

**IN THE GENERAL DIVISION OF
THE HIGH COURT OF THE REPUBLIC OF SINGAPORE**

[2025] SGHC 233

Suit No 277 of 2019

Between

Arki-Tech International Pte
Ltd

... Plaintiff

And

Rentak Tebrau Sdn Bhd

... Defendant

JUDGMENT

[Building and Construction Law — Building and construction contracts —
Management contracts]

[Contract — Contractual terms — Rules of construction]

[Contract — Formation — Certainty of terms]

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Arki-Tech International Pte Ltd

v

Rentak Tebrau Sdn Bhd

[2025] SGHC 233

General Division of the High Court — Suit No 277 of 2019

Chan Seng Onn SJ

10, 11, 14, 17–21, 24, 25 May 2021, 7–11, 14–18 February, 21, 22, 28–30
March, 17, 19–21, 25–28 October 2022, 7–9, 15, 20, 21, 23, 26–28, 30 June
2023, 2–5, 15–17, 22 April 2024, 26 May 2025, 23 July 2025

26 November 2025

Judgment reserved.

Chan Seng Onn SJ:

Introduction

1 This case concerns a proposed phased development of two hotels, a multi-storey carpark, a convention centre and an office building in Johor, Malaysia, which led to a dispute between the defendant property developer and the plaintiff, who was engaged under a written contract to provide value engineering services (“VE Services”) for the project. The plaintiff claims, *inter alia*, 20% of all cost savings from these VE Services. The defendant disputes the plaintiff’s claims, arguing that the contract is void and unenforceable and that in any event, the plaintiff has not fulfilled its contractual obligations such that it is entitled to any payment.

2 As will be detailed below, I allow the plaintiff’s claim in part, to the extent that it is allowed to claim payment for work done under the contract at an hourly rate of \$350. The plaintiff, however, is not entitled to claim the 20% of cost savings from VE Services provided under the contract.

3 This trial is bifurcated with the issues of liability to be determined first. This judgment is therefore limited only to the liability of the defendant. The second phase of the trial will deal with the assessment of the quantum of the claim that I have allowed.

Facts

The parties

4 The plaintiff, Arki-Tech International Pte Ltd (“Arki-Tech”), is a Singapore-incorporated company in the business of providing development and project management services. Mr Loo King Keong (“Loo”) is the managing director of Arki-Tech.

5 The defendant, Rentak Tebrau Sdn Bhd (“Rentak”), is a company incorporated in Malaysia to facilitate property development in the Iskandar area in Johor.¹ Mr Richard Tan Poh Choon (“Richard”) and Mr Jerome Tan Tor Teng (“Jerome”) are directors of Rentak.² Rentak had engaged Arkitek Shilpa (“Shilpa”) as the architect for the project. The consultant architect from Shilpa is Mr Lim Take Bane (“Take Bane”).

¹ Fifth Affidavit of Evidence-in-Chief of Richard Tan Poh Choon dated 15 January 2021 (“5RT”) at para 7 (Defendant’s Bundle of Affidavits of Evidence-in-Chief (“DBAEIC”) (Vol 1) at pp 6–7).

² 5RT at para 1 (DBAEIC at p 4); First Affidavit of Jerome Tan Tor Teng dated 15 January 2021 (“1JT”) at para 1 (8DBAEIC at p 2).

Background to the dispute

6 In October 2016, Rentak approached Arki-Tech with a business proposal regarding the provision of development and project management services for a project to be built on Lot 1510 Mk Tanjung Kupang in Iskandar, Johor, Malaysia (the “Project”).³ The Project initially comprised the following phases:⁴

- (a) Phase 1: A 4-star, 33-storey hotel called Ininside Hotel;
- (b) Phase 2: A 5-star, 33-storey hotel called Melia Hotel;
- (c) Phase 3: A 34-storey commercial office tower block (the “Office Tower”);
- (d) Phase 4: A 12-storey building serving as a convention centre, retail shopping and back-of-house facilities (the “Convention Centre”); and
- (e) Phase 5: A multi-storey carpark (the “Multi-Storey Carpark”).

7 Following various discussions between Rentak and Arki-Tech, Rentak agreed to engage Arki-Tech as a Development Manager (“DM”) (until the commencement of construction works) and separately as a Project Manager (“PM”) (upon the commencement of construction works) for Phase 1 of the Project. The other phases of the Project were subject to the parties entering into a further agreement on the same terms and conditions upon reaching practical completion of Phase 1. The parties’ agreement was first set out in November

³ Fourth Affidavit of Evidence-in-Chief of Loo King Keong dated 29 January 2021 (“4LKK”) at para 93 (Plaintiff’s Bundle of Affidavits of Evidence-in-Chief (“PBAEIC”) at p 27).

⁴ Plaintiff’s Closing Submissions (Amendment No 1) (Trial on Liability) dated 23 July 2025 (“PCS”) at para 20.

2016 in a Points of Agreement (the “POA”),⁵ before being more formally concretised in a Consultancy Agreement for Development Management dated 16 January 2017 (the “DM Agreement”).⁶

8 The following are the salient terms of the DM Agreement:

(a) Clause 2 provides that Rentak has engaged Arki-Tech as the DM Consultant to provide “the Services set out in Item [5]⁷ of Schedule 2 (and Annexed Term Sheet)⁸” (the “VE Services”) to Rentak upon the terms and conditions set out in the DM Agreement. In Schedule 1, “Services” has been defined to mean “the services specified in Item [5]⁹ of Schedule 2”.

(b) Clause 3.1 provides that Arki-Tech shall complete the requisite “scope of works in the [VE] Services” in accordance with the annexed Term Sheet “up to and until the commencement of construction works”.

(c) Clause 4.1 provides that Arki-Tech shall invoice Rentak at the end of every monthly cycle for the VE Services rendered and Rentak “shall pay the Fees [(“Fees”)] within seven (7) days of receiving the invoice”. Arki-Tech’s Fees are to be calculated according to Item 2 of Schedule 3 to the DM Agreement and pro-rated to the agreed

⁵ Agreed Bundle of Documents dated 24 March 2021 (“ABD”) at p 5.

⁶ 4LKK at paras 114 and 119 (1PBAEIC at pp 31–32); ABD at p 8.

⁷ Parties agree that there is a typographical error in that Item 2 referred to in cl 2 of the DM Agreement is a reference to Item 5.

⁸ ABD at p 20.

⁹ Parties agree that there is a typographical error in that Item 2 referred to in the definition of “Services” is a reference to Item 5.

preconstruction time period spent by Arki-Tech in providing the VE Services.

(i) “Fees” is defined in Schedule 1 to mean the fees payable by Rentak to Arki-Tech for “the [VE] Services rendered” and is to be calculated based on the “Hourly Rate” as set out in Item 2 of Schedule 3 and the time taken by Arki-Tech to render such VE Services.

(ii) Item 2 of Schedule 3¹⁰ provides for an “Hourly Rate” of \$350 and includes the following additional words in brackets “if and when [Arki-Tech’s] services are needed which [is] not [in] accordance to agreed VE Works [*ie*, value engineering works] (“VE Works”))” and “up to a maximum of 160 hours ... per calendar month...”.

(iii) Item 5 of Schedule 3¹¹ separately provides that Arki-Tech is entitled to “Fees to manage and execute value engineering to Project” of 20% of all cost savings from value engineering (“VE”) “measured against a formal quantity surveyor QS detailed cost estimates; prepared in accordance to PDF drawings and planning data that had been tabled in Annex B [(“Option 1”)]. Or whenever factually ascertained to be based on the construction rate of RM 250 per square feet (Budgetary Construction estimate/GFA [(“Gross Floor Area”)] [(“Option 2”)]” (collectively, the “VE Fee Option Clause”).

¹⁰ ABD at p 19.

¹¹ ABD at p 19.

(d) Item 5 of Schedule 2¹² to the DM Agreement sets out Arki-Tech’s “Services - Scope of Work” in relation to Phase 1 of the Project in the following terms (the “Scope of Services Clause”):

Help to review and validate feasibility study/budget for construction cost with Developers/Hotel Team to meet development intention of hotel brand and operations.

Define the efficiency and efficacy objectives of this hotel project before developing a construction contract implementation plan and time schedule for completion for Board approval.

Chair development management meetings and develop agreed objectives into design briefs with contract team of main contractor and external consultants.

Help to develop working designs for hotel brand to meet preliminary budget of construction costing stage.

Conduct financial analysis and value engineering achieved on options in working designs with selected construction Design & Build team.

(e) Item 3 of the annexed Term Sheet to the DM Agreement reiterates that the parties had specifically agreed that the “Role of [the DM] in Value Engineering Aspect to Phase 1” is to include all the services set out in the above Scope of Services Clause.

(f) Item 6 of Schedule 2¹³ (the “Implementation Clause”) to the DM Agreement defines “Implementation of VE Works” to mean that the “DM shall proceed to implement the project development model based on the approved VEs (the “Board-approved VEs” or “Board-approved VE proposals”)” upon obtaining the written agreement of the board of directors of Rentak (the “Board”).

¹² ABD at p 18.

¹³ ABD at p 18.

9 Annexed to the DM Agreement is a Term Sheet for the Appointment of Arki-Tech as DM (the “Term Sheet”). The first bullet point in Item 1 of the Term Sheet for the Appointment of Arki-Tech as DM provides, *inter alia*, that for managing and executing VE Services, Arki-Tech is entitled “to 20% of all cost savings against a formal quantity surveyor QS cost estimate to validate data and costings described herein and in accordance to PDF drawings tabled for the Parties discussion” (the “Term Sheet Fee Clause”).¹⁴ Item 1 of the Term Sheet also gives the parties “the option to proceed with negotiations on balance future phase on mutual agreement upon reaching practical completion of Phase 1”. Where the parties mutually agree upon and exercise the option, “the prevailing terms & conditions parameters/methodologies shall prevail”.¹⁵

10 After the parties entered into the DM Agreement, it became apparent that the Project should be rephased, with the Multi-Storey Carpark phase and the Convention Centre phase of the Project being completed at an earlier point in time. This meant that the phases of the Project were adjusted as follows:¹⁶

- (a) Phase 1: Ininside Hotel.
- (b) Phase 2: Multi-Storey Carpark (Phase 2A) and Convention Centre (Phase 2B).
- (c) Phase 3: Melia Hotel.
- (d) Phase 4: Office Tower.

¹⁴ ABD at p 20.

¹⁵ ABD at p 20.

¹⁶ ABD at p 22.

11 Following this revision of the phases in the Project, Arki-Tech claims to have begun work on Phase 1 of the Project, notably with respect to the width of the corridors; the air-conditioning design; the lift layout and the hotel room layout in Ininside Hotel. Arki-Tech also claims to have been instructed by Rentak to develop various other aspects of the Project, including providing VE Services in respect of the Multi-Storey Carpark and Melia Hotel, securing a plot ratio enhancement of the Project and amending the sketch design of the whole Project.¹⁷

12 Between May 2017 and October 2018, Arki-Tech issued various payment claims for the work completed with respect to Phase 1 totalling \$1,062,665.10. In December 2018, Arki-Tech submitted an additional payment claim for a total sum of \$24,958,418.55 to cover additional fees arising from (a) the construction cost rate revision to RM492.10 per square foot for Phase 1; and (b) other VE Services for Phase 2A (Multi-Storey Carpark), Phase 3 (Melia Hotel), plot ratio enhancement and the sketch design amendments.¹⁸

13 The total claim therefore amounted to \$26,021,083.65, which was subsequently issued as a revised Payment Claim No. 17-225/PC 22 (Rev1) dated 23 January 2019 reflecting the correct claim amounts.

14 Rentak did not pay any of the payment claims submitted by Arki-Tech.¹⁹

15 The construction of the Project eventually fell through. This was due in part to the plans of the Singaporean and Malaysian governments to build a High-

¹⁷ 4LKK at paras 318–327 (1PBAEIC at pp 80–81).

¹⁸ Statement of Claim (Amendment No 2) dated 23 April 2024 at p 22.

¹⁹ 4LKK at paras 632–657 (1PBAEIC at pp 154–160).

Speed Rail falling through, and the very substantial financing costs of owning the land.²⁰

The parties' arguments

16 Arki-Tech filed a Statement of Claim (Amendment No 2) for the sums of \$1,062,665.10 and \$24,958,418.55 (totalling \$26,021,083.65) inclusive of GST along with 12% interest per annum on those sums.

17 Arki-Tech's arguments can be canvassed in these broad strokes:

(a) The VE Services performed by Arki-Tech for Phase 1 of the Project generates both costs savings and value enhancements, and therefore constitute VE. Rentak accepted the VE proposals made by Arki-Tech such that the latter should now be allowed to claim for VE Works under the DM Agreement.²¹

(b) Rentak had agreed for Arki-Tech to expand the scope of its VE Services beyond Phase 1 of the Project. The VE Services performed with respect to Phase 2A, Phase 3 and the plot ratio enhancements were valid VE Works. Arki-Tech is entitled to be paid for the VE Services performed in respect of Phase 2A, Phase 3 and the plot ratio enhancements.²²

²⁰ Defendant's Closing Submissions on Liability dated 18 December 2024 ("DCS") at paras 54–56.

²¹ PCS at paras 129 and 149.3.

²² PCS at paras 150–172.

(c) There was an oral contract between the parties for Arki-Tech to provide sketch design amendments. Rentak is obliged to pay Arki-Tech for the work done in relation to these sketch design amendments.²³

(d) In the alternative, Arki-Tech seeks payment for its VE Services rendered on the basis of *quantum meruit*.²⁴

18 Rentak makes the following arguments in its defence against Arki-Tech's claims:

(a) Arki-Tech is not entitled to claim damages in respect of Phase 1 of the Project as the DM Agreement is unenforceable. In this regard, Rentak submits that the VE Fee Option Clause is vague, uncertain and incomprehensible such that it renders the whole DM Agreement unworkable and unenforceable. Rentak also argues that the VE Fee Option Clause is unenforceable as it is an agreement to agree.²⁵

(b) Even if the DM Agreement is enforceable, Rentak argues that Arki-Tech is precluded from claiming damages for Phase 1 of the Project as it failed to complete the required VE Services under the DM Agreement. Moreover, the VE proposals by Arki-Tech are neither adoptable nor implementable as VE.²⁶

(c) For the other phases of the Project, Rentak argues that there is no agreement as alleged by Arki-Tech because the parties did not exercise the option in the DM Agreement to extend it to cover the later

²³ PCS at paras 173–178.

²⁴ PCS at paras 13–14.

²⁵ DCS at paras 65–123.

²⁶ DCS at paras 167–276.

phases of the Project. Rentak also argues that the option to extend in the DM Agreement is void for uncertainty. In any event, Arki-Tech failed to perform any VE that is adoptable or implementable.²⁷

(d) For the same reasons as those enumerated in (c) above, Arki-Tech is not entitled to damages in respect of work done in relation to the plot ratio of the Project as well as any sketch design amendments.²⁸

(e) Arki-Tech is also not entitled to claim for damages under the restitutionary head of *quantum meruit* because this specific head of claim is not pleaded.²⁹

(f) Finally, Rentak argues that Arki-Tech is not entitled to late payment interest because the clause prescribing the payment of such interest is void for being a penalty clause.³⁰

19 Arki-Tech responds by making the following arguments:

(a) The DM Agreement is enforceable. In this regard, the VE Fee Option Clause is not void for uncertainty.³¹

(b) Arki-Tech is entitled to be paid in respect of its VE Services for Phase 1 of the Project as its VE proposals are adoptable or implementable as VE.³²

²⁷ DCS at paras 277–415.

²⁸ DCS at paras 416–457.

²⁹ DCS at paras 469–481.

³⁰ DCS at paras 482–485.

³¹ Plaintiff’s Reply Submissions (Trial on Liability) dated 11 March 2025 (“PRS”) at paras 28–84.

³² PRS at paras 85–187.

(c) As for the VE Services performed in respect of the other phases of the Project, Arki-Tech argues that there was, in fact, an agreement between the parties to extend the DM Agreement to encompass other phases of the Project (including plot ratio enhancements and sketch design amendments). The payment terms in respect of this agreement are not void for uncertainty and Arki-Tech is entitled to be paid for its VE proposals which are adoptable or implementable as VE.³³

(d) Arki-Tech is entitled to claim under the head of *quantum meruit* as this has been particularised in its statement of claim.³⁴

20 Rentak, in its reply submissions, repeats its arguments made in its closing submissions.³⁵

Issues to be determined

21 The parties' cases broadly give rise to the following issues for my determination:

- (a) Is the DM Agreement enforceable?
- (b) Is Arki-Tech entitled to any payment under the DM Agreement?
- (c) Did the parties agree to extend the DM Agreement to cover the other phases of the Project?

³³ PRS at paras 188–264.

³⁴ PRS at para 265.

³⁵ Defendant's Reply Submissions on Liability dated 26 May 2025 ("DRS") at paras 94–106, 117–120 and 122–130.

(d) Is Arki-Tech entitled to any payments in respect of *quantum meruit*?

(e) Is Arki-Tech entitled to any late payment interest?

22 Having set out the pertinent issues, I begin with the first issue, *ie*, whether the DM Agreement is enforceable.

Whether the DM Agreement is enforceable

The applicable legal principles

23 For a contract to be validly formed and enforceable, its terms must be certain (see *Gay Choon Ing v Loh Sze Ti Terence Peter and another appeal* [2009] 2 SLR(R) 332 at [50]). But this does not mean that the law is overly astute or subtle in finding defects in terms. Instead, the law construes documents fairly and broadly (see *Hillas (WN) & Co Ltd v Arcos Ltd* [1932] All ER Rep 494 (“*Hillas*”) at 503–504). The law will endeavour to uphold an agreement instead of striking it down (see *Gardner Smith (SE Asia) Pte Ltd v Jee Woo Trading Pte Ltd* [1998] 1 SLR(R) 950 at [10]). This suggests a presumption that contracts are valid (*The Law of Contract in Singapore* (Andrew Phang Boon Leong gen ed) (Academy Publishing, 2nd Ed, 2022) at para 03.208). Indeed, in specifically considering whether a term is void for uncertainty, the court may have regard to the more general principle of reasonableness (*Hillas* at 506).

The VE Fee Option Clause and Term Sheet Fee Clause are not so vague and uncertain that the DM Agreement is rendered unworkable and unenforceable

24 In my view, the VE Fee Option Clause and Term Sheet Fee Clause are not so vague and uncertain that the DM Agreement is rendered unworkable and unenforceable.

25 In coming to this conclusion, I note the operation of the *contra proferentem* rule against Arki-Tech. The *contra proferentem* rule states that a person who puts forward the wording of an agreement can be assumed to have looked after his own interests, such that any ambiguity in the agreement is to be construed against that party. This means that where there is ambiguity about whether the person who drafted the wording of the agreement was intended to have a particular benefit, the *contra proferentem* rule indicates that he did not so intend (see *Tay Eng Chuan v Ace Insurance Ltd* [2008] 4 SLR(R) 95 at [34]).

26 Here, the evidence indicates that Loo drafted the DM Agreement, such that the *contra proferentem* rule operates against Arki-Tech. In an email dated 3 January 2017 to Rentak (“3 January 2017 Email”), Loo stated the following:³⁶

Dear Lydia

Pursuant to you call and Jerome’s suggestion last week that I draft the agreement; kindly find the draft agreement attached herewith and the term sheet based on the parties points of agreement (edited to exclude the financing, DM and PM term sheets)

Warm regards,

Loo King Keong (Mr)

The tenor of this email to Rentak clearly indicates that Loo drafted the DM Agreement along with the Term Sheet, in accordance with *Rentak’s* suggestion for Loo to draft the agreement. I find as a fact that it was Loo who drafted the DM Agreement and Term Sheet and that he had based it on the POA. Further, it appears from the WhatsApp messages between Loo and Jerome dated 23 November 2016³⁷ that Loo was also the person who had been drafting the POA for the parties as Loo messaged at 14.58 pm that he had just sent the POA to

³⁶ Plaintiff’s Bundle of Documents (Vol 7) dated 24 March 2021 (“7PBD”) at p 3.

³⁷ Defendant’s Bundle of Documents (Vol 4) dated 24 March 2021 (“4DBD”) at p 287.

Jerome and also to Tan Yang Po and Richard. Consequently, the *contra proferentem* rule should operate against Arki-Tech.

27 I am fortified in my conclusion by several clauses of the DM Agreement which are highly advantageous to Arki-Tech and strongly suggest that Loo drafted the DM Agreement and the Term Sheet. The first clause is cl 7.2 of the DM Agreement, which provides:³⁸

- 7.2 Without prejudice to the right of action of the DM Consultant against the Client in respect of any unpaid Fees or any breach of this Agreement, the DM Consultant is entitled to immediately terminate this Agreement by notice if any of the following events occur:
 - 7.2.1 If the Client fails to pay any money due to the DM Consultant under this Agreement within seven (7) days after the date on which the same falls due;
 - 7.2.2 If the Client fails or refuses to perform or comply with any one or more of its obligations under this Agreement (other than Clause 7.2.1 above), and, if in the opinion of the DM Consultant that default can be remedied, the Client fails to remedy such default within seven (7) days after the DM Consultant has given written notice of such default to the Client;
 - 7.2.3 If the Client shall become bankrupt or make any assignment for the benefit of creditors or enter into an agreement or make any arrangement with creditors or if the Client being a company shall go into liquidation whether voluntary (save for the purposes of amalgamation or reconstruction) or compulsory; or
 - 7.2.4 If a receiver, judicial manager or similar officer is appointed in respect of any part of the assets of the Client.

28 It can be seen that cl 7.2 gives Arki-Tech a very wide latitude to immediately terminate the DM Agreement (eg, failure on the part of Rentak to make payment within seven days) without any prejudice to Arki-Tech's rights

³⁸ ABD at p 11.

to bring a claim against Rentak for unpaid Fees. This overly favourable termination clause in favour of Arki-Tech suggests that Loo drafted the DM Agreement and Term Sheet.

29 The second clause is cl 8 of the DM Agreement, specifically, sub-cll 8.2.2, 8.2.4 and 8.2.5, which provide:³⁹

8.2 In no event shall the DM Consultant be liable to the Client for any damages, expenses, costs or loss of any kind (including but not limited to loss of data)

...

8.2.2 that the Client may suffer or incur as a result of misuse of the DM Consultant's IPR and/or the Foreground IPR by the Client or its employees, agents or contractors,

...

8.2.4 resulting (direct or indirect) from any errors, bugs or defects in the DM Consultant's IPR and/or the Foreground IPR arising from the acts of third parties,

8.2.5 resulting (direct or indirect) from any unauthorised access to and/or unauthorised use of the DM Consultant's IPR and/or the Foreground IPR by third parties.

30 It can be seen that sub-cll 8.2.2, 8.2.4 and 8.2.5 exclude Arki-Tech's liability for damages *of any kind* stemming from Rentak's use of Arki-Tech's intellectual property rights ("IPR"). This limitation of liability clause is unduly onerous towards Rentak, which again suggests that Loo drafted the DM Agreement and Term Sheet.

31 However, Arki-Tech points to several messages suggesting that the parties drafted the DM Agreement *together*.⁴⁰ In the first WhatsApp exchange

³⁹ ABD at p 12.

⁴⁰ PRS at paras 7–10.

dated 22 November 2016, Jerome informed Loo that Rentak would get their Malaysian lawyer to draft the agreements.⁴¹ Then, on 25 November 2016 and 29 November 2016, Jerome reassured Loo that Rentak's Malaysian lawyer was drafting the agreement and that Loo would receive the draft contract.⁴² Finally, on 16 December 2016, Jerome took the view that it was too costly to engage lawyers to draft the agreement, and that it was better for the parties to draft the agreement themselves to save costs.⁴³

32 None of these communications assist Arki-Tech because they *pre-dated* the 3 January 2017 Email from Loo to Rentak. Indeed, the emails that Arki-Tech relies on only show that the parties had initially considered engaging lawyers to draft the DM Agreement, before eventually doing away with this idea. Even though Jerome had suggested that the parties draft the agreement themselves, the reality of the 3 January 2017 Email is that Loo eventually drafted the DM Agreement and Term Sheet himself. Indeed, the objective nature of the 3 January 2017 Email contradicts his self-serving statement under cross-examination that the drafting of the agreement was a joint effort.⁴⁴ On the contrary, the evidence suggests that Loo drafted the DM Agreement and the Term Sheet. Hence, the *contra proferentem* rule operates against Arki-Tech such that any ambiguity in the DM Agreement is to be resolved in favour of Rentak.

⁴¹ 4DBD at p 287.

⁴² 4DBD at pp 287 and 289.

⁴³ 4DBD at p 290.

⁴⁴ Transcript (10 May 2021) at 113:29–32.

There is no uncertainty regarding the identification or selection of a “formal quantity surveyor”

33 Rentak first argues that there is no workable mechanism for the identification or selection of a “formal quantity surveyor”.⁴⁵ This argument is misconceived as it was never the parties’ intention that they had to agree on and jointly commission a “formal quantity surveyor” (“QS”) to prepare the detailed set of costs estimates. Instead, the evidence indicates that the QS was to be appointed and employed by *Rentak*, with the cost estimates to be calculated by Rentak’s QS.

34 The starting point when undertaking the exercise of contractual interpretation is the language of the relevant terms of the contract (see *CIFG Special Assets Capital I Ltd (formerly known as Diamond Kendall Ltd) v Ong Puay Koon and others and another appeal* [2018] 1 SLR 170 (“*CIFG*”) at [19(a)]). In this regard, it is notable that Item 2 of the Term Sheet stipulates clearly that the QS is to be *employed by Rentak*:⁴⁶

Contractor End Financing for Construction Costs Procured by [Rentak]

The construction of the Project (Phase 1) shall be on a design and build basis in accordance to the performance specifications as developed by the DM – fully assisted by the project submitting architect and QS to be employed by [Rentak].

[Rentak] shall undertake to procure the construction costs to be fully funded by prequalified main contractors to be subsumed fully under the management of the DM/PM.

35 The acronym “QS” first appears in the VE Fee Option Clause, where it states that the “Fees to manage and execute value engineering to [the] Project”

⁴⁵ DCS at paras 87 and 91.

⁴⁶ ABD at p 20.

shall mean “20% of all cost savings from VE” measured against a “*formal quantity surveyor QS* detailed cost estimates;...” [emphasis added].⁴⁷ This is repeated at the first bullet point in Item 1 of the Term Sheet (*ie*, the Term Sheet Fee Clause), where it is stated:⁴⁸

Parties JV Agreement on DM Appointment

Parties further agreed to appoint M/s Arkitech International Pte Ltd as Development Manager (“DM Consultant”) on the following payment terms:

- to manage and execute value engineering and shall be entitled to 20% of all cost savings against *a formal quantity surveyor QS* cost estimate to validate data and costings described herein and in accordance to PDF drawings tabled for the Parties discussion

...

[emphasis added]

36 There is no clause in the DM Agreement specifically providing for the manner of appointment of the QS. Item 2 of the Term Sheet is the only clause in the entire DM Agreement which details who is to *employ* the QS. Although the header for Item 2 of the Term Sheet refers to “Contractor End Financing for Construction Costs Procured by [Rentak]” rather than the appointment of the QS directly, I note that Item 2 provides at the same time that the construction of Phase 1 of the Project was to be done in accordance with the performance specifications developed by the DM, who in turn was to be fully assisted by the project submitting architect and the *QS to be employed by Rentak*. Having regard to Item 2 of the Term Sheet which clearly provides that the QS is to be employed by Rentak (and only Rentak) and in construing the VE Fee Option Clause and the Term Sheet Fee Clause in the context of the entire DM

⁴⁷ AB at p 19.

⁴⁸ AB at p 20.

Agreement that was drafted by Loo, it is clear that the QS is to be appointed by Rentak (and only by Rentak) especially when the *contra proferentem* rule of interpretation (see [44] to [46] below) is applied against Arki-Tech.

37 Indeed, Jerome testified during the trial that Rentak had stipulated for the appointment of another QS to provide the “Construction Budgetary Estimate for Phase 1”⁴⁹ as the estimated amount previously provided to them by their own QS, Ms Alice Jurukur (“Alice”) of “MYR 97,000,000”⁵⁰, had been too high:⁵¹

Q Okay, Jerome, let’s talk about the QS estimates here. This QS estimate here would be the QS estimate that the defendant’s QS gives to you, correct?

A We don’t agree with that estimate by the QS Alice.

Q You may not agree, but you agree that it will refer to a quantification that is done by the QS?

A By a QS, but not that QS that give us a very high---we are still waiting to get another QS to come up with the – what you call that – with the estimate.

Q Has there been any QS at that point in time when this DM Agreement was signed? There was only one QS, correct?

A Yah, but it was put across to Mr Loo that we don’t agree with that estimate. That’s why we came up with the 97 million.

38 Furthermore, the POA indicates that Rentak was to appoint the QS for the Project. Given that the POA is a form of pre-contractual negotiations between the parties, there is an anterior legal question of whether evidence of pre-contractual negotiations is admissible for the purpose of interpreting a contract. The admissibility of evidence of prior negotiations is a legal issue that

⁴⁹ Item 3 of Schedule 2 (ABD at p 18).

⁵⁰ Item 3 of Schedule 2 (ABD at p 18).

⁵¹ Transcript (24 May 2021) at 141:1–11.

remains open in Singapore (see *Xia Zhengyan v Geng Changqing* [2015] 3 SLR 732 at [69]). Parties who rely on extrinsic evidence (including that of pre-contractual negotiations) to aid in the construction of a contract must comply with certain pleading requirements as set out in *Sembcorp Marine Ltd v PPL Holdings Pte Ltd and another and another appeal* [2013] 4 SLR 193 (at [73]). Moreover, the evidence of pre-contractual negotiations must, if admissible, be relevant, reasonably available to all the contracting parties and relate to a clear and obvious context (see *Zurich Insurance (Singapore) Pte Ltd v B-Gold Interior Design & Construction Pte Ltd* [2008] 3 SLR(R) 1029 at [125] and [128]–[129]).

39 Since this legal issue was not directly addressed by the parties, I leave this question to be decided on a more suitable occasion when the court has the benefit of full arguments. Nonetheless, I observe that the situation here is extremely clear since the DM Agreement and Term Sheet were based off the POA. Moreover, the POA serves a *confirmatory* (ie, complementary and subsidiary) function as opposed to a pivotal one. Here, that the QS is to be employed by Rentak is made clear at Item 5 of the POA (which is almost identical to Item 2 of the Term Sheet):⁵²

Contractor End Financing for Construction Costs Procured by [Rentak]

The construction of the Project (Phase 1) shall be on a design and build basis in accordance to a performance specifications as developed by the DM fully assisted by the project submitting architect and *QS to be employed by [Rentak]*. [Rentak] shall undertake to procure the construction costs to be fully funded by prequalified main contractors to be subsume fully under the management of the DM/PM.

[emphasis added]

⁵² ABD at p 6.

40 Indeed, the POA appears to have similarly defined the acronym “QS” to be the “formal quantity surveyor” as can be seen at Item 3 in the POA under “Parties JV Structure & Options”, where the sixth bullet point states that:⁵³

Arkitech as DM shall be tasked to manage and execute value engineering and shall be entitled to 20% of all cost savings against a *formal quantity surveyor QS* cost estimate to validate data and costings described herein and in accordance to PDF drawings tabled for the Parties discussion (See Annex B)

[Emphasis in original omitted; emphasis added in italics]

41 It is also clear to me that the evidence of the POA would have fulfilled the requirements set out in *Zurich Insurance*. The POA is relevant since the Term Sheet annexed to the DM Agreement was based on the POA.⁵⁴ The POA was also available to both Arki-Tech and Rentak. The POA set the background against which the parties entered into the DM Agreement. In fact in Loo’s 3 January 2017 Email to Rentak, Loo said that the draft DM Agreement he had prepared was based on the POA but he had edited out “the financing, DM and PM term sheets”.

42 In sum, the POA confirms my interpretation that the QS referred to in the VE Fee Option Clause and the Term Sheet Fee Clause was to be appointed by Rentak.

43 The DM Agreement and Term Sheet (as well as the POA) all indicate that the parties had agreed that the QS being the “formal quantity surveyor” was to be appointed solely by Rentak. Thus, at all times, it was understood and agreed by the parties that Rentak would employ and therefore appoint the QS. Clearly, it is not that either Arki-Tech or Rentak can appoint the QS. Neither is

⁵³ ABD at p 6.

⁵⁴ SOC at para 9.

there a requirement for Arki-Tech and Rentak to agree on and jointly appoint the QS.

44 If I were to employ the *contra proferentem* rule of interpretation against Arki-Tech on the basis that it is unclear in the DM Agreement whether it is for (a) Rentak; (b) Arki-Tech; (c) Rentak *or* Arki-Tech; or (d) Rentak *and* Arki-Tech jointly to appoint the QS, I would construe it strictly against Arki-Tech in that Rentak (and not Arki-Tech, or either Rentak or Arki-Tech, or both Rentak and Arki-Tech jointly) is to appoint the QS to perform the detailed cost estimates. Of these four options, giving Rentak the exclusive right to appoint this QS will be least favourable to Arki-Tech and the most favourable to Rentak.

45 Finally, Rentak's reliance⁵⁵ on *Rudhra Minerals Pte Ltd v MRI Trading Pte Ltd (formerly known as CWT Integrated Services Pte Ltd* [2013] 4 SLR 1023 ("*Rudhra*") is misplaced. In *Rudhra*, a dispute arose between the plaintiff and the defendant regarding the appointment of a load port surveyor under a contract to purchase coal as well as the mechanism by which the load port surveyor was to be appointed. Holding that the contract was void for uncertainty (or more precisely, for being incomplete), Andrew Ang J reasoned that this was because the term relating to the choice of the load port surveyor was essential to the contract but not agreed upon (at [40]).

46 In contrast, it was never the parties' intention in the present case that they had to further agree on the identity or mechanism for the appointment of the QS. It is already stipulated at Item 2 of the Term Sheet that the QS was to be employed by Rentak. In fact, Rentak had already appointed and engaged Alice as its QS at that time. Indeed, in the correspondence between the parties

⁵⁵ DWS at para 69.

dated 25 October 2016, they agreed that Loo was to take 20% of cost savings from VE from the “current QS cost” (*ie*, the QS cost estimates provided by Alice).⁵⁶ Since it is clear in the DM Agreement that it was for Rentak to employ the QS, there is no uncertainty as to the identity of the QS or the mechanism to be employed to appoint the QS. I therefore reject Rentak’s submission that there is uncertainty in the DM Agreement as to the party to appoint the QS and therefore the QS who is to be appointed to perform the detailed cost estimates for the purpose of computing the 20% of all the cost savings. I find therefore that the contract is not void for uncertainty in this regard.

The meaning of “20% of all cost savings from VE” is not unclear

47 Next, Rentak argues that the phrase “20% of all cost savings from VE” is unclear. Specifically, Rentak argues that there are four different stages in the overall timeline for the Project at which cost savings can be assessed. Rentak argues that each of these four stages yields drastically different cost computations:⁵⁷

- (a) when a budgetary analysis is prepared at the budgeting and timelines stage (“budget stage”);
- (b) at the tender stage, when design and build contractors submit their pricing bids for the actual construction of Phase 1 based on the working design drawings in the tender (“tender stage”);
- (c) when the tender has been awarded to the selected design and build contractors (“tender award stage”); and

⁵⁶ 1PBAEIC at p 1073.

⁵⁷ DCS at paras 77–82.

- (d) when Phase 1 of the Project has been developed and constructed (“as-built stage”).

48 However, contrary to Rentak’s arguments, there is no uncertainty at the heart of this provision. Option 1 of the VE Fee Option Clause provides that the cost savings are to be calculated in accordance with the “detailed cost *estimates*” [emphasis added].⁵⁸ The use of the word “estimates” is incongruous with calculating the actual cost savings after Phase 1 of the Project has been developed and fully constructed (*ie*, as per the as-built stage). If the Project has already been developed and constructed, then actual costs saved would be known precisely and would be determinable as such, and therefore these actual costs saved would no longer be “estimates”. If the cost savings were to be calculated with respect to the “as-built stage”, the parties would have used the phrase “detailed *cost*” or “detailed *actual cost*” instead of “detailed *cost estimates*”.

49 Clause 3.1 of the DM Agreement makes clear that the DM Consultant shall commence performing his VE Services from 9 January 2017 and complete the entire scope of his VE Services in accordance with the Term Sheet “up to and until the commencement of construction works to the main contract”.⁵⁹ Since Arki-Tech is required to complete its scope of VE Services as stipulated under cl 3.1 of the DM Agreement at the time when the construction works to the main construction contract begins, Arki-Tech cannot be reasonably expected to wait until the end of the construction of the Project, which may be several years after the completion of its work as DM Consultant, to be paid 20% of the actual cost savings if indeed those cost savings are to be ascertained using the

⁵⁸ ABD at p 19.

⁵⁹ ABD at p 8.

actual construction costs of the Project as-built. Accordingly, I do not interpret the cost savings to be based on the actual costs to be determined after the completion of construction on an as-built basis, *ie*, the “as-built stage”.

50 Neither is the “tender stage” the relevant stage for computing the 20% of cost savings. During the tender stage, there will be different competing bids submitted, different tender prices and therefore different possible construction costs depending on which tenderer is selected for the Project. Therefore, there exist different possible quantum for the 20% of potential cost savings were these to be based on each of the different price bids from the different tenderers. It would be absurd for Rentak to award the tender to two or more tenderers to construct the same Project. Since Rentak must award the tender to only one tenderer, it will have to be the successful tenderer’s bid and pricing that will govern how much estimated cost savings there will be arising from the plaintiff’s VE Services. Since only the successful tenderer will construct the Project (which would by this time have already incorporated the plaintiff’s VE proposals as approved in writing by the Board, *ie*, the Board-approved VEs or the Board-approved VE proposals), the bids and pricing of other unsuccessful tenderers are obviously irrelevant for the purpose of estimating the cost savings from the various Board-approved VE proposals.

51 In other words, the only relevant stage will be the “tender award stage”, where the construction prices quoted by the successful tenderer will be the applicable basis to compute the 20% of cost savings from VE based on the QS’s detailed cost estimates. This will also neatly coincide with the time when Arki-Tech’s entire scope of VE Services to “manage and execute value engineering to [the] Project” ends and when the construction works begin (see [49] above in relation to cl 3.1 of the DM Agreement). This is because the successful tenderer must be known by this time (as the construction tender has to be awarded by

this time), and therefore all the prices for construction of various parts for Phase 1 of the Project by the successful tenderer will be known and can be readily used by the QS to work out the detailed cost estimates to compute the 20% of cost savings payable to Arki-Tech upon completion of its work to “manage and execute value engineering to [the] Project” as per Item 5 of Schedule 3 to the DM Agreement.⁶⁰ Accordingly, Rentak will be able to promptly pay Arki-Tech soon after the completion of its scope of VE Services under the DM Agreement. Whether Arki-Tech will be subsequently engaged as a PM after the start of construction to manage the construction itself will be another matter entirely.

52 Second, in relation to Option 2 of the VE Fee Option Clause, the reference to 20% of all cost savings from VE “factually ascertained to be based on the construction rate of RM250 per square feet (Budgetary Construction estimate/GFA)”⁶¹ indicates that, if Option 2 is selected, the parties would not have used any of the pricing bids submitted by the tenderers (nor the pricing bid of the successful design and build contractor in the tender for the actual construction of Phase 1) to establish the construction rate per square foot in order to determine the cost savings from VE. For Option 2, the parties have agreed to adopt a simple flat rate of RM250 per square foot, against which all the cost savings from VE are to be computed. The RM250 per square foot construction rate in Option 2 was an agreed budgetary estimate which the parties arrived at based on the “Construction Budgetary Estimate to Phase 1 only (strictly excluding interior fitting out works)” of “[RM] 97,000,000,00 only (Malaysian Ringgit: Ninety-Seven Million Only)” as set out in Item 3 of

⁶⁰ ABD at p 19.

⁶¹ ABD at p 19.

Schedule 2 of the DM Agreement⁶² divided by the “gross floor area of 390,000 sq ft” as set out in Item 2 of Schedule 2 of the DM Agreement. This gives a result of RM 248.72 per square foot, which is rounded up to the agreed figure stipulated in Option 2 of a fixed “construction rate of RM 250 per square foot” to compute the “20% of all cost savings from VE”.

53 The “RM 250 per square foot” estimate adopted by the contractual parties as the agreed simple flat fixed rate of the cost of construction at the time they signed the DM Agreement negates any possibility that the parties intended under Option 2 to calculate the cost savings from the floor area reductions from VE by using the construction cost figures obtained subsequently from the various tender bids at the tender stage, or from the one successful tender bid at the tender award stage, or the actual construction cost figures at the completion of the Project at the as-built stage.

54 There is therefore no uncertainty in the phrase “20% of all cost savings” as used in the VE Fee Option Clause regardless of whether it is Option 1 or Option 2 that is selected. This can be contrasted with *Jewellery Industries (S) Pte Ltd v Sintat Rent-a-Car Pte Ltd* [1993] 1 SLR(R) 744, where Judith Prakash JC (as she then was) found that an option to renew a lease subject to the landlord’s right to review the rental payable was uncertain as, on an objective reading, it gave rise to varying interpretations as to *how* the rent was to be calculated (at [17]–[18]). The present case is also unlike *G Scammell and Nephew Ltd v Ouston* [1941] AC 251, where the House of Lords found it embarrassing that at least five different constructions of an alleged hire purchase agreement between the parties were presented before their Lordships (at 259–260). Here, on an objective construction of the VE Fee Option Clause, the

⁶² ABD at p 18.

parties had clearly agreed for the cost savings to be calculated (a) based on the successful tenderer's tender prices (which would be available by the time of completion of the VE Services to be performed under the DM Agreement) in the case of Option 1; or (b) based simply on a fixed budgetary estimate of RM250 per square foot in the case of Option 2.

55 I also reject Rentak's submission that there is uncertainty as to what "detailed" in "detailed cost estimates" under Option 1 of the VE Fee Option Clause means.⁶³ In my view, it is not necessary for the parties to stipulate in the contract the exact level of detail that was required by the word "detailed"; to do so would have been quite impractical. Indeed, it would also have been quite impractical to require the parties to have stipulated in the DM Agreement all the underlying assumptions that the QS must adopt in estimating the cost savings from VE. This is best left to the QS, who is a professional in his own right, to do his professional work. Instead, it suffices that the parties had intended and stipulated for the QS employed by Rentak to produce a thorough analysis and detailed calculations of the total cost savings from the various Board-approved VE proposals (rather than preliminary rough and ready calculations of the cost savings from VE) in reliance on the QS's own professional expertise. A professionally qualified QS with his own expert domain knowledge will know what sort of cost information to extract from the successful tenderer's tender prices for the various types of construction work in the Project (*eg*, for the hotels, the Multi-Storey Carpark, the Convention Centre, and the different components within). The QS will know how to apply such cost information to derive and compute the cost savings from the various Board-approved VE proposals, which span different types of construction, depending on the type of

⁶³ DCS at para 99.

VE proposal. In short, the parties need not direct how the QS should do his professional work.

56 If Option 1 of the VE Fee Option Clause is selected, the QS will know how to extract the various costs of construction per square foot for the different types of construction from the successful tenderer's tender prices to derive the total cost savings from VE. The QS will know how to compare the final composite architectural design incorporating all the Board-approved VEs (and upon which construction by the successful tenderer will soon commence) with the original Shilpa's architectural designs that are reflected in the "PDF drawings and planning data that had been tabled in Annex B" as required by Option 1 of the VE Fee Option Clause in order to get the construction area saved and then use the various construction cost rates per square foot that the QS himself will derive to calculate in detail the total cost savings from the Board-approved VE proposals. Briefly, the parties have contractually agreed to pass this work to the QS solely appointed by Rentak and the QS will simply calculate the quantum of Fees of 20% of all cost savings from the Board-approved VE proposals.

57 On the other hand, if Option 2 of the VE Fee Option Clause is selected, then the work of the QS will be made much easier as parties have stipulated in the DM Agreement to adopt instead a simple fixed flat rate of RM250 per square foot to be applied to all types of savings in the area (measured in square feet) of construction work regardless of the nature or the type of construction involved for the various Board-approved VE proposals. Similarly, the QS will know how to compare the final composite architectural design incorporating all the Board-approved VE proposals (and upon which construction by the successful tenderer will soon commence) with the original Shilpa's architectural designs that are reflected in the "PDF drawings and planning data that had been tabled in

Annex B” in order to get the construction area saved. Again, the QS can be trusted to know how to perform his professional work of calculating the estimated cost savings from all the Board-approved VE proposals based instead on the flat fixed rate of RM250 per square foot.

The parties did agree on an Annex B containing “PDF drawings and planning data”

58 Rentak then argues that the parties did not agree on an Annex B, which was supposed to contain PDF drawings and planning data that the QS would use in preparing the detailed cost estimates.⁶⁴ In this regard, it is true that the DM Agreement does not contain an Annex B annexed to it. The ambiguity that arises in the present case is one where the original language becomes meaningless because there is in fact no Annex B of PDF drawings and planning data attached to the DM Agreement such that this original language in the DM Agreement could not have been used in its plain sense.

59 Section 97 of the Evidence Act 1893 (2020 Rev Ed) (“EA”) steps in to resolve this ambiguity. Section 97 provides:

Evidence as to document meaningless in reference to existing facts

97. When language used in a document is plain in itself, but is meaningless in reference to existing facts, evidence may be given to show that it was used in a peculiar sense.

Illustration

A conveys to B by deed “my plantation in Penang”.

A had no plantation in Penang, but it appears that A had a plantation in Province Wellesley, of which B had been in possession since the execution of the deed.

⁶⁴ DCS at paras 100–101.

These facts may be proved to show that the deed related to the plantation in Province Wellesley.

Thus, where the original language is plain by itself but meaningless when applied to the existing facts, evidence is admissible to demonstrate that the original language was used in a peculiar sense (see Jeffrey Pinsler *SC, Evidence and the Litigation Process* (LexisNexis, 8th Ed, 2024) at para 11.034).

60 In my judgment, the parties in the present case had agreed on the PDF drawings and planning data that the QS was to use in her calculations before the DM Agreement was executed. Specifically, the parties had agreed for the QS to use the drawings provided earlier on 16 November 2016 (which was prior to the DM Agreement dated 16 January 2017). Indeed, Richard agreed that this was the case:⁶⁵

Q Richard, are these the drawings---

A To---to Mr Loo.

Q ---that were---

A Is it Mr Loo?

Q To---that you gave to Mr Loo?

Court: Mr Loo, ah, gave to Mr Loo, correct?

Witness: Yup, that's right.

Court: So when we go back to the DM agreement, and look at that particular item 5, let's go back to DM agreement. Do you agree that this PDF drawings and the Annex B refer to one and the same thing--

Witness: Yup.

Court: ---being the drawings that you had given to the plaintiff, Loo?

Witness: Yes.

Court: You will concede that?

⁶⁵ Transcript (20 May 2021) at 124:29–125:5.

Witness: Yah.

Jerome similarly conceded this as well:⁶⁶

Q: Jerome, do you recall we had a discussion on Annex B earlier? Do you recall that, Annex B to the points of agreement before lunch?

A: Mm-hm.

Q: So Annex B refers to the PDF drawings that were sent from Richard to Mr Loo King Keong. You had acknowledged that earlier.

A: Mm-hm.

Q: Correct?

A: Mm-hm.

Q: Sorry, I need you to say "Okay" because later---

A: Yes, okay.

Q: ---the transcripts will come out and---

A: Yes.

Q: ---you will say "Mm-hm". Alright, so Annex B here in other words would be the PDF September 2015 drawings that was sent to Loo King Keong on 16th November 2016, correct?

A: Yes.

61 Hence, there is no uncertainty as to the drawings that the QS was meant to use. I therefore accept Arki-Tech's submission that the "PDF drawings and planning data" in Annex B is intended to refer to the drawings provided to Loo on 16 November 2016.⁶⁷

62 Rentak contends that if the parties had intended to refer to the drawings provided on 16 November 2016, they would have explicitly referred to this in

⁶⁶ Transcript (24 May 2021) at 132:25–133:8.

⁶⁷ PCS at paras 86–88.

the DM Agreement.⁶⁸ Any force in this submission is dissipated given Rentak's own concession that the "PDF drawings and planning data" as referred to in the VE Fee Option Clause referred to the drawings provided to Loo on 16 November 2016. Likewise, Rentak's submission that the "PDF drawings" that were "tabled for the Parties discussion" (as stipulated in the Term Sheet) is unclear lacks merit, in the light of Rentak's own acknowledgment as to what the "PDF drawings and planning data" as mentioned in the DM Agreement were referring to. These "PDF drawings tabled for the Parties discussion" again is intended to refer to the same PDF drawings that were provided to Loo on 16 November 2016 obviously to study first and for discussion with Rentak later when Loo makes his VE proposals.

63 Finally, I observe that the reference to Annex B is nothing more than a misdirection. In the POA, it is stated that Arki-Tech "as DM shall be tasked to manage and execute value engineering and shall be entitled to 20% of all cost savings against a formal quantity surveyor QS cost estimate to validate data and costings described herein and in accordance to PDF drawings tabled for the Parties discussion (See *Annex B*)" [emphasis in original].⁶⁹ On a proper construction, it seems clear to me that the PDF drawings that were to be used to calculate the cost savings were those that had been tabled for the parties' discussion, and that whatever documents were tabled would eventually be labelled as "Annex B". Consequently, the question of what documents were tabled for the parties' discussion is a factual one, and was one that was answered by Rentak during the trial (*ie*, these documents were the drawings provided to Loo on 16 November 2016) (see [62] above). For completeness, it is not necessary for me to decide on the admissibility of the POA as pre-contractual

⁶⁸ DCS at para 104.

⁶⁹ ABD at p 6 (under S/No 3 (at bullet point 6 under "Parties JV Structure & Options")).

negotiations, given that the interpretation of Annex B can be answered through the evidence given by Rentak at trial and admissible under s 97 of the EA.

64 For these reasons, the cases relied on by Rentak also do not assist it.⁷⁰ In *T2 Networks Pte Ltd v Nasioncom Sdn Bhd* [2008] 2 SLR(R) 1 (“*T2 Networks*”), Judith Prakash J (as she then was) held that the settlement agreement was unenforceable not just because there was no consideration, but also because there was no payment schedule provided (with the need for a payment schedule being vital to the agreement) (at [44]). In *Lal Hiranand v Kamla Lal Hiranand* [2007] 2 SLR(R) 165 (“*Lal Hiranand*”), the Court of Appeal held that the deed in question was unenforceable because the term “Hiranand family companies” as used in the deed was not defined. Indeed, although the companies were supposed to be named in a schedule to the deed, there was no such schedule furnished. While the Court of Appeal was prepared to give meaning to a term that was on its face uncertain, it found on the facts that there was simply no certainty on the evidence as to the companies that constituted the “Hiranand family companies” (at [32], [35] and [41]–[42]). Indeed, the Court of Appeal went on to conclude that the other provisions of the deed were so uncertain that no order could be made as to how they were to be performed (at [45]). In contrast to the fact patterns in *T2 Networks* and *Lal Hiranand*, the evidence in the present case clearly indicates the parties’ agreement that the “PDF drawings and planning data” referred to the drawings that were given to Loo on 16 November 2016. In this regard, there is no factual dispute as to exactly which of Shilpa’s drawings were given to Loo on 16 November 2016 to work on in order to propose various VE options and designs for the eventual consideration of the Board for their selection and written approval.

⁷⁰ DCS at paras 105–106.

Option 2 is comprehensible

65 Rentak then argues that Option 2 is incomprehensible.⁷¹ To be sure, the VE Fee Option Clause is rather infelicitously drafted. The use of the word “Or” may make it seem that the second sentence of that clause is a standalone option for the calculation of cost savings. This, however, would in my judgment be incorrect. If I accept that the second sentence is a standalone clause, then Option 2 stipulates that the cost savings are to be, at any time, factually ascertained based on the construction rate of RM250 per square foot. Read this way, Option 2 does not make sense since there must be a reference point against which cost savings are factually ascertained. Cost savings cannot be measured without any reference point stipulated. The reference point is the total construction area saved through the VE Services provided. Obviously, to derive the total cost savings, one has to multiply the cost rate of construction of RM250 per square foot to the physical area saved in construction occasioned by the VE proposal. In my judgment, the following formula is meant to be applied in construing Option 2:

$$\begin{aligned}\text{Cost savings} &= (\text{RM250 per square foot}) \times (\text{Savings or reduction in the physical Construction Area through VE in square feet}) \\ &= (\text{RM250 per square foot}) \times ([\text{Original Construction Area in square feet in Shilpa's architectural drawings} - \text{New Construction Area in square feet in the modified Shilpa's architectural drawings with the Board-approved VE proposal fully incorporated}])\end{aligned}$$

66 Thus, it seems to me that on a proper construction of the VE Fee Option Clause, the clause is meant to be read as a single sentence as follows: “20% of all cost savings from VE measured against a formal quantity surveyor QS

⁷¹ DCS at para 110.

detailed cost estimates; prepared in accordance to PDF drawings and planning data that had been tabled in Annex B *or whenever factually ascertained to be based on the construction rate of RM 250 per square foot*". Construed this way, it becomes clear that Option 2 stipulates that the QS may ascertain the cost savings using the PDF drawings and planning data tabled for the parties' discussion but would *not* need to devise her own construction cost rates in terms of Malaysian Ringgit per square foot. Instead, the QS may utilise the pre-set construction rate of RM250 per square foot to ascertain the cost savings. On the other hand, for Option 1, the QS must ascertain the relevant construction cost rates in terms of Malaysian Ringgit per square foot using her domain expert knowledge and her extractions of the construction rates having regard to the successful tenderer's bid prices for the construction of the Project, which will certainly be available to the QS by the time the DM Consultant's work under the DM Agreement is completed.

67 Under Option 2, the cost savings are instead to be determined using the fixed flat construction rate of RM250 per square foot.⁷² This rate as explained earlier is roughly derived by using the construction budgetary estimate for Phase 1 (*ie*, RM 97,000,000) and dividing that sum by the gross floor area of 390,000 square feet (see [52] and [65] above). The QS appointed is therefore meant to calculate the cost savings arising from any reduction in gross floor area by multiplying the fixed flat construction rate of RM250 per square foot to the physical reduction in the total gross floor area based on the relevant PDF drawings and planning data tabled earlier for discussion as one reference point to obtain the cost savings. The other obvious reference point is the new set of modified architectural drawings after the Board-approved VE proposals have been incorporated (see the savings computation formula at [65] above).

⁷² ABD at p 19.

68 Unlike Option 1, Option 2 therefore does **not** require the QS to apply his expertise and expert market knowledge to obtain the construction cost rate per square foot in order to apply that figure to the total reduction in the gross floor area as determined from the architectural drawings so as to compute the detailed cost savings. I reiterate that in Option 2, the QS simply has to apply the stipulated construction rate of RM250 per square foot and multiply that by the physical reduction in the gross floor area. It will therefore still be necessary for the QS in Option 2 to ascertain from the PDF drawings and planning data as to what is the actual physical reduction in construction floor area before the QS can calculate the detailed cost savings based on the fixed flat construction rate of RM250 per square foot.

69 The real difference, therefore, between Option 1 and Option 2 is that Option 2 uses a pre-determined construction rate of RM250 per square foot to be applied to the floor area reduction whereas Option 1 requires the QS to apply her own expertise and expert domain knowledge to derive what is the construction cost rate per square foot that should be applied to the **same** floor area reduction. In both Options 1 and 2, the floor area reduction (which has to be identical for both Options) must inevitably be ascertained and determined by the QS from the **same** PDF drawings and planning data from Shilpa that had been tabled in “Annex B” as one initial reference point, besides the other final reference point, which is the new set of composite architectural drawings of Shilpa modified accordingly by the new Board-approved VE proposals from Arki-Tech (“composite design”) that is eventually tendered out for construction.

70 In any event, as will be explained later (see [105] below), this discussion on the two options in the VE Fee Option Clause is ultimately academic as the Term Sheet Fee Clause supersedes the whole of the VE Fee Option Clause.

The VE Fee Option Clause is not an agreement to agree

71 Rentak then argues that the VE Fee Option Clause is unenforceable as an agreement to agree, and that the contract is subsequently void for uncertainty, relying on Items 5 and 6 of Schedule 3 to the DM Agreement.⁷³ I reject this submission.

72 At the outset, Rentak is misconceived in arguing that a contract that is subject to further agreement is unenforceable for lack of certainty.⁷⁴ The law is clear that parties can conclude a binding contract notwithstanding that certain terms have yet to be agreed between them. What is critical is whether the parties have demonstrated an intention to be bound by the essential terms, notwithstanding the unsettled terms (*Rudhra* at [27]; *Law of Contract* at para 03.233).

73 In this regard, it is true that in *May and Butcher, Limited v The King* [1934] 2 KB 17, Viscount Dunedin held that a good contract is “one which settles everything that is necessary to be settled and leaves nothing to be settled by agreement between the parties” (at 21, cited with approval in *G Scammell* at 269). But read in its proper context, Viscount Dunedin was referring to the elementary principle that necessary terms (*ie*, essential terms) have to be agreed between the parties and no necessary term can be settled by future agreement between the parties. Thus, there is no basis for Rentak’s assertion that a contract that is subject to further agreement is unenforceable.

74 Further, the VE Fee Option Clause and Item 6 of Schedule 3 to the DM Agreement do not make it apparent that the parties had intended these items to

⁷³ DCS at paras 114–123.

⁷⁴ DCS at para 112.

be contingent on further or subsequent agreement by the parties. Beginning with the VE Fee Option Clause,⁷⁵ the fees for implementing the approved value engineering proposals in the Project are 20% of all cost savings from VE that are measured through the QS's cost estimates. These cost estimates were to be prepared in accordance with the PDF drawings and planning data furnished to Loo on 16 November 2016 from which the reduction in gross floor areas (in terms of the total physical floor area in square feet of construction area saved) arising from VE can be readily determined. These PDF drawings and planning data obviously *cannot* and *do not* provide the construction cost per square foot, a necessary component of cost calculations/cost equation which must be separately ascertained before the cost calculations can be completed.

75 As explained earlier, under the DM Agreement, the formula for the calculation of the total cost savings from VE is the product of (a) the total square feet of construction area saved through VE *which has to be ascertained from architectural drawings* and (b) the cost per square foot of construction area *which is to be either a figure for the construction cost rate per square foot to be separately determined by the QS based on his expertise and expert domain knowledge when making his detailed cost estimates in **Option 1** or the fixed flat rate of RM 250 per square foot of construction as the construction rate stipulated in **Option 2***. Seen this way, the VE Fee Option Clause does not leave any room for further agreement between the parties on the fees to be paid to Loo for managing and implementing the approved value engineering proposals in the Project.

⁷⁵ ABD at p 19.

76 Turning to Item 6 of Schedule 3, titled “Payment default event when payment terms cannot be ascertained”, this clause provides as follows:⁷⁶

DM shall be entitled to convert fully the Fees into equity and interest and shall be accordingly adjusted in the share register to reflect as equity granted to DM Consultant and/or one such Ringgit nominee.

DM Consultant may further elect and require that any amounts due as Fees in excess over and above the prescribed 5% equity option granted by Client shall be fully released to DM Consultant prior to the commencement of the construction contract if [Rentak] elected not to grant excess of prescribed equity shares.

77 When construed objectively, Item 6 of Schedule 3 does not suggest that payment terms were subject to further negotiation or subsequent agreement between the parties. Instead, these clauses provide for a default payment mechanism that Arki-Tech could invoke, if Rentak failed to pay the “Fees” as defined in Schedule 1 and as stipulated in cl 4.1 of the DM Agreement. Hence, Item 6 of Schedule 3 does not assist Rentak’s argument that the DM Agreement is an agreement to agree.

Whether Arki-Tech is entitled to any payments in respect of Phase 1 of the Project

Applicable legal principles

78 Having determined that the DM Agreement is enforceable, the next question that arises pertains to how I should interpret the DM Agreement with respect to the payment of fees.

79 The principles pertaining to the interpretation of a contract are well-settled. As mentioned earlier (see [34] above), in construing a contract, the

⁷⁶ ABD at p 19.

starting point is the text that the parties have used. The court is simultaneously permitted to consider the relevant context provided the relevant contextual points are clear, obvious and known to both parties. The court can consider the relevant context because the court is thereby placed in the best position to ascertain the parties' objective intentions by situating their expressions in the proper context. Finally, the court must ascribe to the terms of the contract a meaning which the parties' expressions can reasonably bear (*CIFG* at [19]).

Arki-Tech is entitled to remuneration at the hourly rate of \$350 with the award of 20% of cost savings in Phase 1 of the Project being a bonus

80 In my judgment, Arki-Tech is entitled to be paid for the time taken to render its services at the hourly rate of \$350, with the award of 20% of cost savings from VE for Phase 1 operating as a bonus.

81 At the outset, it is important to note that “Fees” and “Services” have been defined in Schedule 1 of the DM Agreement specifically as follows:

Fees means the fees payable by the Client to the DM Consultant for the Services rendered and calculated based on the Hourly Rate and the time taken by the DM Consultant to render such Services.

...

Services means the services specified in Item 2 of Schedule 2.

[emphasis in original]

It is common ground between the parties that the definition of “Services” should refer to Item 5 of Schedule 2, instead of Item 2 of Schedule 2.⁷⁷ Clearly these “Fees” payable under the DM Agreement are to be based on the number of hours actually rendered by the DM Consultant in providing all the “Services” specified in the DM Agreement and multiplied by the agreed hourly rate of \$350

⁷⁷ PCS at para 127.4; DCS at para 168.

per hour (see [8(c)] above). This has been expressly and clearly set out in cl 4.1 of the DM Agreement, which also specifically refers to Item 2 of Schedule 3 that sets out the agreed and fixed hourly rate of \$350 (hereinafter referred to as the “Time-based Fee Clause”) (see [85] below, which sets out cl 4.1 of the DM Agreement in full). This is essentially a time-based fee to be paid by Rentak to Arki-Tech (hereinafter referred to as the “Time-based Fee Arrangement”).

82 Apart from this Time-based Fee Arrangement, there appears to be another fee arrangement based on 20% of cost savings (“20% Fee Arrangement”). Nowhere in the main clauses of the DM Agreement is this 20% Fee Arrangement mentioned. It is only mentioned in Item 3 of the POA, the VE Fee Option Clause in Schedule 3 of the DM Agreement, and the Term Sheet Fee Clause in Item 1 of the Term Sheet.

83 The Time-based Fee Clause and the VE Fee Option Clause thus set out both the Time-based Fee Arrangement and the 20% Fee Arrangement respectively.⁷⁸

Item	Definitions	Meanings
2	Hourly Rate (if and when DM Consultant’s services are needed which in not accordance to agreed VE Works)	SGD\$ 350 (up to a maximum of 160 hours per DM Consultant per calendar month and in accordance to time sheet generated to support this hourly rate charges).

⁷⁸ ABD at p 19.

5	Fees to manage and execute value engineering to Project	20% of all cost savings from VE measured against a formal quantity surveyor QS detailed cost estimates; prepared in accordance to PDF drawings and planning data that had been tabled in Annex B. Or whenever factually ascertained to be based on the construction rate of RM 250 per square feet (Budgetary Construction estimate/GFA)
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As there are two types of fee arrangements, the question is how these two fee mechanisms can be reconciled in determining how the parties intended Arki-Tech to be paid under the DM Agreement.

84 If Arki-Tech is suggesting in its written submissions⁷⁹ that the VE Fee Option Clause of the DM Agreement is the *only* payment mechanism operable such that Arki-Tech is *only* entitled to 20% of all cost savings in Phase 1 of the Project, then I reject this suggestion. To understand why the parties could not have contemplated that Arki-Tech be paid only 20% of all cost savings from the VE of Phase 1 of the Project, it is best to use a hypothetical. If after all of Arki-Tech's hard work and effort in managing, executing and implementing VE in the Project, the total cost savings from the various VE proposals form Phase 1 of the Project is ascertained to be only \$1,000, does this mean that Arki-Tech is only entitled to \$200? It does not make commercial sense if Arki-Tech were only entitled to \$200 despite all of the hours of work done in generating various VE proposals for the consideration of the Board for selection and adoption. Moreover, to interpret the DM Agreement as only stipulating for one payment

⁷⁹ PRS at para 110.

mechanism, *ie*, the VE Fee Option Clause of the DM Agreement and the Term Sheet Fee Clause read together (being the 20% Fee Arrangement), completely ignores the hourly rate of \$350 provided for in the Time-based Fee Clause and the significant cl 4 on “Payment Terms” in the DM Agreement, which spells out explicitly in cl 4.1 the Time-Based Fee Arrangement of \$350 per hour.

85 Indeed, cl 4.1 of the DM Agreement sets out the time-based fee structure as follows:⁸⁰

- 4.1 The DM Consultant will invoice the Client at the end of every monthly billing cycle for Services rendered. The Client shall pay the Fees set out in the invoice within seven (7) days of receiving the invoice, together with the goods and services tax if applicable, to the DM Consultant. The *Fees* are calculated based on the *fee quantum as derived in accordance to* the Term Sheet *Item 2 of Schedule 3*(VE Schedule) and are pro-rated to the agreed preconstruction time period in Clause 3.1 above to be spent by the DM Consultant in providing the Services; rounded up to the nearest monthly Time Unit specified in Item 3 of Schedule 3. All Fees paid are deemed as fully earned and are non-refundable.

[Emphasis added]

86 Therefore, it can be seen that in determining the fee structure for the “Fees” under the DM Agreement, reference is made to the derivation of the fee quantum in accordance with the Time-based Fee Clause. As will be recalled, the Time-based Fee Clause refers to the hourly rate of \$350. This suggests that the hourly rate of \$350 together with the actual time (in hours) taken by the DM Consultant to render his VE Services form an integral part of the fee structure under the DM Agreement. This also buttresses my interpretation that Arki-Tech is to be principally paid at an hourly rate of \$350 for all the time in hours spent by the DM Consultant in providing the VE Services, with the 20% Fee

⁸⁰ ABD at pp 8–9.

Arrangement operating additionally as a bonus on top of the Time-based Fee Arrangement. This bonus will be based on a success fee basis, so to speak. If the VE proposals approved by the Board do generate any cost savings, Arki-Tech will, upon completion of providing all its other Services under the DM Agreement, receive a bonus of an additional 20% of cost savings generated by these Board-approved VE proposals over and above payment of its Fees at an hourly rate of \$350 per hour for the time spent working on these Board-approved VE proposals. Essentially, the total cost savings are thus shared between Rentak and Arki-Tech in the ratio of 80:20 respectively. Whereas for Board-approved VE proposals that are purely enhancements, and which do not generate any cost savings, Arki-Tech is simply remunerated at an hourly rate of \$350 per hour for the time spent working on the enhancements but with no additional bonus payment.

87 Further, if VE Services are rendered in generating various VE options or proposals for the consideration and selection by the Board, but the Board does not accept them for implementation under the Implementation Clause, is Arki-Tech still entitled to remuneration at the hourly rate of \$350 per hour under the Time-based Fee Arrangement for the work done in generating these rejected VE options or proposals for the Board's consideration? The answer is "yes" under the DM Agreement pursuant to the Time-Based Fee Arrangement. To complete the analysis of the scope of the Time-based Fee Arrangement, even if the VE Services provided under the Scope of Services Clause (*eg*, chairing development management meetings or reviewing and validating feasibility studies or the budget for construction cost) which do not in themselves generate any VE proposals as such, Arki-Tech will still be entitled to payment of Fees at the hourly rate of \$350 per hour under the DM Agreement. As explained at [94] to [103] below, this Time-based Fee Arrangement extends even to the "DM

Consultant’s services [which] are needed which [are] not [in] accordance to agreed VE Works” as can be seen in Item 2 of Schedule 3 of the DM Agreement.

88 My conclusion that the hourly rate of \$350 forms an integral part of the time-based fee structure under the DM Agreement is strengthened by cll 5.4 and 5.5 of the DM Agreement, which provide:⁸¹

5.4 The Client further agrees and acknowledges that, as between the Parties, *until the Fees for each monthly Billing Cycle is paid in full by the Client to the DM Consultant*, all Foreground IPR created and/or developed by the DM Consultant during such Billing Cycle shall be and remain the sole property of the DM Consultant and that the provision of the Services does not give the Client any ownership, interest or such other interest in or to such rights. Subject to Clause 5.7, until the Fees for each monthly Billing Cycle is paid in full by the Client to the DM Consultant, the DM Consultant grants to the Client and its contractors, agents and licensees a non-exclusive, non-transferable, and royalty-free licence to use the Foreground IPR created and/or developed by the DM Consultant during such Billing Cycle.

5.5 Upon the full payment of the Fees of each monthly Billing Cycle, the DM Consultant assigns absolutely and irrevocably to the Client all rights, interest, title and benefit in the Foreground IPR created and/or developed by the DM Consultant during such monthly Billing Cycle.

[emphasis added]

89 Thus, it can be seen that until the “Fees” (which are defined to be payable at the \$350 hourly rate) for each monthly billing cycle are paid in full to Arki-Tech, the IPR created by Arki-Tech remain its own sole property. It is only once the “Fees” for each monthly billing cycle have been paid in full that Arki-Tech fully assigns to Rentak all rights, interest, title and benefit in the IPR. The references to the monthly billing cycle in cll 5.4 and 5.5 of the DM

⁸¹ ABD at p 10.

Agreement further reinforces the view that computation of the “Fees” payable at the hourly rate of \$350 (*ie*, the Time-based Fee Arrangement) is an integral part of the fee structure under the DM Agreement and is not dependant on whether the Board approves or rejects any of the various VE proposals that are the result of Arki-Tech’s work done and time spent in providing VE Services under the DM Agreement.

90 Finally, I would be remiss in not mentioning cl 7.3 of the DM Agreement, which provides:⁸²

7.3 Upon termination of this Agreement, the Client shall pay all Fees and other monies due and unpaid under this Agreement. Upon receipt of all monies due and payable by the Client under this Agreement, the DM Consultant shall deliver to the Client the source code to the Foreground IPR within seven (7) days of termination of this Agreement.

91 The reference again to “Fees”, which is defined to be calculated based on the \$350 hourly rate, indicates that this hourly rate together with the number of hours actually worked proven with time sheets generated form an integral part of the time-based payment structure under the DM Agreement and Term Sheet.

92 To be sure, the Term Sheet as annexed to the DM Agreement does not mention any Time-based Fee Arrangement. The Term Sheet Fee Clause mentions that Arki-Tech is being employed “to manage and execute value engineering and shall be entitled to 20% of all cost savings against a formal quantity surveyor QS cost estimate to validate data and costings described herein and in accordance to PDF drawings tabled for the Parties discussion”.⁸³

⁸² ABD at p 11.

⁸³ ABD at p 20.

But, as will be explained in further detail later (see [107] below), this clause in the Term Sheet only serves to clarify that Option 1 of the VE Fee Option Clause (and not Option 2) in the DM Agreement has been selected and it essentially repeats what Option 1 says. Indeed, Option 1 refers to “20% of cost savings from VE measured against a formal quantity surveyor QS detailed cost estimates; prepared in accordance to PDF drawings and planning data that had been tabled in Annex B.” It is noteworthy that there is nothing in the DM Agreement which is inconsistent with the Time-based Fee Arrangement. Consequently, that the Term Sheet only mentions Arki-Tech’s entitlement to the 20% of cost savings from Phase 1, does not detract from my interpretation that the 20% of cost savings serves as a *bonus*, on top of Arki-Tech’s entitlement to be paid at the hourly rate of \$350 per hour for the time spent in rendering the “Services” or “VE Services” under the DM Agreement.

93 Consequently, I do not accept any possible suggestion that the only payment mechanism that matters for the purposes of the Project is the VE Fee Option Clause of the DM Agreement. The proper interpretation of the DM Agreement is that the fees earned for Phase 1 of the Project are calibrated at \$350 per hour under the Time-based Fee Arrangement, with the 20% of all cost savings from VE coming in as a bonus payment under the 20% Fee Arrangement should any of the VE proposals (after having been selected and approved by the Board for incorporation into Shilpa’s drawings for subsequent implementation and construction) result in cost savings as determined by the QS employed by Rentak.

When Arki-Tech would be entitled to the hourly rate of \$350 for work done

94 The next question then is the type of work Arki-Tech needs to do to be entitled to the hourly rate of \$350. The issue in this case arises from the fact

that, under the Time-based Fee Clause, the words “if and when DM Consultant’s services are needed which in not accordance to agreed VE Works” is placed in parentheses after the words “Hourly Rate”. Moreover, the words “up to a maximum of 160 hours per DM Consultant per calendar month and in accordance to time sheet generated to support this hourly rate charges” appear also in parentheses after the figure of “SGD\$ 350”. The structure of the Time-based Fee Clause therefore may appear to suggest that the hourly rate of \$350 applies only when Arki-Tech’s services are needed for works that are outside the scope of the agreed works that constitute VE. If this interpretation is correct, then, taken to its logical conclusion, there will be *no* standard hourly rate in the DM Agreement stipulating the amount that Arki-Tech is to be paid for work done that is *within* the scope of the DM Agreement.

95 In my judgment, this cannot be the proper interpretation of the Time-based Fee Clause of the DM Agreement. In my view, the hourly rate of \$350 is meant to compensate Arki-Tech for work done that is both *within* and *beyond* the scope of the DM Agreement. I come to this view for the following reasons.

96 First, in my view, the proper interpretation is that the hourly rate of \$350 covers all the work performed by Arki-Tech that falls within the scope of the DM Agreement. Clause 4.1 of the DM Agreement stipulates that Arki-Tech is to be paid the “Fees” (calculated based on the hourly rate of \$350) for “Services” rendered. The word “Services” is, in turn, defined in the Scope of Services Clause of the DM Agreement as follows:⁸⁴

Item	Definitions	Meanings
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⁸⁴ ABD at p 18.

5	Services – Scope of Work (to Phase 1 of Project)	• Help to review and validate feasibility study/budget for construction cost with Developers/Hotel Team to meet development intention of hotel brand and operations. • Define the efficiency and efficacy objectives of this hotel project before developing construction contract implementation plan and time schedule for completion for Board approval. • Chair development management meetings and develops agreed objectives into design briefs with contract team of main contractor and external consultants. • Help to develop working designs for hotel brand to meet preliminary budget of construction costing stage. • Conducts a financial analysis and value engineering achieved on options in working designs with selected construction Design & Build team
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97 It can therefore be seen that Arki-Tech's scope of work under the DM Agreement for Phase 1 of the Project comprises five main types of work: (a) helping to review and validate the study/budget for construction cost with the developers/hotel team; (b) defining the efficiency and efficacy objectives of the Project before developing a construction contract implementation plan and time schedule for completion to be approved by the Board; (c) chairing development management meetings and developing the agreed objectives into design briefs together with the contract team comprising the main contractor and external consultants; (d) helping to develop working designs for the hotel brand that

would meet the preliminary budget at the construction costing stage; and (e) conducting financial analysis and value engineering on the various options of working designs together with the construction design and build team. Thus, to the extent that Arki-Tech's work falls within the scope of these Services, it is entitled to be paid for the work done at the rate of \$350 per hour. It can be seen from the description of these five main types of work in the Services to be rendered under the DM Agreement that some of them involve VE Works which do directly generate VE proposals but some also do not strictly involve VE Works which directly generate VE proposals, *eg*, works (a) and (c) above.

98 Second, it is also clear to me that Arki-Tech is entitled to be compensated for any services that do not fall within the Scope of Services Clause of the DM Agreement provided these services are needed. This is the purpose of the words in parentheses "if and when DM Consultant's services are needed which in not accordance to agreed VE Works". Whereas cl 4.1 of the DM Agreement stipulates that Arki-Tech is to be compensated at an hourly rate of \$350 for all the Services (which obviously cover "agreed VE Works") to be rendered under the DM Agreement, the words in parentheses *extend* the same hourly rate of compensation to services that fall *outside* of the scope of the Services of the DM Agreement provided that the "Consultant's services are needed".

99 It is also important to note the words in parentheses after the figure of \$350 in the Time-based Fee Clause. These words are: "up to a maximum of 160 hours per DM Consultant per calendar month and in accordance to time sheet generated to support this hourly rate charges". In my view, the two sets of words in parentheses should be read together such that the maximum that Arki-Tech can claim in a month for needed services that are outside the "agreed VE Works" in the DM Agreement is \$56,000 (*ie*, \$350 multiplied by 160 hours). Indeed, it

is not logical for the 160 hours cap to apply to the services that fall within the scope of the Services as laid down in the DM Agreement. It makes more sense that the 160 hours limit is to apply to *ad hoc* tasks outside the scope of Phase 1 which are agreed to or requested by Richard or Jerome on an informal or formal basis, including any tasks that may relate to later phases in the Project that are performed initially on Loo's own initiative in the belief that they are needed, which tasks are subsequently sanctioned, affirmed or encouraged by Richard or Jerome (*ie*, on a "retrospective approval basis") such that Loo then continues performing those tasks, *eg*, the plot ratio enhancement work relating to all phases of the Project, which clearly fall outside the scope of the Services set out in the DM Agreement. In short, there is only one workable interpretation of the Time-based Fee Clause, namely, that Arki-Tech is to be awarded remuneration at a rate of \$350 per hour for works that fall within the scope of the DM Agreement as well as for needed works and services that fall outside the scope of the Services set out in the DM Agreement, albeit with a cap of 160 hours per month for the latter only.

100 Further, I highlight that whether Arki-Tech is entitled to the payment of \$350 per hour for work done on a retrospectively approved basis is separate from the question of whether the parties have agreed to extend the scope of the DM Agreement to cover other phases of the Project. If the DM Agreement has been extended to cover other phases of the Project (which I do not consider to be the case here as I will explain later at [123]–[124]), then there will be the separate question of Arki-Tech being entitled to 20% of cost savings arising from VE done for the other phases of the Project. This is distinct from the \$350 hourly rate which Arki-Tech is entitled to be paid for work done simply on a retrospective rectification basis, even if this extends to work done for other phases of the Project.

101 On the evidence before me, I find on a balance of probabilities that all the VE work and services done for the other phases of the Project, even if initially done on Loo's initiative, had been subsequently sanctioned, affirmed or encouraged by Richard or Jerome (*ie*, on a "retrospective approval basis") such that Loo had continued performing those tasks. Thus, for example, there is evidence of Jerome instructing the architect to send certain plans to Arki-Tech so as to resolve the discrepancies in the plot ratio calculations.⁸⁵ There is also evidence that Jerome wanted Arki-Tech to work on increasing the number of office floors in Melia Hotel.⁸⁶ I find that those VE work and services done by Arki-Tech for the other phases of the Project beyond Phase 1 are "needed" by Rentak, and hence, satisfy the part of "Fee Schedule" contained in Item 2 of Schedule 3 in parentheses, namely, "(if and when DM Consultant's services are needed which [is] not [in] accordance to agreed VE Works)" for which the hourly rate of \$350 is applicable subject to a maximum of 160 hours per calendar month.

102 Finally, I consider it important to explain how the payments are to be made as this may have an impact on the manner of computation of the interest of 12% per annum for the unpaid amounts, if allowed. Clause 4.1 of the DM Agreement provides that the "Fees" are to be "pro-rated to the agreed preconstruction time period... to be spent by the DM Consultant in providing the Services".⁸⁷ In my judgment, this means that the payments to be made each month are to be divided over the remaining months in the contract left and paid accordingly. Thus, if the duration of the contract was ten months, the amount

⁸⁵ 4DBD at p 294; Defendant's Bundle of Documents (Vol 7) dated 24 March 2021 at p 60.

⁸⁶ 4DBD at p 300.

⁸⁷ ABD at p 9.

payable for the first month would be divided into ten and Arki-Tech would receive one-tenth of that sum in the first month. In the second month, Arki-Tech would be paid the amount payable for the second month divided by nine and would also receive one-tenth of the sum payable for the first month. In the third month, Arki-Tech would be paid the amount payable for the third month divided by eight, one-ninth of the amount payable for the second month and one-tenth of the amount payable for the first month. It is in this manner that the “Fees” to be paid to Arki-Tech each month (as set out in cl 4.1) will be pro-rated for the whole “agreed preconstruction time period in Clause 3.1” which will end when construction works commence, whereupon Arki-Tech should have finished providing the Services required under the DM Agreement (as set out in cl 3.1).

103 In the light of my finding that Arki-Tech is entitled to the work it has performed at an hourly rate of \$350, it follows that it is unnecessary for me to consider its claims founded on the basis of *quantum meruit*.

When Arki-Tech is entitled to the 20% of cost savings for Phase 1 of the Project

104 Next, I consider when Arki-Tech is entitled to payment pursuant to the 20% Fee Arrangement. I am required, again, to undertake a construction of the DM Agreement and the Term Sheet.

- (1) The Term Sheet Fee Clause takes precedence over the VE Fee Option Clause

105 I have found earlier that the VE Fee Option Clause is not void for uncertainty and is therefore enforceable. A preliminary question that arises is whether the Term Sheet Fee Clause ought to supersede the VE Fee Option Clause in terms of the calculation of the 20% of cost savings for Phase 1 of the Project. To recap, the Term Sheet Fee Clause provides that Arki-Tech is “to

manage and execute value engineering and shall be entitled to 20% of all cost savings against a formal quantity surveyor QS cost estimate to validate data and costings described herein and in accordance to PDF drawings tabled for the Parties discussion”.⁸⁸ The VE Fee Option Clause differs from the Term Sheet Fee Clause in that the alternative means of computation, *ie*, Option 2, present in the VE Fee Option Clause, has been completely omitted from the Term Sheet Fee Clause. The alternative means in Option 2 of calculating the cost savings from VE using simply a fixed flat construction rate figure of RM250 per square foot for all types of construction (instead of the QS’s own expert expertise and domain knowledge to obtain the relevant construction rates per square foot based on the successful tenderer’s price bids) is not even mentioned in the Term Sheet Fee Clause. However, Option 1 in the VE Fee Option Clause essentially retained the Term Sheet Fee Clause, although the wording is slightly different, but the substance is materially the same. The question that arises is *which* clause is to apply in the present case.

106 It is a basic principle of contract law that where there are inconsistencies in the terms in related contractual documents, specific terms will override general terms. Specific terms will supersede or vary the general terms to the extent of their inconsistencies, unless an express hierarchy of precedence provides otherwise (see *Sintalow Hardware Pte Ltd v OSK Engineering Pte Ltd* [2017] 2 SLR 372 at [53]–[54], [57] and [119(b)]).

107 Here, the VE Fee Option Clause appears to be a general term with the Options still present. In contrast, the Term Sheet describes itself as a “[s]ummary of the basic terms and conditions that has been agreed between the Investors and the Founders of Iskandar City Square Ltd and connected company

⁸⁸ ABD at p 20.

[Rentak] to appoint [Arki-Tech] development management consultancy”.⁸⁹ The Term Sheet Fee Clause therefore sets out a term that specifically governs the relationship between Arki-Tech and Rentak. The Term Sheet Fee Clause indicates that parties had agreed to a method of computation of cost savings identical to Option 1. In other words, the parties to the DM Agreement have finally decided to select Option 1 instead of Option 2 in the VE Fee Option Clause and have explicitly stated their intention of what their choice is in the Term Sheet under the first bullet point in Item 1. The Term Sheet Fee Clause therefore supersedes the VE Fee Option Clause which has two Options still available for selection, and the former thus takes precedence over the latter.

108 Since the Term Sheet Fee Clause takes precedence, the question of any uncertainty of Option 2 does not arise. And, in any event, Option 2 of the VE Fee Option Clause is neither incomprehensible nor uncertain when reading the clause as a whole (at [65] above).

- (2) Arki-Tech is only entitled to 20% of cost savings if it is able to show that it has fully implemented the VE proposals following Board approval

109 In my judgment, Arki-Tech is only entitled to be paid 20% of cost savings if it can show that it has implemented the VE proposals in full, following approval from the Board. I come to this conclusion based on a construction of the Implementation Clause and the Term Sheet Fee Clause.

110 The Implementation Clause of the DM Agreement provides as follows:⁹⁰

⁸⁹ ABD at p 20.

⁹⁰ ABD at p 18.

Item	Definitions	Meanings
6	Implementation of VE Works	Upon obtaining the RT Board's written agreement , DM shall proceed to implement the project development model based on the approved VEs.

[emphasis added]

111 And, to recap, the first bullet point in the Term Sheet Fee Clause provides:⁹¹

Parties JV Agreement on DM Appointment

Parties further agreed to appoint M/s Arkitech International Pte Ltd as Development Manager (“DM Consultant”) on the following payment terms:

- To **manage and execute value engineering** and shall be entitled to 20% of all cost savings against a formal quantity surveyor QS cost estimate to validate data and costings described herein and in accordance to PDF drawings tabled for the Parties discussion

...

[emphasis added]

112 Reading the Implementation Clause and the first bullet point in Item 1 of the Term Sheet (*ie*, the Term Sheet Fee Clause) together, it is clear that for Arki-Tech to be entitled to the 20% of cost savings, it has to jump through at least two hoops. First, it has to obtain written approval from the Board to implement the VE proposal put forward. Second, Arki-Tech then has to “manage and execute value engineering” to the Project to be entitled to the 20% of all cost savings. Without satisfying either of these essential steps, Arki-Tech

⁹¹ ABD at p 20.

would not be entitled to be paid the 20% of cost savings procured through its VE Services provided.

113 For completeness, I observe that to calculate the 20% of cost savings under the Term Sheet Fee Clause, the total construction area reflected in Arki-Tech’s architectural drawings (in square feet) with all the Board-approved VE proposals fully incorporated into Shilpa’s architectural drawings as a composite design must be subtracted from the total construction area of Shilpa’s architectural drawings reflected in its original design as in the PDF drawings provided to Loo on 16 November 2016, that were supposed to have been the “Annex B” referred to in the DM Agreement, before multiplying this sum by the appropriate construction rate that the QS employed by Rentak has to determine using his expertise and domain knowledge.

- (3) Arki-Tech is not entitled to claim 20% of cost savings in respect of Phase 1 of the Project

114 In my judgment, Arki-Tech is not entitled to 20% of cost savings from its VE proposals for Phase 1 of the Project. I come to this conclusion for two principal reasons.

115 First, there is no evidence that the Board has given any written agreement or approval for Arki-Tech to implement any of the VE proposals done for Phase 1 of the Project. Arki-Tech points to several instances which it says constituted approval from the Board to implement the various VE proposals for Phase 1 of the Project. None of these instances assist Arki-Tech:

(a) Loo asserts in his affidavit of evidence-in-chief that the Board approved the proposed VE ideas on 1 December 2016.⁹² However, the evidence exhibited by Loo in support of this assertion pertains to a WhatsApp conversation between himself and Jerome. In that WhatsApp conversation, there is no evidence of any form of written approval from the *Board*.⁹³ To be sure, Loo states that “I think I just save your another VE on aircon design of Ininside hotel”, to which Jerome replies “You are the best bro...”. But there is no explanation of what VE proposal Loo had meant when he referred to the design of the air- conditioning system inside Ininside Hotel. In any event, Jerome’s reply therefore cannot possibly be construed as a written agreement by the Board of all the VE proposals by Arki-Tech.

(b) Arki-Tech next argues that it has received the Board’s mandate to proceed with the implementation of VE Services for Phase 1 during the first VE presentation on 27 January 2017.⁹⁴ In his affidavit, Loo deposes that at “the conclusion of the VE Presentation on 27th January 2017, Jerome Tan and Richard Tan did [not] raise any objections to any but instead approved all 4 value engineering proposals made for Ininside Hotel (Phase 1); as recorded in the minutes of the meeting”.⁹⁵ Arki-Tech also points to a supposed approval of the alfresco rooftop restaurant for implementation.⁹⁶ The minutes of the meeting, however, only indicate a direction from the two representatives representing Rentak (namely,

⁹² 4LKK at para 195 (1PBAEIC at p 48); PRS at para 100.1.1.

⁹³ 1PBAEIC at p 1163.

⁹⁴ PCS at para 144.

⁹⁵ 4LKK at para 256 (1PBAEIC at p 63).

⁹⁶ PCS at para 141.4.

Richard and Jerome), that the VE proposals were to be implemented in Shilpa's plans.⁹⁷ They do not reflect any written agreement by the Board (which comprises four other individuals besides Richard and Jerome,⁹⁸ namely, Ms Natalia Irena, Mr Nicholas Tannady, Mr Chiew Sing Cheong and Ms Ng Su Ying, none of whom were present at the meeting on 27 January 2017). For the alfresco restaurant, again there is no evidence of a written agreement by the Board approving the implementation of the alfresco rooftop restaurant in Ininside Hotel.⁹⁹ More importantly, the minutes referred to (recorded on Arki-Tech's letter head) are unsigned and there is no evidence that the Board approved these minutes. It is true that Richard states in his affidavit of evidence-in-chief that he could make *most* decisions on behalf of Rentak without consulting the Board.¹⁰⁰ But this could not override the contractual language of the Implementation Clause, which requires written approval of the Board for the VE proposals put forward. In any case, Richard himself had clearly qualified his statement in his affidavit of evidence-in-chief (*ie*, that he, as a director of Rentak, could make most decisions on behalf of Rentak without consulting the Board) by saying that as far as the DM Agreement was concerned, he knew that it had specified that written approval from the Board was required and that neither he nor Jerome could bind Rentak to a decision themselves.¹⁰¹

⁹⁷ ABD at p 21.

⁹⁸ Transcript (11 May 2021) at 51:1–11; 5RT at para 7(c) (1DBAEIC at p 7).

⁹⁹ ABD at p 21.

¹⁰⁰ 5RT at para 9 (1DBAEIC at p 7).

¹⁰¹ 5RT at para 9 (1DBAEIC at p 7 and 8).

(c) Arki-Tech refers to a Board meeting held on 26 February 2017.¹⁰² But all that is said is that “[a]t this [B]oard meeting, [Rentak] gave [Arki-Tech] instructions to look into the KM plans and the Project plot ratio and also further instructions to be relayed to the Project Architect. In turn, Loo requested the KM plans and the plot ratio calculations from the Project Architect.”¹⁰³ This does not reflect any agreement or approval from the Board. The WhatsApp messages cited by Arki-Tech also do not show any form of approval from the Board.

(d) Arki-Tech points to a WhatsApp exchange between Jerome and Loo on 7 March 2017, whereby Rentak supposedly approved not only the proposed Alfresco rooftop restaurant but also the additional “indoor part in design”.¹⁰⁴ But this message cannot possibly be construed as constituting written approval from the Board, which comprises not just Jerome but five other individuals.

(e) Arki-Tech points to a meeting on 26 April 2017, in which Rentak’s Indonesian shareholder said “I do respect... your ability to solve problems as you have shown me during the meeting with UEM”.¹⁰⁵ Arki-Tech argues that this email demonstrates approval from the Board.¹⁰⁶ This argument is a non-starter as all that the quote shows is the Indonesian shareholder’s respect for Loo’s abilities. It does not show any approval from the Board for the VE proposals to be implemented for Phase 1 of the Project.

¹⁰² PCS at para 152.6.

¹⁰³ PCS at para 152.6.

¹⁰⁴ PCS at para 141.5.

¹⁰⁵ 7PBD at p 189.

¹⁰⁶ PRS at para 100.2.3.

(f) Arki-Tech further asserts that on 23 May 2017, “Mr Richard Tan and Mr Jerome Tan approved [Arki-Tech’s] work on the 5 towers, as was recorded in Mr Loo’s Apex Project timeline, and acknowledged in [Rentak’s] presentation”.¹⁰⁷ But the document that is relied on to support this purported approval appears to have been created by Loo himself and is therefore self-serving in nature. More importantly, there is nothing in that document which shows that Board approval had been given to implement all the VE proposals done for Phase 1 of the Project.¹⁰⁸

(g) While Arki-Tech refers to Board meetings on 25 May 2017 and 15 June 2017,¹⁰⁹ it has not pointed to any evidence showing Board meetings on these dates approving any of the VE proposals in respect of Phase 1 of the Project.

116 Thus, it is clear that there was no written approval or agreement from the Board to implement any of the VE proposals by Arki-Tech.

117 Further, even though Arki-Tech alleges that it has completed its scope of work under the “Services” set out in the Scope of Services Clause of the DM Agreement, Arki-Tech has not pointed to any evidence that it has *managed, executed and implemented* the VE proposals for Phase 1 of the Project. The work of managing, executing and implementing the VE proposals is envisaged to take up the entire time period up to the stage of the start of construction of Phase 1. Loo is expected to first prepare the paperwork on all his VE proposals and persuade the Board to select the preferred VE proposals and to give written Board approval or agreement accordingly. Then, Loo is expected to work

¹⁰⁷ PCS at para 167.10.

¹⁰⁸ 1PBAEIC at p 1391.

¹⁰⁹ PCS at p 233.

together with Shilpa and the other consultants engaged by Rentak for the Project to have the Board-approved VE proposals incorporated into the architectural drawings as a composite design and have the composite design approved by the relevant authorities. Loo is also expected to resolve all the conflicts arising from the various Board-approved VE proposals in the composite design. Detailed architectural drawings will have to be produced by Shilpa and Loo working closely together to finalise the composite design, which is capable of being sent out as tender drawings for the design and build contractors to tender for the Project. If there are any issues or clarifications raised by the design and build contractors in relation to the composite design that has incorporated all the Board-approved VE proposals, these have to be resolved by Loo in conjunction with Shilpa and the other Project consultants as the case may be. It is only after the completion of these architectural and technical work that Arki-Tech would have discharged its obligations under the DM Agreement. By this time, construction of Phase 1 will be about to begin, which marks the completion of the scope of VE Services for Arki-Tech under the DM Agreement.

118 On the facts, the DM Agreement was terminated in November 2018, way before the Project reached the start of construction of Phase 1. It was terminated at a very early stage. As such, it cannot be said that (a) Loo has completed implementation of the VE proposals which have been approved by the Board; or (b) Loo has completed his management and execution of all the Board-approved VE proposals to entitle Arki-Tech to a bonus calculated at 20% of cost savings achieved by his VE proposals. It is far too premature. The VE Services under the DM Agreement were terminated early and they were therefore not completed.

119 I find on the evidence that Arki-Tech has not only failed to obtain written approval of the Board for its VE proposals but also failed to show that it has

completed its management, execution and implementation of the VE proposals for Phase 1 of the Project. Arki-Tech is therefore not entitled to payment of the bonus of 20% of cost savings from any of its VE proposals in respect of Phase 1 of the Project.

Whether the parties exercised an extension option in respect of the other phases of the Project

120 Arki-Tech argues that there is an agreement between the parties to extend the scope of the DM Agreement beyond Phase 1, to cover Phase 2A, Phase 3, the plot ratio enhancement and sketch design amendments.¹¹⁰ In my judgment, there was no such agreement.

121 The starting point is Item 1 of the Term Sheet, the relevant portions of which provide:¹¹¹

Parties Agreement on Option for joint venture in balance phases of the Project

- This JV grant Parties the option to proceed with negotiations on balance future phase on mutual agreement upon reaching practical completion of Phase 1
- If the option is mutually agreed and exercised, the prevailing terms & conditions parameters/methodologies shall prevail.
- If either Party does not exercise the option for JV for future phases within one month notice of RT's exercise of the option, the option is deemed to be have expired and there shall be no future collaboration in project by Parties and [Arki-Tech].

[emphasis in original omitted]

¹¹⁰ PCS at para 151.

¹¹¹ ABD at p 20.

122 Upon reaching practical completion of Phase 1, the parties have the option to commence negotiations to reach mutual agreement on proceeding with the remaining phases of the Project. I note, however, that since Phase 1 of the Project was never constructed, there has been no practical completion. The Project was still very much in the planning stages and had not even reached the tender stage, let alone practical completion.

123 More importantly, there is no evidence of the parties' agreement to extend the scope of the DM Agreement to other phases of the Project beyond Phase 1. None of the evidence¹¹² cited by Arki-Tech in its written submissions points to the existence of any agreement between the parties to extend the scope of the DM Agreement. For instance, Arki-Tech submits that when it reminded the parties of its expanded scope of works under the DM Agreement, Jerome replied "got it".¹¹³ But this is a mischaracterisation of the evidence. In the WhatsApp messages reflecting the parties' conversation, Arki-Tech had said that one of the items to be discussed at the meeting was the expanded scope of its work under the DM Agreement. In fact, Arki-Tech went on to state that the expanded scope of its works under the DM Agreement was contingent on Rentak's Indonesian branch.¹¹⁴ This conversation itself reflects – quite importantly – Arki-Tech's own belief that no concluded agreement had been reached to extend the DM Agreement to the other phases of the Project beyond Phase 1.

124 That Arki-Tech did not believe that it had secured an agreement with Rentak to perform work for the balance of the future phases on the prevailing

¹¹² *Eg*, ABD at p 22.

¹¹³ PCS at para 152.14.

¹¹⁴ 1PBAEIC at p 1389.

terms and conditions based upon a mutual agreement or a mutual exercise of the option to extend the DM Agreement is reflected in a separate conversation between Arki-Tech and Rentak in July 2017, where Loo admitted that he was only active in Phase 1 of the Project and further admitted that he had no mandate beyond his appointment as DM in Phase 1.¹¹⁵ When Jerome responded that Loo had such a mandate because he had been appointed as “deputy CEO” and purportedly sent a document in the WhatsApp chat to evidence this, Loo responded that that could not be his letter of appointment. In response to this, Jerome asked Richard to draft an appointment letter for Loo.¹¹⁶ The evidence taken in its totality reflects the reality that the option to extend the scope of the DM Agreement was never triggered, let alone that an agreement to extend the DM Agreement to the other phases of the Project beyond Phase 1 was ever concluded following negotiations.

125 For completeness, I disagree with Rentak’s submission that reading the option to extend in Item 1 of the Term Sheet together with the entire agreement clause in cl 11.1 of the DM Agreement (the “Entire Agreement Clause”) (which stipulates that the DM Agreement is to embody all the terms and conditions agreed upon between the parties), it is necessary for the agreement to extend to be in a written form.¹¹⁷ This is because the Entire Agreement Clause provides that the DM Agreement shall not be altered, changed, supplemented, or amended except by written agreement between the parties. However, triggering the option to extend does not involve any alteration, change, supplementation or amendment of the DM Agreement. Hence, it is not necessary for there to have been a written agreement signed by the parties for the DM Agreement to

¹¹⁵ 6DBAEIC at p 1688.

¹¹⁶ 6DBAEIC at p 1688.

¹¹⁷ DCS at para 303.

have been extended to cover the other phases of the Project. Nonetheless, as I have found above, the parties did not, in fact, agree to expand the scope of the DM Agreement beyond Phase 1 of the Project.

126 Further, I disagree with Rentak that the terms of the option to extend are uncertain since the payment terms in the DM Agreement are likewise unenforceable for being uncertain.¹¹⁸ As explained above, the VE Fee Option Clause and the Term Sheet Fee Clause are not void for uncertainty (see [33]–[76] above).

Whether Arki-Tech is entitled to interest on late payments by Rentak

127 Finally, Rentak argues that Arki-Tech is not entitled to interest on moneys that are due but unpaid at a rate of 12% per annum, pursuant to cl 4.4 read with Schedule 1 of the DM Agreement (the “Late Payment Interest Clause”). This is because the Late Payment Interest Clause is a penalty clause.¹¹⁹ Rentak’s argument is premised on the interest rate of 12% *per annum* being extravagant and unconscionable when compared to the greatest loss that could conceivably be proved to follow from the non-payment of the alleged sums based primarily on 20% of cost savings, given that Arki-Tech had done little work in respect of the Project.¹²⁰

128 But this argument loses much of its force given my finding that Arki-Tech is to be paid at the hourly rate of \$350, as opposed to the 20% of cost savings which I have disallowed. In determining whether a clause is a penalty clause, the test is whether payment operates *in terrorem* over the defaulting

¹¹⁸ DCS at para 327.

¹¹⁹ DCS at paras 483–484.

¹²⁰ DCS at para 484.

party such that the defaulting party is forced to comply with its primary obligations under the DM Agreement (see *Ethoz Capital Ltd v Im8ex Pte Ltd and others* [2023] 1 SLR 922 at [79] and [86]).

129 Since Rentak has not made any argument on whether the Late Payment Interest Clause if applied to the unpaid sums for VE Services provided that are to be computed on the basis of the hourly rate of \$350 also amounts to a penalty, it would be more appropriate for the court at the assessment of damages phase to assess whether the Late Payment Interest Clause is operating *in terrorem* to force Rentak to comply with its primary obligation under the DM Agreement, namely, the payment for VE Services provided at the hourly rate of \$350.

Other factual findings

130 A substantial part of the trial was spent dealing with Rentak’s contentions in its defence that the VE proposals by Loo (a) do not result in any cost savings *per se*; and (b) are not implementable *per se*. Hence, they cannot possibly constitute valid VE Services in the first place for the purpose of the DM Agreement.

131 Arki-Tech takes the contrary position that all its VE proposals do result in cost savings *per se* and are fully implementable albeit with minor modifications. As such, they constitute valid VE Services for the purpose of the DM Agreement.

132 Both parties called experts to testify in support of their respective positions. Arki-Tech called (a) Mr David Cheah Ming Yew (“David”) as an expert on architectural matters; (b) Mr Johnny Lim (“Johnny”) as an expert on mechanical engineering matters (particularly on air-conditioning systems) and on VE matters generally; and (c) Mr Cillius Adrianto (“Adrianto”) as an expert

on VE matters. Rentak called (a) Mr Steven Thang Boon Ann (“Steven”) as an expert on architectural matters; (b) Mr Anand Anthony Jude (“Anand”) as an expert on VE matters; and (c) Mr Jack Chan Weng Loon (“Jack”) as an expert on mechanical engineering matters (particularly on air-conditioning systems). All the experts gave their evidence through a “hot-tubbing exercise”.

133 For completeness, I will deal with these factual and rather technical issues although they are not strictly necessary for my decision. My factual findings in relation to these heavily contested factual issues will be important only if: (a) I am wrong in my conclusion that Arki-Tech is not entitled to 20% of cost savings from all its VE proposals for the reasons that I have stated earlier from [114] to [119]; and (b) the second stage of the bifurcated trial has to be conducted to assess the damages payable to Arki-Tech based on 20% of cost savings from all of its VE proposals.

134 To summarise, Arki-Tech’s contractual right to 20% of all cost savings arises only if all the following requirements are satisfied:

- (a) the VE proposals do result in *cost savings*;
- (b) the VE proposals are *implementable*;
- (c) the Board has given its written agreement or approval for all the VE proposals and their implementation;
- (d) in respect of the VE proposals in relation to other phases of the Project beyond Phase 1, the parties have exercised the extension option in the DM Agreement for these other phases of the Project;
- (e) all the Board-approved VE proposals arising from the VE Services provided have been subsequently incorporated into the

composite design by Arki-Tech in close consultation and coordination with Shilpa and the other consultants engaged for the Project;

(f) all the final approvals from the relevant regulatory authorities in relation to the completed composite design have been obtained;

(g) the tender (together with the set of completed drawings for the composite design) has been issued to the various tenderers invited to tender for the Project based on the composite design;

(h) the pre-award tender clarifications with the tenderers have been completed, and the tender has been awarded to the successful tenderer;

(i) the post-award tender clarifications with the successful tenderer have been completed; and

(j) therefore, the successful tenderer is ready to commence construction for Phase 1 based on the composite design, marking the end of the time period for Arki-Tech to complete the “scope of works in the Services” as set out in cl 3.1 of the DM Agreement.

135 On the facts of the present case, requirement (c) in [134] above, of securing the Board’s written agreement or approval for the various VE proposals and their implementation has not been fulfilled as the DM Agreement was terminated early (see [115] above). The DM Agreement also contemplates Arki-Tech’s *in-depth technical participation* in the later VE work stages (*ie*, after the Board’s written agreement or approval of the various VE proposals and their implementation had been obtained) as described in [134(d)]–[134(i)] above.

136 For present purposes, I will restrict myself to making my findings on the two heavily contested factual (and technical) issues of (a) whether the VE proposals do result in *cost savings*; and (b) whether the VE proposals are *implementable*. The burden is clearly on Arki-Tech to prove, on the balance of probabilities, that they are (see s 103 of the EA).

Whether the VE proposals must always result in cost savings

137 Mere enhancements to Shilpa’s original architectural design (“Shilpa’s design”), without any attendant cost savings, will not entitle Arki-Tech to the 20% of cost savings. In my view, however, enhancements to Shilpa’s design resulting in value add or additional profitability in terms of increased net profits do constitute VE Services for the purpose of the DM Agreement even though there may not be any cost savings.

138 Although the meaning of VE is not expressed in the DM Agreement, I am prepared to accept the broad meaning of VE that includes value additions and enhancements as explained by Adrianto, the VE expert called by Arki-Tech.¹²¹ I further note that Loo in his first VE Presentation of his VE ideas to Rentak on 27 January 2017, where Richard and Jerome were amongst those present, had explained what is involved in VE. In a PowerPoint slide with the heading “What is Value Engineering (VE)?”, Loo presented the following:¹²²

Approach & Methodology in [Arki-Tech’s] VE Proposals

- Information Gathering: Gather information to better understand the project. (*Standards for hotel servicing*)
- Functional Analysis: Analyze the project to understand and clarify the required functions. (*Efficiency and Efficacy*)

¹²¹ Expert Report by Adrianto and Johnny dated 29 January 2021 at Part 5 (9PBAEIC at p 25).

¹²² ABD at p 60.

- Creative Ideas Generation: Generate ideas on all the possible ways to accomplish the required functions. (*VE Proposals*)
- Evaluation & Proposal: Synthesize ideas and concepts and select those that are feasible for development into specific value improvements. (*Value Added Efficiency and Efficacy Evincing*)
- ICS Approval and Agreement: Select and prepare the ‘best’ alternative(s) for improving value. (*Client Approval & Implementation*)

139 Loo said that he had adapted the above meaning of VE from the one adopted by the US Project Management Institute.¹²³ I agree that value additions and enhancements will be a part of “value improvements” that create “Value Added Efficiency” as set out in the PowerPoint slide. I also agree that value additions and enhancements should be considered to be VE for the purposes of the DM Agreement. It is to be noted that Richard and Jerome did not any time during the whole of Loo’s engagement rebut or dispute the meaning of VE as was explained and presented to them by Loo just nine days after the DM Agreement was signed.

140 There are therefore various types of VE works and services undertaken by Loo under the DM Agreement: those VE proposals that generate cost savings and those VE proposals which are value additions or enhancements but do not generate any cost savings.

141 Arki-Tech argues that the 20% of costs savings as stipulated in the DM Agreement is still payable for VE proposals that generate no cost savings but are purely value additions or enhancements on the basis that they are valid VE works and services. While I agree that they are valid VE works and services for the purpose of the DM Agreement, I do not agree that the 20% of cost savings

¹²³ PCS at para 78.

is payable under the DM Agreement for those VE works and services provided that do not generate cost savings.

142 The DM Agreement explicitly refers to a certain kind of bonus payment, the quantum of which is to be calculated only on the basis of a 20% of “cost savings” from VE, and which makes no mention of a 20% of “additional profits” or “additional value” from VE being the quantum payable. Hence, Arki-Tech is not entitled to any bonus payment calculated on the basis of 20% of the extra profit or additional value (not cost savings) that can be generated from an enhancement or value-adding type of VE, that does not in fact generate any cost savings or additional value.

143 However, that does not mean that Arki-Tech will not be compensated whatsoever for working on and presenting VE proposals that are basically design enhancements that do not result in cost savings *per se*. In my view, Arki-Tech is not short-changed at all as it will still be paid at the rate of \$350 per hour for providing such VE Services.

144 Accordingly for Arki-Tech to claim the 20% of cost savings, the VE proposals must necessarily result in cost savings; this is one of the essential requirements or conditions expressed in the DM Agreement.

When VE proposals are considered to be implementable

145 All VE proposals must be *implementable* as one of the obvious essential requirements before the 20% in cost savings is payable. The parties do not dispute that the 20% in cost savings cannot be payable when a VE proposal is not technically implementable to begin with or does not comply with the relevant regulations. The essential question therefore at this stage of the inquiry is, whether the VE proposals are capable of being fully implemented and

incorporated into a final composite design with all technical conflicts and regulatory non-compliance issues arising completely ironed out.

146 A VE proposal would only be implementable if after incorporation into Shilpa’s design as a composite whole (albeit with design modifications to either or both the VE proposal or Shilpa’s design) together with all the other Board-approved VEs, the composite design:

- (a) satisfies all applicable laws, regulations and building codes (including fire safety regulations);
- (b) satisfies Melia Hotel or Ininside Hotel’s branding requirements;
- (c) does not conflict with any other relevant requirements; and
- (d) is a fully workable design that is capable of being tendered out and built as a composite whole by the successful tenderer.

147 The need to have all the approved VE proposals combined into a composite whole as a composite design is to address the valid concerns raised at trial by Rentak of (a) potential architectural and/or structural conflicts between the different VE proposals; and (b) the possible reduction in floor area savings of one VE proposal being negated by other VE proposals such that the total floor area savings with all the VE proposals combined may actually be less than the total floor area savings when all the VE proposals are treated separately and independently of each other.

148 A VE proposal which satisfies the above-mentioned conditions would be referred to as an “implementable VE” or a VE proposal which is “implementable”.

149 In my view, design modifications (to the preliminary standalone VE proposal and/or Shilpa’s design) in order to incorporate the preliminary standalone VE proposal into an implementable composite whole as reflected in a composite design should not render the standalone VE proposal *per se* entirely unimplementable merely because some design modifications are required to be made during the incorporation process into an implementable composite whole. It is envisaged as part of the VE Services during the entire period of the DM Agreement that Arki-Tech will have to engage in-depth at the technical level with Rentak’s architect and engineers for the Project to modify the various Board-approved preliminary standalone VE proposals (*ie*, from Arki-Tech) and/or Shilpa’s design as are necessary so that they can be fully incorporated into the composite whole as reflected in a composite design that will be eventually tendered out for construction by the successful tenderer.

Whether Arki-Tech’s VE proposals result in cost savings and are implementable

150 I now examine each of Arki-Tech’s preliminary standalone VE proposals to determine whether there are any cost savings resulting therefrom and whether they are implementable.

Plot Ratio VE

151 I begin with the proposal for plot ratio enhancements (“Plot Ratio VE”). Arki-Tech submits that, owing to its efforts, “there was an increase of 34,739m² in Gross Floor Area for the Project”.¹²⁴ Accordingly:¹²⁵

With respect to the [Plot Ratio VE], the Plaintiff’s work on VE would certainly increase the costs savings and value

¹²⁴ PCS at para 52.

¹²⁵ PCS at para 166.

enhancements by maximizing the developmental potential overcoming statutory limits. On 15 March 2017, as evidenced in the minutes of meeting, the Plaintiff's Mr Loo and Theresia Marcellina presented the Plaintiff's Development Management VE Audit, and concluded that the Plot Ratio used by the Project Architect was not maximised to 4.0. It is Mr Richard Tan's own evidence that indeed, the Plaintiff's work on the Plot Ratio "... could mean more profits could be made".

152 The Plot Ratio VE may indeed increase the overall profitability of the development as a whole, by increasing the amount of usable GFA for the entire Project which can in part be sold profitably or used for increased revenue and profit generation. Increasing the plot ratio of Rentak's plot of land for the Project essentially means that more commercial space or floor area can be built in this commercial development. In other words, a higher plot ratio for a given piece of land gives a higher allowable GFA that can be built on that piece of land. For example, this may enable more hotel rooms to be built for each of the two hotels, thereby increasing the revenue and profit that may be generated from hotel operations; or more office space in the office blocks may be built and sold at a profit; or there could be a combination of the two to maximise the use of the higher allowable GFA for that piece of land.

153 Accordingly, I accept that the plot ratio enhancement constitutes VE Services for which Arki-Tech is entitled to be paid at the hourly rate of \$350 per hour for all the time spent. However, I do not accept that Arki-Tech is entitled to the 20% of cost savings in respect of such work because an increase in the GFA does not, in and of itself, result in cost savings. I find that Arki-Tech has not proved that there is any accompanying cost savings arising from the Plot Ratio VE. On the contrary, it costs more to build more hotel rooms or more office space for the Project to take full advantage of the increased GFA arising from the Plot Ratio VE.

Phase 1: Ininside Hotel

(1) Corridor VE

154 Arki-Tech proposed a reduction in the width of the corridors serving the hotel rooms at every floor of Ininside Hotel (“Corridor VE”)¹²⁶ as another of its VE proposals and submits that such a reduction in the area for construction benefits Rentak in a number of ways:¹²⁷

207. Reducing width of the corridors benefited the Defendant as follows:

a) Managed to optimize the servicing requirements to functional and statutory standards

b) Both Corridor Width options complied with and exceeded the local UBBL fire safety standards 700mm and the more critical accessible requirements of 1200mm minimum widths in MS1184.

c) This improves functionality of the Project to achieve floor areas efficiency whereby additional gross floor area shall be transferred to Phase 4 Commercial Office by building a smaller footprint compared to bigger outline of the original plans.

d) Hotel structural and building floor plate will be correspondingly reduced, from 17400mm to 16950mm and therefore reducing the construction scope of work and costs

e) Option 1 to Ininside Hotel VE 1: Corridor Width resulted in an effective reduction in gross floor area of 940.50sqm (28.5 sqm per floor x 33 floors) or 10,123.46 sq ft. with construction costs saving of 10,123.46 sq ft x RM249 psf = RM2,520,741.50.

f) Option 2 to Ininside Hotel VE 1: Corridor Width resulted in an effective reduction in gross floor area 561.00 sqm (17 sqm per floor x 33 floors) or 6,038.04 sq ft. construction costs saving of 6,038.04 sq ft x RM249 psf = RM1,503,471.90.

208. The corridor width was reduced on average of 28.5 sqm to all 33 floors irrespective different floor designs and layout for 1st to 6th floors and 14th/15th floors. The reduction in corridor widths had the effect of bringing passenger and service lift structural elements closer at these floors. This consistently

¹²⁶ PCS at para 130.

¹²⁷ 4LKK at paras 207–208 (1PBAEIC at pp 51–52).

impacted 'corridor footprints between the structural cores in non-room floor levels 1st to 6th and 14th/15th to achieve true actual corridor space savings instead of the average space savings adopted at the 1st presentation.

155 In my judgment, the Corridor VE does result in cost savings because there is in fact a reduction in the overall physical area for construction, which necessarily leads to a reduction in construction costs. A reduction in the physical area for construction will result in a lower cost of construction since less building materials will be consumed and less construction labour hours are needed, assuming all other things being equal.

156 After examining the various composite design drawings tendered at the trial by David, and the evidence of the experts, I further conclude that this Corridor VE for Ininside Hotel is also implementable, albeit with minor adjustments or modifications.

157 Rentak's experts have not been able to persuade me that the Corridor VE for Ininside Hotel does not comply with any applicable laws and regulations, including all applicable fire safety requirements and building codes or regulations, as well as Ininside Hotel's branding requirements. I accept Arki-Tech's submissions on how the various concerns raised by Steven in relation to the Corridor VE had been addressed by David.¹²⁸

158 Accordingly, apart from the entitlement to the payment of \$350 per hour for the time spent on the Corridor VE, I find that Arki-Tech can additionally claim the 20% of cost savings from the Corridor VE purely from a cost savings perspective provided that the other essential criteria set out at [134] and [146] are also met.

¹²⁸ PCS at paras 215–222.

(2) Variable Refrigerant Volume VE

159 Arki-Tech submits that it performed VE Works in relation to the air-conditioning system, by proposing a change from a chilled water system (“CWS”) to a variable refrigerant volume system (“VRVS”). Arki-Tech first identified and rectified several issues with the original CWS design. It then proposed using a VRVS (“VRV VE”) in place of the CWS, which not only reduced overall costs but also freed up space occupied by the air handling units (“AHUs”) and chilled water plants (both being essential components in the CWS), which could be used for other purposes or omitted completely thus saving both physical floor space and construction costs.

160 Arki-Tech further contends that:¹²⁹

131. ... [T]he original proposals for the AHU system were impractical:

131.1. The original Shilpa design did not provide spaces (*e.g.*, roof, air-conditioning ledges, and/or chiller plant rooms) which would be needed to house the M&E and air-conditioning equipment; and

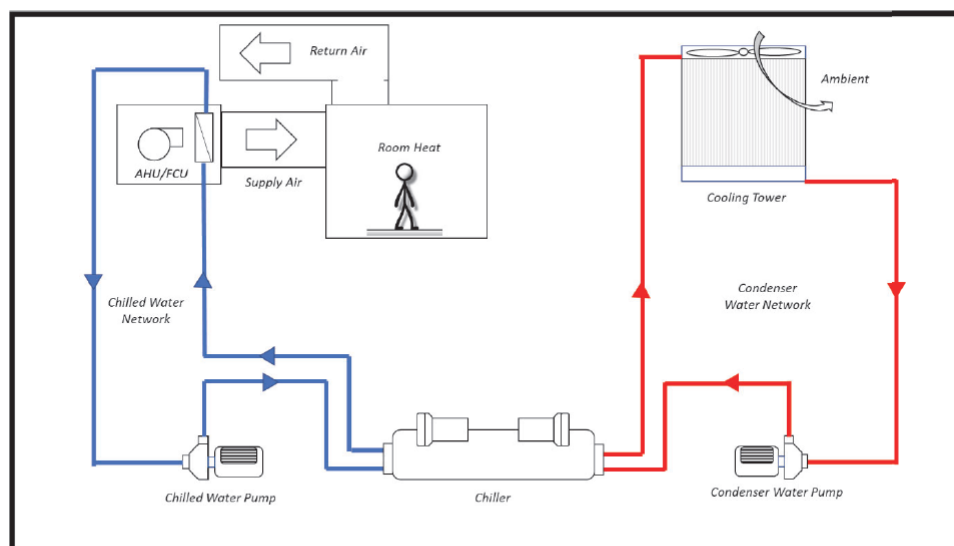
131.2. No chilled water risers were provided for in the original Shilpa design and some floors of the Innside hotel did not even have an AHU room.

132. As such, [Arki-Tech] had to first address the inadequacies and/or impracticalities of the original proposals, before any consideration of cost savings could be made. [Arki-Tech] therefore proposed for an alternative VRV system, which avoided unnecessary energy wastage and minimized life-cycle operating costs. Furthermore, the omission of the AHU rooms freed up GFA of 990 sqm (30 sqm x 33 floors) (which was reused as hotel rooms) and also freed up the rooftop space (which could be used for an alfresco restaurant), thereby saving costs and enhancing the hotel. The [VRV] VE therefore resulted in an increase in number of hotel guest rooms with 14 rooms per floor to 15 rooms per floor.

¹²⁹ PCS at paras 131–132.

161 To fully appreciate the VRV VE performed by Arki-Tech, a brief explanation of the CWS and VRVS is required.

(a) A CWS, as the name suggests, uses chilled water to cool a building. There are two networks in such a system, as illustrated by the following diagram, which I have extracted from the affidavit of evidence-in-chief (“AEIC”) of Jack:¹³⁰



Chilled Water System Showing the Chiller, Chilled Water Network and Condenser Water Network

(i) On the left side is the chilled water network (shown in blue). Water will first be cooled by the chiller. The cool water is then pumped *via* a network of pipes to the AHUs or fan coil units (also referred to as “AHUs” for convenience) located in various parts of a building. Warm air from the inside of the building is brought, *via* air ducts, to the various AHUs. The

¹³⁰ Feasibility Study on VRV Implementation for the Ininside Hotel and the Melia Hotel at Iskandar Johor Bahru by Chan Weng Loon Jack dated 31 May 2023 (“Feasibility Study”) at p 16 (36DBAEIC at p 19).

AHUs cool down the warm air. The cooled air is then injected back into the building *via* another set of air ducts.

(ii) The heat from the chillers needs to be dissipated out of the building and this is where the condenser water network comes into play (shown in red). The heat from the chiller is transported *via* the condenser water network to the cooling towers, which are typically located at the top of a building. These cooling towers cool down the hot water using ambient air.

(iii) In both the chilled water network and the condenser water network, water pumps are required to circulate water in the respective networks.

(b) A VRVS, by contrast, comprises “outdoor units” and “indoor units” connected *via* refrigerant pipes.

(i) The main function of an outdoor unit is to compress and cool the refrigerant. During the compression cycle, heat is produced and this heat needs to be dissipated out of the building. In an air-cooled VRVS (such as the one proposed for the VRV VE), the outdoor unit is typically located on the rooftop of a building or an exposed part of a building, so that the heat from the outdoor unit can be dissipated directly to the ambient air.

(ii) The refrigerant from the outdoor unit is then transported, *via* refrigerant pipes, to various indoor units located inside the building.

(iii) At the indoor unit, the pressurised refrigerant is allowed to expand and, in the process, absorbs heat, thereby cooling the air inside the building.

(iv) One outdoor unit typically serves several indoor units.

(v) Some VRVS are water-cooled. In such a system, the outdoor unit is instead cooled by a water-cooling system, which is analogous to how the chiller in a CWS is cooled by the condenser water network. If this system is used, then the outdoor units can be located indoors on every floor. One advantage of a water-cooled VRVS is that the outdoor units can be located closer to the inside units, thereby reducing the length of the refrigerant pipes required.

162 The design of the air-conditioning system proposed by Arki-Tech relies entirely on an air-cooled VRVS to cool the entire hotel. It does not envisage using a hybrid air-conditioning system utilising both a CWS and an air-cooled VRVS.

163 I find that the proposal for a VRV VE does constitute VE (for which Arki-Tech would have to be paid \$350 per hour for the work done) because there would be substantial construction cost savings from the removal of the AHU rooms and chiller plant rooms, which are not needed for the VRVS. These construction cost savings from the floor area saved by the removal of these rooms will however be reduced if the cost of the equipment for the VRVS is higher than that for the CWS. If the equipment cost for the VRVS is lower than that for the CWS, then the total cost savings for the VRV VE will be even higher. The same goes for their respective installation costs.

164 However, to be eligible for the 20% in cost savings under the DM Agreement, it must further be shown, quite apart from those requirements set out in [134] above, that the VRV VE:

(a) results in cost savings when the construction cost including the comparative equipment cost and installation cost of the two air-conditioning systems are considered as a whole; and

(b) is implementable in that (i) it is fully capable of meeting the cooling load requirements of Ininside Hotel; (ii) all the indoor and outdoor units comprising the VRVS can be physically installed in Ininside Hotel; and (iii) all the other requirements of the Ininside Hotel brand including those requirements stipulated for implementation as set out at [146] above can be met.

(A) WHETHER THERE ARE NET COST SAVINGS FOR THE VRV VE

165 I will first deal with the question whether any net cost savings exist by changing from a CWS to a VRVS. Since the trial has been bifurcated, I will only need to satisfy myself, on the balance of probabilities, that the change to a VRVS achieves an overall net cost savings, without having at this liability stage to determine the quantum of the net cost savings.

166 In my view, as the evidence shows that Rentak intended to sell Ininside Hotel soon after its development,¹³¹ it is more likely that the main consideration from the point of view of the Board (when considering whether to approve the VRV VE) will be limited to considering the total net cost savings achieved (if any) based on a comparison made between the CWS and the alternative VRVS

¹³¹ 5RT at para 11 (1DBAEIC at p 8).

proposed in the VRV VE when the following total costs are added up separately for each of the two systems:

- (a) purchase cost of the equipment;
- (b) installation cost of the equipment; and
- (c) cost of construction of the physical floor area to house the AHUs and the chiller plant units (applicable only in the case of the CWS but not for the VRVS).

167 Operating costs of maintenance, electricity and water usage, and equipment replacement costs during the useful lifetime of the building are to be completely ignored unless the cost calculations are for a life-cycle cost analysis.

168 I do not believe that the life-cycle costs over the useful lifetime of the building would have featured in the minds of the directors of Rentak in selecting which air-conditioning system to adopt because their view will likely be of a short-term nature, since they intended to develop both Ininside and Melia Hotels to sell them off quickly for a profit. They would therefore be more concerned with the immediate upfront cost savings than with cost savings based on a life-cycle cost analysis.

169 From the expert evidence, the CWS appears to be less expensive than the VRVS based purely on the purchase cost of the equipment (and ignoring any differences in the installation costs, which the experts could not provide any data on). Since there are substantial savings in construction costs when the physical areas saved by the removal of all AHU rooms and chiller plant rooms are taken into account, the balance in relation to cost savings is likely in my

view to tilt in favour of the VRVS, such that there will be overall cost savings in adopting the VRV VE proposed by Arki-Tech.

170 Then, Anand, Rentak's expert on value engineering, advanced the concept of life-cycle cost savings as part of value engineering considerations.¹³² Essentially, Rentak is saying that the life-cycle costs of the VRVS may well be so much greater than that of the CWS that there may not be any overall net cost savings in making the change to a VRVS. If based on a life-cycle cost analysis, no overall cost savings result, then Arki-Tech will not be entitled to the 20% of cost savings in respect of the VRV VE.

171 Because of Anand's intervention on behalf of Rentak, I directed the parties' experts to obtain the relevant cost data in order to perform a life-cycle cost analysis for each of these two types of air-conditioning systems to determine if the VRV VE will still result in any overall cost savings on a life-cycle cost basis. To minimise the amount of work to be done by the experts, I fixed certain parameters and assumptions for the calculation of the life-cycle costs, *ie*, a 60 years' timeframe for the useful life of the hotel buildings and a discount rate of 5% per annum.

172 During the hot-tubbing exercise, the parties' respective experts agreed on the peak cooling load of each building (*ie*, Ininside Hotel and Melia Hotel as designed originally by Shilpa, and Ininside Hotel and Melia Hotel designs as modified by the VE proposals from Arki-Tech)¹³³. The modified designs have a different floor area from the original designs and hence the peak cooling loads

¹³² Transcript (30 March 2022) at 111:19–29.

¹³³ PCS at para 260.

will be different between the original design by Shilpa and the new design as modified by the VE proposals from Arki-Tech.

173 As there were differing opinions between the experts on the equipment design life for the CWS and the VRVS, Arki-Tech’s counsel very helpfully prepared Excel spreadsheets with technical and cost data inputs from the expert witnesses to calculate the total life-cycle costs according to various equipment design life spans suggested by the parties (*ie*, 10 years and 15 years for the VRVS and 15, 20, 22.5 and 26 years for the CWS).¹³⁴ Parties agreed not to consider the installation cost for the equipment for which no data is available.¹³⁵

174 The equipment cost for the CWS can be derived from the preliminary cost estimates (based on Shilpa’s original designs for the hotels) prepared by the QS engaged by Rentak for the Project, who was assisted by One Alpha M&E Consultants Sdn Bhd (“One Alpha”), the mechanical and electrical (“M&E”) engineer for the Project.¹³⁶

175 I accept the methodology put forth by Arki-Tech to estimate the CWS equipment cost for both hotels at RM5,647,240, as follows:¹³⁷

270. According to the QS and One Alpha, the cost estimates for air-conditioning and mechanical ventilation (*i.e.*, ACMV) were:

270.1. for the Ininside hotel: **RM7,793,333**; and

270.2. for the Melia hotel: **RM13,720,000**

¹³⁴ Exhibit P32 at pp 3–9.

¹³⁵ Transcript (4 April 2024) at 117:19–24.

¹³⁶ Affidavit of Evidence-in-Chief of Tay Lee Yong dated 12 January 2021 at para 11 (30DBAEIC at p 8).

¹³⁷ PCS at paras 270–273.

271. ACMV consists of both air-conditioning and mechanical ventilation. According to the parties' expert witnesses approximately 20% to 30% of the cost of ACMV consists of mechanical ventilation costs, with the remaining 70% to 80% going towards air-conditioning. This is supported by the costings for the CapitaSpring Service Apartments and Short Street Hotel (under construction) obtained by Mr Lim, in which the ratio of air-conditioning costs to mechanical ventilation costs were 77.7% : 22.3% and 74.6% : 25.4% respectively.

272. Further, the cost estimate for air-conditioning would include both the cost of the equipment itself and the costs of installation. According to the Plaintiff's expert witness Mr Johnny Lim, for CWS ... approximately 35% of the cost for air-conditioning consists of equipment cost, with the remaining 65% going towards installation. When asked for his estimate on the equipment-installation cost portioning, the Defendant's expert witness, Ir Jack Chan, initially stated that he had "*no idea*" but later opined that 65% of the costs going towards installation was "*high*" (*i.e.*, the equipment cost would likely be higher than the estimate here).

273. Taking these ratios into account, the Equipment Cost derived from the QS costing would be:

273.1. for the Innside hotel: $RM7,793,333 * 0.75 * 0.35$
= RM2,045,750.

273.2. for the Melia hotel: $RM13,720,000 * 0.75 * 0.35$
= RM3,601,500.

273.3. QS Equipment Cost estimate for both hotels:
RM5,647,240.

[emphasis in original]

176 I agree with Arki-Tech's submission that since the QS and One Alpha were specifically engaged for the Project, they would be provided with all the relevant information to prepare the cost estimate. Their costing would accordingly be far more reliable than the costing derived by the parties' respective experts at trial.¹³⁸ Hence, I am of the view that the figure of RM5,647,240 is the more reliable and appropriate equipment cost figure for the CWS to be used for the purpose of assessing the life-cycle cost of the CWS.

¹³⁸ PCS at para 274.

However, just for modelling purposes, the equipment cost put forth by Jack, the expert for Rentak, of a much smaller figure of RM2,625,622 was used instead,¹³⁹ with Arki-Tech reserving its right to challenge the equipment cost determined by Jack which appears to be heavily skewed in Rentak's favour.¹⁴⁰

177 Extensive life-cycle cost modelling was done to determine which of the two air-conditioning systems is likely to be cheaper to operate for the useful life of the hotel buildings fixed at 60 years. The modelling took into account, *inter alia*, (a) the operating efficiency of each air-conditioning system (measured in kilowatt ("kW") per refrigerant ton ("RT") of cooling); (b) the electrical usage costs per year based on the electricity tariff of 0.36RM/kWh in Malaysia on 3,650 hours of operation per year at 100% operating load equivalent to the peak cooling load of the buildings; (c) the water usage costs per year for the CWS (but not for the VRVS), (d) diversification capability; (e) the percentage redundancy required for the CWS which is not required for the VRVS; (f) the different equipment life spans for the two systems; and (g) the air-conditioning equipment costs, all of which are to be discounted to present value at 5% per annum. It is not necessary for me to set out in this judgment the complicated modelling process, the various factors considered, the assumptions made and the various concessions made by each party to *arrive at agreed technical values* so that the modelling can be done, except to say that Arki-Tech in its closing submissions had set them out clearly and succinctly.¹⁴¹

178 I agree entirely with Arki-Tech's submissions that the modelling exercise for the life-cycle costs proves that regardless of the iterations (*ie*,

¹³⁹ Exhibit D35 at p 11.

¹⁴⁰ PCS at para 294.

¹⁴¹ PCS at paras 266–331.

VRVS at 10 or 15 years' equipment life span, CWS at 15, 20, 22.5 or 25 years' equipment life span, redundancy removed for the CWS, redundancy applied for the VRVS), the calculations for the various permutations all result in cost savings in favour of the VRVS. This is so even on the basis of using the much lower equipment cost figure of RM2,625,622 for the CWS as put forth by Jack instead of the more reliable but much higher figure of RM5,647,240 for the CWS derived from the cost figures provided by Rentak's QS for the Project.¹⁴²

179 On this basis, I find that Arki-Tech has proved that the VRV VE does result in net cost savings to Rentak on a life-cycle cost basis when assessed over the 60 years of useful life of the hotel buildings, even *without* taking into account the construction cost savings arising from the removal of the AHU rooms on every floor of the hotel together with the removal of the chiller plant rooms in the basement of the hotel when the VRVS is adopted instead of the CWS.

180 It goes without saying that if these construction cost savings achieved by the VRV VE are *added* to the net life-cycle cost savings of the VRV over the useful life of the hotel building, the actual total net cost savings of the VRV VE will be much greater. Accordingly, apart from the entitlement to payment of \$350 per hour for the work done on the VRV VE, I find that Arki-Tech can additionally claim the 20% of cost savings from the VRV VE purely from a total net cost savings perspective, provided that the other essential criteria set out at [134] and [146] are also met.

¹⁴² PCS at para 332.

(B) WHETHER THE VRV VE IS IMPLEMENTABLE

181 I turn next to the question of whether the VRV VE is implementable. Rentak’s expert witness, Jack is of the view that the air-cooled VRVS is not implementable for the following reasons:¹⁴³

(a) The furthest vertical pipe length between the lowest indoor unit and the outdoor unit in a VRVS cannot exceed 90m. Both the Inside Hotel (with a height of 127m) and Melia Hotel (with a building height of 140m) exceed the maximum vertical height for a VRVS. According to Jack, the VRV outdoor units can be installed in either of two ways:

(i) The VRV outdoor units can be installed on every floor, but this is not desirable because a VRV outdoor unit emits a maximum noise level of 69 decibels A-weighted (“dBA”), and a significant amount of noise will be transmitted to the guest rooms. Moreover, significant modifications to the hotel façade must be carried out to allow for air ventilation of the VRV outdoor units, with louvers having to be installed to allow for ventilation.

(ii) Alternatively, two clusters of outdoor units can be installed, one cluster on the rooftop level and another cluster on level 15, to comply with the 90m vertical height limit. However, doing so would mean that a number of guest rooms located on level 15 of Ininside Hotel would need to be removed in order to accommodate all the outdoor units on level 15.¹⁴⁴

¹⁴³ Feasibility Study at para 4 (36DBAEIC at p 9).

¹⁴⁴ Feasibility Study at para 71(i)(iii) (36DBAEIC at p 50).

182 I accept that the vertical height limitation of an air-cooled VRVS is an issue which the experts for Arki-Tech have addressed, and which I will deal with later (at [190]–[194] below). I also observe, in passing, that the vertical height limitation is inherent in the design of an air-cooled VRVS, as distinct from a water-cooled VRVS. In a water-cooled VRVS, the heat generated from each outdoor unit would be transported away by a water-cooling system, similar to how the chiller in a CWS would be cooled by the condenser water network. This gives greater flexibility as to where the outdoor unit may be placed. A water-cooled VRVS can therefore overcome the vertical height limitation quite easily. In the present proceedings, the suggestion to use a water-cooled VRVS was not raised, and I therefore say no more about it. I need only consider the feasibility of an air-cooled VRVS.

183 Jack estimates that Ininside Hotel requires a cooling capacity of 1,259RT whereas Melia Hotel requires 1,776RT. Furthermore, he is of the view that a VRVS should only be implemented for projects up to 500RT because the VRV equipment, being air-cooled, is less efficient compared to a water-cooled CWS when operating at peak load. Given the large cooling requirements of Ininside Hotel and Melia Hotel, a water-cooled CWS is preferable. However, this is an issue that at most goes to the question of which system is cheaper to operate, and hence whether the VRV VE results in cost savings, but not the question of whether a VRVS is implementable.

184 Since each outdoor unit in a VRVS has a maximum cooling capacity of 40RT, a large number of outdoor units will be required, which will occupy a large outdoor footprint. The main chiller in a CWS, by contrast, can have a cooling capacity as large as 1,000RT and therefore scales up more easily than a VRVS. This affects the feasibility of installing the VRVS given the physical

outdoor floor or roof space available in the two hotels. I set out how Arki-Tech's experts have addressed this issue at [190]–[194] below.

185 Jack says that a VRVS has a higher maintenance cost, owing to the large number of outdoor units that need to be maintained. He estimates that 39 VRV outdoor units (comprising 156 compressors) are needed for Ininside Hotel, and 41 VRV outdoor units (comprising 215 compressors) are needed for Melia Hotel,¹⁴⁵ which will be expensive to maintain.

186 In my view, this is a cost issue (more properly to be covered under the life-cycle cost analysis), which has nothing to do with whether the VRVS is implementable. In any case, having a large number of outdoor units, each serving several indoor units, makes the design of the VRVS more robust in terms of redundancy. Should an outdoor unit malfunction, the hotel can continue to service most of its guests whilst repairs are being made to that outdoor unit, thereby minimising the extent of disruption to the hotel. By contrast, if the chiller in a CWS fails, a very large section of the hotel will be left without air-conditioning. This is yet another factor that the Board, when deciding on what VE proposals to give written agreement or approval for, would have to take into consideration when weighing the pros and cons of each system apart from cost savings alone.

(C) WHETHER NOISE IS AN ISSUE WITH THE VRVS

187 Jack asserts that the VRV outdoor units emit a maximum noise level of 69dBA, and this requires louvers or modifications to suppress the noise level, which translates to additional costs. On the other hand, Johnny explains¹⁴⁶ that

¹⁴⁵ Feasibility Study at para 52 (36DBAEIC at p 33).

¹⁴⁶ PCS at para [249.2.1.2].

the VRV units have a built-in noise control feature (*ie*, nighttime quiet operation function) which lowers the noise level to 40dBA at night, when the heat load is lower than the daytime. Furthermore, given the distance between hotel room windows and the outdoor units sited on the unused roof area in the hotels, the noise levels would be lowered.

188 I note that Jack has not asserted that the noise levels of the VRV outdoor units cannot possibly be reduced below Melia's maximum permissible noise level of 45dBA such that it is not at all feasible to adopt the VRVS. I believe that planter boxes, louvres and acoustic insulation barriers as suggested by Johnny can be appropriately utilised to reduce the noise emitted from the VRV outdoor units to acceptable levels. I accept that these will increase the costs somewhat and may reduce the cost savings achievable (and hence the quantum of the 20% of cost savings payable for this VRV VE as a bonus) but it does not make the VRV VE not feasible for adoption, and hence, not implementable.

189 It must be noted that the CWS also has various components which emit noise. The AHUs are essential components of the CWS. They have noise levels of 74.4dBA and 46dBA respectively, which also exceed the permissible noise level of 45dBA. Furthermore, the AHU units on each of the 32 to 33 floors of each hotel are located immediately next to the hotel rooms according to Shilpa's original design. This means that insulation barriers are also needed for the CWS. For a fair cost comparison between the two systems, the costs of providing acoustic insulation in both cases must be factored into the cost calculations.

(D) WHERE THE OUTDOOR UNITS FOR THE VRVS ARE TO BE PLACED

190 As mentioned above, I accept that, in an air-cooled VRVS, there is a maximum vertical height restriction between the outdoor units and the

associated indoor units; and limited availability of outdoor space and rooftop space to house the large number of outdoor units.

191 From the evidence of Arki-Tech’s experts, I accept that there are many possible permutations to place the VRV outdoor units. The VRV outdoor units can be installed in any one of the following ways:

- (a) in one cluster all on one floor;
- (b) in two clusters, *eg*, one cluster on the rooftop level and another cluster on level 15;
- (c) in three or more clusters spaced out on three or more different floors; or
- (d) on every floor.

192 To determine what permutation is feasible, the total number of outdoor units must first be determined, and this depends on the total cooling load requirements of the hotel. Next is to determine: (a) the amount of floor space required to house all these outdoor units; (b) how they can be optimally placed in clusters; (c) on how many floors; and (d) at which levels, to ensure that the maximum vertical height limit between the related outdoor and indoor units is not exceeded.

193 Jack claims that there is insufficient outdoor space to place the large number of VRV outdoor units in both the Innside and Melia Hotels.¹⁴⁷

¹⁴⁷ Feasibility Study at paras 4(a)(ii) and 4(d) (36DBAEC at pp 9–10).

194 Johnny worked closely with David to demonstrate that this is not an issue. They provided drawings¹⁴⁸ with the placement of the VRV outdoor units for both Ininside and Melia Hotels at selected levels, *ie*, the roof on level 7, the M&E space on level 15, and the hotel rooftop. I accept their evidence that there is sufficient physical space within the existing M&E areas and rooftop areas of the hotels to place the VRV outdoor units such that the required total cooling capacity of the hotels can be met, and the vertical height limit between the related outdoor and indoor units is not exceeded.

195 Since the VRVS equipment will be placed in the existing M&E areas and rooftop areas of the Hotels, there is no increase in the GFA to be constructed and, hence, no increase in the construction costs.

(3) Liftcore VE

196 Arki-Tech proposed several design changes to the way in which the five passenger lifts and two service lifts were configured, leading to space savings and other benefits (“Liftcore VE”). According to Loo:¹⁴⁹

228. The existing designs on lift and services cores has provided for 5 passenger lifts and 2 service lifts but occupied a larger GFA of 194.42 sqm...

230. The number of lifts proposed was [kept] unchanged though less was needed and additional lifts were differentiated for superior brand experience with exclusive[:]

- a) guests card key access to hotel room floors; and
- b) guests/VIP access to the rooftop bar/restaurant.

231. The Plaintiff’s proposal for change in lift and services core design consist of a bubble lift, 4 passenger lifts and 2 service lifts would occupy only 156.67 sqm and therefore

¹⁴⁸ Exhibits P14, P15, P16 and P17.

¹⁴⁹ 4LKK at paras 228–234 (1PBAEIC at pp 55–56).

resulting in GFA enhancement and construction costs savings of 37.75 sqm per floor.

...

233. Plaintiff's VE review of Lift and Services Cores Design and subsequent VE proposal demonstrated the dedicated and superior functional efficacies in which[:]

a) 3 passenger lifts in the hotel lobby were dedicated to serve the hotel rooms floor only from 7th to the 33rd Storey so as to give the desire[d] security to the hotel guests

b) 1 passenger lift in the hotel lobby served public access floors below the 7th storey

c) 1 bubble glass lift in the hotel lobby served the alfresco rooftop restaurant exclusively with commensurately visually superior experiential ride up to a destination dining venue with extensive vista views.

234. The Plaintiff demonstrated by a thorough functional analysis of the lift performance and strategic allocation, the lift design has created superior functional improvement without any loss of the original design efficacies.

235. Therefore, Innside Hotel VE 3: Lift and Services Core Design results in effective reuse of area for a total of 37.75 sqm x 33 floors = 1,245.75 sqm = 13,409.25 sq ft. ... [T]his result[s] in costs saving of 13,409.25 sq ft x RM249 psf = RM[3,338,903.20].

197 In my judgment, the Liftcore VE constitutes VE Works because it conceivably enhances the security, aesthetic or space efficiency of the lift designs. Accordingly, Arki-Tech is entitled to be paid \$350 per hour for the time spent on the Liftcore VE.

198 Additionally, I find that there are cost savings from the reduction in the GFA for the redesigned lift cores for the passenger and service lifts as proposed in the Liftcore VE. Hence, Arki-Tech can claim the 20% of cost savings for the Liftcore VE, provided that the other essential criteria set out in [134] and [146] are also met.

199 In so far as whether the Liftcore VE is implementable, Rentak’s experts have not persuaded me that the Liftcore VE is not implementable. A number of issues on non-implementability were raised by them. However, Arki-Tech’s experts, in my view, have been able to satisfactorily address all of them.¹⁵⁰

(4) Room Layout VE

200 Arki-Tech submits that it had to correct several errors in the original building plan of the rooms (“Room Layout VE”). The original plan erroneously included:¹⁵¹

- (a) areas which were *outside* of the room, such as parts of the common corridor areas;
- (b) the thickness of the walls; and
- (c) a bathroom design that was inconsistent with previous designs that separated the toilet and the shower.

201 Correcting these errors meant that the actual net floor area of the interior of the bedroom significantly increased, which therefore increased the net usable floor area of the hotel rooms. I agree with Arki-Tech that there is significant value add to the hotel room design, which in turn would have provided a more luxurious experience staying in those rooms.¹⁵² Thus, in my judgment, Arki-Tech should be remunerated at a rate of \$350 per hour for the work done in respect of the Room Layout VE.

¹⁵⁰ PCS at paras 223–228.

¹⁵¹ 4LKK at paras 239–241 (1PBAEIC at p 59).

¹⁵² PCS at para 136.

202 However, in respect of the claim of 20% of cost savings for the Room Layout VE, I note that Arki-Tech is now not claiming any cost savings in respect of the Room Layout VE.¹⁵³

(5) Alfresco Restaurant VE

203 Arki-Tech submits that:¹⁵⁴

132. ... [T]he omission of the AHU rooms freed up GFA of 990 sqm (30 sqm x 33 floors) (which was reused as hotel rooms) and also freed up the rooftop space (which could be used for an alfresco restaurant), thereby saving costs and enhancing the hotel ...

...

137. ... [W]hile the Defendant claims that such [a rooftop alfresco restaurant] had already been included in the Project Architect's plans, in reality, the original design plan provided by the Defendant dated 16 November 2016, and the AutoCAD drawing shared on 18 November 2018 did not even include a usable roof. The Plaintiff therefore proposed to add a new business lounge on the 30th floor, and included an alfresco (outdoor) restaurant on the 31st floor. There is no loss of brand efficacy but the gain of a highly attractive specialty restaurant to the Ininside brand experience.

204 I accept that the proposal to include a rooftop alfresco restaurant and business lounge (“Alfresco Restaurant VE”) constitutes VE Works, because the changes to the design of the rooftop meant that there is an additional floor that could be used to provide additional services or amenities, whether in the form of a restaurant or otherwise. This potentially increases the revenue that may be generated by Rentak and enhances the experience of guests staying at the hotel.

205 While I accept that this Alfresco Restaurant VE constitutes VE Works entitling Rentak to be paid at the rate of \$350 per hour for the work done, I do

¹⁵³ PCS at para 229.1.

¹⁵⁴ PCS at paras 132 and 137.

not agree that this directly results in cost savings and, therefore, Arki-Tech cannot claim 20% of cost savings in respect of this VE.

Phase 2A: Multi-Storey Carpark

206 Arki-Tech submits that it redesigned the Multi-Storey Carpark (“Carpark VE”) such that:¹⁵⁵

- (a) the number of carpark lots increased by 647 lots, from 1553 to 2200; and
- (b) the total construction floor area reduced by 3,746m², from 66,122m² to 62,376m².

207 Further, the single straight ramp access within the carpark was replaced with two circular ramps to improve “the ease, flow and capacity of vehicular ingress and egress”.¹⁵⁶

208 In my judgment, the redesign of the carpark is self-evidently a form of VE for which Arki-Tech is to be paid at the \$350 hourly rate for the work done. Further, insofar as there is a reduction in the cost of construction, Arki-Tech is also entitled to 20% of cost savings for the Carpark VE, subject to other essential criteria referred to in [134] and [146] being satisfied.

209 I also find that the Carpark VE is implementable with some minor architectural amendments and modifications as demonstrated by David in his drawings tendered as part of his expert evidence, which I accept. Rentak’s experts raised numerous issues in an attempt to show that the Carpark VE is not

¹⁵⁵ 4LKK at para 355 (1PBAEIC at p 87).

¹⁵⁶ 4LKK at para 351 (1PBAEIC at p 87).

implementable. It is not necessary for me to set them all out in this judgment except to say that Arki-Tech has explained why these alleged issues do not affect the question of whether the Carpark VE can be implemented.¹⁵⁷ I agree with Arki-Tech's explanations and its submission that the Carpark VE is feasible and implementable.

Phase 3: Melia Hotel

210 At the outset, it should be noted that many of the VE proposals for Melia Hotel are similar to those for Ininside Hotel. Accordingly, the same considerations apply.

(1) Corridor VE for Melia Hotel

211 Similar to Ininside Hotel, Arki-Tech proposed a reduction in the width of the corridor for Melia Hotel. However, it was decided that the corridor width of Melia Hotel would not be reduced by the same extent as that for Ininside Hotel, since Melia Hotel is a more luxurious hotel and ought to have a wider corridor.¹⁵⁸

212 Consistent with my finding in the case of the Corridor VE for Ininside Hotel above, the reduction in corridor width for Melia Hotel is indeed a form of VE for which the hourly rate of \$350 is payable for the work done. Furthermore, the 20% of cost savings in respect of the Corridor VE is payable for the construction cost savings achieved from the reduction in construction area saved by the corridor width reduction for Melia Hotel, provided the other essential criteria set out in [134] and [146] are also satisfied.

¹⁵⁷ PCS at paras 334–388.

¹⁵⁸ 4LKK at paras 210–211 (1PBAEIC at p 52).

213 As with Ininside Hotel, I also accept Arki-Tech's submission and find that the Corridor VE for Melia Hotel is implementable with some minor architectural amendments and modifications¹⁵⁹ as demonstrated by David in his evidence, which sufficiently addresses all the concerns raised by Steven on why the Corridor VE may not be implementable.

(2) VRV VE for Melia Hotel

214 Arki-Tech also proposed changes to the air-conditioning system:¹⁶⁰

164.2. Proposing the replacement of the [CWS] to a VRV system which prevented unnecessary vacant occupancy cooling and energy wastage, took up a smaller footprint, and therefore an effective reuse of a gross floor area of 992 sqm.

215 In my judgment, this is a form of VE for which the hourly rate of \$350 is payable for the work done. Provided that the other essential criteria set out in [134] and [146] are also met, the 20% of cost savings is additionally payable for the total cost savings achieved from (a) the construction cost savings arising from the removal of the AHU rooms and the chiller plant rooms; and (b) the cost savings based on a life-cycle cost analysis if a long-term view is adopted by the Board to run Melia Hotel for itself on a long-term basis. But if a short-term view is adopted by the Board to sell Melia Hotel soon after its development, then the life-cycle cost savings will be irrelevant and the 20% of cost savings will be limited to the construction cost savings arising from the removal of the AHU rooms and the chiller plant rooms that will be offset to a certain extent by the potentially higher initial purchase cost of the VRVS over that of the CWS including any difference in installation costs between the two air-conditioning systems.

¹⁵⁹ PCS at para 218.1.1.

¹⁶⁰ PCS at para 164.2.

216 If I have to proceed to the second stage of the trial to assess the damages based on the 20% of cost savings I will state my further finding at this liability stage that the Board is more likely to take the short-term view to sell Melia Hotel soon after its development with the result that the assessment of the 20% of cost savings will be based simply on the following formula:

20% of [(Total savings in square feet in construction area **multiplied by** the cost of such construction in RM per square foot) **minus** (the upfront cost of purchase of the VRVS and its installation cost **minus** the upfront cost of purchase of the CWS and its installation cost)]

217 There will be no necessity to embark on any life-cycle cost analysis at the second stage of the trial as that is only relevant if Rentak intends to keep and operate Melia Hotel itself on a long-term basis, which I do not find is Rentak’s intention from the evidence adduced at the trial.

(3) Liftcore VE for Melia Hotel

218 Arki-Tech proposed to “improve the service lift core efficiencies which also reduced the [GFA]” for Melia Hotel.¹⁶¹

219 In my judgment, this again is a form of VE for which the hourly rate of \$350 is payable for the work done.

220 Additionally, I find that there are cost savings resulting from the reduction in the lift lobby floor area for the redesigned lift cores for the passenger and services lifts as proposed in the Liftcore VE for Melia Hotel. Hence 20% of cost savings is payable for the Liftcore VE for Melia Hotel, provided that the other essential criteria set out in [134] and [146] are also met.

¹⁶¹ PCS at para 164.3.

221 In so far as the question of implementation is concerned, Rentak’s experts have not persuaded me that the Liftcore VE for Melia Hotel is not implementable.

(4) Room Layout VE for Melia Hotel

222 Arki-Tech submits that it proposed “changes to the hotel room layouts which reduced the sizes of the typical room, upgraded the suit configurations, and thereby created resultant floor area savings” (“Room Layout VE for Melia Hotel”).¹⁶² In other words, the lower-tier rooms were reduced in size whilst the higher-tier suite rooms were enlarged.

223 In my judgment, the Room Layout VE for Melia Hotel is a form of VE for which the \$350 per hour payment for the work done is payable since there is now a clearer differentiation between the lower-tier and higher-tier rooms, which would conceivably encourage more customers to opt for the larger suits and thereby increase Melia Hotel’s revenue. With a higher revenue projection, conceivably the sale of Melia Hotel can be achieved at a higher price for the benefit of Rentak.

224 However, the 20% of cost savings would only be payable insofar as the other essential criteria set out in [134] and [146] are satisfied, coupled with a net reduction in the cost of construction of Melia Hotel due to the smaller total overall footprint of the hotel rooms in the composite design with all the other Board-approved VE proposals included. This includes the requirement that the reduced room sizes must still comply with Melia Hotel’s branding guidelines (and not go below the minimum size stipulated in the guidelines).

¹⁶² PCS at para 164.4.

(5) Room Number VE

225 Arki-Tech submits that it proposed “an increase in the number of hotel rooms, which would overall increase the value of the Melia [H]otel as it generates more revenue from more room bookings”¹⁶³ (“Room Number VE”) as an alternative to the Room Layout VE, which is to keep to the same number of hotel rooms and reduce the construction area to save on construction costs. In my judgment, the Room Number VE is self-evidently VE Works which constitute enhancements to the Melia Hotel although it has been proposed as an alternative VE.

226 I consider that the work done by Arki-Tech to generate alternative VE proposals for Rentak’s consideration is part and parcel of the VE services required by Rentak for which Arki-Tech is entitled to be paid at the rate of \$350 per hour. Therefore, the time spent by Arki-Tech to work on the Room Number VE is to be included in calculating the payment at the rate of \$350 per hour.

227 It is to be noted that *if* this Room Number VE for Melia Hotel was approved by the Board instead of the Room Layout VE, there would be no cost savings as such to entitle Arki-Tech to any further claim of 20% of cost savings.

Quantifying the 20% of cost savings at the second stage of the trial

228 If this bifurcated trial proceeds to the second stage of assessment of damages on the basis that Rentak is liable to pay the 20% cost of savings to Arki-Tech (which I have found not to be the case) in addition to the \$350 per hour for the time spent on the VE Services (which I have allowed), then it will be necessary also to assess the quantum of the 20% of cost savings payable.

¹⁶³ PCS at para 164.5.

This assessment in turn requires the total “cost savings” resulting from the various presumably Board-approved VE proposals to be determined, which necessarily entails a comparison between:

- (a) the original design of Shilpa; and
- (b) the final composite design with all the Board-approved VE proposals fully incorporated into Shilpa’s original design.

229 The original design refers to the original Shilpa’s architectural designs that are reflected in the “PDF drawings and planning data that had been tabled in Annex B”.

230 The final composite design is envisaged to be the detailed, final design eventually arrived at after a series of iterative processes, in-depth technical discussions and consultations between Arki-Tech and the Project Architect and other consultants engaged in the Project (*eg*, One Alpha) to incorporate all the VE proposals finally approved by the Board. It is to be expected that this final composite design and all the associated drawings for that composite design should be completed and be available by the time the Project is ready for the tender stage.

231 On the facts of the present case, no such final composite design was done because that stage has not in fact been reached due to the early termination of the DM Agreement. Where there are alternative VE proposals, there is no clarity in the present case as to which one would be approved by the Board. Even if there are no alternatives, it is still unclear if the Board would or would not have approved that particular VE proposal even if there are cost savings. Much is therefore unknown in the present case.

232 This means there is no ready comparator or reference point for what the final composite design would have looked like (if indeed there was no early termination of the DM Agreement), which the court can easily refer to. Instead, the court will be required to engage in a counterfactual inquiry as to what the final (hypothetical) composite design would have been, which is no easy task for the court. One of the hurdles would be determining, in the abstract, whether and how a particular VE proposal would be implemented and incorporated into the final composite design. Indeed, the fact that there was no written approval by the Board in relation to any of the VE proposals means that the court is simply not in a position to determine which of the VE proposals would have been approved for implementation, which in turn affects how the final (hypothetical) composite design would look like.

233 Accordingly, if the court has to quantify the 20% of cost savings, the court will have to assume that if the Board were to be presented with a particular proposal that would result in cost savings, the Board would definitely approve and give its written agreement to adopt that proposal, regardless of the aesthetics or the preferred “look and feel” of the hotel and regardless of any other considerations the Board might have had. Likewise, if several mutually exclusive proposals with different cost savings were to be presented to the Board, it will have to be assumed that the Board would inevitably have selected the proposal that generates the largest cost savings. Without a known basis by which the Board in its absolute discretion may or may not adopt any particular VE proposal for implementation, the court will not be able to proceed to make any assessment of the 20% of cost savings unless such an assumption of fact is made by the court. Without an assumption of fact that the Board will always adopt an approach of maximising cost savings regardless of all other considerations, it is simply not feasible or possible to compute the 20% of cost savings.

234 Such an assumption of fact is artificial to say the least, but it is a necessary assumption to make if the court is required to assess the damages and award Arki-Tech the 20% of cost savings.

235 The artificiality of the assumption of fact can be illustrated with a few examples:

(a) A reduction in the width of the corridor could reduce the cost of construction, but there are countervailing considerations as to why the Board may not want to accept such a suggestion, such as wanting to give guests a more spacious area to walk and to enjoy a better experience of their stay in the hotel.

(b) A reduction in the size of the lower-tier “standard” rooms would have led to cost savings but would likely degrade the experience of hotel guests. Accordingly, the Board may decide not to take up such a VE proposal at all.

236 Had the DM Agreement not been terminated early and had the Project progressed to the point where there is a final composite design after all the requisite written approvals from the Board for the various VE proposals had in fact been obtained and all the iterations to reach the final composite design have been completed, there will be no such complicated and speculative counterfactual inquiry to be done. Determining the 20% of cost savings would have been a relatively straightforward matter. This further fortifies my view that Arki-Tech should not be awarded the 20% of cost savings at such a nascent stage of the Project, even before any of the VE proposals had been formally approved or agreed to in writing by the Board. The DM Agreement clearly contemplates the scope of the works and services to be fully completed only at the time of (or close to) the start of construction of Phase 1. By this time, all the

necessary approvals of the Board would have been obtained, the final composite design with all Board-approved VE proposals incorporated would have been available, and the tender process would also have been completed by then, thus giving clarity as to what the construction cost rates per square foot would be.

237 To be clear, there is no requirement for Arki-Tech to have *single-handedly* come up with the detailed composite drawing – it is permissible and in fact necessary for Arki-Tech to have worked closely with the architect, consultants, engineers and other relevant persons engaged by Rentak for the Project. However, as mentioned above, the Project needs at least to have progressed to the tender award stage (as defined above at [47(c)]) because it is only at this stage when there would be sufficient clarity and finality as to the final composite design of at least Ininside Hotel, if not also for Melia Hotel and the Multi-Storey Carpark, the construction of which must also be completed before the hotels become fully operational. Until the tender award stage is reached, Arki-Tech would not be entitled to the 20% of cost savings as the VE Services (which includes the work to manage, execute and implement all the Board-approved VE proposals) to be provided by Arki-Tech under the DM Agreement remains, in my view, unfinished.

Conclusion

238 For the above reasons, I conclude that Rentak is liable to pay Arki-Tech at an hourly rate of \$350 per hour for all the work done in relation to the latter's engagement under the DM Agreement, whether VE related or not and whether there are resultant cost savings or not. Where the work done is *beyond* the scope of the Services of the DM Agreement, I conclude from all the evidence before me that all such work was done on the basis that Arki-Tech's services were needed within the meaning of Item 2 in Schedule 3 and therefore Arki-Tech is

also entitled to be paid at the rate of \$350 per hour for such work done subject however to a cap of 160 hours per calendar month. Further, since Arki-Tech did not obtain the written agreement or approval of the Board for its VE proposals and did not fully manage, execute and implement its VE proposals (*ie*, after getting the necessary written agreement or approval by the Board) up to the tender and tender award stages, and leading up to the stage of the start of construction of Phase 1, it is not entitled to claim the 20% of cost savings simply based on Loo's preliminary VE ideas, designs and proposals.

239 With the extent of the liability of Rentak determined at this first stage of the trial, the next phase of these proceedings will deal with the quantum of damages to be awarded to Arki-Tech based on what I have set out in [238] above. The question of whether Arki-Tech is entitled to interest on the late payment will also be dealt with at that stage.

240 Costs for the liability stage of the trial shall be reserved to the court assessing the damages at the next stage of the trial to be fixed accordingly by the Registrar.

Chan Seng Onn
Senior Judge

Tan Spring, Zephan Chua Wei En and Farahna Alam (Withers
KhattarWong LLP) for the plaintiff;
Lee Soong Yan, Kelvin (Li Chong'En) (instructed) (Twenty Essex
Chambers), Tan Hui Teng, Jessica Cheng Yi Ling and Wong Yu
Rong Tatiana (Yusarn Audrey LLC) for the defendant.
