drawings and/or production information depending on the project and the contract.
- 18.5 The contractor should put forward its specific proposals as to how they intend to meet the Employer's Requirements. Often, the parties just insert text stating that the Contractor's Proposals is that the contractor will meet the Employer's Requirements. This minimal approach is one way of avoiding the issue, but is a lost opportunity to clarify and set out further details.
- 18.6 Alternatively, a contractor may simply sketch over or mark up the Employer's Requirements and resubmit the drawings as the "Contractor's Proposals". Should this be the case, those reviewing the Contractor's Proposals for compliance should take great care to ensure the requirements are still met or that the Employer is aware of any amendments proposed.

18.7 Design Approval Process:

18.7.1 JCT 2005 Design & Build Contract - Schedule 1: Contractor's Design Submission Procedure

18.7.1.1 This schedule is the mechanism by which the Employer is able to agree the development of the design by the Contractor.

18.7.1.2 Clause 2 of Schedule 1 states:

"Within 14 days from the date of receipt of any Contractor's Design Document, or (if later) 14 days from either the date or expiry of the period for submission of the same stated in the Contract Documents, the Employer shall return one copy of that Contractor's Design Document to the Contractor marked 'A', 'B' or 'C' provided that a document shall be marked 'B' or 'C' only where the Employer considers that it is not in accordance with this Contract."

19 Interactive Review

19.1 Consider:

- 19.1.1 The design liability of a contractor under a traditional contract;
- 19.1.2 Or under the JCT SBC XQ;
- 19.1.3 The design liability of the contractor under a design and build contract (comprising a simple letter containing the basic details of the project, the agreed price and the start and completion date);
- 19.1.4 The design liability of the contractor under the JCT DB;
- 19.1.5 Whether a change to the scope of work affects this liability;
- 19.1.6 How you might analyse the situation where the employer's team design the works then pass that design to the contractor, who then agrees a price, a timetable to complete the works and any part of the design as necessary (sometimes known affectionately by contractors as "design and dump").
- 19.2 Final round-up, and general reflection.

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