Transferring project design risk

Architects’ fitness for purpose obligation: obligation of means or obligation of result?

Ground conditions and design liability
Conferences

October 2023

26 October, IE University Madrid, Madrid, Spain
Young Lawyers Committee Champion Training Programme

28 October, Université Paris 1 Panthéon-Sorbonne, Paris, France
IBA Young Lawyers’ Committee Training: The Fundamentals of International Legal Business Practice

29 October, Palais des Congrès de Paris, Paris, France
Arb40 Symposium

December 2023

7–8 December, JW Marriott Hotel Frankfurt, Frankfurt, Germany
8th Annual Corporate Governance Conference

7–8 December, Vienna, Austria
IBA Asset Recovery Conference

8–9 December, Singapore, Singapore
IBA Human Rights Conference: Dignity, Freedom and Justice for All

January 2024

15–16 January 2024, One Great George Street, London, England
13th Annual London Finance and Capital Markets Conference

31 January – 2 February 2024, São Paulo, Brazil
When arbitration meets crime

February 2024

8–9 February 2024, The Westin Paris – Vendôme, Paris, France
12th IBA European Corporate and Private M&A Conference

22–23 February 2024, Shangri-La Singapore, Singapore
25th Annual IBA Arbitration Day: 25 years together and now? Building the arbitration model for tomorrow

March 2024

4–5 March 2024, Raffles London at The OWO, London, England
29th Annual International Private Client Tax Conference

22nd Annual International Conference on Private Investment Funds

13–14 March 2024, Upside East, Munich, Germany
4th European Automotive and Mobility Services Conference

13–15 March 2024, Quito, Ecuador
Mergers and acquisitions in Latin America

14–15 March 2024, W Barcelona, Barcelona, Spain
7th Mergers and Acquisitions in the Technology Sector Conference

20–21 March 2024, Willard InterContinental, Washington DC, USA
The International Commerce and Distribution Landscape – New Tensions and Restrictions Along the Global Supply Chain

April 2024

5–7 April 2024, Tokyo, Japan
IBA Human Rights Conference: Climate, justice and law – challenges and opportunities

Webinars

October 2023

4 October, 1300 – 1400 BST
Mediating M&A disputes: saving relationships, time and costs

4 October, 1300 – 1400 BST
Partners as leaders: understanding how to lead the lawyers of tomorrow

5 October, 1300 – 1400 BST
Emerging trends in insolvency law in sub-Saharan Africa

6 October, 1500 – 1600 BST
Investment in Latin America and the rule of law

11 October, 1200 – 1300 BST
M&A and FDI in India — the key concerns and recommendations

17 October, 0900 – 1000 BST
IBA Professional Wellbeing Commission Webinar Series: The regulators are watching you! — Understanding the risks of not taking action

10 October 2023, 1500 – 1615 BST
Is remote work still causing us mixed feelings or is it an inevitable part of the new normal? The perspective from small and medium law firms in Southeast Europe

November 2023

28 November, 0900 – 1000 GMT
IBA Professional Wellbeing Commission Webinar Series: What next? Practical steps to creating a wellbeing strategy in your firm

Full and further information on upcoming IBA events can be found at:
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Dear readers,

As we say goodbye to summer holidays (at least in the northern hemisphere), we are pleased to introduce the October issue of *Construction Law International* (CLInt).

This issue traverses the globe, continuing our FIDIC around the world series with contributions from Poland and Vietnam and providing updates concerning developments in the UK and Australia.

We are also pleased to share with our readers articles capturing the discussions at the March 2023 ICP conference and May 2023 ICP working weekend, covering the very practical topics of addressing high volumes of low value claims and transferring project design risk.

Our feature articles in this issue cover a wide range of topics, including fitness for purpose obligations, negative variation clauses, design liability in the context of uncertain ground conditions and the application of contractual notice provisions following a collaborative approach, as well as room for improvement in public infrastructure projects. We trust our readers will find these articles instructive both at the dispute stage, as well as during the negotiation and performance of a contract.

We thank our contributors for sharing their experience and insights. As always, we encourage all ICP members to contribute to *CLInt* by submitting articles to China Irwin at cirwin@lalive.law.

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Dear ICP Committee Members,

Yet another quarter of the year has passed, and we are happy to announce that the IBA International Construction Projects Committee (ICP) is as strong and vibrant as ever. Upon last count, we have over 900 registered members and we continue to be a committee dedicated to the advancement of construction law, professionalism and camaraderie.

The third quarter of the year is always a transition. For those of us in the northern hemisphere, we are transitioning into autumn, after what was hopefully an enjoyable summer. And for those of us in the southern hemisphere, we transition into spring, with an enjoyable summer to come. This last quarter has been a relatively quiet one for the ICP. After two excellent events in the first half of 2023, the focus has been on coordination for the IBA Annual Conference in Paris.

We are excited to announce that preparations for our substantive sessions and our social functions are well underway. The moderators and speakers for each of our sessions have been confirmed and all are working diligently to produce another set of excellent sessions. Our sessions in Paris will be:

• ‘When government and social goals meet the reality of construction contracting’
  - Moderators: Jane Davies Evans and Tony Dymond
  - Speakers: Ana Cândida de Mello Carvalho, Elise Edson, Jaya Sharma, Sarah Sinclair and Anand Srivastava

• ‘EPC on trial – does fixed-price EPC deliver the results promised?’
  - Moderators: Roberta Downey and Erin Miller Rankin
  - Speakers: Bill Barton, Taoufik Lachheb, Michael Stokes, and Piergiorgio Zettera

• ‘The growing demand for energy transition infrastructure – novel procurement models and dispute resolution regimes’
  - Moderators: Aarta Alkarimi and Eric Franco
  - Speakers: Micheal Earwaker, Shona Frame, Alexander Leventhal and Ioannis Vassardanis

• ‘Economic crisis, unforeseen circumstances and contract rebalancing’
  - Moderators: Dr Thomas Frad and Douglas OIes
  - Speakers: Richard Bailey, Claus Lenz, Emma Niemisto, Arianna Perotti and Yann Schneller.

• ‘Breaking up is hard to do? Lessons learned and preparations that can be made to ease the pain of litigation and contract termination’
  - Moderators: Adrian Cole and Sharon Vogel
  - Speakers: Rajdeep Choudhury, Douglas Jones AO, Elina Mereminskaya and Roger Ter Haar QC

In addition to this programme, we will all gather to enjoy each other’s company at the Vaudeville restaurant for the ICP dinner. Along with the camaraderie and good conversation, this year will feature the return of the in-person Hard Hat Ceremony as the ICP welcomes its new Co-Chairs Virginie Colaiuta and Julio Cesar Bueno along with the newly appointed officers and subcommittee Chairs. And of course, we will have our traditional Friday excursion; keep your eyes open for the soon-to-be-announced details.

We very much look forward to seeing you in Paris. Until then, enjoy your autumn or spring.

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Co-Chairs, IBA International Construction Projects Committee
3. Do FIDIC produce their forms of contract in the language of your jurisdiction? If no, what language do you use?
The FIDIC forms are available and commonly used in Polish. The translations of the Red Book (2017), Yellow Book (2017) and Gold Book (2008) were prepared under the auspices of the Polish Association of Consulting Engineers and Experts (Stowarzyszenie Inżynierów Doradców i Rzeczoznawców).

4. Are any amendments required in order for the FIDIC Conditions of Contract to be operative in your jurisdiction? If yes, what amendments are required?
In general, FIDIC conditions of contract are in line with Polish law. However, some provisions require adjustments in order to reflect the specific Polish regulations better.

The most significant changes that must be introduced to the FIDIC conditions of contract in order to ensure their effectiveness and enforceability under Polish law concern Clauses 15 and 16 which regulate withdrawal from the contract by the investor and the contractor respectively.

The FIDIC form specifies that after the occurrence of the conditions indicated, the right of the investor (from the conditions set out in Sub-Clause 15.2.1.) and the contractor (Sub-Clause 16.2.1.) to withdraw from the contract arises. Clauses 15 and 16 create a contractual right of withdrawal. Under the FIDIC provisions, a party may exercise the contractual right of withdrawal ‘immediately’ after the expiry of the period for remedying the breach in question, and such a withdrawal will be effective on the date on which the other party receives the notification of withdrawal.

Article 395 of the Polish Civil Code provides that a contractual right of withdrawal must provide for a period within which this right can be exercised. This term is understood as the final date on which the notification of withdrawal from the contract may be submitted. Because Article 395 is a ius cogens provision in this respect, failure to specify the period by which the party must exercise the contractual right of withdrawal results in the invalidity of the entire clause. For this reason, the FIDIC conditions require adjustment in this respect to the Polish statutory provisions to ensure the enforceability of the contractual right of withdrawal.

5. Are any amendments common in your jurisdiction, albeit not required in order for the FIDIC Conditions of Contract to be operative in your jurisdiction? If yes, what (non-essential) amendments are common in your jurisdiction?
FIDICs commonly used in contracts concluded under Poland’s public procurement law. The specificity of contracts concluded under this regime is that the contract is basically unilaterally drafted by the contracting authority and is not subject to negotiation. The position of the contracting authority in public contracts is incomparably stronger than that of the contractor. This is reflected in many changes made to the FIDIC general conditions by contracting authorities.

For example, changes in Clause 20 are most often made in a way that the deadline for submitting a claim is reserved only for the contractor’s claims, and the contracting authority is not affected by the deadlines for submitting claims, apart from the statutory limitation periods.

Most often, as part of the execution of construction works, the investor acquires all copyrights (and not only the licence) to the documents (including the design) prepared by the contractor. For this reason, Sub-Clause 1.10 is most frequently amended to reflect this rule.

In contracts based on FIDIC forms, concluded under the public procurement law regime, it is also
until recently, the provisions regarding the adjudication board in disputes were a binding element of FIDIC conditions in the Polish contract practice. Nevertheless, the adjudication board’s decisions were not always respected by the parties, and the decisions were not always implemented. The parties differed in their assessment of the scope of the decision and the binding force of the dispute board’s rulings.

Currently, Polish contracting authorities are moving away from the provisions on dispute resolution by a dispute board in favour of referring contractual disputes to common courts of law.

In the Particular Conditions, which are amendments to FIDIC general contract conditions, it is stipulated, however, that in the event of a dispute between the parties arising from the contract or related to the contract, the parties may attempt to terminate it. They may do this by submitting a request for mediation or other amicable settlement of the dispute to the Arbitration Court at the General Counsel to the Republic of Poland (Prokuratura Generalna Rzeczypospolitej Polskiej) which is an arbitration court dedicated to resolving disputes with the participation of public entities, or to a selected mediator or a person conducting another amicable settlement of the dispute. This requirement results from the applicable provisions of the public procurement law.

8. Is arbitration used as the final stage for dispute resolution for construction projects in your jurisdiction? If yes, what types of arbitration (ICC, LCIA, AAA, UNCITRAL, bespoke, etc) are used for construction projects?

Typically, disputes arising from contracts concluded in Poland based on the FIDIC form are referred to common courts for resolution. This applies in particular to contracts concluded under the public procurement law. Sometimes arbitration clauses are found in private contracts, and the ICC remains the most frequently chosen centre. Occasionally, in some situations, disputes are submitted to the Court of Arbitration at the Polish Chamber of Commerce.

9. Are there any notable local court decisions interpreting FIDIC contracts? If so, please provide a short summary.

For many years, the most controversial issue in Poland in terms of FIDIC contract conditions has been the interpretation of Sub-Clause 20.1 (currently Sub-Clause 20.2.1) and its compliance with Polish law. The jurisprudence of Polish courts regarding this clause remains inconsistent and new decisions in this regard are still emerging. The last one is the judgment of the Supreme Court of 17 March 2022 case number: II CSKP 217/22.

In this judgment, the Court of Appeal held that the supplementation of Sub-Clause 20.1 of the form contract by introducing a limitation period as to the notification by the contractor of the circumstances that constitute grounds for the demand for additional remuneration does not lead to a violation of the principles of social coexistence, principles of equity and contract, limits on the freedom of contract or systemic rules for determining the commencement of a limitation period.

In addition, the Court of Appeal stated in its judgment that Sub-Clause 20.1 contained in the FIDIC form is not similar in effect to a reduction of the limitation period. The time limits that have been agreed by the parties have been reserved in the contract under the principle of freedom of contract, so it is not a statutory limitation period, and the clause in question cannot be regarded as intended to circumvent the law.
The court emphasised that the purpose of inclusion of Sub-Clause 20.1 in the FIDIC form and its subsequent inclusion in the contract by the parties is to ensure that the contracting authority is able to predict the amounts necessary to finance the performance of the contract.

The court stated that this clause does not directly violate the article, which provides that limitation periods may not be reduced or extended by a legal act. On the other hand, the court pointed out that Sub-Clause 20.1 must be assessed in terms of the duration of the limitation period for submitting claims and this requires an assessment on a case-by-case basis.

10. Is there anything else specific to your jurisdiction and relevant to the use of FIDIC on projects being constructed in your jurisdiction that you would like to share?

The Polish contract practice in the field of contracts based on the FIDIC form remains imperfect. As indicated earlier, the FIDIC form of contract is most often used for public procurement contracts in which the contracting authority has a dominant position. Taking advantage of this situation, contracting authorities make significant changes to the model FIDIC conditions to alter the contractual balance. These changes are in conflict with the FIDIC golden principles, and in particular contrary to:

• GP1. ‘The duties, rights, obligations, roles and responsibilities of all the Contract Participants must be generally as implied in the General Conditions, and appropriate for the requirements of the project’ – the most frequent violation of this principle relates to the Contract Engineer, who, in the Polish FIDIC model, is a representative of the Employer and not an impartial entity.
• GP3. ‘The Particular Conditions must not change the balance of risk/reward allocation provided for in the GCs’ – the most frequent violation of this principle relates to the transfer to the Contractor of an obligation to design the majority of the works under the Red Book (detailed design);
• GP4. ‘All time periods specified in the Contract for Contract Participants to perform their obligations must be of reasonable duration’ – as indicated above in the response to Question 5, the most common infringement of this principle consists of the fact that deadlines for performing certain activities (e.g., submitting a claim) are reserved only for the contractor, and the contracting authority may exercise its rights indefinitely; in turn, in the case of the contractual right of withdrawal (Clauses 15 and 16), the time limit for exercising this right for the contracting authority is usually much longer than the time limit for exercising this right for the contractor (see response to Question 4, above).
• GP5. ‘Unless there is a conflict with the governing law of the Contract, all formal disputes must be referred to a Dispute Avoidance/Adjudication Board (or a Dispute Adjudication Board, if applicable) for a provisionally binding decision as a condition precedent to arbitration’ – as mentioned above in the responses to Questions 7 and 8, typically disputes arising from contracts concluded in Poland based on the FIDIC form are referred to common courts for resolution, without the procedure of amicable dispute resolution or the participation of an arbitration centre.

1. What is your jurisdiction?
The Socialist Republic of Vietnam

2. Are the FIDIC forms of contract used for projects constructed in your jurisdiction? If yes, which of the FIDIC forms are used, and for what types of projects?

In the public sector, officially detailed statistics with regard to the number of FIDIC forms of contract being used for public projects have not been carefully collated. It is believed that under Official Development Aid (ODA) or other multilateral funded projects or international bidding packages, the Vietnam government or its state-owned enterprises are likely to apply the 2010 Pink Book rather than using Vietnamese standard contracts that the government might introduce from time to time. On the other hand, Vietnamese standard contracts, such as those introduced under Circular 09/2016/TT-BXD by the Ministry of Construction are the favoured options available for other projects where either...
Regarding all construction projects regardless of capital source

AUTHORITY TO ISSUE TAKING OVER CERTIFICATE

Under the FIDIC Red Book 2017 Conditions of Contract and Yellow Book 2017, after the Contractor completes the Works in accordance with the contract, the Engineer shall issue the Taking Over Certificate to the Contractor (Sub-Clause 10.1 [Taking Over the Works and Sections]). When the Engineer performs this duty, the Engineer shall be deemed to act for the Employer (Sub-Clause 3.2 [Engineer’s Duties and Authority]) and therefore the Employer is not required to participate in the Tests on Completion or issuing of the Taking Over Certificate.

However, the law of Vietnam requires that the Employer must organise and participate in the test and acceptance of the Works directly (Art 23.1 of Decree 06/2021/ND-CP). Test results will be verified through the Minutes of acceptance on completion of the Works. Accordingly, these Minutes shall be signed by the Employer’s representative, the Supervisory consultant’s representative and the Contractor’s representative. If the Employer’s representative fails to sign, the Minutes of acceptance on completion of the Works shall be considered as having not been duly signed and therefore, the Works shall not be deemed completed and handed over to the Employer.

THE TIME TO FULLY RECOVER THE ADVANCE PAYMENT

Regarding the time to fully recover the advance payment, Decree 37/2015/ND-CP detailing construction contracts stipulates that the advance payment shall be fully recovered when the payment value reaches 80 per cent of signed contract value.

FIDIC Conditions of Contract do not set such a time, but only provide for the rate of deduction in interim payments, as well as the Contractor's responsibility to repay the advance payment when the Taking Over Certificate is issued or the contract is terminated (Sub-Clause 14.2 of the Final Payment Certificate).
Valuation of Variation

Under FIDIC Conditions of Contract, when a Variation is instructed by the Engineer, the Contractor shall execute the Variation without delay (Sub-Clause 13.1 [Right to Vary]), except in certain cases where the Contractor is entitled to refuse to execute the Variation. The Variation will then be evaluated according to the specific procedure (Sub-Clause 13.3 [Variation Procedure]).

However, this is not in accordance with the Law of Vietnam. Specifically, the law stipulates that for Variation works outside the scope of the signed contract without any regulation on unit price or method of determining unit price in the contract, the parties shall agree on unit price or principles and methods of price determination for such works before execution. Accordingly, the execution of the Variation works without an agreement on the unit price (or at least the principle, the method of determining the price) is not allowed.

Claim procedure

Under the claims procedure for payment and/or EOT in the 2017 FIDIC Red Book and Yellow Book Conditions of Contract, the time limit for a claiming party to submit a claim to the Engineer is 28 days from the date such party became aware, or should have become aware, of the event or circumstance. Following a specific process, the claim shall be agreed or determined by the Engineer (Sub-Clause 12.3 [Valuation of the Works]).

The Law of Vietnam allows a longer period for a claiming party to exercise the right to claim, 56 days from the date of arising of the problem leading to the claim. In addition, the responsibility to respond to the claiming party is assigned to the party receiving the claim (not the Engineer) with a specified time limit of 28 days from the date of receipt of the claim. If the party receiving the claim does not give a response within such 28 days, the claim shall be deemed accepted (Art 44.4 of Decree 37/2015/ND-CP).

5. Are any amendments common in your jurisdiction, albeit not required in order for the FIDIC Conditions of Contract to be operative in your jurisdiction? If yes, what (non-essential) amendments are common in your jurisdiction?

When entering into a FIDIC contract in Vietnam, the parties often make the following amendments.

Employer’s financial arrangements

Normally, the Particular Conditions will be drafted by the Employer or the consultant hired by the Employer, in which case the provisions of Sub-Clause 2.4 [Employer’s Financial Arrangements] are often removed and substituted with the phrase ‘Not applicable’. This replacement is motivated by the Employer’s desire to avoid the responsibility of providing the financial proof to the Contractor. As a result of removing Sub-Clause 2.4, other provisions with reference to Sub-Clause 2.4 also become inapplicable. For example, Sub-Clause 16.1 [Suspension by Contractor] and Sub-Clause 16.2 [Termination by Contractor] are also amended to not allow the Contractor to suspend or terminate due to the Employer’s failure to provide reasonable evidence relating to Employer’s financial arrangements.

Delay damages

The 2017 FIDIC Conditions of Contract stipulate that if the Contractor fails to complete the Works within Time for Completions, the Employer is entitled to apply Sub-Clause 8.8 [Delay Damages], where the nature of Delay Damages is liquidated damages. However, due to the absence of clear interpretation of liquidated damages under the Law of Vietnam, which have caused numerous controversial opinions about whether to allow the application of liquidated damages or not, the ‘Delay Damages’ in the FIDIC Conditions of Contract are usually replaced by a ‘delay penalty’ which is a remedy permitted under the Law of Vietnam (Art 418 of the Civil Code 2015 and Art 300 of the Commercial Law 2005). More details of Delay Damages, or liquidated damages under the Law of Vietnam can be found in the response to Question 12.

Adjustments for Changes in Cost

The adjusted price is one of the forms of contract price permitted and recognised by the Law of Vietnam (Art 140.3(c) of Construction Law 2014). However, because of the challenges of reaching an agreement on how to adjust the price and the potential for getting into disputes, combined with the Employer’s inclination to mitigate the risk of market price fluctuations, a fixed price is preferred to the adjusted price, especially for construction projects funded by private capital. In such cases, the content of Sub-Clause 13.7 [Adjustments for Changes in Cost] is removed and replaced by ‘Not applicable’.

Responsibility to buy insurance for the Works

According to the Law of Vietnam, the Employer shall be responsible for purchasing insurance for the Works, except when the insurance premium has been included in the construction contract price, the Contractor shall be the insurance buyer (Art 4.1 of Decree 119/2015/ND-CP). In fact, it is more common for the Employer to buy insurance for the Works for the following
reasons: (1) the Employer seeks to obtain the most favourable premium by buying insurance for the entire project, whereas the Contractor may execute only one or several packages of that project; (2) based on the Employer’s needs, the Employer wants to retain the right to negotiate insurance contracts and work with the insurers when an insured event occurs; (3) other reasons. Accordingly, it is customary to amend Sub-Clause 19.2 [Insurance to be provided by the Contractor] to specify that the Employer shall take responsibility for buying insurance for the Works.

DAAB

To date, settling disputes by DAAB has not been widely used in Vietnam, therefore, the parties often remove terms relating to DAAB in the FIDIC Conditions of Contract and replace them with ‘Not applicable’. The disputes settlement mechanism by DAAB is detailed in the response to Question 9.

Arbitration

According to the Sub-Clause 21.6 [Arbitration] of FIDIC Conditions of Contract, the dispute shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce, which also means that the International Court of Arbitration of ICC (ICC Arbitration) is the arbitration body to settle the dispute (Art 1.2 of Rules of Arbitration of the International Chamber of Commerce). However, as the dispute settlement mechanism in ICC arbitration is considered to be complicated and expensive, the parties rarely choose ICC arbitration but submit disputes to other arbitration bodies in the region, such as the Vietnam International Arbitration Centre (VIAC) or Singapore International Arbitration Centre (SIAC). In such cases, Sub-Clause 21.6 [Arbitration] in the FIDIC Conditions of Contract will be amended to suit the arbitration body chosen by the parties.

6. Does your jurisdiction treat Sub-Clause 2.5 of the 1999 suite of FIDIC contracts as a precondition to Employer claims (except for those specifically mentioned in the Sub-Clause)?

The Law of Vietnam on construction activities does not stipulate any conditions when a party wants to make a claim. Article 44.3 of Decree 37/2015/ND-CP detailing construction contracts has a provision that the time limit for a claim is 56 days from the time the claiming party is aware of the problem. However, this provision is mainly for reference purposes as it does not provide any consequences if such time limits are not met.

Therefore, if the parties want to set preconditions to claims, they must have a clear agreement in the contract and the consequences if one party violates such an agreement. On the principle of freedom of agreement (Art 3.2 of the Civil Code 2015), the Court (or arbitrator) shall respect the agreement of the parties.

However, the wording of Sub-Clause 2.5 of the 1999 suite of FIDIC contracts is not clear enough, as it does not set a specific time limit for the Employer’s claims nor provide consequences if the Employer fails to comply. This is completely different from the wording of Sub-Clause 20.1, which clearly states that the time limit for the Contractor’s claims (no later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance) and that if the Contractor fails to comply, the ‘Employer shall be discharged from all liability in connection with the claim’.

For that reason, under the Law of Vietnam, Sub-Clause 2.5 of the 1999 suite of FIDIC contracts is not treated as a precondition to Employer’s claims.

7. Does your jurisdiction treat Sub-Clause 20.1 of the 1999 suite of FIDIC contracts as a condition precedent to Contractor claims for additional time and/or money (not including Variations)?

Yes, because the wording of Sub-Clause 20.1 is clear enough. See more details in the response to Question 6.

8. Does your jurisdiction treat Sub-Clause 20.1 of the 1999 suite of FIDIC contracts as a condition precedent to Contractor claims for additional time and/or money arising from Variations?

Yes, because the wording of Sub-Clause 20.1 is clear enough. See more details in the response to Question 6.

9. Are dispute boards used as an interim dispute resolution mechanism in your jurisdiction? If yes, how are dispute board decisions enforced in your jurisdiction?

Under the Law of Vietnam, the dispute settlement mechanism by dispute boards (DBs) has been not officially and clearly recognised, except for the provision at Art 45.2 of Decree 37/2015/ND-CP detailing construction contracts with reference to the Dispute Settlement Board. However, this provision mainly refers to a mediation agency rather than a body that has the specific nature of a DB as defined in FIDIC contracts. Therefore, whether to employ a DB as a dispute resolution mechanism or not depends on the agreement of the parties in the contract.

Currently, in Vietnam practice, there have been a few private-funded projects that have employed a DB to settle disputes, but in general, voluntarily agreeing to employ a DB as a dispute resolution mechanism by parties is not popular. This fact can be explained by the following three main obstacles: (1) there is no clear legal framework for a DB; (2) unlike the judgment/decision of the court or an arbitral award, a DB’s decision is
not binding for enforcement; (3) the cost for settling disputes by DB is considered expensive.

Owing to the lack of a clear legal framework on DBs, the implementation of a DB’s decision is mainly based on the agreement and voluntary acceptance by the parties. In theory, if the parties have agreed in the Contract that the DB’s decision is final and binding on the parties, but one party intentionally fails to comply, the other party can sue in court or arbitration as a breach of contractual agreement. However, in practice in Vietnam, since no actual case has occurred, the approach that the court or the arbitration would take in such a case is still open.

10. Is arbitration used as the final stage for dispute resolution for construction projects in your jurisdiction? If yes, what types of arbitration (ICC, LCIA, AAA, UNCITRAL, bespoke, etc) are used for construction projects? And what seats?

Arbitration is the preferred method of dispute resolution for domestic and international construction disputes in Vietnam. The popularity of standard forms containing provisions related to arbitration leads to parties’ preference for arbitration over traditional dispute resolution mechanisms for construction disputes. Nevertheless, in small-scale construction projects or personal projects, the parties still tend to refer to the courts for dispute resolution.

In Vietnam, regarding construction arbitration, VIAC is one of the most commonly employed arbitration institutions (arbitration centre) for a case without foreign parties. In foreign-related cases, the foreign parties have the tendency to choose other foreign arbitration institutions such as the Singapore International Arbitration Centre, or the ICC Court of Arbitration.

Nonetheless, when the VIAC is chosen, the seat of arbitration will most likely be Vietnam. It is worth noting that according to the 
*Commercial Arbitration Law 2010*, the parties are free to choose the seat of arbitration, and if they do not choose one, the Tribunal will make the decision. It is therefore possible for the parties to choose other seats of arbitration even if the agreed arbitration institution comes from Vietnam.

11. Are there any notable local court decisions interpreting FIDIC contracts? If so, please provide a short summary.

Yes, Vietnamese courts have some judgments or decisions related to FIDIC contracts. We summarise two recent cases which we find interesting.

The first case is the Cassation Decision No 03/2022/KDTM-GDT, dated 23 February 2022 of the Supreme People’s Court regarding the interpretation of Sub-Clause 59.5 1987 FIDIC Red Book. In this case, the plaintiff, as a Nominated Subcontractor (NSC) appointed by the Employer, sued defendants including the Contractor and the Employer related to the Contractor’s delayed payment to the Subcontractor. The NSC relied on Sub-Clause 16.7 of the Subcontract Agreement to require the Employer to pay on behalf of the Contractor. Specifically, Sub-Clause 16.7 of the Subcontract Agreement specifies that pursuant to Sub-Clause 59.5 of the Main Contract (signed on the 1987 FIDIC Red Book form), the Subcontractor shall be entitled to receive payment directly from the Employer for payments not made by the Contractor to the Subcontractor as long as the Project Management Consultant certifies. On this basis, the NSC claimed that when the Contractor violates its payment obligation, the Employer shall be responsible for payment on behalf of the Contractor.

However, the Supreme People’s Court rejected NSC’s request. The Court argued that Sub-Clause 16.7 of the Subcontract Agreement, which referred to Sub-Clause 59.5 of the 1987 Red Book, should be construed as NSC’s right to receive payment from the Employer (provided that it is certified by the Project Management Consultant), instead of interpreting that the NSC has the right to claim payment from the Employer as the Employer is not a party to the Subcontract Agreement.

The second case is Judgment No 06/2022/KDTM – PT, dated 7 January 2022 of the Hanoi People’s Court regarding the interpretation of Sub-Clause 2.4 of the 1999 Red Book. In this case, the construction contract between the Employer and the Contractor stipulated that the Employer shall issue a bank payment guarantee to the Contractor according to the form agreed by both parties. However, when issuing the payment bank guarantee, the Employer changed some contents without the Contractor’s consent, leading to the Contractor’s disagreement and suspension of the Works. Afterwards, the Employer terminated the Contract and sued the Contractor for damages, on the grounds that the Employer had a right of termination pursuant to sub-paragraph (c) of Sub-Clause 15.2 [Termination by Employer] of the 1999 Red Book General Conditions when the Contractor suspended works without reasonable excuse.

The Court rejected this argument of the Employer and argued that the Employer’s decision to change the contents of the bank payment guarantee without the Contractor’s consent was a violation of Sub-Clause 2.4 [Employer’s Financial Arrangements] of the General Conditions. Therefore, the Contractor’s
suspension of work was consistent with Sub-Clause 16.1 [Contractor’s Entitlement to Suspend Work].

12. Is there anything else specific to your jurisdiction and relevant to the use of FIDIC on projects being constructed in your jurisdiction that you would like to share?

Performance security

Under the 2017 Conditions of Contract (Sub-Clause 4.2 [Performance Certificate]), the Contractor is required to ensure that the Performance Security shall be valid and enforceable up until the completion of the Works and the expiry of the Defect Notification Period. However, under the Law of Vietnam, there is no official recognised definition of the concept of a ‘Performance Certificate’. Assuch, inconsistency and confusion are bound to appear when the parties attempt to apply simultaneously FIDIC provisions and the Law of Vietnam. Furthermore, the Law of Vietnam also provides that the Performance Security shall be valid until the issuance of the Taking Over Certificate (Art 72.3 of the Bidding Law 2013). In respect of this approach, the Contractor (and the Employer) can reduce the financial cost in maintaining the Performance Security, but at the same time put the Employer at risk of dispute with the Contractor either: (1) because the Retention Money is insufficient to remedy defects; and/or (2) because the Contractor refuses to remedy such defects.

Delay damages

Under the present legal framework of Vietnam, two monetary remedies are permitted: (1) penalty for breach of contractual obligations; and (2) compensation for all actual damages and/or loss the affecting party suffered.

The concept of Delay Damages used in the FIDIC Condition of Contract, with its nature as liquidated damages, has not been officially recognised in the Law of Vietnam and, therefore, it is still controversial as to whether the parties can agree to apply Delay Damages in the contract or not. The main reason for objecting to the application of Delay Damages is that the pre-determined damage will not be in accordance with the provisions of the Law of Vietnam, which stipulates that the damage to be compensated must be actual damages, and may include the benefit that should have been received (Art 419 of the Civil Code 2015, Art 302 of the Commercial Law 2005). Many Courts in Vietnam support this view.

One of the notable cases is the Cassation Decision No 15/2016/ KDTM-GDT dated 7 September 2016 of the Supreme People’s Court regarding construction contract disputes. According to the provisions of Clause 8.7 of the General Conditions of the contract, the parties agreed that if the Contractor does not comply with the completion time, the Contractor shall pay the Employer for damages due to this default, in which the damages amount is five per cent of the contract value. However, in its argument, the Supreme Court considered such an agreement to be a penalty agreement, and therefore the penalty should be based on ‘breached contract value’, not on the entire contract value. In other words, the Supreme Court uses the penalty provision to consider the contractual parties’ agreement to liquidated damages.

One more notable case to consider is Cassation Decision No 15/2020 dated 15 September 2020 of the Supreme People’s Court. In this case, the parties agreed on a compensation of three times the amount one party received from another. In its decision, the Supreme Court found that amount according to the contract is less than the actual amount of damages incurred. The Supreme Court decided the actual amount of compensation to be given.

For such reason, in the process of negotiating and drafting of the Particular Conditions, the parties are advised to specify clearly whether the Delay Damages provision in their contract is a “penalty” or “compensation”.

Penalty

Under the Law of Vietnam which relates to construction contracts, there are three applicable types of penalty, each of which has different limitation:

- According to the Civil Code 2015, the parties can freely agree on the penalty, except for when relevant applicable law states otherwise.
- According to the Commercial Law 2005, the maximum penalty for the parties shall be eight per cent of the value of the breached obligations.
- According to the Construction Law 2014, for contracts covering state-funded or state-related contracts, the maximum penalty for the parties shall be 12 per cent of the value of the breached obligations.

There is still a lot of controversy as to whether a construction contract in the private sector should be governed by the Civil Code 2015 or the Commercial Law 2005. On one hand, the scope of Article 1.1 of the Commercial Law 2005 governs commercial activities carried out in the territory of Vietnam. Accordingly, the parties should agree for the above maximum percentage of penalty under the Commercial Law 2005. However, under Article 138.1 of the Construction Law 2014, a construction contract is explicitly stated as ‘a civil contract’. Therefore, many legal practitioners argue that the penalty amount for the non-state-funded projects shall be governed by the Civil Code 2015, which has no maximum penalty.
In practice, the Courts of Vietnam also have different opinions and decisions on this legal issue.

**Is DAB/DAAB treated as a compulsory precondition to arbitration/litigation?**

Basically, if the parties agree that the dispute must be resolved by the DAB/DAAB before submitting the dispute to arbitration/court, similar to the way Clause 21 of the 2017 FIDIC Conditions of Contract provides, then the arbitration/court shall respect that agreement of the parties. In case a party intentionally skips the dispute settlement stage by the DAB/DAAB, the arbitrator/court may refuse to resolve the dispute and request the parties to follow the procedures as agreed in the contract.

However, it does not mean that the arbitrator/court will always force the parties to bring the matter to the DAB/DAAB first. In a dispute over the construction contract of an EPC works project that was settled at the Vietnam International Arbitration Centre (VIAC), the plaintiff, as a joint venture contractor, skipped the dispute settlement stage by DAB and applied directly to arbitration.

The reason given by the plaintiff was that the two parties had already had a lot of discussions with each other about the dispute for a long time but with no result, and the two parties also understood that bringing the dispute to settlement by DAB would not be possible, but would only cost time and money. In its decision on jurisdiction, the tribunal supported the plaintiff’s position and declared its authority to resolve the dispute. Disagreeing with the decision of the tribunal, the defendant complained and filed an application to the Hanoi People’s Court to request annulment of the arbitral award on the grounds that the tribunal had no jurisdiction. However, the Court rejected the defendant’s request and held that the tribunal’s decision on jurisdiction was appropriate. The Court also upheld the view that it was unnecessary and not feasible to refer the dispute to the DAB, and therefore did not require the plaintiff to do so.

Through this case it can be seen that the views of the courts and arbitrators in Vietnam on whether or not to apply the DAB will be considered flexibly according to specific situations.

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Concurrent delay under English and UAE law: a new perspective from the English courts?

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Even relatively simple construction projects regularly suffer a whole host of delays to activities. For complex projects, the interface between delays to various sequences of works – and establishing which activity is the cause of critical delay (ie, actually causes delay to project completion) – is extremely complicated. Identifying which issues are critical requires sophisticated expert delay analysis and detailed input from factual witnesses. Invariably, this is both an expensive and time-consuming process.

In English law, it is generally accepted that, where a project suffers from a period of ‘concurrent delay’, the contractor is entitled to a time extension, such that the employer is not entitled to claim liquidated damages. However, the contractor is not entitled to recover its prolongation costs from the employer. However, as demonstrated by the judgment in Thomas Barnes & Sons plc v Blackburn with Darwen Borough Council [2022] EWHC 2598 (TCC), the meaning of ‘concurrent delay’ may be more open to debate.

In contrast, there is no guidance in UAE law specific to the resolution of concurrent delay claims which will be decided under general legal principles, including good faith and concepts of fairness.

The meaning of ‘concurrent delay’: true concurrency

A line of English lower court authorities established a very precise meaning for ‘concurrent delay’, see Royal Brompton Hospital NHS Trust v Hammond (No 7) (2001), Adyard Abu Dhabi v SD Marine Services [2011] and Saga Cruises Ltd v Fincantiera [2016]. Those cases make clear that true concurrent delay will only arise in the following circumstances: two delay events (one a contractor risk, the other an employer risk) occurring at the same time; and the effect of those two events, in terms of overall delay to the project, are felt at the same time.

Unsurprisingly, the occurrence of true concurrent delay is rare. It should be distinguished from: a situation in which two events cause delay to a contractor’s activities at the same time, but only one of those activities is on the critical path, such that only one event causes critical, or actual, delay; and also a situation in which two events cause delay to critical activities at the same time, but although the effect of the delay event is felt at the same time, one of the events occurred prior to the other.

In the second example above, there is no concurrent delay due to the first-in-time principle. The essence of the first-in-time principle is that, by the time the second event occurred, it could not cause any actual delay to the contractor’s works, because the contractor was already in delay anyway, as a result of the first event. The example provided in Royal Brompton, and cited with approval in later cases, is where a contractor knows that it will be unable to progress works in a particular week because it has no workforce. The occurrence of inclement weather the following week (often an employer risk) will not be a concurrent cause of delay because the contractor was already unable to progress the works in that week in any event. Another frequently cited example is the late instruction of a variation by an employer, which would have pushed the completion date for the project if the contractor were not already delayed by reasons for which it was responsible.

The courts’ emphasis on seeking to identify a single event that actually caused delay is consistent with the prevention principle: the employer is only prohibited from levying liquidated damages where it has actually prevented the contractor from completing the works on time. If the contractor was already in delay, the prevention principle does not apply.

The first-in-time principle requires a relaxation of the ‘but for’ test, the usual test for establishing factual causation of losses, as neither party can show that, but for the other party’s delay, the project would have been completed on time. In many cases, parties may consider this arbitrary and the results unfair. For example, if the contractor is found to be in delay already (such that there is no finding of concurrency), an employer’s late instruction to vary the works would not prevent the employer from claiming liquidated damages as a result of a failure to complete on time. This will be the case even if the contractor’s works after the contractual completion date include the additional instructed works. It may be unlikely that, at the time of contracting, this was the parties’ intention.

Thomas Barnes v Blackburn: the broader approach

In Thomas Barnes v Blackburn, the judge took a broader and more practical approach to considering whether delays caused by the contractor and employer were concurrent. The judgment is interesting for its conclusions as to...
what constitutes concurrent delay and also the judge’s approach to identifying the cause of critical delays, which did not accept either party’s expert’s analysis and instead focused on the witness evidence and contemporary documents.

The dispute related to delays to the construction of a bus terminal which had led the employer to terminate the contract. The contractor claimed that it had been unlawfully terminated and that it was entitled to a significant extension of time.

A large part of the contractor’s extension of time claim related to 133 days’ delay to concrete topping works caused by the need for remedial works to steel frames in the roof beams in the hub area of the terminal, due to deflection issues for which the employer was responsible. The contractor claimed the delays to concrete topping caused day for day critical delay to completion, such that it was entitled to a 133 day extension of time and to recover its costs incurred in this period of delay.

The employer’s position was that the contractor was only entitled to an extension of time of 27 days in respect of the delays to concrete topping works on the basis that, (among other things) for a large part of the 133-day period, roof covering works were on the critical path and were delayed by the contractor by 57 days, and also that the contractor had delayed commencing the concrete topping works by 12 days once they had been approved by the employer.

The judge found that the contractor was entitled to an extension of time of 119 days, being the 133 days’ delay caused to concrete topping works less 12 days’ delay in commencing works once approved. However, the judge considered that the contractor was in concurrent delay for much of this period and so awarded the contractor only 27 days’ prolongation costs.

The judge did not seek to define ‘concurrent delay’ beyond stating that there must be ‘an effective cause of delay’ for which the employer was responsible. The judge did not consider the particular meaning given to ‘concurrent delay’ in the line of authorities explained above (Royal Brompton, Adyard and Saga), or whether ‘true concurrent delay’ was required in order to establish an entitlement to an extension of time, nor did he provide detailed analysis of when a delay event becomes ‘an effective cause’ of delay.

The judge found that both the roof coverings and the remedial works to the hub structural steel were on the critical path. The contemporary documents showed that the contractor’s works on the roof coverings were delayed by its failure to source scaffolding and subcontractors. The judge’s key consideration in concluding that both these issues were effective causes of delay appears to have been that, throughout the 133-day period in which the employer’s remedial works to the hub steelworks delayed the commencement of concrete toppings, the contractor could not have known how long those remedial works would take to complete. The contractor should, therefore, have carried out all works available to it, including the roof coverings, in order not to delay completion when the hub steel remedial works were resolved.

The judge reasoned that, since resolution of both issues was essential for progression of the works, neither party could dismiss the delays for which they were responsible as irrelevant. The fact that, as it happened, the delays to the hub remedial works not only began before the delays to the roof coverings but also ended after the contractor’s issues with the roof coverings had been resolved did not, in the judge’s analysis, mean that the roof covering delays were not a concurrent cause of critical delay.

Considered against the background of Adyard and other authorities, the finding of concurrent delay is surprising. The logic used is, effectively, the ‘but for’ test, which, as noted above, Adyard and other authorities made clear was to be relaxed in the context of concurrent delays. However, many consider the practical approach taken by the judge, and the conclusion that the employer not be required to pay the contractor’s prolongation costs when the contractor was itself in delay, fair. While there may be further factual issues that were not reported in the judgment, it would appear from the case report that a strict application of the first-in-time principle (as established in Adyard) would not have had the same regard to contemporary documents and would have produced the same result.

It is often stated that courts should take a common sense approach to determining the real causes of delay, based on an analysis of the parties’ experts’ analysis and examination of the contemporary records. However, what constitutes common sense is ultimately a matter of subjective opinion. In practice, it is difficult to establish the point at which a judge or arbitrator’s common sense should override established principles such as the first-in-time principle. This tension will result in unpredictable outcomes and continue to cause uncertainty for parties facing or advancing delay claims. However, the following messages are clear from Thomas Barnes v Blackburn:

- Contemporary documents recording the delays throughout the project are a key part of any delay claim, over-reliance on after the event programming analysis is not sufficient. Ultimately, to succeed, parties require credible delay analysis, which must be supported by the contemporary record.
- Given the large number of interface issues on construction projects, it can be difficult to
predict, during the course of the works, which issues a court or arbitrator may later conclude were the causes of delay. Therefore, in the event that a contractor’s activities are delayed by the employer, it must nevertheless continue with its works – so as to avoid any later argument of concurrent delay (which may or may not find favour with a judge).

- Delay claims are fact intensive, and rarely easy to resolve.

*Thomas Barnes v Blackburn* may provide encouragement to parties seeking to argue concurrent delay (and therefore either relief from LDs or no liability to pay prolongation costs). It should not do so. Each judgment turns on its facts and the principles in the *Adyard* line of authorities are well established.

**Concurrent delay in the UAE**

As noted above, there is no guidance in UAE law specific to the resolution of concurrent delay claims. Concurrent delay claims will be decided under general legal principles, including good faith and concepts of fairness.

Accordingly, where there is a finding of concurrent delay, rather than follow the English law approach (of allowing a contractor an extension of time but not to recover its prolongation costs), a UAE court (or arbitrator) is likely to apportion liability for concurrent delay under the UAE Federal Law No (5) of 1985 (the Civil Code). In addition to good faith (in Art 245), relevant provisions of the Civil Code include Article 291, which provides for the apportionment of liability where two or more parties are responsible for damage, and Article 290 which provides the court with flexibility to reduce a damages award if the claimant is also responsible for the loss suffered.

If a period of concurrent delay is apportioned 50:50, it would be reasonable to anticipate that the contractor will only get half the extension of time requested, but will also be able to recover its prolongation costs in the period of extension of time allowed. In turn, it would be reasonable to expect that, for the period in which no extension of time has been allowed, the contractor will be liable to pay liquidated damages. The two claims (prolongation and LDs) will then be set off.

There is also no definition of ‘concurrent delay’ under UAE law, but because UAE law is less prescriptive and allows more discretion, it is arguable that a UAE court would not apply the ‘first-in-time principle’ (per *Adyard* and other English authorities) and would instead focus on achieving a ‘fair’ result. The provisions above, and others such as abuse of rights (Art 106) and unjust enrichment (Art 318), allow the UAE courts to assess the relative impact of the causes of delays and, thereafter, apportion liability for concurrent delay as it deems fair. If the court considers the two causes of delay to be of equal causative impact, the court would be likely to share liability between the parties equally. In considering how effective an issue is in causing delay, the court is unlikely to be influenced by strict principles. It is unlikely that a court would allow an employer to charge liquidated damages where it is responsible for an issue that would prevent the contractor from completing the works, were the contractor not already in delay.

Moreover, the court may find an alternative basis to allocate liability, if it considers it fair and reasonable to do so, given the facts and the impact that it considers the various events had on the contractor’s works. It is not constrained to apportion liability on a 50:50 basis.

**Practical considerations**

Delays are one of the biggest, if not the biggest, risks for construction projects. Parties must, therefore, be aware of how liability for delays is treated under their contracts’ governing law. For example, for the reasons given above, parties to construction contracts governed by UAE law (and probably other civil law systems) should be aware that UAE law’s approach to both assessing whether there is concurrent delay and determining the liability that flows from concurrent delay is markedly different from English law (and likely many other common law systems). Where construction projects subject to UAE law are delayed, each party should ensure that it is not responsible for any delays to its own activities, so as to avoid any risk that some liability for the project’s delay will be apportioned to it, as the risk of both concurrent delay being found and liability for that delay being shared between the parties is greater under UAE law.

Finally, given the frequency with which concurrency issues arise in delay claims, parties may wish to consider agreeing in their contracts (whatever their governing law) whether the first-in-time principle must be satisfied for concurrency of delay to arise, or whether the ‘but for’ test should apply (which parties may consider fairer). Specifying the relevant test in contracts should provide parties with greater certainty. This is particularly so in the context of disputes under laws other than English law, or where the dispute is likely to be resolved by contractual or statutory adjudication, as these are forums in which there may be a greater tendency for concurrent delay to be found than in the courts.
Introduction

In September 2021, Australia, the United States announced the AUKUS pact, a security partnership with the objective of supporting a stable, secure, and prosperous Indo-Pacific region. On 13 March 2023, at a summit held in San Diego, Australian Prime Minister Anthony Albanese, Prime Minister of the United Kingdom Rishi Sunak, and President of the United States Joe Biden unveiled details of a plan for Australia to acquire nuclear-powered submarines (SSNs) from the early 2030s. The AUKUS pact has geopolitical significance, including in respect of the strategic advantages it may offer Australia’s navy in the Indo-Pacific region, particularly in the South China Sea and Taiwan Strait. Questions have also been raised in relation to whether Australia’s decision to build and house nuclear-powered submarines gives rise to a potential contravention of international non-proliferation laws. Furthermore, AUKUS leaves in its wake diplomatic tensions between Australia and France, which followed Australia’s decision to cease discussions with France in relation to a submarine programme prior to AUKUS.

These geopolitical considerations aside, AUKUS is lauded in terms of the projected unprecedented developments that may come from it in the engineering, construction and manufacturing industries in Australia, as well as in the UK and the US.

The impact on industries in Australia

The first initiative of AUKUS, ‘Pillar 1’, is a trilateral endeavour to support Australia in acquiring conventionally-armed SSNs. It is a necessity as part of this endeavour that Australia’s submarine infrastructure receives significant upgrading, requiring a complex, multi-decade undertaking with significant and unprecedented developments in manufacturing, construction, infrastructure and technology across the country. ‘Pillar 2’ of the AUKUS plan is focused on enhancing joint capabilities and interoperability among partner nations, with a particular focus on undersea capabilities, quantum technologies, artificial intelligence (AI) and autonomy, as well as cyber capabilities. Initial trials relating to AI and autonomy, and how these technologies can be transformed into military capabilities, including matters such as AI-powered drone swarms and target identification capabilities, were under way as of April 2023. To give a sense of its scale, current projected costings are in the ballpark of AUD968bn between now and the mid-2050s, with Australia looking at an expenditure of around AUD9bn over the next four years. Australia’s decision to acquire SSNs has given rise to enormous expectations for its construction and manufacturing industries. It will be a ‘whole-of-nation undertaking’. From 2027, the UK and US plan to establish a rotational presence of one of the UK’s ‘Astute’-class submarines, and up to four US ‘Virginia’-class submarines, at HMAS Stirling near Perth, Western Australia, with Australia looking to procure three Virginia submarines from the US in the early 2030s.

Under the multi-phase project, Australia will therefore be required to update key infrastructure substantially in order to reach the capabilities required to dock, build, launch and maintain partner submarines, and to develop and construct the SSNs themselves, with a particular focus on upgrading existing infrastructure at shipyards in Osborne, South Australia, and at HMAS Stirling naval yard in Perth, Western Australia. The wharf at HMAS Stirling will require upgrading, new infrastructure will be built including warehousing and sustainment facilities, and maintenance training and logistical capacity will require expanding. Australian Naval Infrastructure (ANI), the Australian Government’s nation-building commitment, will lead the shipyard construction in Osborne which is planned to be expanded to almost three times the total size of the yard, with an extra 45 hectares envisaged. As part of this, the Australian Government has already secured land north of the existing shipyard, where the future SSN submarines will be constructed. New submarine construction infrastructure will be built at the Osborne shipbuilding precinct, including site identification and design, civil works and prototype facilities. The first Australian-built SSN is currently expected to be delivered in the early 2040s.
It follows such projections that Australia will see substantial growth in its construction, manufacturing and technology markets. Opportunities for new jobs, industries, and expertise in construction, engineering, science, technology, and cyber are projected to be created. The Australian Government estimates the nuclear submarine programme will give rise to approximately 20,000 new jobs across Australia over the next 50 years, with AUD6bn invested in Australian industry and workforce. A new shipbuilding training academy is set to be established at the shipyard to carry out training of hundreds of graduates in various trades annually. Overall, AUKUS is projected to boost Australia’s economy substantially, including by bringing an influx of trades and professions. Australia’s submarine shipyards, and significant investment inflows into Australia’s domestic industries. The commitment from the Australian Government is projected as requiring funding up to 0.15 per cent of GDP per year, averaged over the programme’s life.

While the AUKUS partnership seems sure to benefit Australian infrastructure and industrial capacity, there is trepidation as to whether the three nations, but in particular Australia, have overextended themselves. One of the main concerns is the lengthy timeframes inherent in the pact, with the first Adelaide-built SSN not projected to hit the water for 20 or so years. This is assuming progress is timely and consistent, which, given the complexities involved with expanding the necessary infrastructure and the construction of SSNs themselves, may not be guaranteed. There are also concerns that it will not be possible to source sufficient skilled labour required to construct the SSNs and the infrastructure required for them, when the time comes. There are further concerns that the substantial infrastructure upgrades in Adelaide may take place at the same time as other governmental projects, including for example, the AUD15.4bn North-South Corridor upgrade and an AUD3.2bn hospital. Therefore, while AUKUS is set to provide opportunities for construction and related industries in Australia, the concern is that it is far too expansive an initiative.

**The United Kingdom and the United States**

The first generation of SSNs are to be built to designs produced in the UK. SSNs earmarked to be built in the UK will be done so with the involvement of several contractors, including BAE Systems at Barrow-in-Furness, and Rolls-Royce in Derby. In Barrow-in-Furness, BAE Systems is to recruit for 11,000 to 17,000 jobs, while Roll-Royce is to invest in the next generation of reactors. To sustain this enterprise, an additional £5bn will be provided to the Ministry of Defence over the next two years to modernise operations, including the engineering and construction of new and necessary infrastructure, and financing new equipment.

The US is expected to invest an additional US$2.4bn over the years 2023-2027 in the submarine industry to increase construction capacity, including by way of supplier and workforce development, development and expansion of shipyard infrastructure, and strategic outsourcing to other shipyards. There are several construction yards earmarked for development, including the General Dynamics Electric Boat submarine construction yard in Connecticut, HII’s Newport News Shipbuilding in Virginia, and Austal USA’s Alabama shipyard. The US also intends to provide US$2.2bn to its SSN maintenance budget over the years 2024-2028. These investments are expected to support and create thousands of high-skill jobs in the US, for instance, the General Dynamics Electric Boat shipyard is set to hire an additional 5,700 workers in 2023.

**Conclusion**

The AUKUS partnership is a major undertaking and a milestone in the history of defence cooperation between Australia, the UK and the US. It is expected to bring substantial economic and employment benefits to the construction industries in each partner nation, however, there are challenges to overcome and domestic concerns. The next few years will tell how the respective governments respond to these challenges and actively seek to progress the enormous infrastructure projects ahead.

**Notes**

2. ‘SSN’ is the hull classification used by the US Navy to designate nuclear-powered general purpose attack submarines.

6 Prime Minister of Australia, Media Release, see n 3, above.


8 White House Fact Sheet, see n 7, above.


10 Prime Minister of Australia, Media Release, see n 3, above.


13 Ibid.

14 White House Fact Sheet, see n 7, above.

15 Ibid.

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Addressing high volumes of low value claims in construction arbitration: what are the options?

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Construction disputes often involve high volumes of low-value claims. These include for example many minor variations that are disputed in principle and/or quantum, discrete disruption events, and defects. When considered in isolation, these claims are of limited monetary consequence. If they are not settled before a formal dispute resolution process such as arbitration, or if they are addressed in the same way as other, higher-value claims, there is a risk of disproportionate costs. On the other hand, when considered together across a project, their cumulative value can be significant and therefore they cannot simply be waived or otherwise abandoned by the claiming party. Adequate tools are however necessary to ensure that such claims are addressed in a time and cost-efficient manner.

The table below summarises the panel discussions held during the 8th Biennial Conference on Construction Projects from Conception to Completion held on 16-18 March 2023 in Berlin. It lists some of the options available to parties and arbitral tribunals to deal with high volumes of low-value claims, ensuring that proceedings are conducted efficiently. The table also highlights the main advantages and disadvantages of each proposed option. There is room for creativity and pragmatism. As always, it is important for tribunals to manage cases proactively from an early stage and implement solutions which are tailored to the particular case constellation and claims portfolio, while maintaining fairness and adhering to due process.
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<thead>
<tr>
<th>Tools/options</th>
<th>Description</th>
<th>Advantages</th>
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<tbody>
<tr>
<td>Non-statistical sampling and extrapolation</td>
<td>• Claimant looks at only some of the events which resulted in a loss.</td>
<td>• Selected samples are intended/expected to be representative of the whole.</td>
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<td></td>
<td>• Claimant gives evidence of claim events, and expert opines as to the resulting loss.</td>
<td>• Accepted in principle (see Amey LG v Cumbria County Council [2016] EWHC 2856 (TCC)).</td>
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<td>• Technical expert opines that the sample was representative.</td>
<td>• Requires subjective judgement in selecting the sample.</td>
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<td>• Quantum or technical expert extrapolates findings in ‘samples’ to overall project.</td>
<td>• ‘Sample’ has no statistical basis.</td>
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<td>• Claimant relies on results from sample to demonstrate overall loss claimed.</td>
<td>• Difficult to demonstrate that the sample is truly representative.</td>
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<td>• Particularly vulnerable to criticisms of bias.</td>
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<td>• Can be difficult to obtain buy-in on the use of the selected sample from the other side or tribunal.</td>
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<td>• Failure rate is high.</td>
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<td>Statistical sampling and extrapolation</td>
<td>• Expert evidence is provided by a statistician.</td>
<td>• A high degree of confidence can be achieved from very small sample sizes.</td>
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<td>• Expert defines the population and sample.</td>
<td>• Difficult to challenge (the right expert) in cross-examination.</td>
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<td>• Expert sets the procedure for assessment of samples by others.</td>
<td>• Can produce large figures through extrapolation.</td>
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<td>• Expert monitors assessment for consistency.</td>
<td>• The level of confidence in the outcome depends on: homogeneity of population; and consistency in application of assessment procedure.</td>
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<td></td>
<td>• Expert extrapolates the findings of others to the overall population.</td>
<td>• High failure rate (see, eg, Amey LG v Cumbria County Council [2016] EWHC 2856 (TCC); Imperial Chemical Industries Ltd v Merit Merrell Technology Limited (No 2) [2017] EWHC 1763 (TCC)).</td>
</tr>
<tr>
<td>Scott Schedule</td>
<td>A document/table setting out the parties’ evidence and legal basis for each item claimed to provide the tribunal with a single convenient document setting out the disputed claims.</td>
<td>• Can increase possibility of parties reaching a settlement on at least some portion of the issues in dispute.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Each party can identify and clarify areas on which they agree, or have no basis to disagree with the other party.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Allows parties to identify any items on which the difference in their positions is less than the cost of arbitrating them.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Assists in avoiding confusion at hearing as the items being claimed and the alleged costs of repairing those items is set out by each party.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Does not fully deal with evidentiary issues.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Can become impractical where there are a multitude of small value but factually/evidentiary complicated claims.</td>
</tr>
<tr>
<td>Computer modelling (eg, system dynamics)</td>
<td>System dynamics is a computer-based mathematical modelling methodology based on a fully validated causal framework for disruption and delay that uses actual data and information about the target projects. This approach uses computer-aided simulation methodology based on feedback systems theory which complements the other Systems Thinking approach. Developed by Professor Jay Forrester at MIT’s Sloan School of Management in the late 1950s, it was initially applied to the study of global macroeconomic and social development forces. In 1976 it was used to analyse disruption and delay on a naval project (to support a contractor’s claim against the US Navy). It has since been utilised to analyse the performance of hundreds of projects worldwide, in the construction, aerospace, engineering, automotive, software and shipbuilding industries. While rarely accepted by tribunals, there is at least one reported instance where the arbitral tribunal in a construction case accepted system dynamics to demonstrate the impact of disruption (Consolidated Contractors and Orascom Construction v Golden Pyramids, Award 17 December 2014).</td>
<td>• Sophistication.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ability to isolate and analyse impact on discrete events across a project.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cost/complexity.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Subject to reliability of the underlying data used to create the model.</td>
</tr>
</tbody>
</table>
### Pareto principle

The Pareto principle is named after Vilfredo Pareto, an Italian civil engineer, economist and philosopher in the late 19th/early 20th century who developed the principle. It stated, among other things, that 80 per cent of the wealth in Italy belonged to about 20 per cent of the population. Subsequently, in a simplified form: 20 per cent of the causes produce 80 per cent of the effect.

A tribunal identifies claims with the highest claim amounts until they reach 80 per cent of the total value of all claims. These claims would be argued fully by the parties and their experts and decided by the tribunal. The remaining claims are awarded on the same percentage basis as the ‘success rate’ achieved by the claimant with respect to claims examined specifically.

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency.</td>
<td>It only makes sense in cases with a few larger claims and many low-value claims.</td>
</tr>
<tr>
<td></td>
<td>The need for representativeness of larger claims for entire population of claims.</td>
</tr>
</tbody>
</table>

### Standing adjudication

Parties agree on a standing final and binding adjudication process to address low value claims during the project on a fast-track basis (eg, 30 days). Arbitration is limited to outstanding claims at the end of the project.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses claims as they arise on a fast-track and simplified manner.</td>
<td>Requires agreement at the outset of a project prospectively.</td>
</tr>
<tr>
<td>Limits access to arbitration to outstanding issues.</td>
<td>Room to challenge findings of the adjudication panel which brings back claims to the full arbitration process.</td>
</tr>
</tbody>
</table>

### Expert determination/’outsourcing’

- No submissions from the parties on low-value claims.
- Tribunal appoints an independent expert who goes through a list of low-value claims with parties.
- Expert tries to “mediate” the claims (ie, help parties reach an agreement) or else make a recommendation of decision on liability and quantum.
- Tribunal adopts the expert’s findings.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency.</td>
<td>Tribunal delegates some of its decision-making power.</td>
</tr>
<tr>
<td>Speed.</td>
<td>Only permissible with the express agreement of the parties.</td>
</tr>
</tbody>
</table>

### Value threshold for examination of witnesses/experts

- Parties and tribunal agree on monetary threshold for the examination of witnesses/experts.
- Claims below threshold amount would be limited to submissions and expert/witness evidence without being addressed at evidentiary hearing (unless critical to other aspects of the case).

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced cost and time at hearing allowing parties and tribunal to focus on the core issues.</td>
<td>May be inadequate for claims which are low in value but complicated in terms of legal basis/entitlement.</td>
</tr>
</tbody>
</table>

### Abandonment theory

- Parties and tribunal agree on monetary threshold.
- Claims below threshold amount are deemed abandoned.

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straightforward method for limiting small value claims.</td>
<td>Simplistic.</td>
</tr>
<tr>
<td></td>
<td>Risk of waiving valid claims with strong legal entitlement that, taken together, overall exceed the agreed monetary threshold.</td>
</tr>
<tr>
<td></td>
<td>Risk of parties artificially inflating value of claims to avoid falling under the agreed monetary threshold.</td>
</tr>
</tbody>
</table>

While the above table is not intended to provide a comprehensive or ‘one-size-fits-all’ answer to the question of how to deal with high volumes of low value claims in construction arbitration, it is hoped that at least it can assist in identifying potential ways of dealing with such claims. This will depend on the specific circumstances of each project (or related dispute) in question.

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Transferring project design risk

Some construction industry commentators have urged a more integrated approach to design and construction, with equitable risk sharing and an effort to ensure that project design will benefit from the experience of companies that build and supply key equipment and systems.¹ This article will, however, focus on various ways in which project employers and/or designers seek to disclaim or delegate responsibility for design in ways other than awarding a standard design-build contract.

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Constructability reviews

One means of strengthening a project design is to obtain input from leading contractors who have experience with the materials or methods that are planned to be used. A way to obtain such input is for the employer to hire a contractor before the bid solicitation to review proposed design documents and offer advice as to whether they are reasonably constructable. The following clause is taken from a 2019 contract in the United States where a ‘Preconstruction Contractor’ was retained to review the design:

‘The Preconstruction Contractor shall review the drawings and specifications in an effort to identify potential constructability problems that could impact the Preconstruction Contractor’s ability to perform the work in an expeditious and economic manner. The Preconstruction Contractor shall issue a report to the Architect and Owner for their review and action as appropriate. In addition, the Preconstruction Contractor shall promptly report to the Owner and the Architect any errors or omissions which it discovers in the drawings and specifications. A contractor who provides such pre-bid services should take care that its contract does not incur liability for design errors that it fails to discover.’

In its standard design-build contract form, the American Institute of Architects (AIA), the duties of the design-builder include a duty to advise the employer as to constructability and other factors affecting construction cost:

‘The Design-Builder shall [...] provide the Owner with recommendations, consistent with the Owner’s Criteria, on constructability, availability of materials and labor; time requirements for procurement, installation and construction, and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, life-cycle data, and possible cost reductions.’

In the Netherlands, some of these issues are addressed in Article 4 sub 5 of the Dutch construction team model agreement Koninklijke Bouwend Nederland, 2021, which is a set of general terms and conditions:

‘The responsibility for advice and designs lies with the person to whose specific field in the construction team those opinions and designs relate, provided that the person has accepted that advice and designs and made them his own. The parties shall give timely warning, i.e. before the final adoption of the Design, when a draft document is manifestly flawed or defective in such a way that they would be acting contrary to reasonableness and fairness if they were to build on it without warning. This warning obligation replaces the warning obligation of art 7:754 BW.’

In general, it is prudent for an employer’s designers to seek at least some measure of constructability input before finalising a bid package on a major project, especially where the contemplated project involves cutting-edge technologies or methods.

A contractor who provides pre-bid constructability reviews should, however, take care that its contract does not impose liability for design errors or omissions that the contractor may fail to discover when reviewing the draft design documents.

Pre-bid engineering review

In some jurisdictions, government agencies require a pre-bid review of design documents by a public or private panel of expert engineers. Such reviews tend to focus on structural issues that are likely to affect public safety. For example, governments in seismically active zones may have special criteria to assure that new buildings will not collapse or fall over in the event of an earthquake. San Francisco expanded its requirements for review and approval of subsurface shoring after a tall concrete building began to tilt.

The panels of engineers who perform such reviews must be independent from the firms creating the design documents, and their members are unlikely to face personal liability if they fail to discover an error in design.

In Latvia, the prevailing construction law provides for a pre-construction design review by government-approved experts:

‘The performer of an expert-examination shall be responsible for the content of the expert-examination opinion and the justification of the conclusions included therein, within the scope of the expert-examination assignment. They shall also be responsible for the expert-examination review.'
performed by any sub-contractors. The performer of expert-examination is not allowed to perform the expert-examination of a building design if they and the developer of the building design are considered to be related persons under the law On Taxes and Fees.6

‘The expertise of the third group of a buildings’ construction project is conducted to evaluate the designed building’s compliance with the requirements for mechanical strength and stability, as well as fire safety.’7

In Australia, the Building Codes Board offers a Model Guidance on Independent Third Party Review (2021),8 which has force and effect only in the states or territories which adopt it. It offers the following process for a pre-construction design review by independent experts:

Principles for Independent Third Party Review (ITPR)
1. The statutory building surveyor is responsible for the ITPR process.
2. ITPR is informed by risk.
3. Structural and fire safety designs are independently reviewed for high and very high building complexity levels.
4. The building approval applicant is responsible for engaging a qualified, competent and registered independent third-party reviewer.
5. The statutory building surveyor confirms the extent of review.
6. ITPR must be completed at the end of the design stage.
7. The statutory building surveyor is responsible for resolving any ITPR issues or disputes.
8. A certificate of design compliance is provided by the independent third party reviewer for each ITPR.
9. The cost of ITPR is borne by the building approval applicant.

In Peru, by comparison, it is rare for government agencies to require a third party to review the design before the tender process. The lack of such a review can, of course, lead to a greater incidence of design flaws.

Design coordination

If the employer’s design is allocated to multiple design firms (eg, architectural design, structural design, mechanical design, etc), it is prudent for a single party to have responsibility for coordinating those multiple design disciplines. Sometimes this is accomplished by having a single design firm hire the other design disciplines as sub-consultants. On other projects, the architect is asked to assume responsibility for coordinating multiple design disciplines.

On many projects, each designer is asked to coordinate its work with the services provided by the employer’s other designer, as in the following clauses drafted by the AIA:

‘The Architect shall coordinate its services with those services provided by the Owner and the Owner’s consultants. The Architect shall be entitled to rely on, and shall not be responsible for, the accuracy, completeness, and timeliness of, services and information furnished by the Owner and the Owner’s consultants. The Architect shall provide prompt written notice to the Owner if the Architect becomes aware of any error, omission, or inconsistency in such services or information.’9

‘The Consultant shall coordinate its services with those of the Architect and other consultants in order to avoid unreasonable delay in the orderly and sequential progress of the Architect’s or other consultants’ services. The Consultant shall coordinate all aspects of its design of the Work for this Portion of the Project with the Work designed by the Architect and other consultants, as necessary for the proper coordination of a Project.’10

In the Netherlands, design coordination has changed in recent years. In 1992, the Coordinating Structural Engineer, as an Institute was abolished. Since then, a number of problems have arisen that can be traced to a lack of control over partial (or prefabricated) engineering.11

If design errors are not discovered through pre-construction coordination, they may remain to be discovered during construction. As of 1 January 2024, the Dutch Law on the Quality Assurance for Construction (Wet Kwaliteitsborging voor het Bouwen) introduces an obligation for a contractor to employ a Quality Auditor to verify whether actual construction complies with the project building permit. The completed works may not be used until a proper declaration is received from the Auditor.12

In the United Kingdom, the Construction (Design and Management) Regulations 2015 (CDM 2015) promote a process that
will lead to pre-construction design coordination, at least insofar as necessary to help protect health and safety at site: ‘Appointment of the principal designer and the principal contractor

5. (1) Where there is more than one contractor, or if it is reasonably foreseeable that more than one contractor will be working on a project at any time, the client must appoint in writing –
(a) a designer with control over the pre-construction phase as principal designer; and
(b) a contractor as principal contractor.
(2) The appointments must be made as soon as is practicable, and, in any event, before the construction phase begins.
(3) If the client fails to appoint a principal designer, the client must fulfil the duties of the principal designer in regulations 11 and 12.
(4) If the client fails to appoint a principal contractor, the client must fulfil the duties of the principal contractor in regulations 12 to 14.’

Latvia has a similar process for designating a principal designer with responsibility for a coordinated work product. If an employer enters into multiple contracts to facilitate the development of a single design, it must identify the principal developer of the design and the developers of its components. Article 36 of the same Regulations adds the following detail:

‘36. The principal developer of the design has the following responsibilities:
36.1. manage the design works and coordinate the mutual compliance of parts of the design with the design as a whole;
36.1.(1) ensure that all necessary parts are included in the design and developed in accordance with the design task and the conditions included in the construction permit;
36.2. ensure that sufficient and up-to-date information necessary for design has been received and, if necessary, request additional information and ensure its timely transfer to the specialists responsible for the parts of the design;
36.3. inform the managers of parts of the design about the scope of work assigned for their development;
36.4. check the conformity of the individual parts of the design with the construction task and their mutual coherence;
36.5. inform the participants of the process of any information received that affects or may affect the execution of design works;
36.6. in case of changes to the design, ensure their appropriate incorporation in all relevant parts of the design, if necessary, inform the institution that issued the building permit about the changes and organise an appropriate coordination procedure.’

Design assist

Where an employer wishes to delegate only certain defined elements of design, it can require contractors to perform ‘design assist’ services. Traditionally, these services included such elements as checking field measurements, supplemental subsurface borings, concrete mix designs, or detailing reinforcing steel or fire sprinkler pipe routes. They may also extend to various technical scopes such as foundation load calculations, complex roofing systems, and curtain wall designs.

Because ‘design assist’ is by definition assisting another designer, those who provide such services will typically wish to clarify that the employer’s engineers of record to review their work will retain ultimate responsibility for the final design. The AIA has published a form for ‘design assist’ contracting, which describes the basic scope of work as follows:

‘The Consultant shall review documents and information furnished by the Client, and furnished by other Project Participants through the Client, that relate to the Design Assist Services and provide prompt written notice to the Client if the Consultant observes or otherwise becomes aware of any errors, omissions, or inconsistencies between such documents and information and
the Design Assist Services. The Consultant is not required to ascertain that the documents or information are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities, but the Consultant shall promptly report in writing to the Client any nonconformity discovered by or made known to Consultant.\footnote{15}

The Consultant shall not be responsible for the acts or omissions of the Client or other Project Participants. The design professional of record for the Project retains control over the design and the responsibility to incorporate Consultant-provided information into the design and identify and resolve design conflicts.\footnote{16}

The AIA’s widely used General Conditions emphasise the need for contracts to be very specific in identifying which portions of design responsibility are assigned to a contractor:

‘If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, […] The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals.’\footnote{17}

The AIA’s special contract form for ‘design assist’ services avoids a broad flow-down of prime contract’s obligations. Rather, it requires the parties to specify the particular provisions of the prime contract that apply to the design assist services.\footnote{18}

\textbf{Contractor plan review}

Many construction agreements require the contractor to review plans and specifications and notify the employer of any errors or omissions. This process is helpful in reducing errors and omissions in design, but it can be abused if the contractor is asked to assume liability for errors that it fails to discover. Almost certainly, the contractor will have less time to review the employer’s design than the employer’s designers had to prepare it. Prudent contractors should therefore make clear that they are responsible only for reporting what they discover in a pre-construction review.

\begin{quote}
Many construction agreements require the contractor to review plans and specifications and notify the employer of any errors or omissions.
\end{quote}

Latvian law illustrates the principle that contractors should be liable for design by other parties only where they detect ‘obvious violations’:

‘A construction specialist, except for when obliged to supervise or check the work of another construction specialist or its result, is entitled to assume that other construction specialists involved in the implementation of the construction project are acting in accordance with the requirements of regulatory acts and performing their professional duties in a quality manner. If, based on their professional knowledge and experience, a construction specialist detects obvious violations of the requirements of regulatory acts in the professional activity of another construction specialist, they must act to prevent harm to life, health, property, or the environment.’\footnote{19}

In a recent prime contract, adapted from the 2017 \textit{FIDIC Red Book}, the contractor’s liability arising from reviewing the drawings and specifications is more broadly stated:

‘1.9.2 Scrutinising the Specification and Drawings

During the Scrutiny Period the Contractor shall fully scrutinise the Specification and Drawings. No construction Works shall be commenced until such scrutinisation is completed. The purpose of such scrutinising is to detect any errors, discrepancies, omissions in the Drawings and Specification (but not in the quantities indicated in the Letter of Tender) which objectively could not be detected during the Procurement process and which could adversely affect the performance of Works within the Accepted Contract Amount and Time for Completion, as well as which'}
could adversely affect the compliance of the buildings and structures to be built as part of the Works with all essential requirements set for buildings and structures in applicable Laws.

When scrutinising the Specification and Drawings the Contractor may at his own risk rely on the findings of mandatory expertise performed over the Drawings; however, such relying on the findings in no way affects Contractor’s liability under the Contract.

1.9.3 Notice on Errors

[...] In case the relevant Notice does not meet the set requirements regarding its content and submission deadline, or in case such Notice is not submitted at all, it is deemed that the Contractor has confirmed that there are no errors, discrepancies, omissions in the Drawings and Specification which could adversely affect the performance of Works within the Contract Price and the Time for Completion, and which could adversely affect the compliance of the buildings and structures to be built as part of the Works with all essential requirements set for buildings and structures in applicable Laws, and thus all risks (time and money wise), related to rectifying later detected errors in the Specification and Drawings, or all risks related to performing Works without such rectification, are fully borne by the Contractor.

1.9.4 Contractor’s Liability regarding the Drawings

In case an error, discrepancy or omission is discovered as per above Sub-Clause 1.9.3 [Notice on Errors], the Contractor shall not be responsible for performing the redesigning works to rectify such error, discrepancy or omission, unless the Parties agree otherwise in writing.

To enhance public safety, it is hereby agreed that the Contractor bears all risks (time and money wise) for all consequences in case the Contractor implements (ie, performs Works according to) erroneous Drawings and/or Specification. The mentioned among others means that the Contractor shall indemnify and hold harmless the Employer, the Employer’s Personnel, and their respective agents, against and from all third party claims, damages, losses and expenses (including legal fees and expenses) as a result of implementing erroneous Drawings and/or Specification.

In the United States, the most widely used published set of General Conditions place a clear limit on the liability of contractors who are required to review an employer’s design:

‘Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner [...], shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognised that the Contractor’s review is made in the Contractor’s capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.'

‘The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.’

Where a prime contractor or subcontractor is required to review plans and specifications, standard industry practice should justify a disclaimer of liability for errors and omissions that it fails to discover. It generally seems reasonable to expect that ultimate liability for design errors should remain with the party which prepared the design.

Contractor review of predecessor work

It is fairly common for subcontractors to require that each trade contractor must check the work performed by predecessor
One example of such a requirement appears in the following form contract from an international oil company:

‘If the proper execution of the Work depends upon work carried out by any of Company’s other contractors, Contractor shall inspect such work and promptly report any discrepancy or defect therein to Company in writing. Should Contractor fail so to report to Company or fail to discover such discrepancies or defects as should reasonably have been discovered with proper implementation of Contractor’s quality plan approved by Company, all extra costs of Contractor Group resulting from such failure are to be borne by Contractor.’

This type of clause obviously opens the door for disputes over which defects ‘should reasonably have been discovered’, and it can be criticised for attempting to transfer liability for design errors away from the party who made the mistakes. Where such clauses are proposed, it is common for contractors to insist that their liability is limited to reporting whatever defects their plan review actually uncovers.

In Brazil, the problems of reviewing work by a predecessor contractor were highlighted on the PPP contract for the São Paulo Ring Road. This road, intended to divert traffic around the metropolis, was divided into two sectors, each of which was separately tendered. Sector North began work in 2013 but was suspended in 2018. After several years of inactivity, a new contractor is being brought in to finish construction and operate the highway. During a 12-month pre-construction phase, the replacement contractor must assess work performed by the previous contractor and report on its status. Under the following contract clauses, the replacement contractor assumes risks associated with the previous construction:

‘22.2. Regardless of other risks expressly undertaken by the Grantor in other clauses of this Contract, the Grantor has undertaken the following risks related to the PPP:
(xviii). Costs related to the latent defect identified at any time by the Concessionaire, that evidently could not have been identified during the preparation of the Updated Project for Final Implementation Works, even if the scope, methodology and the procedure provided under Annex 18 were followed.’

A number of construction contracts recite that the contractor is responsible for providing a project that is suitable for its intended purpose. Such clauses can easily lead to disputes, in part because the ‘intended purpose’ is not always fully defined or understood. Whereas an experienced contractor can prepare ‘take offs’ that will assure compliance with specific plans and specifications, it may be difficult if not impossible to price the risk that compliance with those plans and specifications will ultimately produce a fully functioning facility.

The following is part of a standard subcontract form used by one international contractor:

‘The Specifications and Drawings may not be complete in every detail. Contractor shall comply with their manifest intent and general purpose, taken as a whole, and shall not make use of any errors or omissions therein to the detriment of the Work.’

In its widely used General Conditions, the AIA restates the goal of producing a complete project, but it limits contractor responsibilities to the work that is stated or at least reasonably inferable from the advertised contract documents.

‘The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.’

In the United States, a seller of commercial goods impliedly warrants that they will be suitable for their intended purpose:
‘Where the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller’s skill or judgment to select or furnish suitable goods, there is unless excluded or modified under the next section an implied warranty that the goods shall be fit for such purpose.’

It is, however, very common for this implied warranty to be disclaimed by contract. Moreover, US law does not imply any similar warranty as to construction services being suitable for their intended purpose.

Free from defects

In the United States, sellers of commercial goods are typically held to an implied warranty that the goods will have no defects. This so-called ‘perfect tender rule’ does not, however, apply to construction or design services, which are more typically held to a prevailing standard of care.

In a widely used US design-build contract form, the AIA uses ‘free from defects’ language but qualifies it to acknowledge that certain defects are inherent in various types of work:

‘The Design-Builder warrants to the Owner [...] the Work will conform to the requirements of the Design-Build Documents and will be free from defects, except for those inherent in the quality of the Work or otherwise expressly permitted by the Design-Build Documents. Work, materials, or equipment not conforming to these requirements may be considered defective.’

In Peru, contractors typically provide a general warranty against ‘defects’ in the works. Therefore, if design is part of the works, the contractor’s warranty is likely to include design defects.

An alternative approach would be to specify the defects that are covered, such as saying that the works shall be free from defects in materials and workmanship. Design is not often mentioned in warranty clauses that promise that there will be no defects. Design defect liability can of course be very large if it is not limited by contract.

Although ‘perfection’ may be a reasonable standard for manufactured goods, it is generally not a reasonable standard for assessing the quality of human labour. For this reason, contractors and designers will generally push for their work to be judged under prevailing standards of good workmanship in their respective businesses.

Estimated useful life

On some projects, the design documents indicate that the contractor should produce a final project with an estimated useful life of a certain number of years. Depending on how such contract terms are worded, such language may be construed as imposing what amounts to a supplemental design warranty.

In Peru, many construction industry contracts include a representation regarding the useful life or design life of a project or system. Such language is generally not, however, linked to a specific remedy, which may make it difficult to enforce.

‘Useful life’ is not specifically written into any of the major standard contract forms used internationally. It is not uncommon, however, for an employer to demand such a term on a major project. Employers understandably wish to maximise asset life while also controlling the ‘whole life’ cost of the built asset. Stakeholders like lenders may also have an eye on their project’s useful life as a key to determining the term of financing and the deadline for loan repayment.

As elsewhere, a contractor’s liability for the ‘useful life’ of a project or system would depend in large part on the contract wording in question and the surrounding facts. In general, however, it seems that English law would be inclined to enforce a clear contractual requirement for a designer or contractor to produce a project or system with a guaranteed useful life.

Note, however, a distinction between: (1) a party warranting that the useful life (sometimes called ‘service life’) of the final project shall be not less than X years; versus (2) a party warranting that it will carry out the design in order to achieve a useful life of X years. The latter seems more aspirational, while the former appears more susceptible of enforcement.

Guaranteeing the actual service life of the project – which may span decades – seems so fraught with risk as to cast doubt on whether it was the objective mutual intention of the parties. Under English law, the landing point for contract interpretation may be something like the UK Supreme Court’s final say in
**FEATURE ARTICLE**

_MT Hojgaard_ (per Lord Neuberger): there is strict liability to meet a service life but the trade-off is that it is to be assessed within (say) the two-year defects notification period. In other words the design’s ability to satisfy a 20-year service life is based on, for example, the observed rate of corrosion or other degradation with perhaps a degree of forecasting/hypothesis as to the future rate and extent of that degradation. Technical evidence on such topics may be a heavily contested grey area, perhaps pushing the limits of technical understanding. Having only that two-year window may help the designer or contractor accept some responsibility rather than being pursued in say, ‘Year 19...’ of a 20-year service life. Another trade-off may be that the obligor limits its liability to a ‘make good’ obligation rather than have any claim sounding in damages. Make good of course is very different depending on whether one is dealing with a designer or a construction contractor.

Note that a useful life is likely to depend on proper maintenance and care of the facility. But what lack of maintenance constitutes a breach of the useful life obligation will be a question of fact and degree. See the recent English case of Blackpool BC v Volkerfitzpatrick Ltd [2020] EWHC 1523 (TCC) which has some useful things to say on this, also some useful industry-standard definitions of service life and design life, from UK, European Community and ISO standards.

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**Notes**

15. AIA Document C405-2021 Agreement for Design Assist Services, para 2.5.
16. AIA Document C405-2021 Agreement for Design Assist Services, para 2.16.
18. See Bruner and O’Connor on Construction Law, s 6:21.50.
20 AIA Document A201-2017 General Conditions, para 3.2.2.
21 See http://www.parcerias.sp.gov.br/Parcerias/Projetos/Detalhes/149
22 AIA Document A201 General Conditions, para 1.2.1.
24 US Uniform Commercial Code S 2601.

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There is a consensus among various legal systems that professional service providers have to perform their duties with reasonable skill and care. However, it has been doubted whether their services must be compatible with the intended purpose of their clients. In the construction industry, the work of building contractors ought to fit the intended purpose of owners, and three theories have been proposed regarding the extension of this obligation to architects. Some believe that architects only bear the ‘obligation of means’, which only requires efforts to provide a suitable design without guaranteeing a specific result. A few others, however, believe that architects’ duty is an ‘obligation of result’, which imposes strict liability on architects to provide a design compatible with the intention of their clients. A third theory has also been developed which differentiates between architects’ obligations based on the type of structure. This article looks into these theories and the reasons behind them.
Introduction

The obligation to use reasonable skill and care in relation to design and the obligation to design a product that is fit for its intended purpose are two general standards of duty recognisable to building contractors and which are imposed on them by statute or by specific agreement. In common law jurisdictions, an implied warranty doctrine has been developed whereby a contractor with a duty to design a building assumes responsibility for ensuring that the result of the design will be reasonably fit for its known required purpose.1 When an owner requests that a service be ‘fit’ for a particular purpose, it usually refers to the ‘suitability’ of that service for a known or intended purpose.2 Even when the owner has not informed the contractor about any specific needs, the contractor is still obliged to ensure that the building’s design is suitable for its usual purpose if the contractor is aware of the general purpose of the design.3

Despite claims about the contractor’s duty when designing, there are two schools of thought when a professional person, such as an architect, has given advice on the suitability of a particular design or provided a design which has been implemented by the contractor.4 Some courts and scholars believe that the implied duty of fitness for purpose is not imposed on the architect unless there is a deficiency in the design itself.5 Therefore, the architect’s obligation regarding the design is categorised as an ‘obligation of means’, which is defined as an obligation to prepare a design with the prudence and diligence of a reasonable person of an expected quality without guaranteeing a specific result. On the other hand, some scholars believe that the nature of the architect’s obligation is an ‘obligation of result’, which imposes strict liability on the architect to achieve a specific purpose; otherwise, the architect will be liable for breach of contract.

The classification of obligations into the obligation of means and the obligation of result is a creation of civil law which is often attributed to French legal academic René Demogue, who first applied the distinction almost a century ago.7 ‘The obligation of result is simply the obligation of the debtor to attain a predetermined result. The obligation of means or conduct, on the other hand, obliges the debtor “only” to give his or her best effort to reach that result, but does not make him or her responsible solely on the basis of the final outcome’.8 Imposing either of these obligations would affect the parties’ burden of proof. If a promisor undertakes an obligation of result, they will generally only be discharged from that obligation by providing the agreed result. With an obligation of means, however, the promisee must prove non-compliance by lack of due diligence of the promisor.

Similar concepts of ‘strict liability’ and ‘negligence’ can be identified in the common law. In strict liability cases, it would be enough to show that the defendant has not achieved the promised result even if they were not negligent or at fault;9 while in negligence cases, the claimant has to show that the defendant was at fault and that, due to this failure, the intended purpose has not been fulfilled. It is interesting that negligence claims against architects have become a routine part of construction disputes and are described as a facet of the perceived tort liability crisis confronting professionals.10

In this article, these two opposing opinions relating to the nature of an architect’s obligation are examined, and the reasoning behind each of them is considered to determine the scope of architects’ liability regarding the suitability of a building for the owners’ purposes.

Architects’ obligation of means

Signing a contract is a starting point for an architect’s professional relationship with a client and defines the scope of their respective obligations. It is particularly important for architects to define the scope of their services accurately and specify the quality of the final design that will be provided to the client in order to avoid future disputes. Therefore, the parties’ contract should clearly determine whether or not the architect is responsible for supervising the implementation of the design or whether the architect provides any type of guarantee regarding their design.

In the absence of a specific agreement as
to the extent of the architect’s responsibilities – because the contract was made orally or poorly drafted – the law implies a duty of exercising the services with ‘reasonable skill and care’. In other words, when a person is appointed to act in a professional capacity, he or she assumes an obligation to exercise a degree of skill and care which is to be expected of a reasonably competent member of the profession.

However, it has been doubted whether an obligation to achieve a particular result is also implied in such professional contracts or whether the architect’s responsibility is limited to the obligation of means.

In *Hawkins v Chrysler (UK) Ltd*, Dillon LJ stated:

‘The general position [...] is that a professional man who is called in to advise is bound, and impliedly undertakes, to use reasonable skill and care in advising, but is not responsible for providing a perfect result or a perfect building.’

Similarly, in *Greaves & Co (Contractors) Ltd v Baynham Meikle & Partners*, Lord Denning MR observed that:

‘Apply this to the employment of a professional man. The law does not usually imply a warranty that he will achieve the desired result, but only a term that he will use reasonable care and skill. The surgeon does not warrant that he will cure the patient. Nor does the solicitor warrant that he will win the case.’

Therefore, it has been observed on many occasions that those who provide professional services, such as architects and engineers, do not guarantee that they will produce the desired result unless the parties’ agreement contains a guarantee that a design will work in a certain way or the building will be constructed at a certain cost.

An architect may warrant that a design will be fit for the purpose of the client or that the design will be compatible with a specific standard, although it has no control over the actual implementation of the design. It is also possible that the duty of the architect includes other obligations, such as supervising the implementation of the design, which, together with other facts of a case, may lead to an obligation of result.

However, in the absence of any specific term or circumstance to infer such an undertaking, ‘English courts have been reluctant to construe the contracts of architects (or other professional persons) as warranting absolute results.’

The US courts have applied a similar theory since the 19th century. In the case of *Coombs v Beede*, the Supreme Court of Maine said:

‘The undertaking of an architect implies that he possesses skill and ability, including taste, sufficient to enable him to perform the required services at least ordinarily and reasonably well; and that he will exercise and apply in the given case his skill and ability, his judgment and taste, reasonably and without neglect. But the undertaking does not imply or warrant a satisfactory result.’

This argument has been followed by many other US courts. Even where an architect has a supervisory duty, he was not considered liable for achieving a desirable result.

The handful of courts that imposed a warranty on designers have been censured as being poor precedents and reaching a conclusion through misinterpretation and faulty analysis.

In 2015, the Appellate Court of Illinois, after having considered many previous cases, concluded the following:

‘Other jurisdictions that have addressed this issue have also concluded that a design professional may not be sued under an implied warranty theory for providing professional services. Furthermore, the principle that an architect does not warrant or guarantee perfection in his or her plans and specifications is a long standing principle.’

The Australian Consumer Law, which guarantees that services and any products resulting from the services are fit for purpose and achieve the intended result, made an exception for architects by stating that ‘This section does not apply to a supply of services of a professional nature by a qualified architect or engineer’. The Australian common law seems to approve this approach by limiting the architects’ duty to use reasonable skill and care. The Supreme Court of Queensland held in *Orlit Pty Ltd v JF & P Consulting Engineering Pty*
that the consultant did no more than contract to provide its professional services in respect of some aspects of a much larger project, as opposed to contracting to achieve a specific result.

**Architects’ obligation of result**

The theory of strict liability seems to have developed in common law jurisdictions in the 1950s and early 1960s as a result of a public policy to protect consumers from defective products. The stated reason for holding manufacturers liable for defective products irrespective of whether there was any negligence was that manufacturers are in the best position to control and eliminate the risks posed by defective products.

Another reason for imposing strict liability in tort law is to reduce the time and costs of proving negligence. Showing how carefully the defendant acted on a particular occasion often requires more cost and time than showing that the defendant is liable because of an injury or defect caused by their action. When strict liability is imposed, there is no need to provide evidence of compliance or violation of customary practice. Moreover, there is regularly no need to use expert testimony, and there is no need to demonstrate the violation of an applicable statute. Furthermore, a person who is threatened with strict liability has a greater incentive to avoid liability and insure or otherwise broadly distribute the costs of non-negligently caused accidents. Strict liability is also compatible with the ‘benefit’ theory – that is, those who benefit from engaging in an activity should rightly bear the liabilities associated with the activity.

The aforementioned vindications extend to professional service providers, and a few scholars, mainly from civil law countries, believe that architects bear strict liability, which means their work has to achieve the intended result; otherwise, they breach their obligation. Generally speaking, ‘Dutch and English architects are under an overall obligation of means regarding their design duties. Belgian and German architects, however, are strictly liable for some of their obligations. And French architects are predominantly under an obligation of result when they perform their obligations towards the client under the design contract’.

According to one civil law commentator, ‘[t]he obligation of engineering and architecture professions towards the employer is the obligation of result. It means that proving the observance of the necessary precautions and effort to achieve the desired purpose is not enough […] In this profession, contrary to what was said regarding the error of a doctor, it is possible to guarantee the result and predict the obstacles. The foundation of parties’ intention is to achieve the desired goal, not to strive towards it […] In a lawsuit between the employer and the architect, it is sufficient to prove that the desired result was not achieved, and there is no need for the claimant to attribute a specific fault to the defendant’.

Accordingly, whether the obligation of means or obligation of result is imposed depends on the degree of probability of achieving the intended purpose. In other words, some civil law courts consider the extent to which the realisation of the result is plausible. When the possibility of achieving a specific result outweighs the uncertainty of fulfilling an obligation, it is likely that the court will impose strict liability on the promisor of the contract. Since it is believed that the architect is in a better position to predict and eschew the construction obstacles, it is reasonable for the client to expect the design prepared by the architect to have a certain degree of buildability. Therefore, there is a belief that the architect undertakes an obligation of result and that their design has to fit the intended purpose of the client.

The Supreme Court of Kansas confirmed this theory in *Tamarac Dev Co v Delamater, Freund Assocs.* The court said:

‘The work performed by architects and engineers is an exact science; that performed by doctors and lawyers is not. A person who contracts with an architect or engineer for a building of a certain size and elevation has a right to expect an exact result.’

On the other hand, the predictability of design obstacles by architects has been criticised by the Supreme Court of Minnesota in *City of Mounds View v Walijarvi.* The Court said:

‘If every facet of structural design consisted of little more than the mechanical application of immutable physical principles, we could accept the rule of strict liability which the City proposes. But even in the present state of relative technological enlightenment, the keenest engineering minds can err in their most searching assessment of the natural factors which determine whether
structural components will adequately serve their intended purpose. Until the random element is eliminated in the application of architectural sciences, we think it fairer that the purchaser of the architect’s services bear the risk of such unforeseeable difficulties. Among these different opinions, a third theory has been put forth, which proposes that the responsibility of the architect varies depending on the type of structure. Thus, the architect bears an obligation of means in complex buildings and an obligation of result in routine structures.

Architects’ dichotomous obligation

According to this dovish opinion, the nature of an architect’s obligation depends on the type of building they are going to design. In urban construction, it is reasonable to expect the architect to guarantee the result because there is no new or complex problem that prevents the achievement of the desired result. In complicated and modern designs, such as the design of marine platforms, suspension bridges, or oil extraction facilities, on the other hand, there is a possibility of making mistakes even by the best designers, so assuming strict liability for designing such structures would not be fair.

Lord Erle J corroborated this point of view in the case of Turner v Garland, in which the negligence of an architect was claimed because of their recommendation to use a new method of roof construction, which was considerably cheaper than conventional methods. He stated:

‘You should bear in mind that if the building is of an ordinary description, in which [the architect] has had abundance of experience, and it proved a failure, this is an evidence of want of skill or attention. But if out of ordinary course, and you employ him about a novel thing, about which he has had little experience, if it has not had the test of experience, failure may be consistent with skill. The history of all great improvements shows failure of those who embark in them; this may account for the defect of roof.’

This opinion seems fair because it secures the interests of clients, and, at the same time, it adjusts the obligation of the architect in accordance with the actual conditions of each construction project. However, the novelty of a design would not be adequate to release the architect from their obligation to achieve the desired purpose because the architect has another duty (ie, to inform the client of expected problems and risks). As Judge Newey QC observed in Victoria University of Manchester v Hugh Wilson & Womersley:

‘I think, however, that architects who are venturing into the untried or little tried would be wise to warn their clients specifically of what they are doing and to obtain their express approval.’

Therefore, it is suggested that the courts answer three major questions to determine whether the architect’s work should achieve the intended result or if the architect undertakes only the obligation of means: (1) Did the loss or failure occur because of the novelty of the design? (2) Did the novelty lead to a risk that could have been anticipated? (3) If so, was the client given an adequate warning about that risk? Where the architect’s design has not achieved the intended purpose of the client, the architect can avoid liability if the design was novel and if the architect duly warned the client about the possible risks of implementing the design.

Conclusion

When a contractor or an organisation combines design and construction functions, the courts have found that the contractor warrants the fitness of their product for the client’s purpose, provided that the client relies on the furnished design. Nevertheless, in the traditional construction project delivery method, there is no overlap between design and construction, so the duty of architects should be considered separately from that of contractors. Therefore, it has been doubted whether architects also bear the ‘fitness for purpose’ responsibility or whether they only undertake the duty of using reasonable skill and care when preparing designs.

The fitness for purpose obligation can be specifically agreed upon in design contracts or consultancy agreements to ensure that whatever is being designed or supplied is
suitable for the intended purpose of the client. However, when there is no such explicit clause in the parties’ contract, courts and legal scholars have provided three opinions regarding the imposition of strict liability on the architect to provide plans and specifications which are compatible with the intended purpose of its client in the construction project. Under civil law, the liability under such contracts will be set between the ‘obligation of result’ (the obligation of achieving a certain result) and the ‘obligation of means’ (the obligation of dedicating a certain amount of resources to achieve a particular result). 47

Based on the first theory, the responsibility of an architect is similar to that of a lawyer or a physician. If the architect has the necessary skills and knowledge and uses their best judgement in exercising those skills and knowledge, they have satisfied their legal requirements. The architect is not a warrantor of their plans and specifications, and their work may have defects when implemented by a contractor, even if the architect exercised the reasonable skill required. 48

On the other hand, a few courts and scholars believe that architects can predict all obstacles and possible defects of their designs when implemented. The nature of their work is an ‘exact science’, which makes them different from lawyers and doctors. Therefore, their clients are entitled to expect a design that is fit for the intended purpose, and architects should undertake absolute liability if their design is unsuitable. Alternatively, a third theory was developed which holds that the responsibility of the architect varies according to the type of structure. If the client requests a design for a simple and common structure, due to the architect’s ability to predict possible defects and the routine nature of the design implementation, the responsibility of the architect is absolute, and they guarantee that the result is fit for the intended purpose of the client. However, if the requested design is novel and complex, it is unreasonable to expect the architect to guarantee the result and bear strict liability, provided that the architect warns the client of any potential risks and problems.

Notes
1 Greaves & Co (Contractors) Ltd v Baynham Mehle & Partners (1975) 1 WLR 1095. Independent Broadcasting Authority v EMI Electronics (1980) 14 BLR 1 at 48: ‘In the absence of any term (express or to be implied) negatiing the obligation, one who contracts to design an article for a purpose made known to him undertakes that the design is reasonably fit for the purpose.’ John Lelliott (Contracts) Ltd v Byrne Bros (Formwork) Ltd (1992), 31 Con LR 89: (Held: Where a party agrees to supply a structure for a particular purpose made known to him the court will readily imply a term that the structure be fit for its purpose).
2 Maersk Oil UK Ltd v Desser-Brand (UK) Ltd (2007) EWHC 752 (TCC) at [68]–[89].
3 This is the result of exercising an ordinary degree of skill and care in undertaking the necessary design work. See: Benfield (Trading As Automoticle Circuits) v Life Racing Ltd (2007) EWHC 1505 (TCC). It should be noted that the standard ‘Fitness for Purpose’ will only be considered in relation to the works designed by the contractor and does not include the designs made by the employer. On the other hand, where no purposes are so defined and described, the works shall be fit for their ordinary purposes; see eg, FIDIC Silver Book (2017 edition) section 4.1.
4 Engineers who design and supervise construction face the same issues discussed in this article. Although both architects and engineers perform design functions, architects are generally employed in residential or commercial construction, whereas engineers are generally employed on industrial and public utility projects.
5 George Hawkins v Chrysler (UK) Ltd and Burne Associates (1982), 38 BLR 36.
9 Implied warranty is a term that is often used instead of strict liability. When the law imposes implied warranty, the plaintiff need not prove that a seller was negligent in the manufacture or sale of the product in order to state a cause of action. Plaintiff need only prove that the product was of bad quality ie, not fit for the ordinary purpose for which it was sold. See: James J White and Robert S Summers, Handbook of the Law Under the Uniform Commercial Code (West Publishing Company, 1972) s 9-6.
that by the law in this country contracts for services do contain an implied promise to exercise reasonable care (and skill) in the performance of the relevant services.' Asley v Austrust Ltd (1999) HCA 6, at 21-23.

For statutory obligation see: Supply of Goods and Services Act 1982 (UK) s 13; Consumer Rights Act 2015 (UK) s 49(1); Australian Consumer Law, s 60.

12 Platform Funding Ltd v Bank of Scotland Plc. (Formerly Halifax Plc) (2009) QB 426.
13 537 (1986) 38 BLR 36.
15 (1975) 3 All ER 99.
16 Groves, n 15, at 103-104.
17 Platform Funding, n 12, at 17. See also: Holland Hanner & Cabills (Northern) Ltd v WHTSQO (1985) 35 BLR 1.
19 Tesco Stores Ltd v Norman Hitchcoek Partnership Ltd (1997) 56 Con LR 42.
21 89 Me 187 (56 Am St Rep 406) 1896.
22 Coombs, n 21, at 188-189.
23 Gravely v Providence Partnership, 549 F 2d 958 (4th Cir 1977): ‘the ordinary engagement to supervise does not rise to the force of a warranty; the architect is only charged with the duty to exercise reasonable care, technical skill and ability in the performance of his contract [citation omitted].’
25 Bd of Managers of Park Point at Wheeling Condo Assn v Park Point at Wheeling, LLC, 48 N E 3d 1250, 2015 Ill App 123452 (Ill App Ct 2015) at 1257.
26 The Australian Consumer Law (2010), s 61.
29 Sheila L Birnbaum, n 28, 526.
31 Cronin v JBE Olsen Corp, 8 Cal 3d 121, 1972: ‘A defect may emerge from the mind of the designer as well as from the hand of the workman.’ See also: Hyman v Gordon, 35 Cal App 3d 769, 1973.
33 Stéphanie van Gulijk, n 32, at 120.
34 Nasser Katouzian, Obligations Outside the Contract (Civil Liability), (vol 1, Tehran University Press, 2008) p 176.
35 Nico Moons, n 8, p 138.
36 254 Kan 618, 675 P 2d 361 (Kan 1984).
37 Tamarae, n 36, at 622. Supreme Court of South Carolina held in Hill v Polar Pantries, 219 SC 263, 271 (SC 1951) ‘if a party furnishes specifications and plans for a contractor to follow in a construction job, he thereby impliedly warrants their sufficiency for the purpose in view’.
38 263 NW 2d 420 (Minn 1978).
39 City of Mounds View, n 38 at 424.
40 Seyed Sadegh Kashani, Civil Liability Arising from Design in the Construction Industry (1st edn, Legal Studies and Research Institute of Shahr Danesh, 2013) p 104.
42 Turner, n 41, at 2. See also: Major v Leary, 241 App Div 606, (NY App Div 1934) in which the plaintiffs engaged an architect to draw plans for an elaborate and pretentious country residence with unusual design. The court held that some mistakes in the plans and specifications are bound to be in an undertaking of the nature and scope of presented design, since the law does not expect or require absolute perfection.
44 Victoria University of Manchester, n 43, at 74. In Try Build Ltd v Invicta Leisure (Tennis) Ltd (1997) 71 Con LR 141, novel features of design did not help the engineers and they were found to have been negligent in failing to check and warn of deficiencies in the designs prepared by specialist sub-contractors. See also: Pullen v Gutteridge Hawkins & Davy Pty Ltd (1993) 1 VR 27 (App Div).
45 Ben Patten and Hugh Saunders, n 20, p 94.
Ground conditions and design liability

Why geotechnical design risks need to be managed differently

This article explains how the uncertainties associated with ground conditions mean that liability for geotechnical engineers is handled differently from that of other designers. It will help construction industry players and their advisers understand how the heightened risks are approached during contract negotiations, live projects and disputes. While these risks need to be addressed wherever construction projects take place, the focus of this article is on risk management in English law-governed design contracts.

What is geotechnical engineering?

Geotechnical engineering concerns the behaviour of earth materials. Geotechnical engineers analyse soil, rock and groundwater conditions and recommend how structures should be designed and built in light of this information. Buildings, bridges and tunnels rely heavily on this specialism and many geotechnical construction disputes involve claims against designers.¹

The contractual design standard for professionals

In design contracts, the parties agree the designer’s standard of care. English law has
two principal standards: to use reasonable skill and care; and to guarantee fitness for a predefined purpose. One or the other is usually chosen, with reasonable skill and care the most common. The Bolam test (from the case of Bolam v Friern Hospital Management Committee [1957] 1 WLR 582) sets this out as: ‘the standard of the ordinary skilled man exercising and professing to have that special skill. A man need not possess the highest expert skill [...] it is sufficient if he exercises the ordinary skill of an ordinary competent man exercising that particular art’.

Falling below this standard will render the designer’s work negligent. Conversely, a design professional will not be negligent if they follow a practice accepted as proper by a responsible body of people skilled in that particular type of design.

A fitness for purpose obligation is stricter. It requires designers to ensure their design achieves a particular result when the completed works are used. If the specified outcome is not reached, designers will be in breach of contract, whether or not they behaved negligently. The English Court of Appeal case of Greaves & Co (Contractors) Ltd v Baynham Meikle & Partners [1975] 1 WLR 1095 shows that if designers are aware of the purpose of works, they assume a duty to warrant they will be fit for that purpose, unless the risk is allocated differently in the contract. In 1980, the House of Lords confirmed in Independent Broadcasting Authority v EMI Electronics Ltd [1980] 5 WLUK 151 that a design and build contractor must carry out any design work for which it is responsible so that the works when used are fit for any purposes made known to it (unless the contract states otherwise).

Liability shaped by the nature of the risks associated with ground conditions

During the pre-construction stage, geotechnical investigations assess the type of ground and its expected behaviour during construction and after final design implementation.

Geological variations make it impossible to eliminate all ground condition uncertainty, especially on projects with a significant underground element. Geotechnical design involves making assumptions to account for incompleteness in the geological information. But what happens when less-favourable-than-assumed geological conditions are encountered? In such circumstances, when will the designer have failed in its design obligations, including its duty to interpret available site data correctly?

The two main types of uncertainty in ground conditions shape the extent and treatment of a geotechnical engineer’s liability.

Ground behaviour

First, even if the geology is reasonably well known, soil and rock behaviour is difficult to predict. Whereas materials like concrete or steel are produced synthetically under controlled conditions, soil and rocks occur naturally and are inherently more variable due to their geological origin and deposition.

The European standard for geotechnical design, Eurocode 7 (EC7), guides the design of structures and foundations in soil. It states that the characteristic value of parameters for the soil required for the design (such as the soil’s strength and deformability) ‘shall be selected as a cautious estimate of the value affecting the occurrence of the limit state’, the ‘limit state’ being when a structure or foundation no longer performs its intended function and so may collapse or fail. The level of cautiousness depends partly on the variability of the geology, and the quality and number of investigations carried out at the site.

As field and laboratory investigations are sometimes limited, obtaining meaningful statistics from them is not always possible. Therefore, they must be combined with knowledge of the actual site, which may be drawn from correlations to sites with similar geotechnical conditions or assessments made by experts. These limitations when choosing soil parameters can result in the same data leading to different characteristic values being selected, depending on the engineer.

The subjectivity of the process of the selection of parameters could result in contradictory expert opinions and make it
hard for a court to apply the *Bolam* test to decide which assumptions an ordinary geotechnical engineer would make about ground properties. *Michael Hyde & Associates Ltd v JD Williams & Co Ltd* [2000] 7 WLUK 165 addressed this issue. Williams engaged Hyde for ‘all architectural, clerk of works, surveys, quantity surveying and structural engineering services’ for the conversion of mills into warehouses. After a heating system was installed, the textiles stored by Williams discoloured. The Court of Appeal held that ‘where the profession itself embraces more than one tenable view of acceptable practice, competence will not be measurable by a single forensically determined standard; so that where there is more than one acceptable standard, competence has to be gauged by the lower or lowest of them’.

**where there is a range of views as to the correct standard of reasonable skill and care, the lower or least strict standard will determine whether a geotechnical engineer’s conduct was negligent**

Therefore, where there is a range of views as to the correct standard of reasonable skill and care, the lower or least strict standard will determine whether a geotechnical engineer’s conduct was negligent.

**Inconsistent conditions**

The second uncertainty is ‘spatial variability’, meaning that ground conditions are inconsistent and therefore unpredictable across a site. The lack of unfavourable sub-surface material during field investigations does not imply its total absence. This causes geotechnical engineers to be wary of the assumptions they make about the state of the ground, even where test pits have been dug on site. How does this fit with a designer’s obligation to consider how to eliminate or mitigate foreseeable risks, which encompasses a duty to warn of foreseeable risks due to unfavourable conditions that could cause economic loss or physical damage? Several cases provide guidance.

In *Mirant Asia-Pacific Construction (Hong Kong) Ltd (No 2) v Ove Arup & Partners International Ltd* [2005] EWCA Civ 1585, the owner Mirant claimed that Arup’s negligent power plant design, which had not anticipated adverse site geology, led to two boiler foundations failing, which delayed completion.

The Court of Appeal agreed with the first instance judge’s findings that Arup was negligent because the design agreement required Arup to inspect the soil and rock around the foundations to verify the design assumptions and that therefore:

‘[...] absent an explicit warning and disclaimer, it would not be sufficient for a designer, whose initial design is based on an unverified assumption, to leave it to the client alone to obtain and evaluate the additional information. The designing engineer is responsible for the design, and he should normally see to it that the necessary additional information is conveyed back to him, so that he may judge that it is sufficient for the purpose of his design’.

Crucial was whether Arup’s duty to exercise the reasonable skill and care of an ordinarily competent engineer with experience in this type of work created an obligation to verify design assumptions. The Court of Appeal held that it did. Geotechnical designers must not only verify information but, importantly, also warn of the need for verification.

In *Overseas Tankship (UK) Ltd v Miller Steamship Co Pty Ltd* [1967] 1 AC 617 (commonly known as the ‘Wagon Mound’), Lord Reid illustrated the extent of the designer’s duty to warn or alert in terms of not only the probability of occurrence of the risk, but also its impact. The duty extends to unlikely events that could significantly affect the project, unless the cost of elimination outweighs the possible impact of the risk:

‘[...] it does not follow that no matter what the circumstances may be, it is justifiable to neglect a risk of such a small magnitude. A reasonable man would only neglect such a risk if he had some valid reason for doing so, eg, that it would involve considerable expense to eliminate the risk. He would weigh the risk against the difficulty of eliminating it... [A] person must be regarded as negligent if he does not take steps to eliminate a risk which he knows or ought to know is a real risk and not a mere possibility which would never influence the mind of a reasonable man’.

*Eckersley v Binnie & Partners* [1988] 2 WLUK 177 examines the foreseeability of geological and geotechnical conditions. The defendant consulting engineer designed a tunnel aqueduct into which methane had leaked from
a 1,000-metre deeper underground reservoir of gas resulting in a fatal explosion. Eckersley successfully argued that the designers were negligent in not having foreseen the risk that methane might leak into the tunnel during or after construction based on the geology of the area and the existing literature. Lord Justice Russell in the Court of Appeal confirmed the applicability of the Wagon Mound: ‘I am satisfied that the risk of its being encountered was such that, following the tests laid down in the Wagon Mound [...] it was incumbent upon the first defendants to eliminate the risk before confirming the design.’

Such judgments mean that geotechnical engineers now routinely include disclaimers that they are not responsible for ground-related uncertainties that might affect progress or risk the integrity of the works.

How the observational method can blur design risk allocation

The observational method, a design technique in EC7, is also used by geotechnical engineers to manage risks stemming from spatial variability. Commonly used in tunnel projects, it allows design to be updated continually during the construction process. Uncertainties are reduced as new information emerges. The Scottish case of SSE Generation Ltd v Hochtief Solutions AG [2018] CSIH 26 (which has non-binding but persuasive effect in English courts) involved a hydroelectric scheme tunnel collapse and addressed the concurrent duties of fitness for purpose and of reasonable skill and care for a design created by observation.

The drawings in Hochtief’s design and build contract stated that ‘rock supports [were to] be installed to the extent required to meet the rock conditions encountered’ and required that the tunnel lining be selected from a menu of ‘classes of support’ depending on the ground conditions (a fitness for purpose requirement). However, Hochtief’s design duty under the contract terms was one of reasonable skill and care for a design created by observation.

The first instance judge described this term as ‘an important break on liability’ and held that Hochtief had exercised reasonable skill and care in designing the tunnel and therefore was not liable. This was reversed on appeal, where it was held that Hochtief’s on-site decisions using the observational method (referred to as ‘engineering judgment’ below) amounted to design implementation, which, while not part of the pre-construction design process, were still part of the designer’s design responsibility:

‘What appears to have gone wrong was in the implementation of that design, probably in the failure to identify (at the rock face in the tunnel) rock conditions requiring Class III and Class IV support, resulting, as the judge found, in insufficient support being provided to areas of erodible rock [...] [The reasonable skill and care obligation] therefore does not come into play at all. It does not relieve the defendants from liability [...] The fact that engineering judgement was to be applied at that implementation stage does not detract at all from the fact that the design itself, as agreed and accepted, specified what measures were to be taken to minimise the risk from the presence of erodible rock.’

The courts are yet to provide guidance on how they determine whether geotechnical design decisions are taken during the design or the design implementation stage. Without this, it is unclear, in the design and build context, who is liable as between a geotechnical engineer producing design drawings (but with a continuing duty to use reasonable skill and care), and a contractor carrying out design continually, using the observational method. To ensure their design is properly implemented and to avoid long and costly disputes with builders, geotechnical engineers should therefore document their design process, including any assumptions made, and be involved throughout the construction stage.

Notes

1 Eg, see D Tonks, E Gallagher, and I Nettleton, ‘Grounds for concern: geotechnical issues from some recent construction cases’, Forensic Engineering 170 (FE4) (2017), 157-164.
2 For more about this, see A Bond and A Harris, ‘Decoding Eurocode 7’, Taylor & Francis, London, 2008.
Much has been written about contract notice provisions, and the advice is reasonable and consistent. Notice provisions help employers to avoid surprises, and contractors comply with them to uphold claims. Employers are advised to incorporate and consistently enforce clear and reasonable requirements. Contractors are advised to comply, especially in jurisdictions where precedent or code calls for strict

Bad news should travel fast: a collaborative view of contract notice provisions

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Notice provisions are a necessary part of construction contracts, but they can also be a source of contention. Employers may regard receipt of formal notice as merely the first step towards an eventual claim. Contractors may regard strict notice provisions as an inequitable barrier used to deny otherwise just claims. The guidance written on the application of notice provisions focuses on protecting the parties’ individual rights. Can parties look at notice as the first step in a collaborative change management process without losing any of that protection?
Even where interpretation may be more nuanced or varied, strict compliance is the safest approach. All this guidance is sensible, but it does not imply a collaborative approach to successful project delivery. How can notice provisions be viewed from a collaborative perspective?

While necessary, notice provisions can increase administrative burden and promote an adversarial atmosphere between the parties. Employers and contractors often view formal notice as the first shot fired in a potential dispute. A collaborative approach would shift the parties’ focus towards efficiency and partnering, allowing employers to avoid surprises and contractors to uphold their rights, while minimising negative side effects. Such an approach would better balance the importance of notice provisions to claims and defences with their importance to proactive and collaborative contract management.

### Claims perspective

Failure to comply with notice provisions is a common defence to construction claims, and it can bar recovery, even leading to results that appear inequitable. Such instances lead contractors to view notice provisions as a one-sided set of administrative barriers that employers can leverage to deny otherwise just claims. That view is reinforced by the use of stringent requirements within jurisdictions known to strictly interpret those requirements. The following sample provision was paraphrased from a contract executed in such a jurisdiction in the United States:

> ‘If at any time Contractor believes that it is entitled to an adjustment to the contract price or schedule due to an unforeseen event, Contractor shall within seven days after Contractor knows, or should have reasonably known, of such event, deliver a request for change to the Contracting Officer, on the required contract form. The request shall describe the nature of the event and the type and amount of relief sought. For situations that are ongoing, the amount of relief shall be estimated to the best of Contractor’s knowledge and ability. Failure to provide timely notice will constitute a waiver of any right to an adjustment to price, schedule, or any other relief associated with the event.’

The preceding clause requires more than mere notice of an impact. It specifies a tight duration for the delivery of specific and detailed information in a particular format. Moreover, conformance requires significant competence as the clause specifies what the responding personnel ‘should have reasonably known’ and includes requirements to describe events and impacts and estimate relief ‘to the best of Contractor’s knowledge and ability’. Depending on the event and its impacts, conformance could require the timely input of a project manager, superintendent, estimator, scheduler, subcontractors and more. The response is not required to be perfect, but any material error or omission could jeopardise the ability to recover some or all of any resultant impact. Contractors often believe that anything they say can and will be used against them, and those beliefs are formed by experience.

Meanwhile, the employer’s team is also likely to be experienced with notice provisions from a claims perspective. Guidance advises them to take care not to waive notice requirements, as lack of strict conformance might be raised in the employer’s defence of a claim even if the employer had actual or constructive notice of the underlying event and its impacts. Contract managers may not be attorneys, but taking care not to waive the employer’s rights is effectively part of their job description. Consequently, strict enforcement of notice provisions is the rule, even when the notice will convey no new information.

Therefore, from a claims perspective, the parties are focused on protecting their rights and interests. The challenge is doing that while working together for the success of the project.

### Contract management perspective

For asset managers, project managers, and cost engineers, the concept of notice goes beyond the requirements included in any one contract. Notice is a key input for change management processes and could come from any project participant. For example, the AACE Total Cost Management Framework notes:
‘[C]hange management is the responsibility of everyone involved with the project because the success of the process depends on everyone actively watching for and notifying project management of any potential or actual deviation or change.’

From this perspective, notice is everyone’s responsibility because the identification of a deviation, variance, or change leads to a proactive response that includes analysis, further scope definition, and impact assessment. Those activities may or may not result in contract changes, but only those changes that cannot be resolved through contract change management processes will become claims.

Even within the context of a contract, notice is viewed first as an input to change management, which may or may not transition to claims management. The Construction Extension to PMI’s PMBOK Guide notes:

‘The construction contract establishes the procedures for the project’s change control system. Standard provisions often include certain notice requirements [...] A well-written contract with fair contract terms provides a basis for minimizing claims when it comes to scope changes and unknown site conditions, force majeure delays and fortuitous events, and timely reporting and fair-notice provisions.’

These excerpts introduce the positive potential of a well-drafted notice clause. Notice informs stakeholders of an unforeseen event or potential change such that they can begin working together to find and execute the best possible solution. Timely notice should still serve to protect the parties’ rights and interests, but that is a secondary purpose. The primary purpose of contract notice is to inform the counterparty to begin change management and impact mitigation.

**Collaborative use**

Projects are more likely to have successful outcomes when the interests of the parties are aligned. If parties can minimise the impact of unforeseen events, the risks and magnitude of claims are reduced for all. In an ideal world, parties might even find opportunities to deliver greater project benefits at lower cost and share the savings. So, how can parties draft and apply notice provisions in a more collaborative way?

A well-drafted notice provision will seek to balance speed with the quality of information – the shorter the allowable period for notice, the greater need to allow information to be supplemented or superseded as the underlying events and their impacts are better understood. The specified means of communicating notice should not reduce speed and efficiency. Instead, it should help to ensure the attention of the proper recipient and verification of receipt, characteristics in which secure electronic communications should easily outperform delivery of hard copies. Format and content requirements should be kept simple, focused on conveying the date and nature of underlying events and the order of magnitude of potential time and cost impacts. Further details can follow the initial notice.

For application in a collaborative relationship, employers should want to pay for services received, even considering a failure to comply strictly with notice provisions, as long as they are not prejudiced by that failure. Why? Because the success of the employer and contractor is viewed jointly. Over the long term, not paying for services received will drive some contractors out of the client’s market, leaving only those that can accommodate the client’s sharp business practices. The ability to survive in such an environment typically requires sharp business practices on the part of the contractor, for example, raising technical inconsistencies in the contract scope after bidding instead of before bidding, excessively front-loading cost curves, and pricing change orders more opportunistically, especially when the client is under pressure to deliver the project. The contractor shifts its business strategy more towards profitability in every interaction and less towards maintaining the long-term relationship. Responding accordingly, employers that own significant fixed assets with long-term needs will experience significantly increased transaction costs in such an environment.

The collaborative employer wants the contractor to see value in sharing critical information in a timely manner. The employer...
should expect the contractor to work to uphold its right to recover extra costs for extra work. It should see notice as the starting point of a change management process directed toward achieving the most efficient solution at the best possible value.

The collaborative contractor will be open and honest in its assessment of potential change events. The contractor will discuss project status transparently and indicate when unforeseen events might have an impact that would trigger a notice provision. The employer and contractor will discuss which events merit formal notice and select the manner, form, and content of notices to minimise administrative burden. For example, in most instances, electronic communications are now more efficient and more certain than outdated requirements for delivery of hard copies.9

If an employer or contractor is uncertain as to whether notice is necessary or whether a purported notice conforms to contract formalities, they will discuss the requirements at the same time. They will not keep quiet for future advantage in a potential claim scenario. It is better to attempt to take the opportunity to avoid a claim altogether.

This approach is far from pure idealism. In fact, an employer and contractor working together are more likely to find the best approach to navigating the many risks and unforeseen events likely to be encountered in delivering a complicated infrastructure project. Neither party has full control of the environment, supply chain, regulatory issues, or intervenors that they are likely to encounter together. Change is inevitable, and when an unforeseen event occurs, the employer and contractor must work together to ensure that they are both properly informed. They are in the project boat together, and proper notice lets each partner know which direction to paddle through the rocks.

Conclusion

The execution of complex projects requires the parties to work together proactively to achieve a successful outcome in light of inevitable changes and unforeseen events. Notice requirements can be viewed as burdensome, adversarial, and inequitable, and the guidance offered to employers and contractors in this area has been focused on protecting their individual rights. While that guidance is reasonable, a collaborative approach to project execution demands more.

Employers and contractors can leverage notice provisions for the benefit of the overall project. From a collaborative perspective, the parties will view notice requirements as contract provisions relating to a key input for change management. Employers will draft notice provisions intended to ensure that the right information is timely delivered to the attention of competent decision-makers. Contractors will not fear that formal notice will damage their client relationship but will expect it to strengthen that relationship, as employers will interpret notices as diligent conformance to the requirements of the contract.

When an unforeseen event occurs, employers and contractors should both want a properly informed counterparty fully focused on solving the instant problem. Well-drafted notice provisions will encourage open communications, and their proper application will leverage notice as an input to collaborative change management. Employers can draft stringent notice provisions and contractors should strictly comply, but collaborative parties will remember that the provisions are intended to facilitate proactive change management. Protection of the parties’ rights is a secondary benefit that will be applicable only if contractual change management processes do not result in a negotiated resolution of cost and schedule impacts. The first line of defence is working together to minimise those impacts in the first place.

Notes
Many developing countries need help to narrow their infrastructure gap, and yet, despite such efforts, the gap in many countries is widening instead of closing. The gap is even more significant if we consider the investment needed to reach a net greenhouse gas emissions-free economy by 2050 and reconstruction required following natural disasters. While it is estimated that the world will face a US$15tn infrastructure gap by 2040, the transformation of the global economy needed to achieve net-zero greenhouse gas emissions by 2050 would require US$9.2tn in annual average spending on physical assets, US$3.5tn more than today. If we take this figure, the investment needed would be significantly higher than the estimated infrastructure gap alone, increasing the challenge still further.

Whenever a developing country announces an ambitious plan to boost infrastructure development through public works, public-private partnerships (PPP) or other means, the key question is whether the state has the internal resources and governance to see this through. An observation raised in Peru and shared in other jurisdictions such as India, is that some civil servants prefer to delegate tough decisions to be decided by tribunals or dispute boards, and then even challenge the tribunal’s decision if they are dissatisfied, or even decide not to comply with it. We are referring to disputes without proper grounds which should not have been
escalated to a formal dispute resolution mechanism. This attitude questions a state’s capability of achieving its ambitious infrastructure goals. In my opinion, such an attitude is the result of deeper causes.

Consequently, in this article, I comment briefly on what I consider the leading root causes deterring the development of public infrastructure in Peru, having the impression that at least some of these root causes can be found in other developing countries. My opinion expressed in this article summarises conversations with hundreds of civil servants and private practitioners over the years as part of my lectures on construction law in Peru and presentations to academic forums. While these discussions do not amount to formal empirical research, in practice they can be considered a representative sample of the honest opinions of people who deal with these matters on a daily basis. In any case, I hope this article serves as a basis to encourage further research and empirical studies to confirm, deepen or contradict what I am expressing. It would be relevant to explore to what extent these root causes are also applicable in other countries and whether there are other causes to consider.

I consider there to be three leading root causes which deter the capacity and quality of spending. These are: (1) many public officials’ ‘fear’ in performing their duties in the best interest of the projects; (2) corruption, and (3) the low quality of the pre-investment phase, including project preparation, feasibility and other studies, and design and engineering.

Civil servants should act in the best interest of the project. They should therefore construe the contract and regulations reasonably, applying the principles embedded in the law, avoiding rigid literal interpretations which play against the project, seeking value for money and achieving public goals. Nevertheless, it is typical in Peru to find civil servants who prefer to delegate tough decisions to be decided by tribunals or dispute boards. This is mainly because the General Comptroller’s (Contraloría General de la República or CGR) role is focused on applying compliance audits rather than performance ones. Consequently, they often apply stringent criteria which do not consider the context of the decisions taken, value for money or the value that certain decisions may add towards reaching the public goals. Audits generally follow literal interpretations of the law and the contract, rather than favouring a more reasonable construction of the project documents. The CGR needs to modernise and audit performance rather than assessing whether the regulation has been literally applied. In fact, a literal interpretation of the regulations is legally inappropriate, as the law requires laws to be applied comprehensively, considering the rationality, principles and end goals. There have been proposals for the incremental implementation of performance audits. Yet they were rejected, arguing that the country needed a ‘strong and strict’ approach due to the high level of corruption. Social media and the abundance of electronic information available have made it easier to detect corruption cases worldwide, which is why we have seen an increase in scandals in the media in recent years. Probably it is not that corruption has increased, rather that it has become easier to detect. In the case of Peru, populist politicians have fostered even harder controls, reducing civil servants’ discretion in public procurement contracts, increasing the minimum and maximum terms for imprisonment in corruption cases.

Peru is an upper-middle-income country with enough money to close its infrastructure gap eventually.\(^1\) The budget assigned for public infrastructure development is over six per cent of GDP (6.6 per cent in 2022), a proper amount, considering that, according to the Inter-American Development Bank,\(^5\) the expenditure required for closing the gap shall be in excess of 5.2 per cent of GDP. Nevertheless, over the last five years actual spending has remained below 4.6 per cent of GDP, as the government has only been spending between 63 and 72 per cent of the budget.\(^6\) In short, Peru’s infrastructure gap has been increasing rather than reducing, and this is without considering the investment required to reach net zero greenhouse gas emissions by 2050 and natural disaster reconstruction. Therefore, in a country with so many needs such as Peru, the biggest problem is not lack of budget but the capacity and quality of spending.

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\(^1\) It is typical in Peru to find civil servants who prefer to delegate tough decisions to be decided by tribunals or dispute boards.
and increasing the number of corruption-related crimes contemplated in law. All this has increased rigidity even more.

Moreover, civil servants can now be held personally liable for not complying with a rigid interpretation of what the public procurement regulations and the contract says, regardless of whether it is detrimental to the project. Consequently, they often prefer adopting a ‘conservative’ approach, even if it could be detrimental to the project. They are hardly held liable for negatively affecting a project, causing loss of public funds due to rigid decisions, or not achieving the public goals appropriately or on time, so the risk of taking such an approach is limited. In Peru, it is relatively easy to start an administrative or criminal investigation and groundless cases are not dismissed quickly, creating a burden for those involved which can last years. For example, in 2021, the CGR received 20,804 corruption complaints against civil servants, of which 41 per cent were admitted. If we compare this figure with 757 civil servants effectively sanctioned in 2022 or 1,684 in 2021, we notice that the number of sanctions is much lower than when the proceedings started. We can imagine the psychological, reputational, and economic damage caused to civil servants who have not been sanctioned after years of administrative or criminal proceedings.7

Moving more profoundly into the analysis of the causes, civil servants’ fear is inversely proportional to their knowledge of the law. The more they know, the more empowered they will be. In the case of Peru, there is a weak civil service career ladder and a lack of training, especially in small-to-medium-sized public bodies, so this contributes to worsening the situation. A positive aspect worth mentioning is that whenever there is a standing dispute board in place, there is significantly more room to review the law and the contract to clear doubts. More importantly, all involved are also forced to explain their reasoning to the dispute board and the rest of the team involved, increasing accountability and reducing the tendency to delegate tough decisions to the dispute board or tribunal. There are still cases where these decisions are delegated or dispute boards decisions taken to arbitration, but my experience is positive as I have observed a change in attitude.

The approach of the CGR is closely linked to the other root cause mentioned above, corruption. Peru is a country with a medium-high index of corruption.8 Only a few civil servants are corrupt in practice, but that is enough to contaminate the whole system and create paranoia. It is estimated that 15 per cent of the budget spent on public projects is lost to corruption, so the problem is significant.9 The CGR must combat a real problem which is very difficult to eradicate. Finding sensible policies to create control mechanisms is challenging, and rigidity tends to cause paralysis. Consequently, in Peru’s case, corruption is a deep root cause behind many civil servants’ fear of making decisions.

In order to tackle these problems, it is necessary to strengthen the public career ladder and have the CGR structured in such a way as to protect officials who apply contracts and the law sensibly, favouring performance, value for money and achieving public goals. This is extremely difficult to realise, as it depends on political consensus across several independent state powers, mainly the parliament, the CGR, which is independent according to the Constitution, and the executive branch. It requires a change of culture within the civil service, which can only be achieved with sustained far-sighted leadership over the long term.

Turning to the third root cause, a more feasible solution in the short term is investing in improving the quality of the pre-investment phase, which includes project preparation, feasibility and other studies, design and engineering. This is within reach of the government in the short term and does not require significant regulatory or structural changes or significant budget increases. This would reduce the need for civil servants to deal with difficult situations, such as extra work or extensions of time, which may be used as evidence that someone has made a mistake or created complicated internal processes which could even stop the project. Moreover, as the need to exercise discretionary powers would reduce, there would be less risk of corruption.

As is well known in many countries, one of the main problems in public works projects is the relatively low quality of the pre-investment phase, design and engineering. The copy and pasting of drawings and studies is an unfortunate extended practice. This means that when the contractor verifies the drawings on site and progress is made with the work, a series of requests for information and extra work are generated,
causing delays and disputes that can even lead to thwarting the project.

Part of the problem is also that, in some cases, there is corruption or at least negligence in awarding contracts to develop pre-investment studies or the design and engineering. These contracts are for lower amounts than the works contracts, so there are less stringent controls in place. Moreover, there are often poor-quality controls of the deliverables, possibly due to a lack of internal capabilities, lack of engagement or the poor thinking that any defect will be corrected during construction.

Furthermore, politicians pose a risk to projects as they rush to approve underdeveloped ones, creating fertile ground for disputes. The technical teams try to take the necessary time to develop the pre-investment phase and engineering, demanding a degree of patience politicians and end users tend to lack. Politicians focus on setting the first stone, while the technical teams focus on commissioning the infrastructure. Regardless of the risk, politicians are critical for project development because public projects can only be implemented with their support. This is an eternal dilemma, unlikely to be fully resolved anywhere in the world, but it should be mitigated as much as possible. This is one of the root causes as to why we see excessive optimism in some contractor schedules, sometimes setting deadlines which are impossible to achieve or budgets that increase significantly during construction.

Another aspect which shows the poor attention that the pre-investment phase receives is the need for more investable projects, a problem that can be seen worldwide. A study carried out in Peru shows that the total sum of the entire portfolio of identified projects was far lower than that of the infrastructure gap. For example, in the highways sector, it was determined that the five-year gap was US$31,850m, but the sum of identified projects only amounted to US$10,247m.

If only one invested in improving the quality of the pre-investment phase, and the design and engineering, this alone, even without changing anything else, would make a big difference. It would increase the level and quality of spending, minimise budget increases, delays, and paralysed works, reduce the situations in which officials need to be flexible to make a project viable and reduce the margin for corruption. If other measures are added to this, it would be optimal, but the relevance of this factor leads me to conclude that it is the area in which more emphasis should be placed.

For this reason, if I had to suggest how to spend any additional budget that a state wishes to allocate to boost projects, part of it should be given to improve the pre-investment phase quality and the design and engineering. Undoubtedly, this would sustainably attack the root of one of the main problems and have an essential effect on the other root causes.

In Peru, the fear many public officials have in performing their duties for the best interest of the projects is the tip of the iceberg. The deeper problem relates to a system where the CGR implements rigid compliance controls to fight corruption and this creates paralysis, especially when mixed with a poor public sector career ladder, and lack of training and knowledge of law. It would be interesting to assess the extent to which some of the analysis in this article applies to other jurisdictions.

Notes
1 The infrastructure gap of developing countries is calculated by comparing the investment required to raise the country’s infrastructure to that of the average of certain groups of countries, such as those of the OECD.
6 Data according to the Peruvian Central Bank and the Ministry of Economy.

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Introduction

A negative variation term permits an employer to omit works from a contract. The first part of this article sets out general principles for negative variations. This is followed by summaries of selected common law cases in the context of whether a negative variation may be used by an employer to execute works itself (or give works to others) and whether substantial (or essential) work may be removed from the scope of a contract.

A negative variation is a useful project management tool for omitting or abandoning works where an employer has technical or commercial doubts about the project or a shortage of funds. It may be more cost effective and have other benefits compared to a part termination or a termination for convenience. However, if the employer uses negative variations in contentious circumstances, unless clear wording in the contract says otherwise, the employer may be considered to have breached the contract and may be required to pay damages to the contractor.

General principles

What is a negative variation clause?

A contract for the execution of work provides the contractor with not only a duty to carry out the work, but a corresponding right to complete the work which it contracted to execute and realise profit. However, an employer may include a specific term in the contract to enable the contract administrator (acting on behalf of the employer) to instruct an omission of works from the contractor’s scope of works. This is called a negative variation.¹
To be effective, a negative variation clause must be specifically stated in a contract.² Common law courts will not imply a negative variation clause into a contract and there is no separate common law right.³

**Why are there negative variations in contracts?**

An employer’s reasons to include a negative variation clause may be for the option of postponing work until after the expected completion date, or to abandon work in circumstances where there are technical or commercial doubts about the project’s present viability or an unexpected shortage of funds. For example, an employer may postpone or abandon the project using a negative variation clause because of a market collapse even if the works are to be given to others later.

Alternatively, an employer may include a negative variation because, depending on the wording of the contract, it may be favourable when compared to a termination for convenience or part termination term. In particular, the negative variation may permit the employer to continue to employ the contractor under the same rights and obligations in the contract, whereas an alternative part termination or termination for convenience term, if exercised, may entail modified rights and obligations or require a new contract if the employer is to continue working with the contractor.⁴ An alternative termination for convenience or part termination term, if the employer were to seek to avoid damages, may be considered by a court as leonine and unenforceable as unconscionable.⁵

**When does a negative variation become a contentious issue?**

The employer’s motive or reason in exercising the negative variation is irrelevant. The test is familiar and objective – what purpose did the contract envisage?²⁶

A negative variation is unlawfully exercised under the contract if a common law court would not accept when reading the contract as a whole that the negative variation is wide enough to permit the changes made,⁷ or considers it an unreasonable exercise of the right,⁸ and no term displaces the contractor’s right to have the opportunity to complete all the works which requires very clear words to confer.⁹

A negative variation will become a contentious issue where the contract administrator, in exercising the negative variation, will: take out a substantial amount of the works or works essential to completing the project from the contractor’s scope; and/or perform the works itself or give the works to others (including a provision sum item).

Unless clear words exist in the contract to permit the employer to do so, an employer will generally have breached the contract if its contract administrator uses a negative variation on the employer’s behalf in these two contentious situations, and, in substantial breaches, the employer will have been deemed to have engaged in repudiatory conduct, both permitting the contractor to recover damages (loss of profit etc).

**Can risk allocation vary a negative variation?**

Risk allocation for negative variations differs from contract-to-contract and may vary rights and obligations of parties at common law.

Ordinarily, building contracts confer discretion to the contract administrator (acting for the employer) to instruct the omission of works to the contractor in a negative variation. The JCT Design and Build, the MCC-1 (2021 edition), and AS4000 or AS4902 are such examples.¹⁰

Risk allocation in contracts is becoming increasingly complicated and modern standard forms are beginning to address the two contentious issues specifically in the negative variation clause to vary the ordinary rights and obligations conferred to parties for the contentious issues at common law.

In FIDIC’s 1999 Red Book, the Engineer is given discretion to direct the omission of works but is specifically excluded from doing so if the work is to be ‘carried out by others’.¹¹ The 2017 edition of the Red Book then goes further, additionally conferring on the contractor ‘profit and other losses and
damages suffered (or to be suffered) by the Contractor as a result of the omission.\textsuperscript{12}

NEC3 engineering and construction contract 2013 edition provides an alternative approach permitting works to be allocated by the project manager to others without incurring damages payable to the contractor, provided the omission is limited to a capped percentage of the works:

‘The Project Manager may also give an instruction to omit (a) any Provisional Sum and/or (b) any other work (provided the total value of all such work omitted under all instructions issued by the Project Manager shall not exceed 5\% of the total of the Prices in the aggregate), even if it is intended that such work will be executed by Others. The Contractor has no claim for loss of revenue, loss of opportunity, loss of any contract, loss of profit or for any indirect loss or damage against the Employer in relation thereto.’\textsuperscript{13}

Example cases of negative variations for contentious issues

The cases summarised below are grouped as follows, based on the contentious use of the negative variation: (1) cases where the employer takes out a substantial amount of works; (2) cases where the employer has performed works essential to completing the project; and (3) cases where the employer has works performed by others.

These cases provide examples of the principles outlined above, demonstrating that – for more than a century – in the absence of clear wording in the contract, if the contract administrator uses a negative variation on the employer’s behalf in these contentious situations, the employer will generally have breached the contract and, in substantial breaches, will have engaged in repudiatory conduct, both permitting the contractor to recover damages (loss of profit etc).

\textbf{Employer takes out a substantial amount of the works from the Contractor’s scope}

Summarised below are cases where the employer had descoped a substantial amount of works and the employer was required to pay damages. These cases suggest that it depends on the facts of the case how a ‘substantial amount’ will be determined.

\textbf{Gallagher v Hirsch [1899]}\textsuperscript{14}

The employer engaged the contractor to carry out excavation and masonry work and to construct walls of a new building in New York. Before the builder fully completed excavation, it was discovered that it would be necessary to make additional excavations. The employer gave the additional work to others who performed this work as well as work originally included under the contractor’s contract. The negative variation term in the contract was:

‘should the owner at any time during the progress of the said building request any alteration, deviation, additions or omissions from the said contract he shall be at liberty to do so, and the same shall in no way affect or make void the contract, but will be added or deducted from the amount of the contract, as the case may be, by a fair and reasonable valuation.’\textsuperscript{15}

The trial court instructed the jury that the employer had no right to take away any part of the contractor’s contract and give it to another without the contractor’s consent. On appeal, the court agreed the negative variation did not permit the employer to omit works from the contractor and give them to others:

‘The word “omission” did not mean omitted from the plaintiff’s contract, but omitted from the work; and clearly could not be construed to have allowed the defendant to take two-thirds of the work from the plaintiff and then compel him to perform the rest.’\textsuperscript{16}

\textbf{Stratfield Saye Estate Trustees v AHL Construction Ltd [2004]}\textsuperscript{17}

The employer, (Stratfield Saye Estate Trustees), owned a derelict property in Hampshire, England and employed the builder, AHL, to undertake the first phase of works to make the property ‘wind and weather tight’.\textsuperscript{18} The employer later cancelled the project and instructed the builder to cease works except to leave the site in a suitable state.\textsuperscript{19}

Mr Justice Jackson held while ‘[the employer] was fully entitled to give instructions which would vary the details set out on the drawings or the works described in the site minutes’,\textsuperscript{20} this entitlement had a clear limit:

‘Phase 1 was understood by everyone to mean works which would convert Heckfield Wood House from a derelict property into a building which was wind and weather tight. The employer, acting through Mr Glover...’
had no power to issue omission instructions which would detract from or change this fundamental characteristic of the works [...]

**Employer takes out works essential to completing the project from the Contractor’s scope**

Summarised below are cases where works essential to the project have been descoped and the employer was required to pay damages. *Stratfield Saye Estate* above may also fall in this category. This situation is distinguishable from cases where a substantial amount of work is descoped because the court’s consideration was not of the volume of work removed, but the type of work removed, whether it is ‘important’ or ‘fundamental characteristic’.

**Ipson Renovation Ltd v The Incorporated Owners of Connie Towers [2016]**

A contractor, Ipson Renovation, signed a contract with the employer, Incorporated Owners, for repair and maintenance works to be carried out in Hong Kong. At a general meeting, the employer resolved to cancel works relating to replacement drains serving the public toilets, water supply facilities, public ventilation windows, steel works, wood works and a provisional item for renovation of the exterior wall. Later in a notice to commence works, the consultant of the employer purported to exclude these works and reduce the contract sum by HK$4,292,700 from HK$37.07m.

The employer relied on clause 4.7 of the contract to omit the works:

> 4.7.1. The Consultant may according to actual Project implementation and as the Employer requests issue an instruction for the variation of the Project.

> 4.7.2 “Variation of the Project” means any one or more of the following situations:

> (b) addition, omission or alteration of work items required to complete the project

> 4.7.3 On the basis of any instruction for the variation of the Project, the Contractor has the duty to apply in writing to the Project Consultant for the value of any variation of the Project.

> [...]

> 4.7.7 The value of all variations to the Project is only to be effective upon the Employer’s written approval and acknowledgement, and the Contract price of the Project shall be adjusted accordingly.

**Comparison of Carr v J A Berriman and Van Oord exemplifies how courts consider a negative variation clause that relies on common law compared to a clause which expressly addresses the common law.**

Mimmie Chan J considered clause 4.7 envisaged possible changes to be made to the project, which will occasion deductions to be made to items of the works. However, clause 4.7 was not wide enough to authorise the consultant to issue variation instructions to omit the works (other than the provisional sum item) ‘which concern important aspects of the Works forming part of the project’.

**Employer gives the works to others**

Summarised below are cases where the employer has descoped works from the contractor and given such works to others, requiring the employer to pay damages. *Gallagher* also falls in this category. Noteworthy is that a comparison of *Carr v J A Berriman* and *Van Oord* exemplifies how courts consider a negative variation clause that relies on common law compared to a clause which expressly addresses the common law.

**Carr v J A Berriman [1953]**

The employer engaged a contractor to erect a factory on his land in Australia. The contract contained a negative variation, where the architect could:

> ‘in his absolute discretion and from time to time issue further [...] written directions [...] in regard to: (a) the variation or modification of the design, quality or quantity of the Works or the addition or omission or substitution of any work’.

There was also a term in the contract that all steel was to be supplied by the employer to
the contractor’s yard where the contractor was entitled to fabricate the steel.

After entering into the contract, the employer notified the contractor that the structural steel component was going to be supplied and fabricated by another firm and asked for confirmation of the allowance of fabrication to be a deduction from the contract.

Fulligar J (with Kitto J agreeing) judged the negative variation did not entitle the contractor to give the works to others:

’[the terms] do not, in my opinion, authorise him [the employer] to say that particular items so included shall be carried out not by the builder with whom the contract is made but by some other builder or contractor [...] a power in the architect to hand over at will any part of the contract to another contractor would be a most unreasonable power, which very clear words would be required to confer.’

Commissioner for Mains Roads v Reed and Stuart [1974] 28

A dispute arose between a contractor and employer over the quantity of the topsoil required to form the final layer of material on embankments and elsewhere on site of the Warringah Expressway at the northern approach to Sydney Harbour Bridge. 49,700 cubic yards was estimated. However, the actual volume required was more than 60,000 cubic yards, whereas only 25,000 cubic yards could be obtained from the site. 29 Clause B3.03(4) of the contract relevantly read:

’If sufficient topsoil to meet the requirements of the Works cannot be obtained within the right-of-way, the Engineer may direct the Contractor in writing to obtain topsoil from other approved locations. The excavation and removal of topsoil from such locations shall be under the direction of the Engineer. Payment for such additional topsoil per

Common law has been clear for over a century that where the employer descopes a substantial amount of the works (or works essential to completing the project) and/or performs the works itself or gives the works to others, the contractor is generally entitled to damages (loss of profit)

When the engineer discovered the required additional topsoil, instead of incurring the schedule rate of £3 per cubic yard, the engineer (on behalf of the employer) arranged for the topsoil on the site to be provided by a third party at cheaper rates. The contractor discovered the engineer’s actions and sought a judicial declaration that this constituted a breach of contract. 30

The engineer acting for the employer sought to rely on the word ‘may’ in clause B3.03(4) being only an ‘option’ and a clause in the contract which permitted the omission from time-to-time of a portion of the works, to engage others. 31

Stephens J (with Gibbs and Mason JJ agreeing) disagreed with the engineer and held in favour of the contractor to issue the declaration, but varied the declaration to the relevant breach (failure of the engineer to give direction under cl B3.03(4)):

’[...] By failing to give direction under the fourth paragraph of cl B3.03 rendered it impossible for the contractor to perform its contractual obligations, without such a direction it was confined to the use of on-site topsoil of which there was insufficient. The resultant situation is not dissimilar to that which arose on the facts in Carr v JA Berriman [...]’ 32

Commissioner for Mains Roads v Reed and Stuart [1974] 28

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ABBey Developments Ltd v PP Brickwork Ltd [2003] 35

A contractor, Abbey, engaged a subcontractor, PP Brickwork, to build houses on 69 plots at a housing estate in Kent, England. The builder notified the subcontractor by letter that it would be descoping the remaining plots and giving to another contractor, and charging the additional cost to the subcontractor. The negative variation read:

’Whether [...] instructions constitute a variation will be determined and valued by the Contract Surveyor, and, a Variation order will be issued detailing the changes and the value of such additions or deductions. The issue of a Variation order for additions or omissions to sections of the works will in no way vitiate the Sub-
Contract, and Sub-contractors should take special note that no additional payments will be made except where a Variation Order has been issued, prior to the commencement of the works in question.’ (Condition 24 Variation)

His Honour opined the Condition 24 Variation does not confer a right to deprive the subcontractor of the opportunity to carry out the remaining work and for the contractor to give to others.

Van Oord UK Limited v Dragados UK Limited [2020]36

A subcontractor, Van Oord, was engaged under a NEC3 subcontract by a contractor, Dragados to perform works on the Aberdeen Harbour Expansion Project, which included soft dredging works of which the volume was estimated at 2,150,000 cubic metres and to fill caissons.57 The contractor from time-to-time instructed omission of scope using a negative variation and transferred the work to other subcontractors.58 The negative variation clause at issue stated:

‘The Contractor may give instructions to the Subcontractor which changes the Subcontract Works information or a key date. The Contractor may in the event of a corresponding instruction being issued by the project manager under clause 14.3 of the Main Contract only, also give an instruction to omit (a) any provisional sum and/or (b) any other work, even if it is intended that such work will be executed by others. The Subcontractor has no claim for loss of revenue, loss of opportunity, loss of any contract, loss of profit or for any indirect loss or damage against the Contractor in relation thereto.’59

Lord Tyre held the contractor was not entitled to omit works under the negative variation clause, since the project manager under the main contract had not issued a corresponding instruction to omit the works:

‘those clauses [14.3 and 11.2(19)] do not amount to a clear contractual entitlement to omit works and transfer them to another subcontractor, except in the circumstances in which omission of work is permitted by the second and third sentences of clause 14.3. It is not suggested by the defender that those circumstances subsisted at the time of any of the defender’s contractors instructions’.60

Conclusion

A negative variation clause is an important project management tool intended to enable an employer to omit works when there is technical or commercial doubt over the project viability or a shortage of funds. Depending on the wording of the contract, the negative variation may help maintain the commercial relationship between parties and may be more cost effective for the employer when compared to a part termination or termination for convenience.

Common law has been clear for over a century that where the employer descopes a substantial amount of the works (or works essential to completing the project) and/or performs the works itself or gives the works to others, the contractor is generally entitled to damages (loss of profit) from the employer for losing its opportunity to carry out work and realise profit under the contract. An exception is in the case of a market collapse, where an employer may use a negative variation even if work is later given to others.

Judicial decisions have further suggested that while a negative variation may be validly exercised under a main contract, this may not be the same in a downstream or subordinate contract or arrangement. Furthermore, while provisional sum items are accepted as works that can be omitted as not essential, this may not extend to giving the provisional sum item to others.

Where a negative variation clause is silent on the above-described situations (such as the unamended JCT DB, MCC-1 (2021) or AS 4902 and 4000) there is a reliance on this common law position.

However, risk allocation is increasingly varying the common law position. The FIDIC Red Book and NEC3 are examples of where the contentious issues have been specifically addressed. As Lord Tyre opines in Van Oord for that NEC3 subcontract:

‘It is of significance that the parties have expressly provided in the contract for a particular situation in which the defender [builder] was entitled to give an instruction to omit work, that, in my opinion, raises at least a prima facie interference that in other circumstances the defender was not so entitled, in the absence of another equally clear provision empowering it to do so.’41

Moving forward it is expected that parties will continue to adopt negative variation clauses in the contract, although there could
be departure between the standard negative variation terms that rely on common law and the modern approaches to negative variation terms which specifically address the common law. The choice or applicability of negative variation in the future may depend on the market conditions, attitudes, and preferences of parties (including culture), and type of project (jurisdiction and sector based).

It is envisaged that the case law with respect to negative variation clauses may evolve in the future to consider different factual scenarios, these new modern contracts that specifically address negative variations, what the threshold percentage of ‘substantial amount’ of omitted works are and what works, other than provisional sum items, constitute essential (or ‘fundamental’ or ‘important’ Works).

Notes
1 Ordinarily this is not a term where the Contract Administrator is required to act impartially, reasonably or in good faith.
2 Tancred Arrol v The Steel Company of Scotland (1890) 15 App. Cas 125 (‘Tancred’).
3 Ibid.
4 Tullerman & Co Pty Ltd v Nathan’s Merchandise (Victoria) Pty Ltd (1957) 98 CLR 93 at [144] (per Taylor J); Morris v Baron & Co [1918] AC 1, [25-26] (per Lord Dunedin).
6 Ibid, [49] (per Judge Humphrey Lloyd QC). Also see [45-47] (per Judge Humphrey Lloyd QC).
7 Abbey Developments, [53] (Lord Tyre); Ipson Renovation Ltd v The Incorporation Owners of Connie Towers [2016] HKCFI 2117.
8 Carr v JA Berriman Pty Ltd (1955) 89 CLR 327.
10 AS4000 cl 36.1.
14 NY 45 App Division 467 (1899).
17 [2004] EWHC 3266 (‘Trustee of the Stratfield Saye Estate’).
19 Ibid, [26] (per Mr Justice Jackson).
20 Ibid, [35] (per Mr Justice Jackson).
21 Ibid, [36] (per Mr Justice Jackson).
22 HKCFI 2117.
23 Ibid, [41] (per Hon Mimmie Chan J).
25 Ibid, [37] (per Hon Mimmie Chan J).
26 Ibid, [42] (per Hon Mimmie Chan J).
27 89 CLR 327 (‘Carr’).
28 Carr, [347] (Williams J).
29 (1974) 131 CLR 378 (‘Commissioner for Main Roads’).
31 Ibid, 381 (per Stephens, J).
32 Ibid, 380 (per Stephens, J).
33 Ibid, 385 (per Stephens, J).
34 Ibid, 384 (Gibbs J).
35 [2003] EWHC 1987 (‘Abbey Developments’), [6-7].
36 Van Oord UK Limited v Dragados UK Limited (2020) COSH 87 (‘Van Oord’).
37 Ibid, [1] (per Lord Tyre).
39 Ibid.
40 Ibid, [23] (per Lord Tyre).
41 Ibid.

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