IN THE HIGH COURT OF THE REPUBLIC OF SINGAPORE

[2020] SGHC 167

Suit No 521 of 2017

Between

GA ENGINEERING PTE LTD

… Plaintiff

And

SUN MOON CONSTRUCTION PTE LTD

… Defendant

And

SUN MOON CONSTRUCTION PTE LTD

… Plaintiff in Counterclaim

And

GA ENGINEERING PTE LTD

… Defendant in Counterclaim

JUDGMENT

[Building and Construction Law] — [Building and construction contracts] — [Lump sum contract]
[Building and Construction Law] — [Sub-contracts] — [Incorporation of main contract terms]
[Building and Construction Law] — [Damages] — [Damages for defects]

TABLE OF CONTENTS

GA Engineering Pte Ltd
v
Sun Moon Construction Pte Ltd

[2020] SGHC 167

High Court — Suit No 521 of 2017
Vinodh Coomaraswamy J
1–4 July, 9 September 2019

6 August 2020 Judgment reserved.

Vinodh Coomaraswamy J:

Introduction

1 This action arises out of a lump sum contract which the plaintiff and the defendant entered into in June 2014 (the "Subcontract").[1] Under the Subcontract, the defendant as subcontractor undertook to design, supply and install various furnishings for the plaintiff as main contractor (the "Works"). The Works included a glass curtain wall system, aluminium and glazing works and a feature wall for a freehold industrial development (the "Project"). The Subcontract price was $2.19m.[2]

2 The Temporary Occupation Permit ("TOP") for the Project was issued in June 2016. The architect issued the Certificate of Completion ("CoC") in

---

1 Plaintiff's Opening Statement at paras 1 to 3.

2 Statement of Claim (Amendment No 1) at para 5.

November 2016, but with retrospective effect from July 2016.[3] From July 2016 to December 2016, the plaintiff handed over completed units to individual subsidiary proprietors. The Building and Construction Authority of Singapore ("BCA") issued the Certificate of Statutory Completion ("CSC") in August 2017.[4]

The parties' claims

3 The plaintiff's case is that the defendant has breached the Subcontract by:[5]

(a) installing defective glass in the glass curtain wall;

(b) failing to submit as-built drawings and the 10-year warranty;

(c) failing to ensure the water-tightness of the glass curtain wall and/or the aluminium and glazing works;

(d) failing to install compliant doors at the seventh-storey; and

(e) failing to construct the feature wall in compliance with approved shop drawings.

---

3 Statement of Claim (Amendment No 1) at para 22.

4 Plaintiff's Opening Statement at para 2; Agreed Bundle of Documents, Vol 2, p633.

5 Statement of Claim (Amendment No 1) at para 8.

4 The defendant rejects the plaintiff's claim and brings a counterclaim for the following:[6]

(a) an order that cll 2.6 and 2.12 of the Subcontract be struck out on the basis of both clauses being unenforceable for uncertainty;

(b) rectification of the Subcontract to add the word "certificate" after the words "main contract completion" at line 2 of cl 20.2 of the Subcontract;

(c) the following sums:

(i) $327,333.75 as the unpaid balance due to the defendant under the Subcontract;

(ii) $24,717 for costs which the defendant incurred in Adjudication Application No 334 of 2016 arising out of the parties' dispute ("the adjudication application");

(iii) $54,750 being 50% of the 5% retention sum which the plaintiff holds under cl 20.2 of the Subcontract;[7] and

(d) an alternative claim for damages to be assessed in respect of the items at (c) above.

---

6 Defence and Counterclaim (Amendment No 1) at pp 29–30.

7 Defendant's Opening Statement at para 35; Oral Closing Submissions, 9 September 2019.

The issues to be determined

5 This action has been bifurcated. Accordingly, I am in this trial concerned only with liability. There will be a separate assessment of damages to fix quantum.

6 The issues on liability which I have to determine on the plaintiff's claim are:

(a) Whether the alleged defects in the glass curtain wall amount to a breach of the Subcontract ("Glass Defects Issue")?

(b) Whether the defendant breached the Subcontract by failing to submit as-built drawings and the 10-year joint warranty ("Outstanding Submissions Issue")?

(c) Whether the defendant breached the Subcontract by failing to ensure that the aluminium and glazing works were sufficiently watertight ("Water Tightness Issue")?

(d) Whether the defendant breached the Subcontract by failing to ensure sufficient headroom for the doors at the seventh storey, as well as failing to orient the thresholds for the balcony doors at the seventh storey to ensure water tightness ("Doors Issue")?

(e) Whether the defendant breached the Subcontract by installing non-compliant panels in the feature wall and by failing to supply a certificate of conformity for certain aluminium composite panels which the defendant installed in the Feature Wall ("Feature Wall Issues")?

7 The issues on liability which I have to determine on the defendant's counterclaim – insofar as those issues have not otherwise been dealt with in determining the plaintiff's claim – are:

(a) Whether the defendant completed the Works, thereby entitling it to be paid the unpaid balance of the Subcontract price ("Completion Issue")?

(b) Whether the defendant is entitled to have the plaintiff release to the defendant 50% of the 5% retention sum under the Subcontract ("Retention Issue")?

(c) Whether the defendant is entitled to recover from the plaintiff the costs of the adjudication ("Adjudication Costs Issue")?

8 Having considered the evidence and the parties' submissions, I have arrived at the following findings on the defendant's liability on the plaintiff's claim:

(a) The defendant is liable to the plaintiff on the Glass Defects Issue, though not in respect of all of the breaches alleged by the plaintiff;

(b) The defendant is liable to the plaintiff on the Outstanding Submissions issue;

(c) The defendant is not liable to the plaintiff on the Water Tightness Issue;

(d) On the Doors Issue, the defendant is liable to the plaintiff for failing to ensure sufficient headroom for the doors at the seventh storey, but is not liable to the plaintiff for water ingress arising

from the misoriented thresholds for the seventh-storey balcony doors;

(e) The defendant is liable to the plaintiff for the Feature Wall Issues.

9 I have also arrived at the following findings on the plaintiff's liability on the defendant's counterclaim:

(a) The defendant did complete the Works and is entitled to be paid the unpaid balance of the lump sum which has fallen contractually due under the Subcontract;

(b) The defendant is entitled to be paid 50% of the retention sum of 5% of the price of the Subcontract, amounting to $54,750;

(c) The defendant is not entitled to recover the costs it incurred in the adjudication application as damages in this action for the plaintiff's breach of contract.

The Glass Defects Issue

10 The Glass Defects Issue concerns white spots, specks and bubbles which appeared on the glass panels (collectively, the "Glass Defects") which the defendant installed as part of the glass curtain wall for the Project.[8] It is common ground that the Glass Defects were not present when the glass was installed and began to appear only after TOP was issued in June 2016.[9]

---

8 Notes of Evidence, 2 July 2019, p56(24) to 56(32); Plaintiff's Closing Submissions at para 16.

9 Notes of Evidence, 4 July 2019, p5(16) to 5(32).

11 The parties carried out a series of joint inspections on-site from July 2016 to October 2016. They were unable to resolve the issue.[10]

12 The plaintiff initially employed the term "Delamination Defects" to describe the Glass Defects in its statement of claim. However, the plaintiff confirmed at a pre-trial conference that "delamination" was used as a shorthand term to refer to the Glass Defects and not in its technical sense to mean a defect such as the Polyvinyl Butyral ("PVB") layer between the sheets of laminated glass becoming detached.[11] I shall proceed to determine the Glass Defects Issue on this basis.

The parties' positions

13 The plaintiff argues that the appearance of the Glass Defects constitutes breaches of various terms of the Subcontract. The plaintiff accepts that it is the white spots and specks which form the bulk of the Glass Defects.[12]

14 The plaintiff's case is that the Glass Defects are a failure to comply with cll 2.2.1(a) and 2.2.8(b) of the Architectural Specifications ("AS") in the main contract as well as with cll 3.3.7(b) and 3.3.7(c) of the National Productivity and Quality Specifications ("NPQS") in the main contract (collectively, "Glass Specifications").[13] These Glass Specifications are incorporated into the Subcontract by cll 8.1 and/or 2.2 of the Subcontract.[14] The Glass Defects are

---

10 Notes of Evidence, 4 July 2019, p6(1) to 6(12).

11 Notes of Evidence, 1 July 2019, p4(32) to 5(15); Plaintiff's Closing Submissions at para 17.

12 Oral Closing Submissions, 9 September 2019.

13 Plaintiff's Closing Submissions at paras 19 to 20.

14 Plaintiff's Closing Submissions at paras 19 to 20.

also a failure to meet the specification contained in Appendix A of the Subcontract ("Appendix A Specification").

15 The defendant submits that it has not failed to meet any of the Glass Specifications and the Appendix A Specification. First, the Glass Specifications and Appendix A of the Subcontract are of no contractual force between the plaintiff and the defendant because they were never validly incorporated into the Subcontract. Second, even if the Glass Specifications have been incorporated into the Subcontract by express reference: (a) the Glass Specifications are concerned only with the surfaces of the glass panels rather than the coating applied to them; and (b) the white spots have not caused any obstruction of vision and there is no suggestion that the emissivity function of the glass coatings is impaired.[15] Third, the plaintiff refused to allow the defendant an opportunity to rectify and replace the glass panels.[16]

Is the plaintiff entitled to recover substantial damages?

16 I begin by considering a preliminary objection raised by the defendant. The defendant argues that the plaintiff is not entitled to claim substantial damages against the defendant because the Glass Defects caused no actual loss to the plaintiff. With the exception of a few replacement works that the plaintiff allegedly carried out in units #03-07, #05-05, #05-06 and #06-03 of the Project,[17] the plaintiff has suffered no loss as a result of the Glass Defects. Further, neither the owner nor the individual subsidiary proprietors of any of the units in the Project have commenced any legal proceedings against the plaintiff

---

15 Defendant's Closing Submissions at paras 95 to 99.

16 Defendant's Closing Submissions at para 122.

17 Wong Kwek Min's AEIC at para 41, p99 to 115.

or have sought to recover any damages from the plaintiff for the Glass Defects.[18] The plaintiff thus has not suffered any loss. It should therefore not be entitled to recover damages from the defendant for the Glass Defects.

17 The general rule is, of course, that a plaintiff is entitled to recover damages only for loss which a breach of contract causes the plaintiff itself to suffer. The plaintiff, however, relies on the exceptions to that rule recognised by the Singapore Court of Appeal in *Chia Kok Leong and another v Prosperland Pte Ltd* [2005] 2 SLR(R) 484 ("*Prosperland*") and *Family Food Court (a firm) v Seah Boon Lock and another (trading as Boon Lock Duck and Noodle House)* [2008] 4 SLR(R) 272 ("*Family Food Court*").

18 In *Prosperland*, the Court of Appeal considered whether a developer was entitled to recover substantial damages from the architect it engaged to design and supervise the construction of a condominium. By the time of the action, the developer had divested ownership of the condominium to the MCST and the subsidiary proprietors. The developer had not spent any of its own money to repair the defects. And the MCST had not sued the developer in respect of the defects.

19 The Court of Appeal held that the developer was nevertheless entitled in principle to recover substantial damages from the architects. In arriving at this holding, Chao Hick Tin JA recognised two exceptions to the general rule set out at [17] above.

20 One exception is the "narrow ground". This allows a plaintiff to recover substantial damages on behalf of a third party. The narrow ground is applicable

---

[18] Notes of Evidence, 1 July 2019, p91(21) to 91(29).

where it is in the contemplation of the parties at the time of contracting that the plaintiff will transfer its proprietary interest in the subject-matter of the contract to a third party after contracting and before the defendant's breach occurs. If that is within both parties' contemplation at the time of contracting, the plaintiff is to be treated in law as having entered into the contract for the benefit of all persons who have or may acquire an interest in the property which is the subject-matter of the contract before it is lost or damaged (*Prosperland* at [12], citing *The Albazero* [1977] AC 774; *Family Food Court* at [58]).

21 The second exception to the general rule is the "broad ground". This ground allows a plaintiff to recover substantial damages for the loss of its performance interest in not receiving the benefit of the bargain for which it contracted. The measure of damages is the cost of securing the performance of that bargain (*Prosperland* at [17] and [19], citing *St Martins Property Corporation Ltd v Sir Robert McAlpine Ltd* [1994] 1 AC 85).

22 The plaintiff submits that it is entitled to recover substantial damages from the defendant under both the "narrow ground" and the "broad ground".[19] In response, the defendant points to three distinguishing features of *Prosperland*.[20]

23 First, this action is not one between an owner and its architect, as in *Prosperland*. This action is one between a main contractor and a subcontractor. To extend the exceptions in *Prosperland* to the present case would be unwarranted. The matrix of legal relationships is such that there is no real risk

---

19 Oral Closing Submissions, 9 September 2019.

20 Oral Closing Submissions, 9 September 2019.

that a main contractor will be found liable to subsidiary proprietors or their tenants.

24 Second, *Prosperland* concerned residential property, whereas the present case deals with industrial property. Therefore, the consumer-protection considerations in the *Prosperland* case are not readily applicable to this action.

25 Third, the decision in *Prosperland* rested on a proprietary base. The plaintiff in *Prosperland* had a proprietary interest in the subject-matter of the contract and entered into the contract under a larger transaction in which it intended in due course to convey its proprietary interest to third parties. The fundamental point in *Prosperland* was that both parties contemplated that the contract they entered into would be for the benefit of those third parties who would ultimately acquire and hold the proprietary interest in the subject-matter of the contract.[21]

26 I agree with the defendant. In so far as the "narrow ground" exception is concerned, *Prosperland* is distinguishable from the present case. It suffices to rely only on the final ground advanced by the defendant. In this case, the plaintiff is merely a main contractor who has no proprietary interest in the subject-matter of the contract let alone an intent to transfer any such proprietary interest to third parties. I therefore hold that the plaintiff is unable to rely on the "narrow ground" exception to recover substantial damages from the defendant in this action.

27 However, I accept that the plaintiff is entitled to rely on the "broad ground" exception. The "broad ground" exception "constitutes an integral part

---

[21] Oral Closing Submissions, 9 September 2019.

of the common law of contract where protection of the performance interest – *ie,* the plaintiff/promisee's interest in the contract being performed and (consequently) his receiving the benefit which he had contracted for – is concerned" (*Family Food Court* at [34]). Indeed, the Court of Appeal in *Prosperland* went so far as to characterise the "broad ground" exception as "probably more consistent with principle" (at [52]).

28 In *Family Food Court*, Andrew Phang JA explained that the performance interest claimed by the plaintiff/promisee must be a genuine one. The court will "apply an *objective test of reasonableness* to the performance interest claimed so as to curb what would otherwise be a windfall accruing to the plaintiff/promisee" (at [53], citing *Ruxley Electronics and Construction Ltd. v Forsyth* [1996] 1 AC 344).

29 Given that it is "broad ground" which entitles the plaintiff to recover substantial damages for the loss it has suffered in not getting the benefit it contracted for, it *should not* be a prerequisite for the plaintiff to show that it has already carried out the repairs or intends to do so in order to recover substantial damages (*Prosperland* at [57]).

30 In other words, the plaintiff has an expectation interest arising from the Subcontract that the defendant will carry out the Works in accordance with the Subcontract. The law of contract will vindicate that interest with an award of substantial damages. The corollary is that the defendant's breach of contract in itself entitles the plaintiff to recover substantial damages for the loss of its performance interest. The plaintiff's entitlement to recover substantial damages does not require a proprietary base, whether at the time of contracting, at the time of breach or at the time of action. The Court of Appeal in *Prosperland* comprehensively considered concerns about the defendant being exposed to

multiple liability for the same breach and deemed them to be more apparent than real (at [29] and [52]).

31 Hence, the plaintiff is entitled to recover substantial damages from the defendant if the defendant is found to be in breach of the Subcontract.

Have the Glass Specifications been incorporated into the Subcontract?

The parties' submissions

32 The defendant submits that the Glass Specifications were not incorporated into the Subcontract. It advances three arguments. First, the allegation that the Glass Specifications are incorporated into the Subcontract is an afterthought. The plaintiff made no reference to the Glass Specifications as being incorporated into the Subcontract until it amended its pleading almost two years after commencing this action. Second, the plaintiff never gave the defendant a copy of the main contract. Finally, the Glass Specifications came into existence only after the Subcontract.[22] Hence, the Glass Specifications are of no contractual force between the plaintiff and the defendant, and the defendant cannot be liable for any failure to meet those specifications.

33 The plaintiff submits that the Glass Specifications are incorporated, by express reference, into the Subcontract from the main contract. The incorporating clauses are cll 8.1 and 24.1(b) of the Subcontract, which provide that the terms of the main contract which relate to, affect or apply to the Works are incorporated into the Subcontract:[23]

---

22 Defendant's Closing Submissions at para 14.

23 Agreed Bundle of Documents, Vol 1, p39 to 45.

> 8.1 The Sub-Contractor shall be deemed to have full knowledge of the provisions of the Main Contract other than the details of the Main Contractor's pricing and *shall observe and comply with all provisions of the Main Contract relating, affecting or applicable to the Sub-Contract works* as if all the same were severally set out therein. A copy of which may be inspected at the Main Contractor's office.
>
> …
>
> 24.1 The following documents shall form part of this contract
>
> (a) This letter of award and the attached warranties format (APPENDIX C).
>
> (b) *All main contract documents, drawings and specifications containing, relating and/or concerning the sub-contract works scope shall mutatis mutandis be applicable to the subcontractor.*
>
> (c) Your products' test results, technical data and drawings that are approved by the Architect.
>
> [emphasis added]

The law on incorporation

34 The principles on the incorporation of contractual terms are well-established. The approach to determine whether terms are incorporated is the orthodox objective approach: the law "adopts an objective approach towards questions of contractual formation and the incorporation of terms" (*R1 International Pte Ltd v Lonstroff AG* [2015] 1 SLR 521 ("*Lonstroff*") at [51]).

35 Whether a set of terms has been incorporated into a contract thus turns on ascertaining the parties' objective intentions from their correspondence and conduct assessed in light of the relevant background. The relevant background includes the particular industry in which the parties operate, the character of the document which contains the terms in question as well as the course of dealings between the parties (*Lonstroff* at [51]).

Reliance on Glass Specifications is an afterthought

36 The first point that the defendant makes is that the plaintiff's reliance on the Glass Specifications is an afterthought, raised in bad faith and without proper basis. The defendant points out correctly that the plaintiff's statement of claim originally did not plead any failure to meet the Glass Specifications. The plaintiff referred to the Glass Specifications only when it amended its statement of claim in March 2019. The defendant submits that the plaintiff amended its statement of claim to include this plea as an afterthought, only because the experts' joint report confirmed that the white spots affected only the coating on the dark green panels and that there was no delamination as originally pleaded.[24] The belated amendment is a "significant factor" which the court should consider in determining whether the Subcontract incorporated the Glass Specifications.[25]

37 I reject this submission. The timing of the plaintiff's amendment or the motivation for the amendment has no direct bearing on whether the Glass Specifications were incorporated into the Subcontract. The defendant cites no authority to support this argument. The parties' objective intention at the time of contracting is the only relevant criterion for incorporation. Even if the plea is an afterthought, it has been raised by the appropriate procedure, *ie* amendment. I must determine it on its merits.

The plaintiff never gave the defendant a copy of the main contract

38 The second point that the defendant makes is that the plaintiff never gave the defendant a copy of the main contract. The defendant refers to the evidence of the plaintiff's contracts manager, Mr Danny Cheng ("Mr Cheng"), at trial.

---

[24] Defendant's Closing Submissions at para 91.

[25] Defendant's Closing Submissions at para 8.

Mr Cheng said that the main contract did not accompany the letter of award which was eventually issued to the defendant.[26]

39 I do not consider this submission to be relevant on the issue of incorporation.

40 Clause 8.1 of the Subcontract provides that the defendant shall be "deemed to have full knowledge of the provisions of the Main Contract". It also explicitly gives the defendant a right to inspect the main contract at the plaintiff's office. As a matter of law, it is well-established that in the absence of fraud or misrepresentation, a party is bound by all the terms of a contract that it signs, even if that party did not read or understand those terms (*Bintai Kindenko Pte Ltd v Samsung C&T Corp and another* [2019] 2 SLR 295 at [58]). The defendant is therefore bound by cl 8.1.

41 I also find to be reasonable Mr Cheng's explanation that the main contract did not accompany the letter of award because the documents were too bulky. It was always within the defendant's power to exercise its right under cl 8.1 to inspect the main contract at the plaintiff's office. The defendant cannot now rely on the plaintiff's failure to supply a copy of the main contract to disclaim the clear effect of cl 8.1 and to argue that the Glass Specifications were not incorporated into the Subcontract.

The Glass Specifications came into existence after the Subcontract

42 The defendant's final argument is that the Glass Specifications came into existence only after the plaintiff and the defendant entered into the

---

[26] Notes of Evidence, 1 July 2019, p20(11) to 20(16).

Subcontract. Therefore, despite the effect of cll 8.1 and 24.1 of the Subcontract, the Glass Specifications are not incorporated into the Subcontract.

43 In support of this, the defendant refers to the date "JULY 2014" which appears at the bottom of the cover pages of Volumes 1 and 2 of the main contract.[27] The AS are contained in Volume 2 of the main contract. The defendant argues that July 2014 reflects the date of the creation of the main contract, including the AS, and therefore suggests that the main contract came into existence after the Subcontract.

(1) Glass Specifications incorporated into the Subcontract even if they came into existence after June 2014

44 I start by pointing out that there is no principle of law that a document which comes into existence only after a contract is formed cannot be incorporated by reference into that contract. It all depends on the parties' intention, objectively ascertained from the terms of their contract. Indeed, "it is not uncommon for parties to first agree on a set of essential terms which the parties may be bound by as a matter of law and on the basis of which they may act, even while there may be ongoing discussions on the incorporation of other usually detailed terms" (*Lonstroff* ([34] *supra*) at [52]).

45 *Lonstroff* was, of course, considering ongoing discussions of more detailed terms between the contractual counterparties themselves. But there is no reason in principle why the contractual counterparties may not also agree to incorporate by reference the terms of a future contract which one of the contractual counterparties will negotiate and then enter into with a third party.

---

27 Cheng Jiu How Danny's AEIC at p40; Plaintiff's Bundle of Documents at p106.

Whether the terms of that later contract are in fact incorporated into the parties' earlier contract is simply a matter of contractual construction.

46 Thus, for example, the Court of Appeal in *Lonstroff* had to consider whether an arbitration clause in a detailed contract note which the appellant sent to the respondent was incorporated into a contract which the parties had concluded earlier by an exchange of email confirmations. The Court of Appeal held that the arbitration clause was incorporated into the parties' earlier contract. That took place because both parties contemplated that the basic terms of the email confirmations would be supplemented by additional terms coming later (at [59]). The Court of Appeal also found that it was the practice in the parties' industry to discuss and reach binding agreement only the key terms of each trade and for the remaining terms to be agreed and incorporated later (at [60]). In the final analysis, it was clear from the parties' objective intentions at the time they concluded their contract that more detailed terms would follow and would in fact be incorporated into their contract via the contract note.

47 I am satisfied that cll 8.1 and 24.1(b) of the Subcontract reflect the parties' objective intention to incorporate into the Subcontract the specifications relating to the Works which were contained in the main contract, whenever that might come into existence. The plaintiff subcontracted the Works to the defendant as glazing specialists.[28] The clear reference to "all provisions of the main contract … applicable to the Sub-contract works" and "all main contract … specifications" in cll 8.1 and 24.1(b) of the Subcontract respectively puts it beyond doubt that the parties did intend for certain specifications further to

[28] Notes of Evidence, 3 July 2019, p21(17) to 21(24).

govern the specialised nature of the Works, namely, the design, supply and installation of the glass curtain wall.

48 Indeed, the Glass Specifications were clearly more detailed terms than those found in the Subcontract that would conceivably govern the Works carried out by the defendant. The Glass Specifications consist of a variety of elements relating generally to glass components and specifically to the glass curtain wall including the quality, appearance of the glass panels, as well as its emissivity coating. It is improbable that the parties intended to exclude from their Subcontract the whole host of specifications and terms relating to the glass curtain wall set out in the Glass Specifications. If they had intended the specifications for the glass curtain wall to be confined to that which was set out in the Subcontract, the Works would be uncommercially bereft of sufficiently detailed specifications. This simply could not have been the objectively ascertained intention of commercial parties.

(2) No evidence that the Glass Specifications came into existence after June 2014

49 In any event, I am not satisfied that the Glass Specifications came into existence after June 2014. I accept Mr Cheng's explanation as to why the "JULY 2014" date appears on the cover pages of volumes 1 and 2 of the main contract. He explained that the words "JULY 2014" were likely typed by the quantity surveyor and that it did not indicate the date of creation of the document.[29] Instead, that was the date on which the main contract was bound, as there had been some delay in the quantity surveyor binding it.[30] The owner and the plaintiff had entered into the main contract in March 2014.[31]

---

29 Notes of Evidence, 1 July 2019, p22(22) to 22(32).

30 Notes of Evidence, 1 July 2019, p23(3) to 23(19).

50 Mr Cheng's explanation is further supported by the fact that even on the page where cl 2.2.1(a) of the AS is located, the date which appears at the bottom of the page reads "AUGUST 2013". This is consistent with his evidence that he sent an email attaching specifications to the defendant on 30 October 2013. The August 2013 date precedes Mr Cheng's email. It is highly unlikely that when the owner and the plaintiff concluded their contract in March 2014, the main contract and its extracts were not already drafted. Accordingly, I am satisfied that the defendant was already aware of the Glass Specifications by the date of the Subcontract.

51 I therefore find that the Glass Specifications have been incorporated into the Subcontract.

Did the defendant breach the Glass Specifications?

The expert reports

52 The plaintiff and the defendant both engaged expert witnesses. The experts prepared individual expert reports. The plaintiff's expert witness was Ms Christina Metia Gadis Lestiana ("Ms Lestiana") of Setsco Consultancy International Pte Ltd. Her report is dated 5 October 2018. The defendant's expert witness was Mr Victor Temkin ("Mr Temkin"). His report is dated 28 November 2018. The experts also prepared a joint report dated 1 February 2019.

53 The glass curtain wall consisted of tinted glass panels in three colours: grey, light green and dark green. In their joint report, both experts agreed on the following:[32]

---

31 Cheng Jiu How Danny's AEIC at p45, p57.

32 Christina Metia Gadis Lestiana's AEIC at p98 to 100.

(a) The bubbles on the glass panels are distinguishable from the white spots and specks. The white spots and specks appearing on the glass panels were found only on the dark green panels. Specifically, the white spots and specks were discolorations of the coloured solar coating found on the outer side of the external dark green panels.[33] The light green and grey panels were entirely free from any white spots and specks. In her report, Ms Lestiana said that that "[m]ost of the defect occurred on the dark green panel".[34] Likewise, in his report, Mr Temkin observed that "[m]ultiple white spots appeared due to corrosion of the coating"[35], affecting only the "Type 3" dark green panels.

(b) The white spots and specks did not affect the structural integrity and safety of the glass panels.

(c) While the colour coating applied to the dark green panels carried solar properties, it was unclear the extent to which, if any, the solar properties if the coating had been compromised as a result of the white spots and specks.

54 With respect to (a), Ms Lestiana elaborated at trial that the bubbles found on the glass panels, while considerably fewer than the white spots and specks, were true delamination defects in the technical sense, *ie,* they arose from the loss of adhesion between the assembly of laminated glass bonded with the PVB sheets.[36] However, the solar properties would not be compromised because the

---

33 Notes of Evidence, 3 July 2019, p57(15) to 57(27), p86(16) to 86(30).

34 Plaintiff's Opening Statement at para 10; Christina Metia Gadis Lestiana's AEIC at p16.

35 Plaintiff's Opening Statement at para 10; Victor Temkin's AEIC at p13.

36 Agreed Bundle of Documents, Vol 2, at p788.

solar (or heat reflection) properties of the glass panel originate from the colour coating. The bubbles occurred only on the PVB layer of the glass.[37] The delamination arose because of air trapped within the glass and the PVB and where air has been trapped, causing the bonding to give way.[38]

55 With respect to (c), Ms Lestiana elaborated in her report that it would also be reasonable to conclude that the solar properties of the dark green panels would be compromised due to the corrosion observed even though no tests were carried out.[39] At trial, Ms Lestiana did say that the extent of deviation could only be determined with a further test, without which she could not conclude quantitatively how much the white spots would compromise the solar properties of the glass panels.[40]

56 Mr Temkin on the other hand, was more circumspect in his assessment. He said that measuring the difference in the solar properties of the dark green panels affected by the white spots would be an immensely complex task, given the three types of glass present and the possibility of measuring the solar properties in different places and times. Overall, Mr Temkin could neither confirm nor deny whether the solar properties of the dark green panels would be affected. In his opinion, it was simply not possible to tell.[41]

57 The primary areas of disagreement between the two experts related to: (a) first, whether or not the white spots and specks would grow larger over time;

---

37 Notes of Evidence, 3 July 2019, p68(1) to 68(30).

38 Notes of Evidence, 3 July 2019, p70(3) to 70(11), p71(3) to 71(8).

39 Christina Metia Gadis Lestiana's AEIC at para 24.

40 Notes of Evidence, 3 July 2019, p66(25) to 67(6).

41 Notes of Evidence, 3 July 2019, p98(18) to 98(30).

(b) second, whether the white spots and specks were only aesthetic defects; and (c) third, the actual cause of the white spots and specks.

58 As to whether the white spots would grow larger over time, Ms Lestiana said that she was unable to express a definitive opinion on this. To do so, she would have to break the glass panels to conduct a microscopic examination. However, she noted that it was unlikely for the white spots to appear suddenly. Instead, it was likely that they started smaller than would be visible to the naked eye and grew larger over time to the point where they became visible. This is because the cause of the defect was a chemical reaction that would require time to take place.[42]

59 Mr Temkin's opinion was that the white spots and specks were in fact stable and would not grow larger over time. At trial, he was asked the basis for his opinion. He explained that he had found that scratching the glass panels did not enlarge the white spots and specks. Thus, it was reasonable to conclude that the spots would remain stable.[43]

60 I observe that in cross-examination, the defendant's Project Manager, Mr Tan Eng Hooi ("Mr Tan"), agreed that during the joint inspection on 17 October 2016, more white spots had appeared on the glass panels and that white spots that had been previously observed had grown larger.[44]

61 As to whether the white spots and specks affect the solar properties of the glass panels, both experts agreed that they would not. However, Ms Lestiana

---

42 Christina Metia Gadis Lestiana's AEIC at paras 15 and 16; Notes of Evidence, 3 July 2019, p62(1) to 62(21).

43 Notes of Evidence, 3 July 2019, p84(16) to 84(27).

44 Notes of Evidence, 4 July 2019, p7(16) to 7(27), p25(11) to 25(20).

emphasised that the white spots were unsightly and thus aesthetically unacceptable. Mr Temkin was of the view too that these were aesthetic defects, albeit only visible from within the building and not from outside the building.[45]

62 At trial, Mr Temkin explained that an occupant's vision through the glass would inevitably be affected as a result of the white spots and specks. He declined to elaborate any further, however, saying that he was not an expert in architecture or aesthetic aspects of construction.[46]

63 As to the root cause of the white spots and specks, neither expert was able to express a definitive opinion.[47] The tenor of their evidence, though, was that it was likely to be a manufacturing defect and not due to poor installation.

Clauses 2.2.1(a) and 2.2.8(b) of the AS

64 The plaintiff argues that the Glass Defects are a breach of cll 2.2.1(a) and 2.2.8(b) of the AS. Clause 2.2.1(a) of the AS should be interpreted as covering both the surface and the interior of the glass panels. In this respect, the coating applied to the glass panels are inextricably linked with the glass panels. The coating and the glass should thus be treated as an integral whole.[48] Additionally, the presence of numerous white spots and specks on the glass panels of the glass curtain wall would necessarily interfere with an occupant's vision through the glass panels. Thus, by virtue of the Glass Defects, the defendant breached cll 2.2.1(a) and 2.2.8(b) of the AS.

---

45 Christina Metia Gadis Lestiana's AEIC at p99.

46 Notes of Evidence, 3 July 2019, p86(24) to 86(30).

47 Notes of Evidence, 3 July 2019, p92(4) to 93(17), p104(11) to 104(26); Christina Metia Gadis Lestiana's AEIC at p21 to 22; Victor Temkin's AEIC at p14.

48 Plaintiff's Closing Submissions at para 49.

65 The defendant's position is that it did not breach either cl 2.2.1(a) or cl 2.2.8(b) of the AS. The defendant argues that cl 2.2.1(a) of the AS is concerned only with the glass and specifically, the surface of the glass panels rather than the coating applied to the panels, which is the location of the Glass Defects. The plain words of cl 2.2.1(a) concern the edges and the portion of the glass exposed and do not make any reference to the coloured coating applied to the glass panels. Because the Glass Defects arise from the coating and not the glass panels, there can be no breach of cl 2.2.1(a).[49] Clause 2.2.8(b) of the AS is concerned exclusively with whether there has been any obstruction of vision through the glass panels. There has been no such obstruction occasioned by the Glass Defects.[50]

66 Clauses 2.2.1(a) and 2.2.8(b) of the AS provide as follows:[51]

> 2.2.1 General:
>
> > (a) Refer to specified details and drawings for acid etched glass types, tempered glass, laminated glass sizes and locations and performance data for glass. *All glass shall be of accurate size with clean undamaged edges, ground smooth when exposed, and surfaces which are not disfigured, free of bubbles, waves, air holes, scratches and all other defects, and cut to fit the rebates with due allowance for expansion.* All glass of the same type shall be the manufactured product of one company.
>
> …
>
> 2.2.8 Laminated Glass and Tempered Glass:
>
> …
>
> > (b) Laminated glass panel consisting of 2 pieces of 6 mm thick clear glass to form an integrated unit in accordance to manufacturer's recommendation or approved equivalent (confirming to requirements for

---

49 Defendant's Closing Submissions at paras 95 to 96.

50 Defendant's Closing Submissions at para 97.

51 Plaintiff's Bundle of Documents, p113 to 114.

> safety glass). This is to be installed in combination with Poly Vinyl Butral (PVB); custom pattern to be selected/approved by the Architect, and consisting of an interlayer of nominal 0.76 mm thick. Laminated glass shall not develop edge separation, *delamination or other defects which may obstruct vision through the glass.*
>
> [emphasis added]

67 I reject the defendant's interpretation of cl 2.2.1(a) of the AS as being unduly narrow.

68 First, I do not think that cl 2.2.1(a) of the AS is concerned solely with the surface, as opposed to the interior, of the glass panels. While the defendant points out that cl 2.2.1(a)'s reference to "undamaged edges, ground smooth when exposed, and surfaces" necessarily confines its operation to the surface of the glass panels, this should be read in its full context. Clause 2.2.1(a) goes on to provide that that the panels should be "free of bubbles, waves, air holes, scratches and all other defects".

69 "Bubbles, waves, air holes [and], scratches" must necessarily intrude into the interior of a glass panel, however minor the intrusion might be. It is difficult to conceive how any one of those defects could be confined to the surface of a glass panel. As defendant's counsel conceded, quite fairly, even his example of a bubble on the exterior would mean that the glass panel would not be smooth. The corollary of that would be that the bubble could dip into the interior of the glass panel.[52] So too, even a hairline scratch would dip into the interior of the glass panel. And an "air hole" obviously goes beyond the surface.

70 Second, I accept the plaintiff's submission that it would be artificial to treat the glass panel and the coating applied to it as different components. In my

---

[52] Notes of Evidence, 1 July 2019, p37(4) to 37(30).

view, the glass panel and the coating operate as a single system and should be seen as an integral whole.

71 Mr Cheng gave evidence that the defendant's delivery obligation comprised both the glass panels and its coating.[53] Furthermore, this is supported by the evidence given by both expert witnesses. Ms Lestiana explained that it would be appropriate to view the glass panel holistically, as a *system* consisting of tempered glass sheets, with or without coating, held in place by an interlayer of PVB.[54]

72 Similarly, Mr Temkin explained that the coloured coating, through numerous layers of metal oxide, would be applied by the magnetron technique before the glass together with the coating was subjected to the tempering process.[55] The coating itself is not available as an individual component. No glass manufacturer sells coating separately. It can be applied only by using the specialised magnetron process.[56] Commercially, both the coating and the glass are invariably sold together as a system. I therefore find that the word "glass" in cl 2.2.8(b) of the AS should be read to comprise the glass panel and its coating.

73 Glass panels with bubbles clearly do not meet the specifications in cl 2.2.1(a) of the AS. That specification explicitly requires the glass to be free of bubbles. Further, I accept that the white spots and specks fall within the catch-all words "all other defects" in cl 2.2.1(a). I interpret the word "defects" broadly to encompass imperfections or flaws. After all, it is undisputed that both experts

---

53 Notes of Evidence, 1 July 2019, p36(18) to 36(26).

54 Notes of Evidence, 3 July 2019, p64(27) to 65(23).

55 Notes of Evidence, 3 July 2019, p92(18) to 93(16).

56 Notes of Evidence, 3 July 2019, p96(5) to 96(14).

consider these white spots and specks to be – at the very least – aesthetic imperfections or flaws, as set out at [61] above. This of course does not address the further issue of the appropriate measure and quantum of damages. That issue will be central in the assessment of damages.

74 I therefore find that the presence of the Glass Defects is a failure by the defendant to meet the specification in cl 2.2.1(a) of the AS. The defendant is therefore in breach of the Subcontract in this respect.

75 I now turn to consider cl 2.2.8(b) of the AS. The words "obstruct vision" in cl 2.2.8(b) must be taken to mean something more than *de minimis.* The word "obstruct" connotes a high degree of impairment or obscuring of vision. It is true that there is some delamination in the panels, at least with respect to the bubbles. On the whole, however, I accept the defendant's submission with respect to cl 2.2.8(b). I do not think that the presence of white spots and specks, even though numerous on certain panels, can be said to "obstruct vision" through the glass.

76 I note both experts agree in their joint report that the white spots and specks do not affect the functional purpose of the panels, preferring to characterise the effect of the white spots and specks as being aesthetically unacceptable and unsightly. Notably, neither expert opines that vision through the glass panels is obstructed.[57] Indeed, the plaintiff itself employed the terms "unsightly and/or aesthetically unpleasing to the end-user"[58] and "enjoy the

---

57 Christina Metia Gadis Lestiana's AEIC at p98 to 100.

58 Plaintiff's Closing Submission at para 57.

view outside the building without any distraction"[59], rather than using stronger terms such as "obscuring" or "obstructing".

77 Having reviewed the photographs taken by both experts, I agree with their observations.[60] The white spots and specks vary in terms of number, size and distribution in each glass panel. They are unsightly and translucent, rather than transparent. But whether taken alone or on the whole, they do not rise to the level of obstructing vision through the glass panels. An observer can still see through the glass panels with what would ordinarily be described as unobstructed vision. Indeed, Mr Palaniappan Kannappan ("Mr Kannappan"), the plaintiff's Project Manager, candidly admitted at trial that notwithstanding the Glass Defects, vision through the glass panels was not obstructed.[61]

78 I therefore find that the presence of the Glass Defects is not a failure by the defendant to meet the specification in cl 2.2.8(b) of the AS. The defendant is not in breach of the Subcontract in this respect.

Clauses 3.3.7(b) and 3.3.7(c) of the NPQS

79 The plaintiff argues that the presence of the Glass Defects, and specifically the white spots and specks in the coating of the glass panels, is a failure to meet the specifications in cll 3.3.7(b) and (c) of the NPQS.

80 The defendant maintains that it has met the specifications in cll 3.3.7(b) and 3.3.7(c) of the NPQS. Since the plaintiff has not challenged the emissivity

---

59 Plaintiff's Closing Submission at para 60.

60 Plaintiff's Bundle of Documents, p241 to 269; Agreed Bundle of Documents, Vol 2, p690 to 691.

61 Notes of Evidence, 1 July 2019, p65(13) to 65(27).

of the glass panels, it cannot be said that the panels are functionally deficient. Moreover, these clauses, the defendant submits, are of a general nature. The phrase "nominally neutral in colour" in cl 3.3.7(b) is a general reference to a particular colour chosen for a coating. The rest of the words of the NPQS refer generally to the coating. Since the plaintiff relies on both clauses, it is incumbent upon them to plead the meaning of matters of a technical or specialised nature, but it failed to do so.[62]

81 Clause 3.3.7 of the NPQS provides as follows:[63]

> Low emissivity coating to be/have:
>
> (a) Emissivity less than 0.2.
>
> (b) Nominally neutral in colour and uniform in tone, hue, texture, pattern and opacity.
>
> (c) Consistent appearance to the glazed units. Allowable pinholes in coated surfaces:
>
> i Diameter 0.8 – 1.2 mm (2 within 300x300mm)
>
> ii Diameter 1.2 – 1.6mm (1 per sheet)
>
> iii Diameter 1.6 mm and above not allowed.
>
> (d) Any edge deletion of coatings stopped within 0.5mm of the primary seal.

(1) Clause 3.37(b)

82 I agree with the plaintiff that the white spots and specks constitute a breach of cl 3.3.7(b) of the NPQS. I am unable to see how the defendant's submission that cl 3.3.7(b) is of a general nature helps it. While cl 3.3.7(b) does provide that coating will be uniform in colour, there is no basis in its words for restricting its operation to the time the coating is applied or the time the panels

---

62 Defendant's Closing Submissions at paras 98 and 99.

63 Cheng Jiu How Danny's AEIC at p191.

are installed. Thus, a coating which complies with cl 3.3.7(b) at the time it is applied must not cease to be "nominally neutral in colour" or to be "uniform in tone, hue, texture, pattern and opacity" after application by reason of any cause intrinsic to the coating.

83 It has been established that the white spots and specks arise from a discolouration of the dark green coating. Coating which manifests that defect because of its intrinsic qualities, *ie* without being acted upon by an external causative agent, fails to meets the specification in cl 3.3.7(b) of the NPQS. White spots and specks are visibly different from the unaffected coating on the panels forming part of the glass curtain wall. White spots and specks the affected areas of the coating to become translucent instead of transparent. The coating which manifests this defect is no longer uniform in terms of tone, hue and opacity.

84 I therefore find that the presence of the Glass Defects means that the defendant failed to meet the specification in cl 3.3.7(b) of the NPQS. The defendant is therefore in breach of the Subcontract in this respect.

(2) Clause 3.3.7(c)

85 Similarly, it can no longer be said that the "glazed units" *ie*, the dark green panels, have a "consistent appearance" as required by cl 3.3.7(c) of the NPQS. The numerous white spots and specks that have arisen due to the discolouration of the coating have clearly caused an inconsistent appearance to the affected panels.

86 Indeed, as Mr Temkin observed, looking through the glass panels – which also serve as windows that are glazed with laminated glass – the white

spots and specks would almost certainly affect an occupant's view of the outside world. The numerous photographs taken by the experts as well as by the plaintiff's supervisor[64] at the material time, Mr Wong Kwek Min ("Mr Wong"), show clearly that the affected panels lack a consistent appearance.

87 I therefore find that the presence of the Glass Defects means that the defendant failed to meet the specification in cl 3.3.7(c) of the NPQS. The defendant is therefore in breach of the Subcontract in this respect.

Has Appendix A been incorporated into the Subcontract?

88 The defendant submits that Appendix A is not incorporated into the Subcontract. This is because cl 24.1 of the Subcontract, which refers to a list of documents that form part of the Subcontract, fails to refer to Appendix A at all. Instead, the only documents that it refers to are (a) the letter of award and the attached warranties format in Appendix C, (b) all main contract documents, drawings and specifications containing, relating and/or concerning the Subcontract works scope and (c) the defendant's test results, technical data and drawings that are approved by the architect. As the contracting parties failed to include Appendix A in the list in cl 24.1, it must necessarily mean that the contracting parties did not intend Appendix A to be incorporated into the Subcontract.

89 The defendant's argument is an overly technical one. I reject it. I do not think that the omission of the reference to Appendix A in cl 24.1 of the Subcontract is any indication at all that parties did not intend Appendix A to be incorporated into the Subcontract. I accept Mr Cheng's explanation that the

---

64 Wong Kwek Min's AEIC at p22 to 24, p25 to 35 and p38 to 94.

express reference to Appendix C in cl 24.1 of the Subcontract is supplementary and was included in order to specify the format of the deed of warranty.

90 Moreover, even though cl 24.1 of the Subcontract makes no reference to Appendix A, it does make express reference to the letter of award and expressly incorporates the entire letter of award into the Subcontract by reference. A closer review of the letter of award reveals several objective indications that Appendix A is an integral part of the letter of award and therefore incorporated into the Subcontract by the reference to the letter of award. The applicable legal principles are once again those summarised at [34]–[35] above.

91 First, the running page numbers located at the bottom of each page of the letter of award reflects that the entire document consists of 20 pages. Appendix A appears at pages 9 to 13. It clearly forms part of the 20-page letter of award.

92 Second, the same reference number, GAE/55LOR17/SC/14-09 appears in a running header on the top left-hand corner of each page of the letter of award, including Appendix A. That is a strong objective indicator that each and every one of the 20 pages was meant to form part of the letter of award and thereby to be incorporated by reference into the Subcontract. In fact, it is undisputed that the letter of award which the plaintiff sent to the defendant did include Appendix A.

93 Third and most importantly, each page of the letter of award was signed by the plaintiff's and the defendant's authorised representatives. Each page was impressed with each company's official company seal. If the parties did not intend for Appendix A to form part of the letter of award, they would not have signed it or impressed their seal upon it. Both parties' signatures on Appendix A coupled with their signatures on each of the other pages of the letter of award

is highly probative evidence of the parties' objective intention that Appendix A was to form an integral part of the letter of award, and therefore of the Subcontract pursuant to cl 24.1.

94 I am therefore satisfied that Appendix A has been incorporated into the Subcontract.

Has there been a breach of the Appendix A Specification?

95 The plaintiff argues that as a result of the Glass Defects, and in particular, the white spots and specks, the defendant breached the Appendix A specification that the glass panels installed have to achieve a shading coefficient value of 0.26. The function of the coloured coating is to block or control the amount of light and heat energy passing through the glass panels and into the interior of the building. The white spots and specks in the coating have compromised the coating's function and its ability to block or control the amount of light and heat energy passing through the glass panels.[65]

96 The defendant argues that the plaintiff has failed to discharge its burden of proof by showing how the white spots and specks on the dark green panels have been compromised, given the experts' own equivocal conclusion on this very issue.[66]

97 The "Remarks" column of Appendix A provides as follows:[67]

> Drawing no: A401-A430. The items' sizes are to be referred to architectural drawings. Glass type to follow architectural drawings and specification (SC value 0.26). Grouting to frame

---

65 Plaintiff's Closing Submissions at para 73.

66 Defendant's Closing Submissions at para 159.

67 Agreed Bundle of Documents, Vol 1, at p47 to 48.

> and wall interfaces, fire stops and water tightness for all aluminium and glazing works.

98 The reference to "SC value 0.26" refers to a shading coefficient value of 0.26. The shading coefficient is a measure of a glass panel's ability to reject light and, with it, heat. The lower the shading coefficient, the less light and heat the glass panel will allow through, and the greater the glass panel's shading ability.

99 I reject the plaintiff's submission. Appendix A is clear in specifying that the shading coefficient of the glass panels should be a minimum of 0.26. Ms Lestiana did not give any evidence on the shading coefficient of the panels manifesting the Glass Defects.[68] She said that no tests had been carried out because she did not have the colour coating sample.[69] Further, the plaintiff failed to adduce any other evidence to that effect. There is thus no evidence before me that of the actual shading coefficient of the glass panels manifesting the Glass Defects.

100 The plaintiff submits that I can infer that the white spots and specks must have compromised the shading coefficient of the glass panels. The plaintiff relies on Ms Lestiana's observation that it is reasonable to conclude that the solar properties of the affected panels would be compromised due to the Glass Defects, even though no tests were carried out to determine this.[70] Ms Lestiana testified, further, that tests were necessary to quantify the extent of compromise but not the fact of the compromise.[71]

---

68 Christina Metia Gadis Lestiana's AEIC at p76 to 99.

69 Notes of Evidence, 3 July 2019, p66(8) to 66(26).

70 Christina Metia Gadis Lestiana's AEIC at para 24.

71 Notes of Evidence, 3 July 2019, p66(30) to 67(6).

101 Mr Temkin contradicted Ms Lestiana's evidence. He was unable to confirm or deny whether the shading coefficient of the dark glass panels had been compromised and testified that it was simply not possible to tell without testing.[72] Further, he added that testing would be an immensely complex task, given the three types of glass present and the possibility of measuring the shading coefficient in different places and times of the day.

102 The plaintiff chose to make it part of its case that the glass panels supplied by the defendant failed to meet the shading coefficient specified in Appendix A. The plaintiff has the burden of proving that failure. It was incumbent on the plaintiff to carry out the relevant tests to supply the necessary proof. It has failed to do so. Given Mr Temkin's evidence, which I accept, I have no basis to cure that failure by drawing the inference which the plaintiff suggests I draw from Ms Lestiana's evidence.

103 The plaintiff has failed to discharge its burden of proving that the presence of the white spots and specks has compromised the shading coefficient of the glass panels. I therefore find that the presence of the Glass Defects does not mean that the defendant failed to meet the specification in Appendix A of the letter of award, which was incorporated by reference into the Subcontract. The defendant is therefore in breach of the Subcontract in this respect.

Is it necessary to demonstrate the cause of the Glass Defects?

104 The defendant also submits that the plaintiff has failed to demonstrate on the balance of probabilities that the white spots and specks on the glass panels were caused by defective glass or by defective installation. This, it argues, is

---

[72] Notes of Evidence, 3 July 2019, p98(18) to 98(31).

supported by both the experts' conclusion that it is impossible to determine conclusively the cause of the white spots and specks. As causation is an essential element in a contractual claim, the plaintiff's failure to prove causation means that I must dismiss the plaintiff's claim arising from the Glass Defects.[73]

105 I reject the defendant's submission. The submission conflates the cause of the *defendant's breach of contract* with the cause of *the plaintiff's loss*. Liability in contract is strict. The cause of the defendant's breach of contract is irrelevant. A plaintiff claiming damages for breach of contract need prove only the *fact* of the defendant's breach. The plaintiff is not required to go further and prove the *cause* of the defendant's breach of contract. The only causation burden which lies on a plaintiff in a contractual claim is to show that the *loss* which the plaintiff claims to have suffered was caused by the defendant's breach of contract: see *The Law of Contract in Singapore* (Andrew Phang Boon Leong gen ed) (Academy Publishing, 2012) ("*The Law of Contract in Singapore*") at paras 17.002 and 17.087.

106 The authorities that the defendant cites to support its submission do not assist it. For example, the defendant refers to the Court of Appeal's decision in *Sunny Metal & Engineering Pte Ltd v Ng Khim Ming Eric* [2007] 3 SLR(R) 782 at [63]:

> In our view, there is no reason why the "but for" test in tort cannot also be used in contract cases to determine the issue of causation *in fact*. Indeed, in the cases cited in the preceding paragraph, the application of the "but for" test would have yielded the same result as that decided by the courts in a commonsensical manner. For instance, in reference to the facts cited in *Monarch Steamship*, it could not be said that "but for" the shipowner's breach, the claimants suffered damage to their

[73] Defendant's Closing Submissions at paras 143, 146 and 154.

> goods as that damage would still ensue *even if* there was no breach.
>
> …
>
> Accordingly, we adopted the tortious test for causation in fact in considering the issue of causation in SME"s claims in *both* tort and contract.
>
> [emphasis in original]

107 However, in the paragraph above, it is clear that the court was concerned there with whether the breach of contract had caused the loss suffered by the plaintiff rather than ascertaining the cause of the breach of contract in the first place. Thus Andrew Phang JC (as he then was) observed at [64] that "[f]or the determination of whether a defendant's wrongful conduct is a cause *in fact of the damage to a claimant,* the test, which has almost universal acceptance, is the so-called "but for" test" [emphasis added]. The defendant's reference to *Anti-Corrosion Pte Ltd v Berger Paints Singapore Pte Ltd and another appeal* [2012] 1 SLR 427 is similarly unhelpful. The Court of Appeal there was likewise concerned with applying the "but for" test of causation to demonstrate the necessary causal link between the breach and the loss claimed by the plaintiff (at [39]).

108 It has not been suggested that the cause of the Glass Defects is anything other than the features intrinsic to the glass itself. Since the defendant's obligation under the Subcontract is to supply, deliver and install glass panels for the glass curtain wall that meet the contractual specifications, its failure to do is a breach of the Subcontract. It does not matter why the defendant is in breach. Determining the cause, or more specifically the mechanics of the Glass Defects, is not an element that the plaintiff has to demonstrate.

109 As I have found at [74], [84] and [87] above, I am satisfied that the defendant has breached the Subcontract by failing to meet those specifications. The plaintiff is under no burden to prove the cause of its failure to meet those specifications.

Did the plaintiff prevent the defendant from rectifying the Glass Defects?

110 I now turn to consider the defendant's argument that the plaintiff prevented the defendant from rectifying the Glass Defects on various occasions. The defendant's argument is two-pronged. First, the plaintiff would not allow the defendant to rectify the glass panels without first providing documents that it was not contractually obliged to provide such as purchase orders, shipment documents, rectification schedules and a confirmation of the number of glass panels to be ordered. Second, the plaintiff failed to cooperate with the defendant by not allowing the defendant to obtain glass samples for testing and investigation.[74] By making the defendant jump through an unnecessary series of hoops, it is the plaintiff's own fault that the Glass Defects were left unrectified.[75]

111 I do not accept the defendant's argument. The critical point to my mind is that the Glass Defects began to appear soon after the TOP was issued and when the subsidiary proprietors were beginning to take possession of their units. It is true that the plaintiff did not have a contractual basis for the requests which they made of the defendant. But the plaintiff did not, in all the circumstances, act unreasonably by making these requests. An overview of the correspondence between the parties suffices to establish this.

---

74 Arulchelvam Jeyalingam's AEIC at para 32.

75 Defendant's Closing Submissions at para 122.

112 I start with the plaintiff's emails to the defendant on 19 August 2016[76] and 26 August 2016[77] informing the defendant of the Glass Defects and asking the defendant to provide a schedule of rectification works. The defendant did not reply. The plaintiff's follow-up email dated 17 September 2016 also went without a reply.[78]

113 Following a site visit on 17 October 2016, the plaintiff sent a further email reiterating the urgency of the rectifications works as the subsidiary proprietors had already began taking possession of their units. By then, the defendant had provided no comprehensive schedule and no course of action to rectify the Glass Defects.[79]

114 The parties conducted a further joint site inspection on 20 October 2016. The defendant's expert, Mr Temkin, was present. On 24 October 2016, the plaintiff sent yet another email to the defendant, seeking written confirmation that the defendant agreed to rectify the Glass Defects and would propose a rectification schedule.[80] The defendant's reply on 26 October 2016 merely said in vague terms that it would be "replacing bubble panels" and that "[g]lass had been order [*sic*] and will arrive and deliver to site 4 weeks from today's date. The installation will take 2 weeks upon glass arrival at site".[81]

115 The plaintiff replied on 27 October 2016. It did not object to the defendant's commitment, but merely asked for further confirmation of the

---

76 Palaniappan Kannappan's AEIC at p143.

77 Palaniappan Kannappan's AEIC at p154.

78 Palaniappan Kannappan's AEIC at p236.

79 Palaniappan Kannappan's AEIC at p294.

80 Palaniappan Kannappan's AEIC at p357.

81 Palaniappan Kannappan's AEIC at p356.

quantity of replacement glass panels by way of a purchase order and shipment document.[82] The defendant did not provide any of these documents. In its 4 November 2016 email, the defendant merely said that the replacement glass would be delivered to site "in next 2 weeks" and requested access to the units for the replacement works to be carried out.[83]

116 On 8 November 2016, the plaintiff sent yet another email emphasising the need for a comprehensive rectification schedule.[84] Mr Kannappan noted that the plaintiff remained entirely in the dark about the quantity of glass panels that were ordered. He stressed that having a competent supervisor on-site would be imperative. Despite the defendant's *ad hoc* and last-minute request for access to unit #05-03 on the morning of 8 November 2016, the plaintiff nevertheless granted the defendant access. However, subsequent to the replacement works, Mr Kannappan sent an email enclosing various photographs of the works undertaken. He expressed concern about the defendant's lack of Personal Protection Equipment or fall prevention plan and the need for a comprehensive schedule for rectification.[85] The works carried out by the defendants clearly fell short of the worksite safety requirements under cl 14 of the Subcontract. Even the defendant's director, Mr Arulchelvam Jeyalingam ("Mr Jeyalingam"), accepted at trial that the practice was unacceptable.[86]

117 The plaintiff repeated the same requests in its email of 11 January 2017. The plaintiff asked the defendant to provide a schedule to enable the plaintiff to

---

82 Palaniappan Kannappan's AEIC at p355 to 356.

83 Palaniappan Kannappan's AEIC at p372.

84 Palaniappan Kannappan's AEIC at p370 to 371.

85 Palaniappan Kannappan's AEIC at p370.

86 Notes of Evidence, 3 July 2019, p27(1) to 27(4).

make the necessary arrangements in a systematic manner.[87] After taking measurements for units #06-05 and #06-06 on 14 January 2017, the defendant still failed to provide a schedule. Instead, it asked for access to units #02-02, #03-02, #05-02 and #06-02 on the same morning that it intended to carry out replacement works. Although expressing displeasure, Mr Kannappan nevertheless granted access for units #02-02, #03-02 and #06-02 of the Project. Again, he asked for a rectification schedule and supporting documents for the replacement glass panels that were to be ordered by 18 January 2017. Once again, the defendant failed to meet this deadline. That prompted Mr Kannappan to send another email on 19 January 2017 for the defendant to "respond on the next course of action".[88] Thus, no further replacement works were carried out after 8 November 2016.

118 I do not accept that the plaintiff's conduct amounts to some form of a waiver of the defendant's breach of the Subcontract. A common thread throughout the correspondence between the parties was the plaintiff's reiteration to the defendant that the defendant ought not to expect the plaintiff to approve a request for access to carry out replacement works which was made on the day of the intended works. Advance notice should to be given, especially in light of the fact that some of the units containing the Glass Defects had already been handed over to the subsidiary proprietors. Similarly, the request for the defendant to provide copies of purchase orders and shipping advice of the replacement glass panels, a copy of glass measurements, quantities and locations as well as a schedule from ordering to delivery to installation were all perfectly reasonable requests. This would invariably help facilitate the flow of replacement works, especially in light of the fact that by July 2016, several units

---

87 Palaniappan Kannappan's AEIC at p391 to 392.

88 Palaniappan Kannappan's AEIC at p390.

had already been handed over to the various subsidiary proprietors.[89] A rectification schedule would be a common sense and pragmatic way of coordinating the replacement works between the defendant and the subsidiary proprietors who had already taken possession of the individual units.[90]

119 As for the defendant's requests to retrieve glass samples for testing, this must be seen in the context of the defendant's failure to provide a schedule for such collection, as was candidly admitted to by Mr Jeyalingam at trial.[91] In an email sent by the plaintiff's solicitors to the defendant's solicitors on 12 September 2017, the plaintiff was clear that it had no objections to the defendant retrieving glass panel samples for analysis, provided certain requirements were met. These requirements included conditions such as requiring the defendant to specify the institution or laboratory to which the glass panels would be sent for analysis, ensuring that representatives of the institution or laboratory be present at the building premises to receive the glass panel samples and ensuring that the replacement glass panels conform to the contractual specifications. At trial, Mr Jeyalingam interpreted the latter requirement as referring to the temporary glass panels that had to be installed. He complained that it was "ridiculous" for the plaintiff to require even panels which were purely temporary to conform to the Subcontract specifications. Yet, the defendant did not make any such objection at the time the letter was sent.[92]

120 In any event, I am not persuaded that this reference to replacement glass panels in fact referred to the temporary glass panels that had to be installed pending the laboratory analysis. To interpret it this way would render the need

---

89 Wong Kwek Min's AEIC at para 15.

90 Notes of Evidence, 2 July 2019, p37(3) to 37(15).

91 Notes of Evidence, 3 July 2019, p18(10) to 18(13).

92 Notes of Evidence, 3 July 2019, p19(7) to 19(16).

for *additional* replacement works completely otiose. Most telling is Mr Jeyalingam's own acceptance at trial that all the other requirements contained in the letter, such as the requirement of an appointment of a supervisor to oversee the works and conducting a risk assessment were all reasonable and in fact, *mandatory*.[93] This was contrary to his initial assertion in his affidavit of evidence in chief that such requirements were unnecessary.[94] If so, there would have been no conceivable reason for the defendant to object to the plaintiff's requests.

121 As a result, there is no merit to the defendant's submission that the plaintiff placed various obstacles in the defendant's way making it unreasonably difficult for the defendant to carry out the replacement works. On the contrary, the plaintiff acted reasonably throughout. Its requests for documents were eminently reasonable given the defendant's failure to follow-up on its promises to rectify the Glass Defects. The defendant had however, failed to give proper updates and insisted on last minute and *ad hoc* access. The state of the replacement works were erratic and unsatisfactory to say the least.

The Outstanding Submissions Issue

122 The plaintiff argues that the defendant breached cll 2.6 and 2.12 of the Subcontract by failing and refusing to submit the as-built drawings and the 10-year joint warranty for the Works respectively. This is despite the plaintiff's request by emails to the defendant on 29 June 2016 and 23 August 2016 asking the defendant to submit four sets of as-built drawings by 30 August 2016.[95]

---

93 Notes of Evidence, 3 July 2019, p22(1) to 24(14).

94 Arulchelvam Jayalingam's AEIC at para 32.

95 Palaniappan Kannappan's AEIC at p514.

123 The plaintiff sent the defendant another letter dated 26 August 2016 asking the defendant to submit, *inter alia*, the as-built drawings and the 10-year warranty.[96] The plaintiff sent a reminder by email on 24 October 2016.[97] All this was to no avail.

124 As a result, the plaintiff incurred time and expense amounting to approximately $18,500[98] in providing the as-built drawings to the owner in November 2016.[99] Both the as-built drawings and the 10-year joint warranty were required for the architect to issue the CoC.[100] As the defendant did not provide the 10-year warranty to the plaintiff,[101] the plaintiff had to execute a sole warranty in respect of the aluminium and glazing works, causing it to become solely liable to the owner for any loss or damage resulting from defects in the Works.[102] The sole warranty was executed on 10 April 2017.[103]

Clause 2.6

Is cl 2.6 of the Subcontract void for uncertainty?

125 I begin by considering the defendant's argument that cl 2.6 of the Subcontract is void for uncertainty. The defendant submits that an interpretation of cl 2.6 that allows the plaintiff to ask for as-built drawings at any time

---

96 Palaniappan Kannappan's AEIC at p154.

97 Palaniappan Kannappan's AEIC at p515.

98 Setting Down Bundle at p64.

99 Statement of Claim (Amendment No 1) at para 20.

100 Notes of Evidence, 1 July 2019, p138(1) to 138(4); Palaniappan Kannappan's AEIC at para 64, p25 and p515.

101 Statement of Claim (Amendment No 1) at para 29.

102 Plaintiff's Bundle of Documents, p288 to 291; Plaintiff's Opening Statement at para 16.

103 Palaniappan Kannappan's AEIC at p571.

whatsoever is illogical because it would allow the plaintiff to exercise this right even when goods and materials had yet to be installed or even before the defendant had carried out any works.[104] The defendant's argument is that as-built drawings can, by definition, be produced only after a contractor or sub-contractor has completed its construction works.[105] That is because as-built drawings are drawn up to reflect the changes made in the specifications and working drawings during the construction process.

126 The plaintiff on the other hand argues that cl 2.6 is not void for uncertainty given Mr Jeyalingam's admission during cross-examination that the defendant was obliged to provide as-built drawings pursuant to cl 2.6.[106]

127 It is a well-established principle of law that before there can be a concluded contract, the terms of the contract must be certain and complete. The *Law of Contract in Singapore* says at paragraphs 3.145 and 3.146:

---

104 Defendant's Closing Submissions at para 22.

105 Defence and Counterclaim (Amendment No 1) at para 6(a).

106 Notes of Evidence, 3 July 2019, p119(26) to 120(3).

> A term that is "uncertain" exists but is otherwise incomprehensible. On the other hand, an agreement that is "incomplete" has certain terms that do not (but should) exist and the non-existence of these terms make the agreement incomprehensible. A contract may be unenforceable for uncertainty or incompleteness even though there has otherwise been both offer and acceptance between the parties. …
>
> …
>
> The basis for the requirement of certainty and completeness is a practical one. When contracts are before the courts, that generally means that there is a dispute, the resolution of which depends on construing the very terms of the contract itself. …

128 That being said, the learned authors of the *Law of Contract in Singapore* emphasise at para 3.148 that the "courts do not expect commercial documents to be drafted with the outmost precision and certainty". To take that approach would defeat commercial expectations by striking down bargains reached by two parties who might not have paid as much attention to precision as parties who were legally advised. Indeed, it is not uncommon for the courts to have recourse to a previous course of dealing or trade practice to remedy potential uncertainties or gaps in the terms of a contract and to uphold commercial expectations (*Grossner Jens v Raffles Holdings Ltd* [2004] 1 SLR(R) 202 and *Gn Muey Muey v Goh Poh Choo* [2000] 1 SLR(R) 704) or even the general touchstone of reasonableness (*Hillas & Co Ltd v Arcos Ltd* (1932) 147 LT 503). It is so as not to defeat commercial expectations that a court strives to uphold agreements where possible rather than to strike them down on the basis of uncertainty (*Gardner Smith (SE Asia) Pte Ltd v Jee Woo Trading Pte Ltd* [1998] 1 SLR(R) 950 at [10]–[11]).

129 Clause 2.6 of the Subcontract reads as follows:[107]

---

107 Agreed Bundle of Documents, Vol 1, at p40.

> 2.6 Submission of design, shop drawings, as-built drawings, installation details, samples, colour chart and method statement to the Architect/us for approval as and when required by us.

130 I reject the defendant's argument. The defendant is right that a literal reading of cl 2.6 – and of the phrase "as and when required" within it – suggests that the plaintiff is entitled to ask for as-built drawings at any time. But that does not in itself mean that cl 2.6 is uncertain. The most that can be said is that cl 2.6 is capable of operating unreasonably or uncommercially. Even then, a contextual interpretation of cl 2.6, bolstered by industry practice, suffices to alleviate any unreasonable or uncommercial consequences which may arise from a literal interpretation.

131 As-built drawings reflect the completed state of works in a building and are required for submission to the relevant authorities to obtain statutory approvals. It is consistent with that commercial purpose that as-built drawings can and will ordinarily be asked for and prepared only after construction works are complete. Mr Kannappan did however accept that as-built drawings may sometimes be prepared while construction works are ongoing. This is typically in situations where there are changes or variations to the scope of original contractual works.[108] But he accepted that this was wholly exceptional.

132 Simply put, a main contractor acting commercially will not in ordinary circumstances ask for as-built drawings at any time before construction works are complete. The phrase "as and when required" can therefore easily be interpreted, applying the contextual approach, to refer to any time *after* the construction works are completed, save for circumstances which are commonly accepted in the industry as exceptional.

---

[108] Notes of Evidence, 1 July 2019, p129(22) to 130(22).

133 There is therefore no basis for the defendant's argument that cl 2.6 of the Subcontract is uncertain and unenforceable. It is a term of the parties' contract and binds the defendant.

Has the defendant breached cl 2.6 of the Subcontract by failing to submit as-built drawings?

134 The defendant's alternative argument is that cl 2.6 on its proper interpretation means that the plaintiff is entitled to call for as-built drawings only when the architect requires them in order to obtain statutory approval and only when the plaintiff has confirmed that the defendant has satisfactorily completed its scope of Works. On that interpretation, and on the facts of this case, the plaintiff is not entitled to call for the as-built drawings. The defendant submits that the plaintiff's conduct was inconsistent. On the one hand, it asked for the as-built drawings, suggesting that the Works had been completed to its satisfaction. On the other hand, it was at the same time asking the defendant to rectify defects, suggesting that the Works had not yet been completed to its satisfaction.[109] In addition, the defendant submits that there could be no breach of cl 2.6 of the Subcontract as the plaintiff was in actual possession of the as-built drawings submitted by the defendant through a link contained in an email to the plaintiff dated 29 June 2016 or in its bundle of documents prepared for the purposes of the adjudication application.[110]

135 The defendant's arguments cannot succeed. There is no inconsistency between the plaintiff's request for as-built drawings for the purposes of seeking statutory approval and the plaintiff's request for the defendant to rectify the defects. These are two wholly different contractual obligations imposed on the

---

109 Defendant's Closing Submissions at para 25.

110 Defendant's Closing Submissions at para 29.

defendant pursuant to the Subcontract. It is entirely plausible for the plaintiff to ask the defendant to rectify defects arising from its Works while asking the defendant at the same time to submit the as-built drawings in order to obtain the CoC from the architect.

136 I also do not accept the defendant's submission that it provided the as-built drawings either via a link in its 29 June 2016 email or through its bundle of documents submitted for the adjudication application.

137 As to the link "for the C2, C3 status of the ST submissions" contained in the defendant's 29 June 2016 email[111], I accept Mr Kannappan's evidence that the link did not in fact lead to the as-built drawings. Indeed, this is clear from Mr Kannappan's reply on the very same day. He acknowledged the defendant's email by noting the contents but asking again for the defendant to submit the as-built drawings: "Noted and submit your as-built drawings".[112] Mr Kannappan described the link provided by the defendant as a link to the BCA website concerning the status of the ST submissions. I am persuaded that the link did not lead to the as-built drawings as is now claimed by the defendant.

138 First, the contemporaneous evidence is that Mr Kannappan replied to the defendant's email on 29 June 2016 by asking again for the as-built drawings. That suggests that the link did not in fact contain the as-built drawings. There was no contemporaneous challenge by the defendant at that time suggesting that Mr Kannappan's repeated request for the as-built drawings was unfounded or without basis.

---

111 Palaniappan Kannappan's AEIC at p514.

112 Palaniappan Kannappan's AEIC at p514.

139 Second, I fail to comprehend how the defendant's actions square with its current position. If the link indeed led to the as-built drawings, it would be reasonable to expect the defendant to clarify and re-direct Mr Kannappan to the link provided in the email. And if the defendant had prepared the as-built drawings and provided them at the link, complying with the plaintiff's subsequent request would be a straightforward clerical task of re-sending the link. Nevertheless, none of this was done.

140 As the adjudicator also explained in his reasons for the adjudication application at para 174:[113]

> Then for the as built drawings, the Claimants' Mr. Andy Kuan took the position at the Adjudication Conference that the links for downloading the as built drawings had been provided in an email dated 29 June 2016 to the Respondents. The Respondents in reply stated that they could not download these as built drawings through the links provided. *It seemed to me a simple matter for the Claimants to provide such as built drawings to the Respondents again to resolve this issue.* However, the Claimants' Mr. Andy Kuan took the position that he required "assurance" before the as built drawings could be provided to the Respondents". [emphasis added]

141 It is telling that at trial, Mr Jeyalingam was unable to provide a satisfactory answer when asked why the defendant could not just simply re-send the link if it in fact led to the as-built drawings. Rather, his explanation was that at that point in time, the defendant was trying to rectify things but was not allowed to.[114] If this were an implicit admission that the as-built drawings were withheld for strategic reasons to impose pressure on the plaintiff, it would nevertheless not be a valid reason to excuse the defendant from its performing its obligations under cl 2.6 of the Subcontract. Ultimately, Mr Jeyalingam also

---

113 Palaniappan Kannappan's AEIC at p285.

114 Notes of Evidence, 2 July 2019, p121(8) to 121(13).

admitted that he did not know how the link worked and did not know whether it in fact worked.[115]

142 I am also not persuaded by the defendant's submission that it had complied with its obligation under cl 2.6 by enclosing as-built drawings in its payment claim made in support of the adjudication application on 22 August 2016.[116] At trial, the defendant pointed to the similarity between the drawings enclosed in its adjudication application and the as-built drawings contained in Mr Kannappan's affidavit of evidence in chief.

143 However, Mr Kannappan clarified that the as-built drawings contained in his affidavit of evidence in chief, while similar to the drawings submitted by the defendant in support of its payment claim for the adjudication application, were not the as-built drawings submitted by the defendant. In order for the as-built drawings to be prepared, the plaintiff had to convert the structural drawings to AutoCADs and to make several adjustments, such as changing the title blocks and the format. Only then could the drawings be submitted to the architect as as-built drawings.[117] The process of converting the PDF version of the structural drawings to AutoCAD and printing the as-built drawings was non-trivial. It took the plaintiff close to a week of work. That could have been avoided had the defendant just provided the as-built drawings pursuant to cl 2.6.

144 I accept Mr Kannappan's explanation that the drawings submitted by the defendant in the adjudication application were not as-built drawings. Rather, those drawings were BCA-approved construction drawings, otherwise known as structural submission drawings. Mr Kannappan's position is supported by the

---

115 Notes of Evidence, 2 July 2019, p121(5) to 121(7).

116 Defendant's Bundle of Documents, p70 to 122.

117 Notes of Evidence, 1 July 2019, p132(1) to 132(12).

contemporaneous evidence, namely, his email sent a day later, on 23 August 2016, asking the defendant to "submit your PE endorsed as-built drawing (hard copy & CD rom)" on or before 30 August 2016.[118] If the defendant had in fact submitted the as-built drawings in the adjudication application, it failed to make this clear to the plaintiff as it neither replied to Mr Kannappan's email nor challenged Mr Kannappan's request at all. The defendant's noticeable silence on this matter continued when the plaintiff's wrote to the defendant on 26 August 2016 and emailed the defendant again on 24 October 2016.

145 I also note the defendant's inconsistent positions with respect to the as-built drawings throughout these proceedings. At trial, Mr Jeyalingam raised the new argument that the plaintiff already had the as-built drawings even before TOP was issued, because the as-built drawings must have been required for the TOP. In Mr Jeyalingam's view, the plaintiff's request for the as-built drawings would be superfluous as it would be something that the plaintiff already had at the time. It was on this basis that the defendant was entitled to reject the plaintiff's request.[119]

146 I am not satisfied with Mr Jeyalingam's explanation. This was never expressed as the defendant's position in any of the correspondence between the parties. As Mr Jeyalingam conceded, he had never personally said that the plaintiff should already have the as-built drawings.[120]

147 As such, by failing to provide the plaintiff with the as-built drawings, the defendant has breached cl 2.6 of the Subcontract.

---

118 Palaniappan Kannappan's AEIC at p514.

119 Notes of Evidence, 2 July 2019, p118(17) to 119(9).

120 Notes of Evidence, 2 July 2019, p119(22) to 119(25).

Clause 2.12

148 It is undisputed that the defendant has failed to provide the 10-year joint warranty.[121]

Is cl 2.12 of the Subcontract void for uncertainty?

149 The defendant argues that cl 2.12 of the Subcontract – like cl 2.6 – is void for uncertainty. This is because cl 2.12 purports to impose upon the defendant an obligation to provide the 10-year joint warranty as and when required by the plaintiff, the architect and the consultants. That means that the plaintiff can demand the warranty at any time, even before the Works are carried out. As the joint warranty is to remain effective for 10 years from the date of completion of the main contract, it is imperative that the completion date be known to all parties involved before the warranty can be provided. According to the defendant, the words "as and when required" in cl 2.12 are illogical, incapable of meaning or interpretation and thus make it impossible for the warranty to be furnished if called upon before that date being known or finalised.[122]

150 Clause 2.12 of the Subcontract reads as follows:[123]

---

121 Defence and Counterclaim (Amendment No 1) at para 23.

122 Defendant's Closing Submissions at para 36; Defence and Counterclaim (Amendment No 1) at paras 6(d) and (e).

123 Agreed Bundle of Documents, Vol 1, p40.

> 2.12 Submission of Ten (10) year joint-warranty, joint name with GAE for your works, effective from the date of completion of the Main Contract, in the format attached herein (Appendix C), to us/Architect in 5 sets as and when required by our project manager/Architect and Consultants.

151 I reject the defendant's argument. At least in relation to cl 2.6 of the Subcontract, the defendant could argue that the as-built drawings by definition cannot depict what does not yet exist. But cl 2.12 is entirely different in nature. A 10-year joint warranty can be signed at any time. It can even be signed before the start date of the warranty is known. It is entirely possible for the defendant to warrant today but for it to only take effect in the future. And that future date can either be a specific date or a date defined by the matrix of contracts underlying the Project.

152 The industry practice of when warranties like these are called for and signed is a separate matter. It suffices to note only that a literal interpretation of cl 2.12 of the Subcontract does not give rise to insurmountable uncertainty. Further, a contextual interpretation akin to that employed for cl 2.6 suffices to remedy any interpretive gap between what is possibly meant and what is probably meant in the industry by the phrase "as and when required" in cl 2.12. That contextual approach would lead to the conclusion that the defendant is contractually obliged to furnish the 10-year joint warranty at the request of the plaintiff, the architect or consultants at any time *after* the defendant has completed the Works.

153 There is simply no merit to the defendant's argument that cl 2.12 is illogical and incapable of proper interpretation such as to render it unenforceable.

Has the defendant breached cl 2.12 of the Subcontract by failing to provide the 10-year joint warranty?

154 The plaintiff argues that the defendant breached cl 2.12 of the Subcontract by failing to provide the 10-year joint warranty despite the plaintiff's repeated requests to the defendant to do so. Moreover, the plaintiff submits the true reason why the defendant failed to provide the 10-year joint warranty in August 2016 was because the plaintiff had raised issues concerning the Glass Defects and had withheld moneys payable to the defendant. The defendant thus considered it justifiable to hold the warranty hostage, as a form of leverage. Indeed, Mr Jeyalingam candidly admitted this at trial.[124]

155 The defendant suggests an interpretation of cl 2.12 that makes the defendant's obligation to provide the 10-year joint warranty conditional upon the plaintiff's cooperation in doing so, by confirming and accepting that the defendant had completed the Works. On that interpretation, the defendant did not breach cl 2.12 because the plaintiff (a) did not accept and confirm that the defendant had completed its scope of Works, (b) did not cooperate with the defendant to provide the joint warranty and (c) was blowing hot and cold by demanding that the curtain wall be rectified and replaced.[125]

156 I reject the defendant's argument. Even if I accept the defendant's interpretation of cl 2.12, there is no evidence to suggest that the plaintiff was not ready to cooperate and hold up its end of the 10-year joint warranty.[126]

---

124 Plaintiff's Closing Submissions at para 15; Notes of Evidence, 2 July 2019, p123(18) to 124(10).

125 Defendant's Closing Submissions at para 40.

126 Reply and Defence to Counterclaim at para 9.

157 I also do not think that the plaintiff failed to confirm that the defendant had completed the Works. Although I consider this in greater detail in respect of the Completion Issue below at [226]–[241], it is clear from the correspondence between the parties and the payment responses from the plaintiff that the plaintiff's requests to the defendant related only to defects arising from the defendant's completed Works rather than any outstanding Works.

158 For example, in its 26 August 2016 letter to the defendant asking for the 10-year joint warranty, the plaintiff also provided a list of "outstanding" Works. However, the list comprised only the as-built drawings, the water tightness report, the replacement of the seventh storey door and the Glass Defects.[127] Apart from this, the plaintiff made no further reference to any works which had yet to be completed. It would be reasonable to assume that the plaintiff considered the defendant to have completed the Works. The list was referring to the rectification of defects in the completed Works, which was an entirely distinct issue.

159 The defendant's argument is that it is incongruous for the plaintiff to demand on one hand, the replacement of the glass curtain wall, and on the other, to ask the plaintiff to provide the 10-year joint warranty. This argument too is misconceived. The crux of the argument is as follows: if the plaintiff deems the Works to be unacceptable, on what basis can it ask the defendant to issue the joint warranty? I accept the plaintiff's submission in response that there is no reason why the plaintiff's rejection and request for rectification of the defendant's defective Works should excuse the defendant from its separate and independent obligation to provide the joint warranty pursuant to cl 2.12 of the

---

[127] Palaniappan Kannappan's AEIC at p154.

Subcontract.[128] These are entirely distinct obligations that protect distinct interests: the joint warranty is to ensure that the plaintiff and the defendant are jointly liable for any defects that *may* arise during the 10-year period after completion of the Works whereas the contractual entitlement for the plaintiff to demand rectification of completed Works with defects that have *already* arisen.

160 Finally, even if the plaintiff had unjustifiably withheld moneys payable to the defendant under the Subcontract, this would not justify the defendant's decision to withhold the 10-year joint warranty and somehow insulate it from contractual liability for breach of cl 2.12. Simply put, a party's breach of a contractual obligation does not excuse the other party's breach of a separate contractual obligation – the operative word being "separate" – one breach does not, in itself, justify another breach.

161 I therefore find that by failing to provide the plaintiff with the 10-year joint warranty, the defendant breached cl 2.12 of the Subcontract.

---

128 Plaintiff's Closing Submissions at para 105.

The Water Tightness Issue

162 The plaintiff contends that the defendant's failure to ensure that the glass curtain wall and/or the aluminium and glazing works were sufficiently watertight constitutes a breach of cl 2.2 and Appendix A of the Subcontract. This is evidenced by the water leakage occurring at the windows and curtain wall.[129] The plaintiff submits that earlier attendances to the water leakage incidents by its workers revealed the defendant's unacceptable waterproofing and shoddy workmanship in its installation of the windows. In this regard, the original grouting at some of the window frames was not applied properly and resulted in its hollowness.[130] Grouting refers to the process by which a paste is applied to fill the gaps between adjacent tiles and support joints. There are two major types of grout: (a) cement-based grout and (b) epoxy-based grout.

163 The plaintiff's workers also discovered timber blocks in some of the frames. These blocks should have been removed before grouting was injected into the gaps surrounding the frames to achieve a proper seal and water tightness. In doing so, the defendant had improperly grouted over the temporary frame supports.[131] Evidence of the water leakage and the faulty grouting are reflected in a series of photographs captured by Mr Wong.[132]

164 Following the grant of the TOP on 28 June 2016, water leakage began to appear at various locations of the windows and curtain wall.[133] The defendant failed to rectify the water seepage at units #02-11, #03-09, #03-10, #05-09, #05-

---

129 Plaintiff's Opening Statement at para 12.

130 Plaintiff's Opening Statement at para 14; Wong Kwek Min's AEIC at p223 to 237.

131 Wong Kwek Min's AEIC at para 53.

132 Wong Kwek Min's AEIC at p145 to 149, p151 to 156 and p227 to 232.

133 Wong Kwek Min's AEIC at para 44.

11, #05-15, #06-14 and #07-13.[134] This was despite the plaintiff's emails to the defendant on the following dates: 30 November 2017, 8 January 2018, 13 January 2018, 27 January 2018 and 5 February 2018.[135] The plaintiff proceeded to notify the defendant of the deduction of $5,587 for the labour costs incurred in its Payment Response No 35 dated 28 March 2018 ("PR No 35").[136] These works were supervised by Mr Wong.[137]

165 In response, the defendant argues that the plaintiff has not discharged its burden of proof to demonstrate that the water leakage originated from improper grouting, as opposed to leakage from the structure of the building.[138] It highlights that no testing was carried out in respect of the units alleged to have contained water leakage.[139] A series of water tests conducted in June and August 2016 also attests to sufficient water tightness. Additionally, while the plaintiff pleaded that eight units suffered water leakage, the plaintiff only made reference to a few units at trial.[140] Finally, the defendant argues that the amount claimed in PR No 35, while attaching time cards of workers, fails to indicate who the workers are and where the workers are from and the time cards relied upon by the plaintiffs are not endorsed.[141]

---

134 Statement of Claim (Amendment No 1) at para 29.

135 Statement of Claim (Amendment No 1) at para 29.

136 Statement of Claim (Amendment No 1) at para 29.

137 Wong Kwek Min's AEIC at para 52.

138 Defendant's Closing Submissions at paras 192 and 195.

139 Defendant's Closing Submissions at para 180.

140 Statement of Claim (Amendment No 1) at para 29; Defendant's Closing Submissions at para 77.

141 Arulchelvam Jeyalingam's AEIC at para 28.

166 The defendant first highlights the series of water tests. Initially, a water tightness test was conducted on 17 June 2016 by TUV SUD PSB Pte Ltd in which 6 out of 7 test points failed the test. A subsequent water tightness test was conducted on 12 August 2016. This test was successful in that 35 out of 36 points achieved a pass. This test was signed by Mr Wong.[142] I do not find these results useful for the purposes of determining the Water Tightness Issue because the subsequent water tightness test only tested five areas for water leakage rather than the whole building. [143] The test therefore only represents a sample section of the building. In any case, I do not place much weight on these tests given that the plaintiff's claim is that incidents of water leakage persisted after 12 August 2016 in respect of specific units.[144]

167 Nonetheless, I accept the defendant's submission and find that the plaintiff has failed to prove, on a balance of probabilities, that the defendant failed to ensure sufficient water tightness in respect of the units pleaded. Crucially, while the plaintiff pleaded eight specific units affected by water leakage in its statement of claim,[145] the photographs taken by Mr Wong relate to

---

142 Palaniappan Kannappan's AEIC at paras 52 and 53; Agreed Bundle of Documents, Vol 1, p209 to 211; Notes of Evidence, 2 July 2019, p90(1) to 90(22).

143 Notes of Evidence, 2 July 2019, p102(2) to 102(10); Agreed Bundle of Documents, vol 1, p212.

144 Plaintiff's Reply Closing Submissions at para 76.

145 Statement of Claim (Amendment No 1) at para 29.

units #01-08[146], #01-09[147], #01-11[148], #01-12[149], #01-13[150], #02-14[151], #03-12[152], #03-14[153], #05-14[154], #06-12[155], #06-14[156], #07-01[157], #07-02[158], #07-03[159], #07-05[160], #07-07[161], #07-09[162], #07-12[163], #07-13[164] of the Project. The only two units that were pleaded *and* reflected in the photographs contained in Mr Wong and Mr Kannappan's AEICs were units #06-14 and #07-13. There is a patent lack of documentary evidence to support the plaintiff's claim for the rest of the pleaded units.

---

146 Wong Kwek Min's AEIC at p186; p192.

147 Wong Kwek Min's AEIC at p193.

148 Wong Kwek Min's AEIC at p165 to 177; p187; p194.

149 Wong Kwek Min's AEIC at p164; p195.

150 Wong Kwek Min's AEIC at p164; p188 to 190; p196.

151 Palaniappan Kannappan's AEIC at p489 to 490.

152 Wong Kwek Min's AEIC at p191; p197 to 199.

153 Wong Kwek Min's AEIC at p181.

154 Wong Kwek Min's AEIC at p184; p205.

155 Wong Kwek Min's AEIC at p200 to 202.

156 Wong Kwek Min's AEIC at p226 to 229; Palaniappan Kannappan's AEIC at p433.

157 Wong Kwek Min's AEIC at p206 to 207; p215.

158 Wong Kwek Min's AEIC at p216.

159 Wong Kwek Min's AEIC at p179.

160 Wong Kwek Min's AEIC at p217.

161 Wong Kwek Min's AEIC at p158 to 159; p218; p230 to 237.

162 Wong Kwek Min's AEIC at p151 to 156.

163 Wong Kwek Min's AEIC at p146 to 149, p151 to 156; p203.

164 Wong Kwek Min's AEIC at p208 to 212; p219 to 220; p224.

168 I also do not agree with the plaintiff's submission that the photographs of the water ponding or water marks coupled with the photographs depicting the hollow frame lead to the "irresistible conclusion" that the grouting works were manifestly inadequate and/or defective, leading to the water leakage.[165] In this regard, it is undisputed that no tests were ever carried out by any technical experts or consultants to determine the source of the leakage in the pleaded units.[166] When pressed on the reason for not testing, Mr Kannappan opined that to do so would be unnecessary as the source of the water leakage was clear:[167]

> Q: At page 498 to 501. Quite extensive. At the time when there was water leakage discovered, again, was there any testing carried out by any technical expert or consultant?
>
> A: No.
>
> Q: Did you believe that testing would be required to determine the source of the leak?
>
> A: Yes, external wall.
>
> Q: Yes.
>
> A: No need to specialist if---the---during the bad weather, down---heavy, downpour, we can observe it, the leakings [*sic*].
>
> Q: Okay, but couldn't it have come from the structure of the building?
>
> A: No.
>
> Q: Why is that not possible?
>
> A: The possibility is very, very less.
>
> Q: So it's possible but ---
>
> A: It's very less. It's normally it's ---the leaks--- the leaks shows is the weakest joint. Which is the weakest joint is the window frame, door frame but to the wall.
>
> Q: So it is then based on your assumption that it must have come from the window?

---

165 Plaintiff's Closing Submissions at para 142.

166 Notes of Evidence, 2 July 2019, p91(13) to 91(29).

167 Notes of Evidence, 1 July 2019, p123(10) to 123(27).

> A: Yah, these are the photographs, these are the leaking. We are (indistinct) to them, those leaking is due to the windows, window joint.

169 I agree with the defendant that given the alleged extensiveness of the water leakage, it was incumbent on, and indeed imperative for the plaintiff properly to establish the cause of the water defects. Especially considering the series of water tightness tests that had previously been conducted in June and August 2016, it would be reasonable to expect the plaintiff to conduct another series of tests to ascertain the specific source of the water leakage before carrying out further rectification works.

170 I note further that Mr Kannappan was unable to point satisfactorily to any evidence of water leakage in respect of unit #06-14[168] and was also unable to recall if rectification works were actually carried out for said unit.[169]

171 In respect of unit #07-13, Mr Wong said in his affidavit of evidence in chief that he had detected leakage in the unit on 24 January 2017 after the owner of the unit had reported it to him.[170] This was preceded by Mr Wong also having performed hacking and rectification works on the same unit on 7 November 2016 in response to a complaint of leaking.[171] If so, I find it hard to believe that it would leak again on 24 January 2017, even after the plaintiff's rectification works to patch up the alleged unsatisfactory grouting. Mr Wong sought to explain that this leakage occurred even after one round of hacking and plastering because there were some problems with the plastering.[172] If anything, this would

---

168 Palaniappan Kannappan's AEIC at p433.

169 Notes of Evidence, 1 July 2019, p122(17) to 122(19).

170 Wong Kwek Min's AEIC at para 46(j).

171 Wong Kwek Min's AEIC at para 49.

172 Notes of Evidence, 2 July 2019, p99(1) to 99(12).

cast some doubt on whether the water leakage was even a result of improper grouting by the defendant in the first place.

172 Viewed holistically, I find that the plaintiff has not discharged its burden of proof to show that the defendant had breached cl 2.2 and Appendix A of the Subcontract by failing to carry out grouting to ensure water tightness.

The Doors Issue

173 The plaintiff argues that the defendant breached cll 2.2 and 5.1 of the Subcontract by: (a) constructing aluminium-framed shop-front doors at the seventh storey units with insufficient headroom; and (b) by installing thresholds for the balcony doors in an unsuitable manner.[173]

174 Clause 2.2 of the Subcontract provides:[174]

> 2.2 *Design, supply and install* curtain wall systems, aluminium framed doors & windows with glazing, aluminium louvred [*sic*] windows & doors, aluminium trellis, suspended glass canopy/awning covered walkway aluminium perforated screen for ACMV ledge including Permap acoustic panel, aluminium screen, aluminium cladding, feature wall, feature wall structural steel support, all structural tie-backs/support for your works to the main building structure designed by your PE, grouting to frames at interfaces to ensure water tightness, etc, and all ancillary works *necessary and fit for the purpose*, in sizes and shapes all as described in APPENDIX A, as specified in the main contract documents and shown in the main contract drawings, all to the approval of the KAE and/or GAE. [emphasis added]

175 Clause 5.1 of the Subcontract provides:[175]

---

173 Plaintiff's Closing Submissions at para 128.

174 Agreed Bundle of Documents, Vol 1, at p39.

175 Agreed Bundle of Documents, Vol 1, at p41.

> 5.1 The Sub-Contractor shall read and *execute all scope of work in accordance with the drawings as well as to the satisfaction of the Architect, Developer and/or the Main Contractor/Contractor.* In the event that the sub-contractor's proposal is rejected by the Architect and/or Consultant, the sub-contractor shall comply with the specifications without additional cost claim. Where, in the opinion of the Architect and/or the Main Contractor, there is non-compliance with the Specification or quality required, you shall immediately replace such works at your own costs within three (3) days from the date of notification by the Main Contractor. In the event that you fail to carry out these replacement works, the Main Contractor reserves the right to do it and recover all costs incurred from you. [emphasis added]

Doors at the seventh storey production units with insufficient headroom

176 The plaintiff argues that the defendant failed to meet the contractual dimensions for the seventh storey doors provided in Annex A of the Subcontract: a width of 2.15 metres and a height of 2.40 metres. The defendant's doors also failed to comply with the BCA building regulations stipulating that the headroom for every room not be less than 2.0 metres.[176] This led to the architect issuing Direction No 188/AD/004 ("AD 004") on 12 July 2016 directing the plaintiff to rectify the insufficient headroom of the doors.[177] Despite the request for the defendant to rectify the doors, the defendant failed to do so. The plaintiff had to engage a third party contractor, Mantec Engineering Pte Ltd ("Mantec"), to carry out the works. As a result, the plaintiff incurred costs of $68,480. This was evidenced by Mantec's payment claim dated 29 December 2016.[178]

---

176 Palaniappan Kannappan's AEIC at para 69.

177 Agreed Bundle of Documents, Vol 1, p148 to 181.

178 Statement of Claim (Amendment No 1) at para 25; Agreed Bundle of Documents, Vol 2, at p567 to 568.

177 The defendant submits that it did not breach cl 5.1 of the Subcontract because it installed the seventh-storey doors in accordance with the approved shop drawings enclosed in an email to the plaintiff on 20 April 2016.[179] As such, the "rectifications" were in fact changes to the original scope of the Works for which the defendant ought to be compensated as variation works. Moreover, the defendant offered to change the doors but the plaintiff declined its request.

178 The defendant submits that cl 5.1 should be interpreted such that, where work is carried out against approved shop drawings, the defendant cannot be in breach of contract if it carries out those works entirely in accordance with the shop drawings. As such, the defendant's compliance with the relevant shop drawings is sufficient to deflect any liability.[180] Finally, the defendant also submits that there are obvious discrepancies in the costs that the plaintiff has allegedly incurred.[181]

179 I accept the defendant's submission as to the correct interpretation of cl 5.1 of the Subcontract. Clause 5.1 obliges the defendant to execute its works "in accordance with the drawings as well as to the satisfaction of the architect, Developer and/or the Main Contractor/Contractor". Where drawings have been approved, the defendant is not in breach of cl 5.1 unless it deviates from the approved drawings. Commercially speaking, it is clear that neither the architect nor the plaintiff should be entitled to allege a breach of contract where the defendant has complied with approved shop drawings. To interpret cl 5.1 otherwise would effectively grant the architect or the plaintiff an unfettered

---

179 Defendant's Closing Submissions at paras 70 and 72.

180 Defendant's Closing Submissions at para 76.

181 Defendant's Closing Submissions at para 84.

contractual right to demand variations disguised as rectifications. This would render cl 13.1 of the Subcontract, governing variation works, entirely otiose.

180 The key factual issues for me to decide are thus whether the shop drawings were approved and whether the plaintiff unreasonably prevented the defendant from carrying out the replacement works. A further question was raised at trial, which is whether the plaintiff actually incurred the costs which it claims to replace the doors. That question is one which goes to quantum. I therefore leave an analysis of that question to the assessment of damages should I find the defendant liable for a breach of the Subcontract in this respect.

Did the 20 April 2016 email contain approved shop drawings?

181 The defendant's key argument is that it supplied and installed the seventh-storey doors in accordance with approved shop drawings. These drawings were attached to Mr Tan's 20 April 2016 email to the plaintiff.[182] I am not satisfied that the architect in fact approved these shop drawings.

182 The contemporaneous evidence is in the form of Mr Kannappan's reply on 21 April 2016 to the plaintiff. In that email, he asked the defendant to "extend the approved shop drawing urgently for our review". That strongly suggests that the shop drawings attached to the earlier email were not approved.

183 My finding is bolstered by Mr Tan's testimony at trial where he said that the procedure for approving shop drawings required that the architect approve them. The architect could evidence its approval either by a signature on the shop drawings or by correspondence to the plaintiff indicating approval.[183]

---

182 Palaniappan Kannappan's AEIC at p576.

183 Notes of Evidence, 4 July 2019, p 13(6) to 13(24).

184 Unsurprisingly, this procedure was adopted to prevent disputes about whether a particular set of shop drawings had or had not been approved.[184] Yet, the shop drawings attached to Mr Tan's affidavit of evidence in chief bore no evidence of approval. There was also no documentary evidence that the drawings had been approved in some other way.[185] Mr Tan then testified that the shop drawings had been approved orally, at a site discussion sometime before April 2016.[186] Further, Mr Tan said that it was his ex-colleague Mr Raymond Manano ("Mr Manano"), and not Mr Tan himself, who had handled securing the approval for the shop drawings.[187] The defendant did not call Mr Manano as a witness.

185 Given the paucity of evidence, I am not satisfied that the defendant installed the seventh storey doors in accordance with the shop drawings which had been approved. It also failed to comply with the Annex A specifications.

186 I further reject the defendant's argument that the replacement of the seventh-storey doors constituted variation works for which the plaintiff would have to compensate the defendant over and above the contract sum.

187 The defendant's representative, Mr Andy Kuan ("Mr Kuan"), failed to point this out in his contemporaneous email sent on 19 July 2016 to the plaintiff.[188] Indeed, the defendant accepted the non-compliance and agreed to change the doors. It is telling that the defendant did not suggest that the non-

---

184 Notes of Evidence, 4 July 2019, p13(25) to 14(27).

185 Notes of Evidence, 4 July 2019, p16(10) to 16(13).

186 Notes of Evidence, 4 July 2019, p25(1) to 25(9).

187 Notes of Evidence, 4 July 2019, p15(22) to 15(30).

188 Palaniappan Kannappan's AEIC at p147.

compliance was not in fact the fault of the defendant, and would constitute a variation work requiring the plaintiff to pay separately for it.

188 At trial, Mr Jeyalingam tried to assert that the defendant's omission was likely because the parties were rushing to obtain the TOP and Mr Kuan's email was reflective of the full report the defendant was willing to give the plaintiff at the material time. I am not persuaded by Mr Jeyalingam's explanation. One reason is that by 19 July 2016, the TOP had already been issued (*ie,* on 29 June 2016). Another reason is that Mr Jeyalingam's explanation would make sense only if a subcontractor placed the order to help the main contractor meet the TOP, but the subcontractor would not bear the expense.

189 I accept that it is common in the construction industry for works to proceed without agreement as to payment in order not to jeopardise a handover date. However, it would be reasonable to expect some form of discussion between the parties making it clear that one party was proceeding with the work first but leaving payment for future discussion.[189]

190 This is also in stark contrast to Mr Tan's 20 April 2016 email, where he expressly made it clear that modification works for the door frames would "incur additional cost".[190] This shows that the defendant made clear to the plaintiff when the proposed work was a variation entitling the defendant to additional payment. There is no evidence of the defendant taking any such position with respect to the seventh-storey doors.

---

189 Notes of Evidence, 3 July 2019, p4(8) to 4(25).

190 Palaniappan Kannappan's AEIC at p576; Notes of Evidence, 2 July 2019, p9(1) to 10(2).

Did the plaintiff unreasonably prevent the defendant from carrying out replacement works for the doors?

191 The defendant points out that it was ready and willing at all times to replace the doors.[191] It was the plaintiff who unreasonably ignored the defendant and precipitously engaged a third party to replace the doors. The plaintiff, having replaced the doors unilaterally, cannot now hold the defendant liable for the plaintiff's alleged loss. The defendant relies, in particular, on the contemporaneous emails exchanged by the parties. This comprises the plaintiff's email on 24 October 2016, which the defendant says the plaintiff asked the defendant to agree to replace the seventh-storey doors by "the close of business on this Wednesday, 26 October 2016".[192] The defendant replied that it would replace the doors on 26 October 2016. But the plaintiff replied on 27 October 2016 to say that it had already engaged a third party to replace the seventh-storey doors, referring to its earlier email dated 27 September 2016.[193]

192 I do not accept the defendant's submission. I arrive at this conclusion for a few reasons.

193 First, the plaintiff's email to the defendant on 24 October 2016 did not make *any* mention of the seventh storey doors. It is clear that the plaintiff's request in the email for the defendant to provide a "positive response by the close of business on this Wednesday, 26 October 2016", failing which it would "approach a third party" to carry out replacement works, was not a reference to the seventh-storey doors. Rather, the plaintiff asked the defendant to carry out rectification and replacement works for the glass panels in the glass curtain wall

---

191 Defendant's Closing Submissions at para 81.

192 Defendant's Closing Submissions at para 81; Palaniappan Kannappan's AEIC at p357.

193 Palaniappan Kannappan's AEIC at p356.

that had begun to show "glass delamination/glass bubbles/specks/spots/dots issues in the units".[194]

194 Second, the plaintiff's refusal to accept the defendant's request to replace the seventh-storey doors in its 27 October 2016 email must be viewed in the context of the plaintiff's previous requests to the same effect. Following AD 004, Mr Kannappan wrote to the defendant's Mr Kuan on 19 July 2017 to ask the defendant to replace the doors.[195] Mr Kuan agreed to the plaintiff's request in his reply on the same day. He wrote that he had already instructed "Ron to place order the new doors to replace it" and it would "take at least 6 to 8 weeks for the lead time".[196]

195 The defendant provided an update following an on-site meeting with the plaintiff on 18 August 2016, with the defendant's Mr Tan and Mr Kuan both present. The update was that the replacement doors would arrive on 22 September 2016 but that the defendant would nevertheless try to expedite the delivery date and inform the plaintiff the following week. This was recorded in Mr Kannappan's email on 19 August 2016 to the defendant.[197]

196 However, by 17 September 2016, the defendant had failed to provide any further updates.[198] The 22 September 2016 deadline elapsed without any further update from the defendant. Mr Kannappan wrote another email to Mr Kuan on 27 September 2016 emphasising that "22 September 2016 has since

---

194 Palaniappan Kannappan's AEIC at p357.

195 Palaniappan Kannappan's AEIC at p148.

196 Palaniappan Kannappan's AEIC at p147.

197 Palaniappan Kannappan's AEIC at p143.

198 Palaniappan Kannappan's AEIC at p236.

come and gone" and the defendant had yet to replace the seventh-storey doors. Mr Kannappan also put the defendant on notice that if it failed to replace the doors by 29 September 2016, the plaintiff would "engage a third party to replace the affected … doors on an urgent basis and all the costs and expenses shall be charged to you accordingly".[199]

197 It was only close to a month later, on 26 October 2016, that the defendant provided an email update informing the plaintiff that it would "start the replacement [for the seventh-storey doors] in two weeks time".[200]

198 The defendant's argument that the plaintiff unreasonably rejected its offer to replace the doors made on 26 October 2016[201] is therefore undercut by the fact that it had previously failed to abide by its own timelines. The plaintiff's rejection and subsequent decision to carry out replacement works was entirely reasonable.

199 I also have doubts about whether the defendant had actually ordered the replacement doors at all. If the replacement doors had been ordered and had actually arrived on 22 September 2016, I find it hard to believe that the defendant would have not informed the plaintiff of its intention to replace the doors as soon as possible. In addition, the defendant disclosed no evidence that it had actually ordered replacement doors or that the replacement doors had actually arrived on or around 22 September 2016.[202]

---

199 Agreed Bundle of Documents, Vol 1, at p337.

200 Palaniappan Kannappan's AEIC at p356.

201 Tan Eng Hooi's AEIC at para 20.

202 Palaniappan Kannappan's AEIC at p143; Notes of Evidence, 3 July 2019, p7(28) to 8(12).

200 In fact, Mr Tan testified that he did not recall any instructions from Mr Kuan to place an order for the doors and he did not personally place any orders himself.[203] As Mr Tan further admitted, even on 26 October 2016, the defendant had not placed an order for the doors and it would place the order only upon the approval of the plaintiff. Mr Tan tried to explain that it would be possible to take delivery of replacement doors within two weeks if the order was placed with a Singapore factory, rather than a factory in China, subject to a difference in cost.[204] However, none of this information was ever communicated to the plaintiff. The plaintiff was never given an opportunity at all to elect between the fast but expensive and the slow but cheaper option. Close to a month had elapsed before the defendant once again raised the matter of the door replacement.

201 In light of the defendant's previous failure to abide by its own proposed timeline and its subsequent radio silence on the matter, I find that it was entirely reasonable for the plaintiff to reject the defendant's request to replace the seventh storey doors in its 27 October 2016 email.

202 The defendant is therefore liable to the plaintiff in respect of the defendant's breaches with regards to the seventh-storey doors.

Water-ingress at thresholds for the balcony doors of the seventh storey units

203 The plaintiff submits that the defendant installed thresholds for the seventh-storey balcony door on the outside of the doors, such that the doors would swing or open into the units. This rendered the units susceptible to water ingress under the doors from the balconies.[205] This was a breach of the

---

203 Notes of Evidence, 4 July 2019, p20(6) to 20(15).

204 Notes of Evidence, 4 July 2019, p 22(5) to 22(18).

205 Plaintiff's Closing Submissions at para 128.

defendant's obligation under cl 2.2 of the Subcontract to ensure that the door thresholds were "necessary and fit for the purpose".

204 The architect gave the plaintiff an oral instruction during a site visit on 19 April 2016 to dismantle and re-orient the thresholds. This instruction was conveyed to the defendant. The defendant agreed that the plaintiff could dismantle and re-orient the doors, as evidenced by the defendant's email to the plaintiff dated 30 July 2016[206] and its subsequent letter to the plaintiff dated 15 August 2016.[207]

205 As a result, the plaintiff incurred $10,330 in September and October 2016 to dismantle and re-orient 13 door thresholds on the seventh storey so that they were on the inside of the doors and thereby able to prevent water ingress.[208] The plaintiff notified the defendant of this deduction of $10,330 in its Payment Response No 19 dated 1 December 2016 ("PR No 19"). Enclosed in PR No 19 were copies of timecards in connection with the labour supplied.[209]

206 The defendant argues that the re-orientation of the 13 thresholds at the seventh-storey balcony door was not within the scope of its Works and were therefore variation works. As the re-orientation of the thresholds was allegedly to ensure that the TOP could be obtained,[210] the defendant points out that it is inconsistent for the plaintiff to have replaced the thresholds only sometime in September and October 2016, especially when the TOP had already been

---

206 Agreed Bundle of Documents, Vol 1, p190.

207 Agreed Bundle of Documents, Vol 1, p209 to 210.

208 Notes of Evidence, 2 July 2019, p32(20) to 32(28).

209 Statement of Claim (Amendment No 1) at para 28.

210 Palaniappan Kannappan's AEIC at para 84.

granted on 29 June 2016.[211] It was also not credible that the architect would give some of its instructions in writing and some orally. The defendant is therefore not liable for any of the costs incurred by the plaintiff.

207 Following the site walk on 19 April 2016, the architect orally instructed the plaintiff that the barrier-free accessibility requirement in the building code required that the lower door frame be dismantled. This was recorded in Mr Tan's email to Mr Kannappan on 20 April 2016.[212] Mr Tan emphasised however, that these "modification works [would] take at least 2 weeks' time to complete and [would] incur additional cost".

208 By 30 July 2016 however, Mr Kuan had written to the plaintiff, saying that pursuant to his conversation with Mr Liew that morning, the seventh storey door "mock up is not up to the expectations" and the plaintiff would "engage other to proceed the work and back charge the cost" to the defendant.[213] Mr Kannappan replied to Mr Kuan's email, noting the discussion, and confirmed that the plaintiff would "get others contractor do the rectification and back charges to Sun Moon Construction accordingly".[214]

209 At trial, Mr Kannappan agreed that the re-orientation works were in fact variation works:[215]

> Q: Okay. Would you agree that this is really another piece of variation work? It is not in the scope of --- here, I mean, they are supposed to supply and install doors. This is balcony door, isn't it, different---.

---

211 Defendant's Closing Submissions at para 88.

212 Palaniappan Kannappan's AEIC at p576.

213 Agreed Bundle of Documents, Vol 1, p190.

214 Agreed Bundle of Documents, Vol 1, p190.

215 Notes of Evidence, 2 July 2019, p26(12) to 26(20).

> A: Yah.
>
> Q: ---from the other doors. And they did so already. And here comes a verbal instruction---
>
> A: Okay.
>
> Q: ---"go and change it, go and dismantle again".
>
> A: The verbal instruction is due to the water seepage issue.

This is supported by Mr Kannappan's own concession that this change was not reflected in either of the BCA structural drawings submitted by the plaintiff.[216]

210 I find that the plaintiff has failed to discharge its burden of proof on this head of claim. The plaintiff offered no explanation why the architect would have given an oral instruction on an issue so fundamental as water ingress. The plaintiff offered no explanation as to why, if the architect gave the oral instruction in April 2016, the works on the door thresholds were carried out only in October 2016. The plaintiff offered no explanation why, if the works were necessary to obtain TOP, they were carried out after TOP had been issued. And Mr Kannappan himself accepted in cross-examination that these works were variations and not rectifications.

The Feature Wall Issues

211 The feature wall is a tall wall which runs from the ground floor of the Project all the way to a point above the building's flat roof. The defendant completed installation of the feature wall in or around the first week of May 2016.[217]

---

216 Notes of Evidence, 2 July 2019, p42(20) to 43(31); Palaniappan Kannappan's AEIC at p540.

217 Notes of Evidence, 2 July 2019, p22(29) to 22(32).

212 The plaintiff argues that the defendant breached cl 5.1 of the Subcontract by failing to comply with the approved shop drawings when it installed the feature wall.[218] It supplied and installed aluminium composite panels at the first storey of the feature wall even though it was obliged to supply and install glass panels there.[219] And it failed to furnish to the plaintiff a certificate of conformity, certifying that these panels comply with the Singapore Civil Defence Force Fire Code 2013 ("SCDF Fire Code"). Although the plaintiff did not specify which clause of the Subcontract the defendant breached by this failure, it is presumably alleged to be a breach of cl 2.2 of the Subcontract.[220] It would cost the plaintiff $27,000 to engage another contractor to replace the non-compliant panels, as evidenced by a quotation from Huida Construction.[221]

213 The defendant rejects this claim. First, the issue of the feature wall was considered and resolved at the adjudication application. The adjudicator awarded the plaintiff $1,061.78 for the defendant's failure to install glass panels at the first storey of the feature wall.[222] Secondly, the plaintiff failed to approve any shop drawings with which the defendant had failed to comply. In any event, the defendant had obtained Mr Kannappan's approval to install aluminium panels at the first storey. Third, the plaintiff did not adduce any quotation from Huida Construction in evidence. There is no basis to order an assessment of damages because the plaintiff has suffered no loss. Fourth, there is plainly no obligation on the defendant to produce a certificate of conformity.[223]

---

218 Plaintiff's Closing Submissions at para 148.

219 Plaintiff's Closing Submissions at para 147; Palaniappan Kannappan's AEIC at para 78.

220 Notes of Evidence, 4 July 2019, p4(28) to 5(15).

221 Notes of Evidence, 1 July 2019, p49(24) to 50(5).

222 Defendant's Closing Submissions at paras 62 to 65.

223 Defendant's Closing Submissions at paras 66 to 69.

Did the defendant breach cl 5.1 of the Subcontract?

214 I accept the plaintiff's submission. It is true that Mr Kannappan referred to a set of BCA-approved construction drawings at trial, rather than to the shop drawings. But I do not accept that this is a determinative concession that there were no shop drawings specifying that the defendant was to supply and install glass panels for the feature wall. Indeed, this aspect of the specification of the feature wall did not seem to be in contention at trial. Thus, Mr Tan's affidavit of evidence in chief said that the feature wall "was a continuous wall spanning the first three levels of the front of the building *comprising 250 glass panels*"[224] [emphasis added]. He further confirmed this at trial:[225]

> Q: Yes. Now, Mr Tan, just a few short questions. In respect of the feature wall, you call it, am I right to say that actually the subcontract provides that the *feature wall would only consist of a glass panel*?
>
> A: *Yes*.
>
> Q: But eventually, you say that there was a void that would have filled up with a aluminium panel instead, right?
>
> A: Solid panel.
>
> [emphasis added]

215 Mr Tan's evidence was that the defendant installed the aluminium composite panel because the plaintiff's own construction works in the area where the feature wall was supposed to be constructed resulted in a void space and a structural opening into which the defendant's pre-fabricated glass panel could not be fitted. Thus, the void space was filled with an aluminium composite panel. At trial, Mr Tan elaborated that this was because of a difference in the site condition and the drawing condition.[226]

---

224 Tan Eng Hooi's AEIC at para 25.

225 Notes of Evidence, 4 July 2019, p22(19) to 22(25).

226 Notes of Evidence, 4 July 2019, p22(28) to 23(12).

216 I do not accept Mr Tan's evidence. Although the defendant was obliged to supply and install a semi-unitised system of glass for the purposes of this area according to the agreed dimensions, Mr Tan claimed that he informed Mr Kannappan about this matter and obtained his due approval.[227] However, this assertion was not supported by any documentary evidence disclosed in these proceedings. On the contrary, following a site walk on 21 April 2016, Mr Kannappan informed Mr Tan in an email dated 22 April 2016 that the feature wall deviated from the drawings.[228] The defendant never responded to say that Mr Kannappan had given his approval to the deviation.

217 By failing to comply with the approved shop drawings in relation to the supply and installation of the feature wall, the defendant has breached cl 5.1 of the Subcontract.

Was the defendant under an obligation to provide a certificate of conformity?

218 I accept that the cl 2.2 of the Subcontract does not expressly provide that the defendant is under an obligation to provide a certificate of conformity. However, I agree with the plaintiff that the word "design" and the phrase "necessary and fit for the purpose" in cl 2.2 should be broadly interpreted to encompass the defendant's obligation to ensure that the Works are completed in accordance with the applicable regulatory requirements. Indeed, Mr Jeyalingam conceded at trial that, if composite panels were used at the Project, a certificate of conformity would have to be produced certifying the combustibility of such panels in order to comply with the fire safety regulations.[229] Mr Tan similarly agreed that the defendant had the responsibility

---

227 Tan Eng Hooi's AEIC at para 25.

228 Palaniappan Kannappan's AEIC at p577.

229 Notes of Evidence, 2 July 2019, p110(31) to 111(14).

of ensuring that all of its designs complied with the relevant regulatory requirements.[230]

219 On 14 September 2017, the architect emailed Mr Kannappan, asking the plaintiff to submit the "specifications and catalogue of the aluminium composite panels for combustibility and flame spread".[231] The plaintiff conveyed this request to the defendant in an email dated 15 September 2017.[232] The plaintiff sent a reminder to the defendant on 25 September 2017. Mr Jeyalingam replied to say that the documents had already been submitted to the plaintiff "prior to construction stage and actual utilisation onsite".[233]

220 Mr Jeyalingam expanded on this in his affidavit of evidence in chief. He said that the plaintiff must have already been in possession of the necessary information for them to have procured or assisted the architect and owner with the TOP application.[234] As the TOP had already been granted by 25 September 2017, it would stand to reason that the plaintiff's request was entirely unnecessary and "ridiculous".[235] This warranted the defendant's rejection of the plaintiff's request for the defendant to 're-submit' these documents.

221 Mr Kannappan however sent an email to Mr Jeyalingam on 26 September 2017 saying that the defendant had not submitted any certificate of conformity. The defendant did not reply to this email. This prompted Mr

---

230 Notes of Evidence, 4 July 2019, p4(28) to 5(7).

231 Arulchelvam Jeyalingam's AEIC at p76.

232 Arulchelvam Jeyalingam's AEIC at p76.

233 Arulchelvam Jeyalingam's AEIC at p75.

234 Arulchelvam Jeyalingam's AEIC at para 24; Notes of Evidence, 2 July 2019, p112(14) to 112(18).

235 Arulchelvam Jeyalingam's AEIC at para 24.

Kannappan to send a reminder on 26 October 2017, following the architect's repeated request, for the defendant to submit the certificate of conformity for the installed aluminium composite panels.[236]

222 I am not persuaded by Mr Jeyalingam's explanation. Clearly, neither the plaintiff nor the architect was in possession of the certificate of conformity. That is why the architect asked for it in the very first place in its 14 September 2017 email. Indeed, it would be highly improbable that the architect would send a further email to the plaintiff in the week of 26 October 2017 if it already had the certificate in hand.

223 Mr Jeyalingam was asked this simple question at trial: would the defendant now – at the time of trial – be willing to provide the certificate of conformity to the plaintiff? Mr Jeyalingam was evasive and unwilling to give a direct answer.[237] Although it might have been easy and straightforward for the defendant to give the plaintiff the certificate of conformity, Mr Jeyalingam insisted on characterising it as a private document. In his view, if it were truly required for statutory approval, the defendant would only issue it directly to the architect and not the plaintiff.[238] Despite this, the defendant failed to supply it even directly to the architect.

224 I fail to understand the source of the defendant's repeated failure to provide the certificate of conformity. Even if it were the case that the defendant had already given the certificate to the plaintiff or the architect, it would not be difficult for the defendant to re-submit a copy of it. Its repeated failure in this

---

236 Palaniappan Kannappan's AEIC at p584.

237 Notes of Evidence, 2 July 2019, p113(32) to 115(32).

238 Notes of Evidence, 2 July 2019, p116(1) to 116(10).

regard leads me to the inexorable conclusion that it was never in a position to provide the plaintiff with the certificate of conformity at all.

225 I therefore find that the defendant has breached cl 2.2 of the Subcontract by failing to provide to the plaintiff the certificate of conformity.

The Completion Issue

226 I turn now to the defendant's counterclaim. The defendant's case is that it completed the Works. The defendant submits that the documentary evidence discloses no disagreement between the parties on this issue. This is supported by the defendant's Payment Claim No 35 ("PC No 35") submitted to the plaintiff on 23 March 2018[239] and the plaintiff's response in PR No 35 sent on 28 March 2018.[240] Therefore, the defendant is entitled to recover from the plaintiff the balance contractually due under the Subcontract.[241]

227 In the adjudication application, the plaintiff was ordered to pay to the defendant the sum of $264,835.11.[242] The plaintiff duly paid that sum. The plaintiff has however failed to make any further payments. Taking into account the sums already paid, the defendant quantifies the balance contractually due under the Subcontract at $327,333.75. Alternatively, the defendant asks that its damages be assessed.[243]

---

239 Cheng Jiu How Danny's AEIC at p272.

240 Cheng Jiu How Danny's AEIC at p237.

241 Defendant's Closing Submissions at para 45.

242 Reply and Defence to Counterclaim (Amendment No 1) at para 19.

243 Setting Down Bundle at p45.

228 The plaintiff argues that the defendant's counterclaim is deficient and without merit. The defendant's counterclaim should be dismissed because the defendant has not provided a breakdown showing how it has derived its counterclaim sum, either in its pleadings or its witnesses' affidavits of evidence in chief, as Mr Jeyalingam admitted at trial.[244]

229 It is true that the plaintiff has an entitlement under cl 20.2 of the Subcontract to effect deductions or set-offs against sums owed to the defendant. But it remains the case that whether the Works are complete and whether there are defects in those works are conceptually distinct issues. For the purposes of determining the defendant's counterclaim, I need only decide whether the defendant has in fact completed the Works.

230 I accept the defendant's submission. While the defendant did not provide a breakdown of how it derived its counterclaim sum, the defendant did refer to PC No 35 and PR No 35 in Mr Cheng's cross-examination. Mr Cheng said that he understood, though did not accept, how the defendant's counterclaim figure was derived:[245]

> Q: You have stated that you don't know how they arrived at paragraph 15: [reads] "The Defendant did not elaborate how they arrived at this sum". Can I ask you, in your view, what would be the balance sum due under the contract if – since you don't agree with this sum?
>
> A: Because my computation or so-called my company's computation I think there is a minus 222,000 today.
>
> Q: Okay, okay –
>
> A: Because –

---

244 Notes of Evidence, 3 July 2019, p31(7) to 32(8); Plaintiff's Closing Submissions at para 175.

245 Notes of Evidence, 1 July 2019, p46(25) to 47(1).

> Q: Yes. So leaving aside any sum for defects or curtain wall, et cetera, et cetera, assuming there were none of these, what would be the sum payable? Are you able to comment on that?
>
> A: That's need to work out but why I said those – I do not – the paragraph 15 that "the defendant did not elaborate or explain how", is because when I look at the claim by Sun Moon under page 272, I can under the – the claim. It's 341,234.783 and that is – that – that's how it was prepared. So I can able to trace – able to trace – what – how it comes to this figure but not this – this figure 432. That's why – that's what I meant.

231 Defendant's counsel clarified in his oral closing submissions that the defendant had claimed a lower sum, *ie* $327,333.75, than its true entitlement of $341,342.73, but that the latter sum could be dealt with under the defendant's alternative prayer for damages to be assessed.[246]

232 In PC No 35 addressed to the plaintiff, the defendant claimed the sum of $341,243.73 (excluding GST) from the plaintiff.[247] In its PR No 35 to the defendant, the plaintiff said that it would withhold the sum of $109,500 due to the defendant's failure to submit the 10-year joint warranty, the water tightness report and the as-built drawings.[248] Notably however, PR No 35 did not reflect any outstanding works. Rather, the difference between the claim and the response arose purely because of a list of defects alleged by the plaintiff, as reflected in the "Reasons and Calculations" column in PR No 35:[249]

(a) The difference between the defendant's claim of $1,173,869.74 and the plaintiff's response of $867,397.08, amounting to $306,472.66, was for "[r]ejected work due to white spots/bubbles in glass".

---

246 Oral Closing Submissions, 9 September 2019.

247 Cheng Jiu How Danny's AEIC at p272.

248 Cheng Jiu How Danny's AEIC at p238.

249 Cheng Jiu How Danny's AEIC at p239.

(b) The difference between the defendant's claim of $195,444 and the plaintiff's response of $166,127.40, amounting to $29,316.60, was for "[r]ejected work due to white spots/bubbles in glass".

(c) The difference between the defendant's claim for $168,623.34 and the plaintiff's response of $141,623.34, amounting to $27,000, was for the wrongly installed feature wall.

233 I therefore accept the defendant's submission the parties are agreed on the figures contained in the defendant's payment claim, subject only to the alleged defects raised by the plaintiff.

234 Indeed, it is not in dispute that the defendant did supply materials and did carry out the Works.[250] The original completion date for the Project was 20 February 2016. This was later revised to 9 April 2016.[251] The plaintiff has not raised any correspondence, showing that the plaintiff considered that the Works remained incomplete. The only correspondence produced is about rectifying defects, not about incomplete works.

235 Even at trial, the plaintiff has not specifically pointed to any Works that the defendant failed to complete. Further, the plaintiff's claims in this action do not cover any Works said to be incomplete. The plaintiff's claim in this action make clear that its grievance is over defective work rather than incomplete work.

236 I also find this consistent with Mr Wong's evidence that the defendant in fact completed the installation of the glass curtain wall. Mr Wong said that

---

250 Plaintiff's Reply Closing Submissions at para 38.

251 Palaniappan Kannappan's AEIC at para 8.

he had become aware of the Glass Defects roughly three months after the defendant had completed the curtain wall installation. Moreover, the Glass Defects began to appear randomly on some of the glass panels only after the defendant had completed its installation of the curtain wall glass panels.[252] This was some time after the TOP was issued in late June 2016. Working backwards, this would mean that the defendant must have completed installation of the glass curtain wall sometime in March 2016. Indeed, as Mr Cheng also candidly admitted in cross examination, both the as-built drawings and the 10-year joint warranty would arise in practical terms only after the Works were complete.[253] Moreover, Mr Kannappan similarly said that by July 2016, the construction works were complete:[254]

> Q: Do you know if subsequently there were any directions issued by the architect to replace panels?
>
> A: No.
>
> Q: No? So, I can take it that this is the only unit that the architect referred to?
>
> A: During that time, July --- July.
>
> Q: Okay, during that time. Would you agree with me that the architect was overall satisfied with the works and that was why he applied for TOP and CSC?
>
> A: *Yah, the physical works is complete.*
>
> [emphasis added]

237 That the plaintiff itself accepted that the defendant had competed the Works is supported by its own correspondence in a series of emails.

---

252 Wong Kwek Min's AEIC at paras 14 to 15.

253 Notes of Evidence, 1 July 2019, p30(30) to 31(2).

254 Notes of Evidence, 1 July 2019, p66(29) to 67(4).

238 In an email sent by the plaintiff to the defendant on 26 August 2016, the plaintiff clearly said that the only contractual obligations which remained outstanding related to the (a) submission of as-built drawings, (b) full set of water tightness report, (c) submission of 10-year warranty, (d) replacement of seventh-storey shop front door and (e) issues of bubbles appearing in glass.[255]

239 This was repeated in the plaintiff's later email to the defendant on 17 September 2016. This email reflected the same outstanding issues, with the addition of a "rectification report for the architect direction 188/AD/004".[256]

240 Another series of emails sent by the plaintiff to the defendant on 24 October 2016 and 27 October 2016 also recorded that the only outstanding issues as of those dates pertained to (a) submission of as-built drawings, (b) rectification report for defects reported in architect direction 188/AD/004, (c) original water tightness report and (d) bubbles/specks/spots/dots appearing on the glass panels.[257]

241 I am satisfied that the defendant completed the Works. It is thus entitled to recover from the plaintiff the balance due under the Subcontract. The quantum, of course, is contingent on the defendant establishing the figure in question and also to the plaintiff's right to make deductions or set-offs under cl 22.1 of the Subcontract.[258] The defendant's damages on this head of the counterclaim will be assessed.

The Retention Issue

---

255 Palaniappan Kannappan's AEIC at p134.

256 Palaniappan Kannappan's AEIC at p236.

257 Palaniappan Kannappan's AEIC at p355 to 357.

258 Agreed Bundle of Documents, Vol 1, at p45.

242 Clause 20 of the Subcontract governing the retention moneys reads:[259]

> 20.0 RETENTION MONEY
>
> > 20.1 The Sub-Contractor's progress claims and payment shall be subjected to a retention of ten (10%) percent of amount of works done, up to a limit of 5% of sub-contract sum.
> >
> > 20.2 2.5% (half of 5%) of retention monies will be released upon satisfactory completion of all works and receipt of the main contract completion. Final 2.5% retention to be released after the receipt of the maintenance certificate issued by the Architect and the also the final retention sum from the developer. Maintenance period is 15 months commencing from Completion Certificate issued by the Architect.
> >
> > 20.3 For avoidance of doubt, we serve the right to retain any money due to you under the Sub-Contract pending the submission of the warranty (If specified under the Contract).

243 The defendant makes the following arguments on cl 20.2: (a) the parties mistakenly omitted the word "certificate" after the words "main contract completion"[260], (b) there is an implied term that the first half of the retention sum was to be released when the plaintiff received the main contract certificate and (c) the test for "satisfactory completion of all the works" is an objective test, to be assessed from the perspective of a reasonable main contractor, and not a subjective test to be assessed from the plaintiff's perspective.[261] The defendant thus argues that the plaintiff is liable to pay the defendant the first half the retention sum valued at 2.5% of the Subcontract price, *ie,* $54,750.

244 I do not need to deal with the defendant's counterclaim for rectification of cl 20.2 by inserting the word "certificate" after the words "main contract

---

259 Agreed Bundle of Documents, Vol 1, at p44.

260 Defendant's Closing Submissions at para 44.

261 Defence and Counterclaim (Amendment No 1) at para 7(g).

completion". I consider that I can achieve the same effect by a correcting it as a matter of construction. The prerequisites for a correcting as a matter of construction are satisfied in this case and are set out in *East v Pantiles (Plant Hire)* [1982] 2 EGLR 111 at 112 (applied by Belinda Ang Saw Ean J in *Ng Swee Hua v Auston International Group Ltd and Another* [2008] SGHC 241 at [33]–[35] and discussed in *Chartbrook Ltd v Persimmon Homes Ltd* [2009] 1 AC 1101 at [22]–[25]).

245 I accept the defendant's submission. I have found that the defendant completed the Works. It is entitled to the release of 50% of the retention moneys amounting to 2.5% of the Subcontract price pursuant to cl 20.2 of the Subcontract. I allow the defendant's counterclaim accordingly.

246 As an aside, I need not consider whether the defendant is entitled to the second half of the retention sum valued at 2.5% of the Subcontract price, *ie,* the second tranche $54,750. This is because defendant's counsel said in his closing submissions that the defendant was not pursuing the remaining 2.5% as the second half of the retention moneys because the claim had not been pleaded.[262] Mr Jeyalingam accepted this in his cross-examination.[263] The general rule is that parties are bound by their pleadings and the court is precluded from deciding on a matter that the parties themselves have decided not to put into issue (*V Nithia (co-administratrix of the estate of Ponnusamy Sivapakiam, deceased) v Buthmanaban s/o Vaithilingam and another* [2015] 5 SLR 1422 at [38]).

---

262 Oral Closing Submissions, 9 September 2019.

263 Notes of Evidence, 3 July 2019, p32(13) to 32(28).

The Adjudication Costs Issue

247 Section 30(4) of the Building and Construction Industry Security of Payment Act (Cap 30B, 2006 Rev Ed) provides as follows:

> **Costs of adjudication proceedings**
>
> 30. — (4) A party to an adjudication shall bear all other costs and expenses incurred as a result of or in relation to the adjudication, but may include the whole or any part thereof in any claim for costs in any proceeding before a court or tribunal or in any other dispute resolution proceeding.

248 The defendant submits that, if it succeeds in defending the plaintiff's claims, it should also be entitled to recover as part of its damages in this action under s 30(4) of the SOPA, the costs of the adjudication application amounting to $24,717.[264]

249 The plaintiff accepts that a party may in principle recover the costs of an adjudication application as damages under s 30(4) of the SOPA. But the plaintiff argues that the defendant still bears the burden of proving causation, *ie* that the plaintiff wrongly withheld progress payments due to the defendant, thereby causing the defendant to incur the costs of the adjudication application. In view of the defendant's defective works and contractual defaults, the plaintiff was entitled to withhold payment to set-off against such sums due.[265]

250 The defendant's argument can succeed only if it successfully defends all of the plaintiff's claims. I have allowed several of the plaintiff's claims as set out above. I therefore find the defendant's argument to be without merit.

---

264 Defendant's Closing Submissions at para 60.

265 Plaintiff's Closing Submissions at para 181.

251 I dismiss the defendant's claim to recover as damages in this action the costs it incurred in the adjudication application.

Conclusion

252 For the reasons set out above, I now enter judgment on the plaintiff's claim in this action as follows:

(a) The defendant is liable in damages to the plaintiff on the Glass Defects Issue for breach of contract in failing to meet the specifications set out in cl 2.2.1(a) of the AS, cl 3.3.7(b) of the NPQS and cl 3.3.7(c) of the NPQS but no others.

(b) The defendant is liable to the plaintiff in damages for failing to provide to the plaintiff the as-built drawings as required by cl 2.6 of the Subcontract.

(c) The defendant is liable in damages to the plaintiff for failing to provide the plaintiff with the 10-year joint warranty as required by cl 2.12 of the Subcontract.

(d) The defendant is not liable to the plaintiff on the Water Tightness Issue.

(e) The defendant is liable in damages to the plaintiff for breach of contract in failing to meet the specifications set out in Appendix A of the letter of award, as incorporated into the Subcontract, in relation to the seventh-storey doors.

(f) The defendant is not liable to the plaintiff for breach of contract in relation to the water ingress due to the misoriented thresholds for the seventh-storey balcony doors.

(g) The defendant is liable in damages to the plaintiff for breach of contract in failing to comply with the approved shop drawings in relation to the supply and installation of the feature wall, in breach of cl 5.1 of the Subcontract.

(h) The defendant is liable in damages to the plaintiff for failing to provide the certificate of conformity for the aluminium composite panels in the feature wall in breach of cl 2.2 of the Subcontract.

(i) Interlocutory judgment shall be entered for the plaintiff against the defendant on paragraphs (a), (b), (c), (e), (g) and (h) above. The damages due from the defendant to the plaintiff for these breaches shall be assessed separately in this action.

(j) The plaintiff's claims on the Glass Defects Issue (to the extent that I have not found the defendant liable under paragraph (a) above) and the plaintiff's claims under paragraphs (d) and (f) above be and are hereby dismissed.

253 I also now enter judgment on the defendant's counterclaim in this action as follows:

(a) The plaintiff is liable to the defendant for failing to pay to the defendant the balance sum due under the Contract upon the defendant's completion of the Works.

(b) Interlocutory judgment shall be entered for the defendant against the plaintiff on paragraph (a) above. The damages due from the defendant to the plaintiff for this breach shall be assessed separately in this action.

(c) Final judgment shall be entered for the defendant against the plaintiff for the sum of $54,750, being 50% of the retention sum which the plaintiff now holds under cl 20.2 of the Subcontract.

(d) I make no order on the defendant's claim: (i) for rectification of cl 20.2 of the Subcontract; and (ii) against the plaintiff for payment of the liquidated sum of $327,333.75.

(e) I dismiss the remainder of the defendant's counterclaim. This comprises: (i) the defendant's claim to "strike out" cll 2.6 and 2.12 of the Subcontract; and (ii) the defendant's claim to recover the costs which it incurred in the adjudication application as damages in this action.

254 I will hear the parties on costs either now or together with the assessment of damages.

Vinodh Coomaraswamy
Judge

Tan Beng Swee and Leonard Lee (CTLC Law Corporation) for the plaintiff and defendant in counterclaim;
Xhuanelado Owen (Kalco Law LLC) for the defendant and plaintiff in counterclaim.