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BUILDING INSIGHT

GLAHOLT BOWLES LLP
NEWSLETTER

IN THIS ISSUE

Rescission of Surety Bonds and Innocent Third Parties

The recent Court of Appeal decision in *Urban Mechanical Contracting Ltd. v. Zurich Insurance Company Ltd.*, 2022 ONCA 589, has left open the possibility that a surety bond may be subject to rescission in case of fraud even where the rights of innocent third parties may be engaged. The decision was made after two applications were heard in writing on the discrete legal issue of whether rescission was available. The Superior Court judge ruled that rescission was available as a remedy but the determination could not be made in a vacuum.

On appeal, the Court of Appeal agreed with the lower court that rescission was available to the parties, at law, but the determination must be made with the benefit of a full record at trial.

Background

In 2011, St. Michael's Hospital entered into a contract to build a patient care facility. The construction contract was awarded to a wholly owned subsidiary of Bondfield Construction Company Limited ("Bondfield"). Bondfield was required to obtain a performance bond and a labour and material payment bond. The bonds were issued by Zurich in 2015.

By 2017, Bondfield was struggling to meet payment deadlines. A number of subcontractors made claims on the payment bond and Zurich paid

the claims. Bondfield continued to experience financial difficulties. In November 2018, a receiver was appointed and the performance bond was called on. While Zurich was preparing to file materials in the receivership, it uncovered email communications between Bondfield and Hospital representatives disclosing alleged fraudulent misrepresentations which enabled Bondfield to win the contract.

Zurich took the position that had it known about the fraud, it would never have issued the bonds. Zurich commenced an action seeking declarations that the bonds be rescinded and sought to recover the money paid out under the bonds prior to rescission. Multiple subcontractors with unpaid claims under the payment bond brought applications seeking declarations that, as a matter of law, Zurich could not the rescind the bonds, as doing so would affect their rights as innocent third parties.

Rescission as an equitable remedy

The subcontractors argued that rescission is not available as a matter of law whenever the rights of innocent third parties are engaged. The court reviewed the jurisprudence and concluded that innocent third parties are not an absolute bar to rescission in the face of fraudulent misrepresentation. Such a determination must be made with a full record at trial where the trier-of-fact can take into account all the facts and circumstances of the particular case in order to dispense practical justice. A full factual record was particularly important given that Zurich had alleged that certain subcontractors with claims on the payment bond had participated in the fraud.

Equitable remedies and the *Construction Lien Act*

One question to be answered by the court was whether rescission of the bond can co-exist with the statutory remedies granted under s. 69 of the former *Construction Lien Act* ("CLA").[1] It is established law that a statutory scheme may oust equitable rights that would otherwise be available to the parties. However, to do so, the legislature must have expressed its intention to do so with "irresistible clearness" (*Moore v. Sweet*, 2018 SCC 52).

The relevant investigation in this case, then, was whether the CLA codifies, replaces or repeals, or leaves gaps that the common law must fill. At common law, trade contractors did not have a cause of action against the payment bond as they were third parties to the bond. While the industry had adopted a trust form of bond to remedy this problem, there remained some doubt as to its effectiveness. To address this problem, s. 69 was enacted to provide trade contractors with a direct right of action on the payment bond. In reviewing the legislative history of s. 69, the Court found no record that the statute contemplated the trades' right of action on the payment bond when the bond was founded on fraud. On this basis, the court held it was not appropriate to foreclose this argument without hearing full submissions on this issue.

Conclusion

The Court of Appeal's decision signals that should rescission be granted after a trial, that determination will be based on specific factual circumstances. For future litigants, such a determination is likely to be easily distinguished. For stakeholders in the industry, particularly underwriters and surety companies, this decision highlights the importance of a full and thorough prequalification and investigation of potential contractors.

1. While section 69 of the CLA has been replaced with s. 85.2 of the new *Construction Act*, the operative language remains unchanged.

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Liability for Unknown Site Conditions: *Priestly v. Walsh*

The recent Ontario Superior Court of Justice decision, *Priestly Demolition Inc. v. Walsh Construction Company Canada*, 2022 ONSC 5071, has emphasized the duty of care owed by contractors regarding unknown or differing site conditions and the liability for damages arising out of subcontractors' negligence in proceeding with the work when faced with such conditions.

Background

In May 2013, the City of Toronto (the "Owner") retained Walsh Construction Company Canada ("Walsh") as general contractor for a project at the Ashbridges Bay Wastewater Treatment Plant (the "Project"). In September 2013, Walsh retained Priestly Demolition Inc. ("Priestly") as its demolition subcontractor (the "Subcontract"). Priestly was to demolish a building called the Odour Control Building (the "OCB") at the Project site, which included a room called the MCC Room. There was an old duct bank running under the MCC room connecting to an electrical substation. However, there was some inconsistency in the Project drawings as to the exact location of the old duct bank in relation to the MCC room.

In May 2019, Walsh and Priestly started working on demolishing the OCB. Walsh sent a Shutdown Request Notification to the City asking whether all services to the OCB were disconnected. The City confirmed that it had isolated all services to and from the building. In July 2019, Priestly finalized its demolition plan, which instructed that should the existing conditions vary from the plan, work was to be halted immediately and the Project engineers to be contacted for assessment. In July 2019, Walsh approved the demolition plan. However, not all of the cables running through the old duct bank were disconnected.

Demolition began in July 2019. During the work, Priestly's operator encountered the old duct bank and the cables inside. He contacted Priestly's site superintendent for clarification multiple times and was told to proceed with the demolition. Priestly's operator proceeded to remove a number of cables which led to the plant losing power.

Walsh began remedial work to restore power to the plant via temporary generators and repairing the old duct bank, which took months and cost Walsh $866,680.72. Priestly continued its work but was not paid for all rendered invoices due to the damage done to the old duct bank. Priestly registered a lien for the amount of $390,953.95.

Walsh took the position that it should be allowed to offset the cost of repairing the old duct bank against the amount it owed to Priestly. The noteworthy issues of this proceeding were: (i) whether Priestly was negligent and breached the subcontract in damaging the old duct bank; and (ii) whether there was contributory negligence attributable to Walsh.

Was Priestly Negligent and therefore Breached the Subcontract?

The court found that Priestly appeared to have breached the Subcontract in a number of ways. However, to find whether Priestly actually breached the subcontract, the judge conducted an analysis on the standard of care and whether Priestly was negligent.

The court found that there was a high standard of care associated with the demolition work, based on factors such as the nature of the Project site (a water treatment plant), the need for it to stay operational at all times, the gravity that damage to the utilities could cause to the facility, the low cost of avoidance, and the risk of serious injury to the demolition crew.

The court then found that Priestly did not meet the high standard of care and therefore was in fact negligent, and in breach of the subcontract, for the following reasons:

1. It failed to examine the provided Subcontract drawings and locates properly in relation to the old duct bank, failed to locate the functioning old duct bank as indicated in those documents, failed to mark it off and failed to protect it;

2. It failed to confirm which cables leading to the OCB had been disconnected and which ones had not been disconnected;

3. It failed to obtain its own locates for the utilities concerning the OCB;

4. It failed to follow its own demolition plan and stop when the old duct bank was unexpectedly encountered by its crew to get clarification from the demolition engineer and project consultant; and,

5. It failed to have a supervisor present when the old duct bank was worked on.

Causation and quantum of damages were not contested by Priestly and the judge found no evidence to the contrary.

Was there contributory negligence attributable to Walsh?

The court found that Walsh did contribute to the damage by its own negligence. The court specifically held that "[j]ust as there was a duty of care on the subcontractor, Priestly, concerning the performance of the Subcontract work, there was, in my view, a duty of care on Walsh in performing the contractor's duties of management and coordination of the project", notwithstanding a clause in the Subcontract stating "[Walsh's] review shall not relieve [Priestly] of responsibility for errors and omissions in the Shop Drawings or for all requirements of the Subcontract Documents."

Walsh owed the same duty of care and standard of care as Priestly. Walsh was negligent in failing to:

1. Verify Priestly's demolition plan;

2. Ensure the old duct bank was protected;

3. Ensure utilities were isolated;

4. Conduct a proper walkthrough with Priestly regarding the demolition; and,

5. Communicate its knowledge regarding the old duct bank to Priestly.

However, the court did not assign a large degree of fault to Walsh, mainly based on the fact that according to the demolition plan, Priestly should have halted operation when they encountered the old duct bank and sought clarification. Had they done that, much of the damage would have been avoided.

The Outcome

The court assigned 15% of the fault to Walsh and the rest to Priestly. Therefore, while Priestly was entitled to the amount claimed in the lien, Walsh was allowed to offset the lien amount with 85% of the cost of repairs to the old duct bank, which resulted in a judgement for damages payable to Walsh by Priestly.

Key Takeaways

This decision serves as a reminder that subcontractors are required to do their due diligence in obtaining information about their work and the project site, and to seek clarifications regarding the scope of their work and unforeseen conditions encountered during such. This duty is heightened when the operation of the project site is critical, the risk of harm is high, and the cost of avoidance is low.

However, notwithstanding any contractual provisions that a contractor's review does not release the subcontractor from liability for errors and omissions, the contractor has the same high standard of care in reviewing the work of the subcontractor and ensuring its accuracy and compliance with project requirements. Failing to do so can result in the contractor being found to have contributed to the negligence and liable for a portion of the damages.

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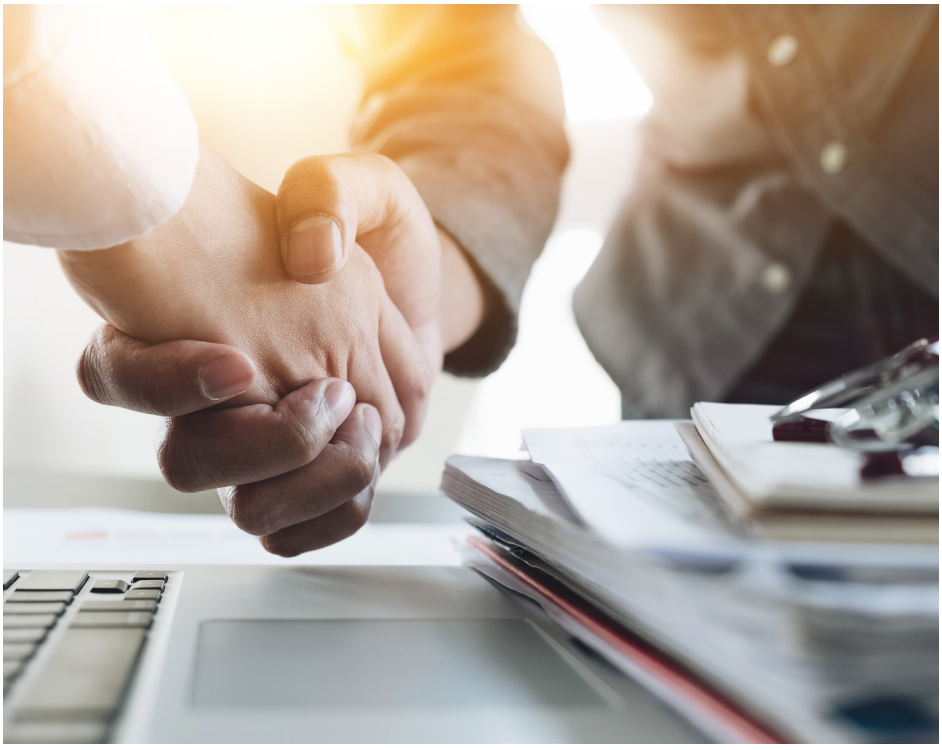
What is Progressive Design Build?

Progressive Design-Build ("PDB") emerged as a project delivery model in Canada when many owners, consultants and contractors sought to mitigate cost and schedule risks resulting from the COVID-19 pandemic. PDB has quickly gained traction, particularly in complex and high-risk transit projects. This article provides an overview of the PDB process and looks at key factors when considering this project delivery model.

Most are familiar with Design-Build, whereby the design and construction services are contracted to a single entity known as the design-builder. The design-builder is responsible for all work on the project, often providing a turnkey solution for the owner. Although the use of subcontractors to complete more specialized work is common, the design-builder remains the primary contact and primary force behind the work.

The common challenge with this approach lies in the transfer of risk from the owner to the design-builder after the Request for Proposal ("RFP") is awarded. Contractors are often hampered in their execution of the work by unknown conditions, which often result from inadequate access to the project site before submitting their response to the RFP. Considering these inconveniences, a new project delivery method emerged in the market – the PDB method.

The PDB model features a collaborative approach between the owner and its contracting partner during the early stages of projects such as project requirements and design work. It introduces additional steps that enable the owner and design-builder to progressively develop a design solution before jumping directly into detailed design and construction.

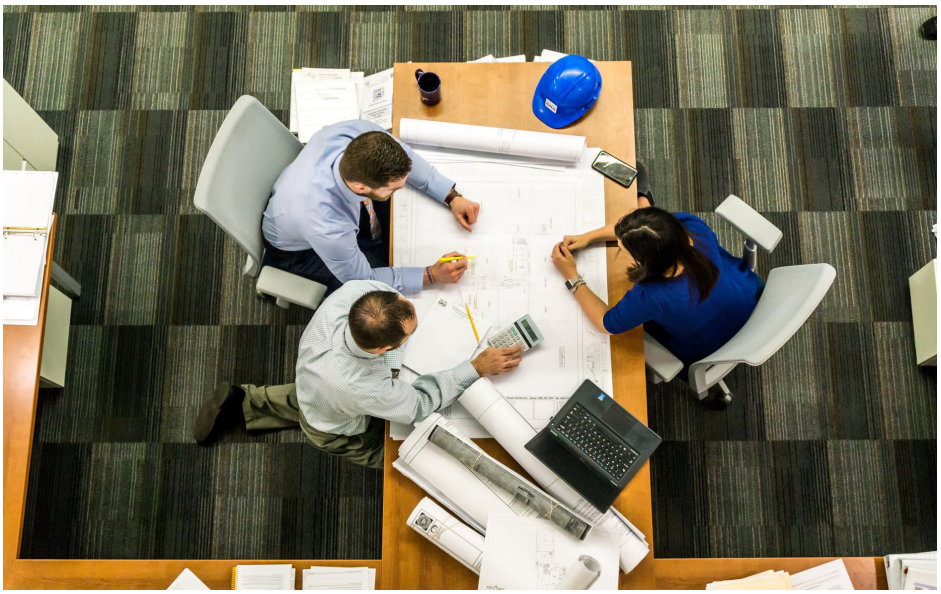


The owner selects the design-builder largely based on expertise through a Request for Qualifications ("RFQ"). The primary driver of this process is not necessarily price competition on the overall design-build contract price, but rather on the value the contractor can provide. Once the design-builder is chosen, the design-builder delivers the project in two distinct phases.

First is the Preconstruction Services stage, whereby the design-builder collaborates with the owner and its consultants to create or confirm the project's basis of design, and then advances that design. Decisions are based on cost, schedule, operability, life cycle and other considerations, with the design-builder providing ongoing, transparent, cost estimates to maintain the owner's budgetary requirements. When the design has achieved an appropriate level of definition adhering to the owner's needs, the design-builder will provide a formal commercial proposal for Phase 2 services.

Phase 2 only commences once the owner and design-builder agree upon commercial terms (including the price and timeline). This is often called the Final Design and Construction Services stage, and generally also includes any testing, commissioning, and other services that have been agreed upon.

According to the Design Build Institute of America, if, for any



reason, the parties cannot reach agreement on the Phase 2 commercial terms, then the owner may have the right to exercise an "off-ramp", where it can use the design and move forward with the project through a design-bid-build procurement, with another design-builder, or any other way it deems appropriate.

PDB offers several key advantages:

1. **Collaboration and risk transfer:** The owner(s), consultants, and contractors have an opportunity to work more collaboratively to develop design, reduce risk and finalize pricing before contracting for project implementation. A significant benefit is that the creativity and expertise of design-builders is promoted, and the project's value is maximized as early as the design phase. Working collaboratively during the design phase facilitates efficient risk transfer to the party best placed to manage that risk. Collaboration can reduce project costs and disruptive delays or claims compared to a standard Design-Build approach.

2. **A short procurement cycle:** A PDB model saves the design consultants time and money putting together a submission that may never move past the RFP stage. Additionally, they can better understand project requirements, as well as owner and stakeholder expectations – enabling them to tailor the design to meet project needs while understanding or minimizing risks.

3. **Increased competition:** With inflation and supply chain issues impacting the delivery of many construction projects, owners need to focus on ensuring optimum value for their capital investments. By reducing risks and eliminating the time and cost required to prepare a RFP response, more contractors and consultants will be willing to participate, thereby increasing the quality and size of the competition. Beyond the owner's target price, the final pricing is developed gradually over the development phase.

Despite these positive attributes, there are several reasons that an owner may not be interested in, or even able to use, PDB. These include the following considerations:

1. **Awarding without full competition:** Some owners find awarding a construction contract without full price competition on the overall design-build contract price to be politically impractical and prefer to have price factored into the selection process. They may also feel uncomfortable in negotiating the commercial terms of the arrangement.

2. **Subcontractor procurement challenges:** Procurement regulations may require subcontractors to be procured competitively. This can take away from the collaborative benefits of the PDB model and deprive the project of valuable subcontractor input during the design process.

3. **Exercising the off-ramp:** Owners may be uncomfortable in exercising the "off-ramp" in the event the parties cannot reach commercial agreement on the design-builder's proposal.

Once an owner has decided to proceed with the PDB model, the next consideration is the form and content of the contract. While PDB contracts are similar to Fixed Price Design-Build contracts, there are some important differences. **A few key considerations of contract issues in a PDB model include:**

- **Cost estimating:** The contract should specifically state what work the design-builder will perform for the Preconstruction Services stage, including the extent and frequency of cost estimating and modeling.

• **Ability of the design-builder to access and rely upon owner-provided information:** Due to the design-builder's early involvement in the design process, there is a question as to how to treat information obtained by the owner before the design-builder was involved (e.g. geotechnical reports). Owners and design-builders should make informed decisions about the cost-benefit of the design-builder's access and reliance on previously completed studies.

• **Early work packages:** The contract should address the processes for the owner's development and authorization of early work packages. This includes procuring subcontractors and evaluating self-performance of the design-builder.

• **Subcontractor and vendor procurement:** The contract should address how subcontractors and vendors will be procured and the owner's role in that process. Likewise, the parties need to address the role that these parties may play in the Preconstruction Services stage and how this relates, if at all, to their involvement in the Final Design and Construction Services stage.

• **Commercial Proposal:** The form and content of the commercial proposal should be thoroughly addressed in the contract.

• **Off-ramp:** This should be clearly addressed in the contract. In particular, the rights of the owner to use information from the first stage for subsequent procurements associated with the project should be clearly established. Finally, the parties need to determine the process for obtaining bonds from the design-builder.

Closing thoughts

PDB is an excellent option for complex projects with design and/or construction challenges, where the design-builder can provide very early input on design or constructability issues. Complex projects also benefit from high level, intense collaboration and teamwork. As complex projects are difficult to price, PDB's collaborative, open book pricing allows the parties to make more realistic pricing assumptions with a better understanding of the risks involved. Despite these features, there are key contextual factors and contractual issues involved in proceeding with the PDB model.

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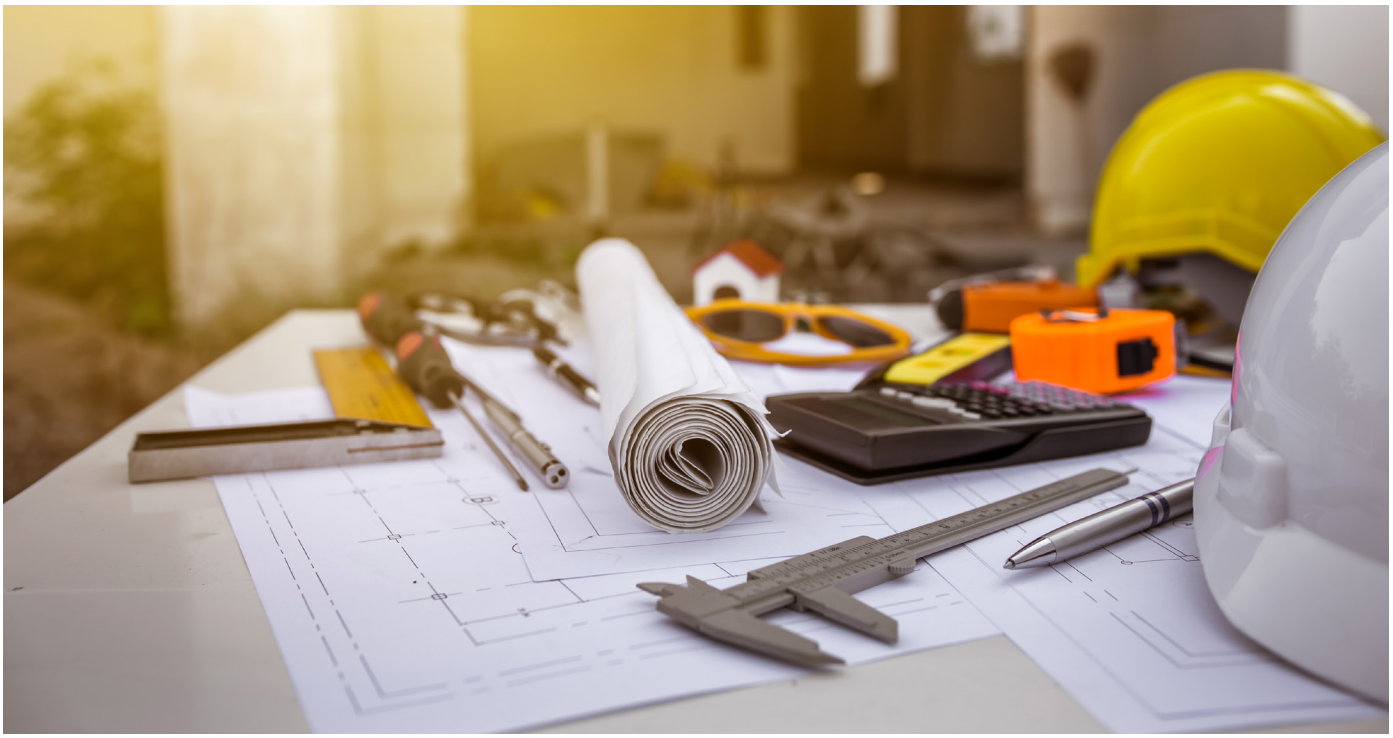

Summary Judgement in Arbitration: *Optiva v. Tbaytel*

Where an arbitration agreement gives the arbitrator the jurisdiction to "consider and rule upon all motions during the Arbitration including, without limitation, the power to [make] rulings, directions and generally deal with any and all interlocutory matters and procedural questions relating to the issues within the Arbitration", the arbitrator has the jurisdiction to decide the issues before him or her by way of summary judgment over the objection of one of the parties.

The Ontario Court of Appeal confirmed an arbitrator's decision to that effect in *Optiva Inc. v. Tbaytel*, 2022 ONCA 646. In so finding, the court confirmed that the advantages flowing from a properly invoked summary judgment process have equal application in the arbitration and the civil trial context.

Tbaytel, an independent provider of telecommunication services, decided to update its systems and agreed to purchase a new software package from Optiva for about $8.5 million. After alleging various breaches by Optiva, Tbaytel terminated the contract and, as per the dispute resolution provisions of that contract, the parties executed an arbitration agreement and appointed an arbitrator. The arbitration agreement contained the following language:

8.1 Without limiting the jurisdiction of the Arbitrator under the *Arbitration Act*, but subject to the Parties' agreement, including the dispute resolution provisions, the Arbitrator's jurisdiction shall include jurisdiction to consider and rule upon all motions during the Arbitration including, without limitation, the power to:

8.1.1 interpret Procedural Orders issued;

8.1.2 provide directions to enforce Procedural Orders or rule on the consequences of a failure to comply with Procedural Orders;

. . .

8.1.4 determine any question of law or equity arising in or with respect to within the Arbitration;

8.1.5 determine any question of fact or mixed fact and law;

8.1.6 order production of Documents that are not privileged and that are in the possession, control or power of a Party;

8.1.7 give directions for, or order, the preparation and disclosure of lists of Documents for inspection or otherwise;

8.1.8 give directions, or rule upon, refusals or objections arising from oral discovery;

8.1.9 make orders regarding confidentiality or other conditions regarding any Document or class of Documents or other information produced or exchanged within the Arbitration;

8.1.10 give directions to control the proceedings, including setting time limits, and limiting the number of witnesses, including expert witnesses, that a Party may call, where it is just under the circumstances;

8.1.11 determine the order and manner in which any witnesses shall be examined;

8.1.12 make rulings, directions and generally deal with any and all interlocutory matters and procedural questions relating to the issues within the Arbitration;

8.1.13 interpret the Parties' agreements, including the Dispute Resolution Provision, and the *Arbitration Act*.

During a case management meeting convened by the arbitrator, counsel for Tbaytel indicated that Tbaytel intended to bring a summary

judgment motion in respect of at least some of its claims against Optiva, arguing that several admissions made by Optiva executives established many of the material facts and eliminated the need for detailed expert evidence and documentary productions.

In the same case management meeting, counsel for Optiva raised "a concern" about the availability of a summary judgment motion in the arbitration, but made no objection to the fixing of a timetable for the preparation and filing of the necessary material. The arbitrator issued a procedural order stating in part:

"I accept that a motion for summary judgment to be launched by the Claimant Tbaytel may obviate or reduce the significant time and cost of expansive documentary production that might be required in this arbitration."

The arbitrator set out a timetable for the perfection and hearing of the summary judgment motion, which included the filing of pleadings, affidavits, documents, cross-examinations, if requested, and facta.

Tbaytel filed a notice of motion for summary judgment and its supporting material as required under the timetable. Optiva did the same. In its written submissions, Optiva took the position that the arbitrator had no jurisdiction to consider a summary judgment motion, absent the consent of both parties. Optiva did not consent.

After inviting further submissions from the parties, the arbitrator held that he had jurisdiction to proceed on a summary judgment basis pursuant to section 20 of the *Arbitration Act* ("The arbitral tribunal may determine the procedure to be followed in the arbitration, in accordance with

this *Act*"), section 8.1 of the arbitration agreement, and the lack of any exceptions or exclusions.

The arbitrator heard the motion over two days and granted summary judgment on some of the claims advanced by Tbaytel, affirming Tbaytel's right to terminate the agreement and recover monies it had paid to Optiva as well as other related damages.

Optiva moved in the Superior Court for an order setting aside the arbitrator's award pursuant to ss. 17 and 46 of the *Arbitration Act, 1991*.

Optiva argued that an arbitrator is required to hold a hearing if requested and that a summary judgment motion is not a hearing, as oral testimony was not permitted. Secondly, it was argued that by proceeding by way of summary judgment, Optiva was not given an opportunity to present its case or to respond to Tbaytel's case, contrary to s. 46(1) of the *Arbitration Act, 1991*.

The application judge refused to set aside the arbitrator's order and dismissed Optiva's application for leave to appeal. The Court of Appeal granted leave to appeal from the application judge's order but dismissed the appeal.

Section 17 of the *Arbitration Act*

The Court of Appeal first dealt with the argument that s. 17(8) of the *Act* required Optiva to apply to the Superior Court within 30 days of the arbitrator's decision to proceed by way of summary judgment motion. Section 17(1) and s. 17(8) provide as follows:

> "An arbitral tribunal may rule on its own jurisdiction to conduct the arbitration…
>
> (8) If the arbitral tribunal rules on an objection as a preliminary question, a party may, within thirty days after receiving notice of the ruling, make an application to the court to decide the matter."

The Court of Appeal held that s. 17 had no application, since rulings on "jurisdiction" under s. 17 were

limited to rulings on the arbitrator's jurisdiction to entertain the subject matter of the dispute, not his or her jurisdiction to make rulings on the procedure to be followed in the arbitration. There was no question that the arbitrator had jurisdiction over the dispute before him, so s. 17(1) was not triggered. That outcome was mandated by the earlier Court of Appeal decision in *Inforica Inc. v. CGI Information Systems and Management Consultants Inc.*, 2009 ONCA 642.

Jurisdiction to Proceed by Way of Summary Judgment

Optiva made three submissions in support of its position that the arbitrator could not proceed by way of summary judgment motion.

1. The arbitration agreement was silent on the availability of a summary judgment procedure, and the power to proceed by summary judgment, in the absence of the consent of both parties, could not be inferred from the silence in the agreement.

2. Regardless of the terms of the arbitration agreement, the Act, and in particular s. 26, gave Optiva the right to an oral hearing at which it could present its evidence viva voce and cross-examine the witnesses offered by Tbaytel.

3. The summary judgment procedure followed by the arbitrator resulted in unfairness to Optiva, warranting the setting aside of the award under s. 46(1)6 of the *Act*.

While the court agreed that there was no specific reference to a summary judgment procedure in the arbitration agreement, it did not follow that the agreement was silent on the arbitrator's authority to decide on the procedures to be followed in the course of the arbitration:

> "In light of the broad powers given to the arbitrator, it was open to the arbitrator to interpret his powers, not by looking for a specific grant of authority in respect of any particular procedure, but instead by looking for language that would remove a specific procedure from among the options available to the arbitrator. Had the parties wished to exclude resort to a summary judgment procedure, or to give either party a veto over the use of that procedure, they would have said so in the agreement. Instead, the parties chose to leave decisions with respect to the manner in which the arbitration would be conducted to the arbitrator."

Optiva's s. 26 argument was also rejected. That section provides that "the arbitral tribunal may conduct the arbitration on the basis of documents or may hold hearings for the presentation of evidence and for oral argument; <u>however, the tribunal shall hold a hearing if a party requests it</u>" [emphasis added]. The court held that while that section gave a party the right to make oral argument, it did not give the party a right to present its evidence in a particular manner. The arbitrator chose a method routinely and effectively used in civil litigation involving issues and evidence like those raised in this proceeding, and he had the right to do so under the arbitration agreement.

The fairness argument failed because there was simply no evidence that Optiva had been denied the opportunity to present any evidence that it wanted to present before the arbitrator, nor was there any evidence that Optiva did not have a full and fair opportunity to challenge the case put forward by Tbaytel.

Finally, Optiva advanced an argument that the arbitrator based his decision on a theory not advanced by the parties. That argument was based on the fact that the arbitrator referred to a passage from a case other than the passage pinpointed by the party that had relied on the case. The Court of Appeal rejected that argument. The case in question was before the arbitrator, and Tbaytel had relied on it in support of its interpretation of a limitation of liability clause. Optiva had a full opportunity to address anything of relevance in the case, and neither the arbitrator nor counsel were limited to reading only the paragraphs pinpointed by Tbaytel in written argument. The arbitrator did not introduce a new untested theory of liability in his reasons by his reference to the case, but simply accepted Tbaytel's position, advanced throughout the proceedings, and even if the arbitrator's reference to a passage from the case had introduced something new to the argument, it was an overstatement to describe the arbitrator's reference as the introduction of a new theory of liability.

Having rejected all of Optiva's arguments, the Court of Appeal dismissed the appeal and upheld the arbitrator's award.

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How the Metaverse can Reshape the Construction Industry

Ever since Mark Zuckerberg, the chief executive of Facebook, announced that the company would change its name to Meta and become a so-called "metaverse company", the buzzword on everyone's lips for the last year has been the *Metaverse*. Many of you will start off by asking yourselves - *What is the metaverse?* Well, as Drew Barrymore once said, "*Guess what, Gary is going to help explain it to us…*" (at least I'm going to try)

There is no universal definition of what the metaverse is, however the Cambridge Dictionary provides a broad definition that can serve a good starting point for this discussion: "*The metaverse is a virtual world where humans, as avatars, interact with each other in a three-dimensional space that mimics reality.*"

Those of us with younger children will be familiar with games like Roblox and Minecraft, which provide some insight into the early stages of the metaverse as an immersive social platform.

Beyond the social application, industries are looking at ways they can leverage this technology, and the construction and design spaces are no different. Like it or not, the metaverse will change the way projects are developed and this article will touch on just some of the ways this will happen.

Construction

Using digital tools for physical application is not something new to construction. It started with CAD, and then transformed into BIM, which itself has been around for years and has allowed owners, designers, and construction professionals to collaborate by creating and managing information for a built asset, in real time, through cloud-based software. The purpose of BIM is to produce a digital representation of an asset across its lifecycle, from planning and design to construction and operations.

BIM already incorporates many metaverse characteristics, but it has one drawback - BIM is static in nature, as it requires constant user input to update the model. The construction industry is using the metaverse to take the next step, by creating what is known as a "digital twin". Digital Twins utilize elements of BIM and integrate it with the Internet of Things, sensors, and algorithms to create a

dynamic model that can be updated without user input and is able to run simulations to show how external stimuli will potentially impact the Physical asset.

The data that is collected from sensors can be used in conjunction historical data or simulations to optimize the performance of the assets by monitoring and diagnosing the asset's condition. One such application is to forecast the construction schedule and then monitor the as-built progress. Imagine a system of cameras and sensors that automatically update the as-built model with construction progress, allowing an owner or contractor to monitor efficiency of the workforce to record and simulate delays or acceleration.

In a society that ever increasingly values privacy, the constant monitoring required to accurately update a digital twin potentially raises some ethical or privacy issues. For example, a work force can be monitored around the clock to determine their efficiency and progress, potentially identifying weak links or unproductive workers. On the one hand it can reward trades and individuals for "beating" the simulation to release an incentive payment, but on the other hand it provides extraneous and unbiased data to show exactly who has been inefficient. We all know that perfect efficiency is a myth, it is something many strive towards, but never achieve. A certain margin of error must be built into a simulation, but that raises a further question – what is reasonable? – 80% efficiency… 70%. Efficiency that could be monitored empirically, could potentially be used as a bargaining chip when bidding or pricing work.

The most significant difference between BIM and digital twinning is the three-dimensional nature of the model. While BIM appears three dimensional, it is always depicted in two dimensions on a flat screen. A digital twin on the other hand is immersive in three-dimensional space. Using VR goggles, users can enter the virtual space as they would any other building and virtually walk around the structure. This can provide a better understanding or visualization of how spaces and rooms can interact with each other, or to consider possible finishes within the context of the surrounding environment.

Design

Architects will be at the forefront of adopting the metaverse and digital twinning. It will likely start with use digital twins as immersive models to present their concepts to developers or owners. Interior designers can show how colour and texture will work in a three-dimensional space. Clients will be able to walk through a virtual replica of a space to get a better understanding of the eventual physical asset, before the ground is broken. This will potentially mitigate later changes and tweaks to the design.

Utilizing digital tools in the development of physical assets barely scratches the surface of what is possible for talented designers. Architects will be at the forefront of the industry's acceptance and application of digital twins, but the metaverse will open new doors and possibilities for the industry.

With the emergence of new digital worlds, a new type of architect is beginning to emerge – the *meta-architect*. Certain computer-generated realms allow people to purchase their own virtual real estate, in many instances, for significant sums of *real* money. These digital lots naturally need to be developed, and just as in the real world, architects are retained to design one-of-a-kind dream homes, offices or even sports stadiums.

Meta-architects are unconstrained by the limitations of the physical world, principles of engineering or construction budgets, which allows them to push the boundaries of what is imaginable. Their only limitation is amount of digital real estate that has been assigned to them. Just as in the real world, scarcity drives demand and price.

Conclusion

In the construction industry, authors have identified a number of benefits a digital twin can provide: increased transparency of information; real-time monitoring, analysis, and feedback; better stakeholder collaboration; advanced preventive measures; advanced what-if scenario analysis and simulations; real-time tracking; and higher accuracy.

Although we are only at the initial stages of harnessing the metaverse, it is already clear that it will significantly impact the way physical assets are designed and constructed in the future.

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Notable Case Law

***Voutour v. MVG Investments Inc.*, 2022 ONSC 1610 (Associate J.)**

While section 4 of the *Statute of Frauds*, which prohibits an action concerning an interest in land that is based on an oral contract, could on its face apply to construction liens arising from oral contracts, as such liens are an "interest" in land, and while the *CA* does not expressly exclude the application of the *SOF* section 4 as it may pertain to liens arising from oral contracts, the maxim called "implied exception" applies. Under this principle of statutory interpretation, where two statutory provisions are in conflict and one of them deals specifically with the matter in question while the other has a more general application, the conflict may be resolved by applying the specific provision to the exclusion of the more general one. This is done only where the application of the general provision would render the specific one superfluous.

SOF section 4 is of general application concerning all contracts pertaining to an interest in land. The *CA* is of specific application to liens arising from construction work and construction contracts — a complete code concerning construction liens. If *SOF* section 4 applied to construction liens, the effect would be to deprive those with oral construction contracts of the lien rights the *CA* otherwise provides. Therefore, to harmonize the statutes, the specific provision must be viewed as being an exception to the general provision. The *CA* as it applies to oral contracts is an exception to the *SOF* section 4.

***Voutour v. MVG Investments Inc.*, 2022 ONSC 4911 (S.C.J.)**

The court rejected the defendant's argument that a reference under s. 58 had to go to the Small Claims Court if the matter was within the monetary jurisdiction of that court, finding that the referral remained within the court's discretion. In this case, the court referred the matter to the Associate Judge rather than the Small Claims Court for four reasons: (1) the defendants had already availed themselves of the Superior Court on a motion to the Associate Judge to discharge the lien; (2) they had paid the amount in dispute into the Superior Court and required an order of that Court for those funds to be paid out to the successful party; (3) the referral to the Small Claims Court would have resulted in delay, since a hearing before the Associate Judge could be scheduled earlier; and (4) the Associate Judge had broad powers to direct and manage the trial of this action in an efficient manner proportionate to the amounts in issue.

***Nieltech v. Wasero*, 2022 ONSC 1724 (S.C.J.)**

Even under the former *Construction Lien Act*, a failure to set up a proper system to receive, monitor and disburse trust funds can itself be sufficient to constitute a breach of the contractor's trust. Personal liability under s. 13 depends on an objective analysis as to what a reasonable person ought to know, and does not require dishonesty, personal benefit, or a subjective awareness of the Act's trust provisions. All that is required is participation of such a degree as to at least put a reasonable person on inquiry as to whether there was a breach of trust.

***Lazi Ventures Inc. v. Carter*, 2022 ONSC 3111**

Section 47 motions are brought by defendants and do not require that the plaintiff put its best foot forward. They are comparable to motions for summary judgment, with the test to be met being whether the defendant has proven that there is no genuine issue for trial. Keeping in step with the evolving law on motions for summary judgment, the motions judge on a section 47 motion can weigh evidence and draw inferences from the evidence to determine whether there is a genuine issue for trial.

***Southwest Waterproofing and Coatings Inc. v. 155 Uptown and VanMar*, 2022 ONSC 3497 (S.C.J.)**

Fundamental breach is an extraordinary doctrine and is to be applied sparingly because of the exceptional remedy to which it gives rise. A fundamental breach may relieve the non-breaching party from future executory obligations under the contract. In determining whether there has been a fundamental breach, the court must consider five factors:

1. The ratio of the parties' obligations not performed to the parties' obligations as a whole;

2. The seriousness of the breach to the innocent party;

3. The likelihood of repetition of the breach;

4. The seriousness of the consequences of the breach; and

5. The relationship of the part of the obligation not performed to the whole obligation.

***JVD Installations Inc. v. Skookum Creek Power Partnership*, 2022 BCCA 81**

A contractor performed work on a power plant. A small section of power line connecting the plant to lines operated by BC Hydro traversed private property. The trial judge allowed a lien against the private land, finding that the work was a "single improvement". That decision was set aside on appeal. The British Columbia Court of Appeal held that the proposition that improvements situated outside the boundaries of a parcel of property could form the subject of a lien against that property had not yet been endorsed in that province. While there was some attractiveness to the idea that where an improvement situated on a parcel of land also extends beyond its boundaries, the entire improvement may be the subject of a lien against the parcel if its only function is to enhance the value of the liened parcel. In this case, the plaintiffs' claim did not. While the power plant and the transmission lines were connected and there was a high degree of interdependence between them, they could not reasonably be classed as a "single improvement". They were functionally distinct, physically remote from one another, and were constructed by different subcontractors at different times.

***One Oak Construction Inc. v. 1850168 Ontario Inc.*, 2022 ONSC 4090 (Associate J.)**

The plaintiff moved for an order correcting a misnomer of its name in the title of proceedings and directing the Land Registrar to certify one of the two certificates registered on title and withdraw the other. Allowing the motion, the Associate Judge held that there was no requirement in the *Construction Act* that the certificate of action bear the correct party name. It followed that the amendment of the certificate of action ought not to impact the validity of perfection, which turns on the timing of registration of the issued certificate of action in the correct form. The Associate Judge directed that the certificate of action and statement of claim be amended *nunc pro tunc* to correct the misnomer.

***Compass Mechanical Contracting Inc. v. AIM Recycling Hamilton*, 2022 ONSC 4656 (Associate J.)**

On a motion for security for costs, if it is established that a plaintiff corporation has insufficient assets, the onus then shifts to the plaintiff to show that there is no money available to it from its shareholders to fund the action and post security for costs.

Where a counterclaim is separate from the defence, the court must be careful not to award the defendant (as plaintiff by counterclaim) security for costs of the counterclaim.

***Hobson v. Turner*, 2022 ONSC 4062 (Associate J.)**

Summarizing the law of repudiation in a construction context, the Associate Judge held that if a contractor performs the contract so defectively as to amount, in substance, to a failure or refusal to carry out the contract work, the owner is entitled to terminate the contract, claim damages for the breach, and be discharged from his or her obligations to pay, including any obligation to pay on a quantum meruit basis or for work already performed. Mere bad or defective work or insignificant non-compliance will not entitle the owner, in general, to terminate the contract. The defect must be significant. The owner has the onus of proving this justification.

If the owner without justification ceases to make required payments under the contract, cancels it, or through some act without cause makes it impossible for the contractor to complete its work, then the owner has breached the contract and it has no claim for damages, the contractor is justified in abandoning the work and the contractor is entitled to enforce its claim for lien to the extent of the actual value of the work performed and materials supplied up until that time. The court may award the innocent contractor damages for breach of contract or damages on a *quantum meruit* basis in lieu of or in addition to damages for breach of contract.

***Convoy Supply v. Elite Construction*, 2022 ONSC 5353 (S.C.J.)**

Under s. 178(1)(d) of the *Bankruptcy and Insolvency Act*, an order of discharge does not release the bankrupt from any debt or liability arising out of fraud, embezzlement, misappropriation or defalcation while acting in a fiduciary capacity. When a bankrupt, prior to bankruptcy, has breached the trust provisions of the *Construction Act*, and the bankrupt has received a discharge, a creditor who supplied material to a particular project constructed by the bankrupt and whose amount was not paid can maintain an action against the discharged bankrupt on the ground that the bankrupt has been guilty of misappropriation while acting in a fiduciary capacity under s. 178(1)(d), and the court will grant judgment to the creditor for the unpaid account. Failing to account for trust funds is sufficient to trigger s. 178(1)(d).

Legislative Update

On August 29, 2022, Alberta became the third Canadian province to enact prompt payment and adjudication legislation. The former *Builders' Lien Act* was replaced by the *Prompt Payment and Construction Lien Act*.

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Building Insight Podcasts

Episode 31: A Lawyer's Duty to the Court (Part 2): Updates on *Blake v. Blake*
October 2021

Katherine Thornton and Jackie van Leeuwen, associates, discuss a lawyer's duty to the court, particularly when it comes to bringing relevant case law to the court's attention, and cost consequences. This podcast provides updates on Blake v. Blake and lessons learned from this decision.

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Episode 32: Bidding and Tendering: Recent Developments in the Law
December 2021

Neal Altman and Brandon Keshen, associates, discuss recent developments in the law of bidding and tendering. This podcast discusses the terms of tender calls, including discretion and reprisal clauses.

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Episode 33: Sustainable Construction
January 2022

Michael Valo, partner, and Markus Rotterdam, Director of Research, discuss sustainability in construction and legal issues related to green building standards.

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Episode 34: Considerations and Best Practices when Entering into a Building Contract
March 2022

Associates, Patricia Joseph, Jackie van Leeuwen and Myles Rosenthal, reflect on construction contracts, including a discussion of some pragmatic considerations that are relevant before and during contract performance.

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Episode 35: Construction Prompt Payment and Adjudication in Canada
May 2022

John Paul Ventrella, Partner, and Matthew DiBerardino, Articling Student, discuss some key considerations regarding the conduct of a construction adjudication in Ontario and the status of prompt payment and adjudication legislation in other Canadian jurisdictions.

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Episode 36: 2022 Annotated Construction Act and Conduct of Lien, Trust and Adjudication Proceedings
June 2022

Partners, Brendan Bowles and Lena Wang, and Director of Research, Markus Rotterdam, discuss the 2022 Annotated Construction Act and Conduct of Lien, Trust and Adjudication Proceedings texts available from Thomson Reuters Canada Limited. Key updates to the books are discussed and commentary on their development is given.

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