



AMERICAN UNIVERSITY OF BEIRUT

RISKS EMANATING FROM THE CONSTRUCTION  
CONTRACT FORMATION PROCESS

by  
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Mariam, Manessa, and Maleeka, this is for you.

## AN ABSTRACT OF THE THESIS OF

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Title: Risks Emanating from The Construction Contract Formation Process

The construction process is normally commenced based on a contract that defines the relation between the Employer and Contractor, or Contractor and subcontractor. However, it is common in the construction industry that works commence before the formation of the contract. Also, sometimes other mismanagements could occur throughout the contract formation process. This thesis endeavors to tackle the mistakes in contract formation and the risks that reside within, in addition to simulation of scenarios related to the commencement in the execution phase of the construction contract formation timeline for the 1999 and 2017 FIDIC conditions.

The method applied begins with going through the literature on contract formation, then the 1999 and 2017 FIDIC contract conditions pertaining to the construction contract formation are compared. Also, scenarios on the Advance Payment mechanism are simulated and studied. Furthermore, to gain a real-life insight on contract mismanagement, relative case laws have been examined to examine the risks that might be faced.

The new FIDIC conditions seem to incur pressure on the Contractor in the timeline borders. However, contracts, and standard contract conditions whether amended or not, remain the pillar for proper contract formation and ensure the protection of the rights of the parties. Alternatively, a conclusive letter of intent in addition to the attentiveness of the contracting parties could spare them losses and expenses of disputes and litigation.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background

In the construction industry, numerous risks are anticipated by the stakeholders during the different phases of the project. That said, the contract is a necessity to manage the relation between the Employer and the Contractor and to also provide certainty which aims to avoid confusion while performing the work (MacRoberts, 2014). Moreover, proper contract execution ensures that both parties incur less loss and thus more profit (Podvezko, Mitkus & Trinkūniene, 2010).

Construction contracts are formed when the Employer accepts an offer by a Contractor who was among those invited to tender and there is consensus between them on the same thing (MacRoberts, 2014). The conditions of contract which are used nowadays have been drafted by specialized organizations to evade the complexity, ambiguity and also “in-house” rules that might increase the risks on the contract participants (Al Kattar, 2013). Among those standard contract conditions, the ones presented by the FIDIC are the mostly used in the MENA region (Abdel Wahab, 2017).

The basis of the contract formation is the selection of the most suitable Contractor, which is a challenge for the Employer (Singh & Tiong, 2005). Moreover, the most important criteria that the Employer should look for in a Contractor are the financial standing, technical capabilities, management skills, safety, and reputation (Plebankiewicz, 2009). However, one of the most feared risks that can be faced is the possibility that the

Contractor might not be able to comply with the financial and performance obligations of the contract, thus the requirement for submitting bid, payment and Performance Guarantees/bonds by the Contractor (Severson, Russell & Jaselskis, 1994).

The bid bond is called on by the Employer if the tenderer fails to honor the tender (Hughes, Hillebrandt & Murdoch, 1998). The Performance Guarantee is a form of security to the Employer that the work stipulated in the contract will be finished in return for the payment of the contract price (Gallagher & McCallum, 2010), and it can therefore be called on by the Employer in case of a Contractor's breach of contract. The Advance Payment Guarantee is obtained by the Contractor for the benefit of the Employer to secure that the Advance Payment will be returned to the Employer in case the Contractor failed to perform his work (Klee, 2014).

As per the FIDIC Red Book conditions, the Performance Guarantee should be submitted early on after the Employer issues the Letter of Acceptance to the Contractor. The Performance Guarantee is used as a means to protect the Employer and therefore it is a prerequisite for the Engineer to issue payment certificates in order for the Employer to pay the Contractor (FIDIC, 2017). Furthermore, FIDIC 1999 sub-clause 15.2(a) states that the failure to obtain the performance bond could be the ground for the contract to be terminated by the Employer.

As for the Advance Payment, the FIDIC contract conditions (2017) stipulate: "... the Employer shall make an Advance Payment, as an interest-free loan for mobilization". The Advance Payment helps the launching of the works in terms of reducing the Contractor's need for working capital and enhancing its cash flow for making initial expenditure in respect of materials, plant, labor and a fair proportion of job overheads

(Olorunkiya, 2015). Thus, it is for the benefit of the Contractor to obtain an Advance Payment Guarantee to ensure a smooth start-up with the works on site.

Although the basis for proper contract formation includes the submission of required guarantees by the selected qualified Contractor, the Employer might choose to override such requirements for personal preferences and based on past experience with the Contractor, a factor that plays a role in determining the successful Contractor for a project on hand (Russel, 1990).

## **1.2 Problem Statement**

In a perfect world, Employers and Contractors would record and document their dealings during the bidding phase and incorporate them under a signed contract before the Contractor commences the works or incurs any expense. However, the reality is not always ideal. In some circumstances, the Employer might trust the Contractor based on a successful past experience and thus give a green light for the Contractor to commence work although the latter has failed to present all the necessary documents to sign the contract. Also, in other situations, the work might begin without having agreed on all important pending points yet, and based only on the letter of intent. These situations, along with others where the contract timeline and milestones are not fully abided by, expose the Employer and Contractor to major risks pertaining to payments and performance.

All this affects the pace of the construction process due to the complications that might arise, and, in the worst cases, this could lead for the termination of the contract by the Employer due to the Contractor's default in failing to comply with the provisions of the



contract (Calvey, 2005). This thesis aims to shed the light on the contract formation process and the importance of the involved milestones, including: The Letter of Acceptance, the Performance Security, the Advance Payment Guarantee and Advance Payment, all in relation to the Commencement Date. It will mainly tackle their effect on the contract formation, the role in the construction process, the influence on payment, the role of each of the participants in the documents presented and finally the options that the Employer and the Contractor have in order to end the resulting clash in case this timeline is not followed.

### **1.3 Research Objective**

The objective of this thesis is to produce the constructs of risk exposure in circumstances where the parties administer the contract formation process not in accordance with the customary standard steps. The focus is to shed the light on the exceptions that the parties may allow and the repercussions that they may end up having to face. the research will highlight relevant precedent cases reporting on mistakes or mishandlings in contract formation processes, in order that lessons learned are deduced for better informing both Employers and Contractors of the ramifications of such detrimental practices.

### **1.4 Methodology**

The methodology that has been followed in producing this thesis research is explained through the steps below:

1. Reviewing scholarly articles related to the contract formation process and the required submittals by the parties to the contract;
2. Performing comparative analyses of the 1999 and 2017 FIDIC's proposed contract formation timelines and presenting different scenarios related to the likely occurrence/achievement of involved milestones in order to examine how the mechanism of contract formation evolved from a version to the other;
3. Examining the relevant case law and the decisions issued in connection with situations involving deviations from the regular contract formation process steps;
4. Developing constructs of the risks likely to result from improper contract formation administration, based on the outcomes of the literature review, the deductions drawn from the case law review, and the interpretations made of the produced timeline scenarios; and
5. Providing a summary of the work, conclusions, and recommendations for the betterment of the contract formation administration process, along with highlighting the work limitations and the possible steps for future work.

### **1.5 Research Significance**

Rarely are construction projects found to have been executed without claims or disagreements surfacing at some point between the Contractor and the Employer. However, when the problem stems from the basis on which the contract was formed or became effective, it can easily have severe consequences on the ability to progress with the works and on the interests of both parties. Thus, the importance of this work lies in highlighting the

risks of improper contract formation and in emphasizing the importance of systematically abiding by the standard steps normally associated with the contract formation timeline.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Preamble

The construction industry has become the main basis in analyzing the economic conditions of a country in recent economic history since it puts various economic fields in action (Mateş, Puşcaş & Pordea, 2018). Thus, it must remain steady. But, construction projects are highly unlikely to proceed according to plan. This could be due to many reasons such as changes in the work, errors in design, financial problems, environmental problems, inadequate contract and specifications, and also the level of skills that each party exercises in the contract execution and facilitation of the work progress (AlHammad, 2000). Therefore, there is a need to manage the relation between the Employer and the Contractor to avoid confusion while performing the work, which is primarily achieved through a contract that has been agreed on from the beginning and does not only emerge in cases of conflict (Puddicombe 2009; Mac Roberts, 2014). Furthermore, this is confirmed by the report made by EC Harris (2013) on global construction disputes which states that the failure to properly administer a contract is the primary cause of construction disputes in the MENA region and UK.

#### 2.2 Contracts

##### 2.2.1 Definition

“A contract is a legally binding agreement” (Mason, 2016, p. 35). In law, a contract is formed “through the exchange of two declarations of will: the offer and the acceptance.

Once the acceptance is made and becomes effective, the contract is concluded and the parties are bound by their commitment” (Viscasillas, 2001).

Similarly, construction contracts are formed when the Employer accepts an offer by a Contractor who was among those invited to tender (Adriaanse, 2015). Furthermore, there could be a counter offer to the offer and thus the one who offered becomes the offeree and vice versa, and could lead to a series of negotiations until reaching the final agreement (Mason, 2016). This is known as the battle of forms. And sometimes, this contract formation could be formed without bidding in the first place, but by negotiation (Dayanand & Padman, 2001).

### ***2.2.2 Contract Formation***

Contracts are formed in different ways that suit the circumstances of the contracting parties. It could be formed through the signature of a common document, shaking hands, verbally indicating that they believe themselves bound, or through emails (Bayern, 2015). The absence of a formal written contract can result in uncertainty, especially if the negotiations have produced a written record of some but not all of the contemplated terms (Grose, 2016). Moreover, as Mason (2016) states: ‘Putting pen to paper’ is to bring the force of contract law in regulating the agreement reached. Moreover, contracts can be formed through act of performance: the action in itself concludes a contract and notifies acceptance of the offer (Mac Roberts, 2014), which is also referred to as acceptance by conduct. And although the existence of a contract is revealed through evident offer and acceptance, courts are hesitant to conclude that where the work is performed, no contract

exists (Adriaanse, 2016). But most important of all is that the action should meet the offer (Mac Roberts, 2014).

Grose (2016) summarizes the validity of the contract by examining the circumstances and inspecting for the individual presence of:

- Offer and acceptance
- Main elements of the bargain: the works, the payment, the duration
- Meeting of the minds: the agreement on the same concept
- Capacity: the mental and legal capability of the person or entity to execute the contract.

## **2.3 Contract Conditions**

### ***2.3.1 Overview***

The form of the contract, which is also referred to as the contract conditions, delivers the risk allocations agreed on by the contracting parties and is usually established before Contractors are asked to tender (Mason, 2016). These conditions define the rights, responsibilities and the relationship between the parties involved in the contract and describe the rules that must be abided by (Surahyo, 2018). The general conditions are published through a general document common to most construction contracts, while the particular conditions for the projects are specially prepared to the unique requirements for a certain project. The selection of a particular type of construction contract for a project depends on the circumstances surrounding the project and its size.

And while these contract conditions remain the basis of proper project execution, the concept of good faith, even if not written, is the warranty of justice between the contracting parties (Mason, 2016) and can be viewed as a duty of cooperation.

### ***2.3.2 Standard Forms of Contract***

#### **2.3.2.1 Benefits of Standard Forms of Contracts**

Standard forms of contracts have been drafted by specialized companies to evade the complexity, ambiguity and also dismiss tailored rules that might increase the risks on the contract participants (Al Kattar, 2013). Using these forms in construction has many advantages which bloom into more comfort for the parties involved since they have been tried and tested for a long time (Rameezdeen & Rodrigo, 2014). The standard contract conditions are specifically drafted to allocate risks, responsibilities and obligations of the parties thus enabling an enhanced management of the delivery process (Maritz, 2011). The benefits of standard contracts can be summarized in terms of:

- Economy: using standard forms of contracts avoids the expenses of preparing a customized contract for each project.
- Certainty: using standard forms of contract allows the complex necessary arrangements in the construction contract to be tackled with more certainty and less risk.
- Familiarity: using standard forms of contract simplifies the contract management through participants who are familiar with their roles since they have become experienced with the standard form of contract used.

All these benefits, however, do not cancel the probability that amendments might be made to the standard contract form to fit the preferences of the participants and the necessities of the corresponding project. However, this might put the parties under risk of unfair terms or contradictions within the contract. (Hughes et al., 1998)

#### 1.1.1.1 Organizations Issuing Standard Forms of Contracts

Many professional organizations published standard general conditions for construction such as (Puddicombe, 2009; Rose, 2009; Surahyo, 2018):

EJCDC: Engineers Joint Contract Documents Committee, USA

JCT: The Joint Contracts Tribunal, England

RIBA: Royal Institute of British Architects, England

FIDIC: International Federation of Consulting Engineers, Switzerland

NEC: New Engineering Contract, England

AIA: American Institute of Architect, USA

CCDC: Canadian Construction Documents Committee, Canada

ACE: Association for Consulting and Engineering, England

CIC: Construction Industry Council, England

#### 1.1.1.2 FIDIC Standard Forms of Contract

The FIDIC is the highly-respected major publisher of international construction contracts covering over 100 countries worldwide (Surahyo, 2018). The forms of which have been used in the MENA region since 1970 and have become the ones mostly used beside the civil law and Islamic Sharia Law in the gulf countries (Abdel Wahab, 2017).



In 1999 the FIDIC updated its standard forms of conditions of contract by publishing four standard forms of contract, usually known by their color:

- FIDIC Conditions of Contract for Construction (Red Book)
- FIDIC Conditions of Contract for Plant and Design-Build (Yellow Book)
- FIDIC Conditions of Contract for EPC/Turnkey Projects (Silver Book)
- FIDIC Short Form of Contract (Green Book)

The Red Book is drafted for the use of building and Engineering works and consists of three parts:

- Part 1: General conditions of contract (Clauses 1–20 with the Appendix and Annex for dispute adjudication board agreements).
- Part II: Guidance for the preparation of particular conditions.
- Part III: Forms –examples of the letters and agreements which are referred to in the general conditions. (Surahyo, 2018)

In this thesis, the milestones for contract formation are all based on the FIDIC contract conditions. And since the adoption of any new edition takes several years, it is expected that the new 2017 edition of the FIDIC contract conditions will also take some time to be widely used. Therefore, this work puts emphasis on the 1999 edition and highlights the corresponding amendments in the 2017 edition.

## **2.4 Securing the Construction Contract**

The indications of the success of a construction project can be counted by the end result and the satisfaction of the Employer, end user, Engineer that came up with the

design, and the Contractor that made the work come to real life. Many risks are anticipated throughout the construction project which affect the performance and payment which give rise to the need to secure the contract to alleviate losses on the parties involved in case a breach occurred.

#### ***2.4.1 Protection for Performance Obligation***

While guarantees do not ensure the timely delivery of the project, they do aid in minimizing losses incurred as a result of the Contractor's inability to perform the work (Russel, 1991) or presenting work that is of different quality or criteria than that agreed on in the contract.

##### **2.4.1.1 Bid bond Guarantee**

A bid bond is issued as part of the bidding process by the Contractor to the Employer to provide guarantee that the successful bidder will undertake the contract under the terms at which they bid.

##### **1.1.1.3 Retention**

It is the practice of withholding part of interim payments until the completion of construction works in order to secure full performance of a Contractor's obligation.

According to FIDIC (1999 & 2017) conditions, it could be substituted by retention money guarantee which is issued to the Employer in lieu of retention money and becomes payable if the Contractor fails to perform.

#### 1.1.1.4 Performance Security

It is a contract between the Contractor and the surety company or bank issued in favor of the Employer in case of non-performance (Gallagher & McCallum, 2010). It is signed and then ended when the related construction contract is carried out as agreed (Hassan & Adnan, 2018). If the Employer senses non-performance or liquidation from the Contractor, he can declare the latter in default and notify the surety company or bank (Lane, 2014).

This security can be either a guarantee or a bond. In case of a Performance Guarantee, the surety has to make sure the Employer's claim is correct and if so, work with the Contractor to put the project back on track either by financing the original Contractor or arranging for a new Contractor to complete the contract. However, the surety might use arguments to liability that the Employer has no guarantee of protection in the event of a default (Barru, 2005). Moreover, if the original Contractor is a capable one, it is more likely that with the assistance of the surety, he will finish the project on time and specified budget than if the surety company handed the work to a new Contractor (Kniffen, 2009).

Whereas if it is a performance bond, also called an on demand guarantee, the Employer can call on the bond without evidence of lack of performance (Hassan & Adnan, 2018; Mason, 2016) and is paid by the bank a reimbursement for the unperformed work. The bank then looks at the Contractor to retrieve the paid money. This instrument may not be appropriate for an unexperienced Employer, but provides ideal protection for a skilled one (Barru, 2005).

The common rate of performance bonds with respect to the initial contract price is 10% and remains constant throughout the project duration or end of defect liability period (Mac Roberts, 2014)

Sample forms for both types of Performance Security are found in the FIDIC Red Book annexes. The Performance Security of interest in this thesis is the performance bond, since our concern is mainly with payment.

### ***2.4.2 Protection for Payment***

#### **2.4.2.1 Cash flow Profile of Construction Projects**

To manage the construction project correctly, the Contractor's company compares the expected expenditures to the actual ones. When plotted, the profile of the cumulative direct and indirect costs of a project over its time takes the shape of an S-curve as seen in Figure 2.1. The S-curve is used for project planning and control since it shows the estimated progress and costs across the life of the project, thus assists in making financial arrangements before construction (San Cristobal, 2017). This S-shaped of the curve results because early in the project, activities are mobilizing and the expenditure curve is relatively flat because the costs are still low. As many other activities come on-line, the level of expenditures increases and the curve has a steeper middle section. Toward the end of a project, activities are winding down and expenditures flatten.

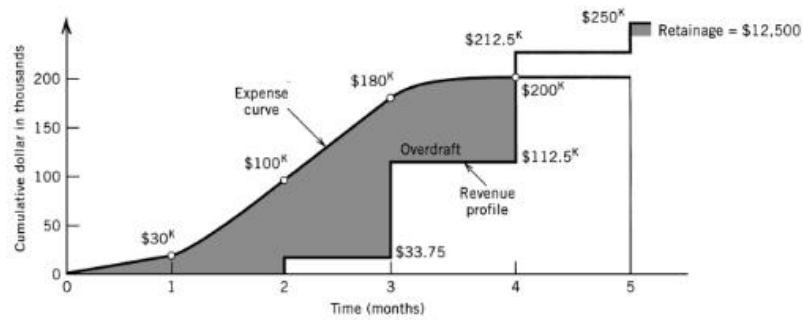


Figure 2.1 Expenses and income profiles (Halpin, 2010)

The Employer's payment schedule affects the Contractor's activity schedule, the two parties can agree on the retention, number or frequency of payments, distribution scheme, and deadline to arrive at a satisfactory schedule of payments (Dayanand & Padman, 2001). The s-curve resembles the expenses and the monthly payments signify the income, and thus the overdraft is the amount of money that the Contractor shall pay from his own pocket. Therefore, the Advance Payment serves as a boost for the Contractor and precludes facing the overdraft throughout the contract duration, as seen in Figure 2.2 below.

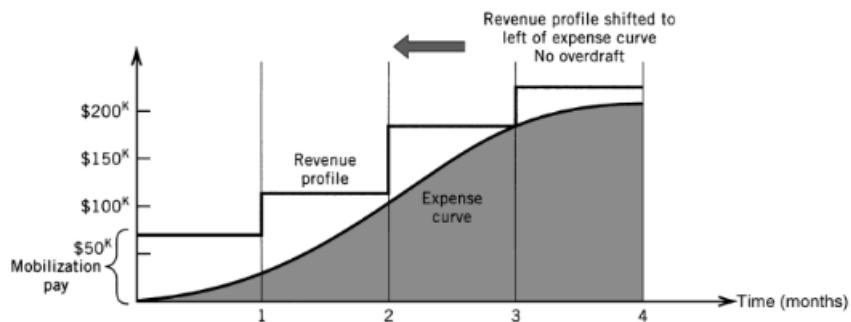


Figure 2.2 Influence of front, or mobilization, payment on expenses and income profiles (Halpin, 2010)

The overdraft could also occur due to the effect of nonpayment or late payment of Employers to Contractor or suppliers, which is one of the major problems faced by the construction industry. This depends on the Employer's organizations' management susceptibility, experience and the ability to communicate with financial institutions and banks so that to arrange the payments properly and timely without affecting its success (Andalib, Hoseini & Gatmiri, 2018).

#### 2.4.2.2 Advance Payment Guarantee

There are circumstances in which the Contractor can construct with his own capital without Advance Payment. This is observed mainly in governmental projects, or when the Contractor is forced to do so because the Employer delays the project payment (Yang, 2012), or if it is not agreed on between the Employer and the Contractor in the contract (Chappell, 2015). As seen in the cash flow diagrams above, the Advance Payment is similar to any progress payment done by the Employer to the Contractor. This delay affects the financial plan by postponing the payments to the workers, subcontractors, and the procurement of material and thus jeopardizing the whole work (AlHammad, 2000).

The FIDIC contract conditions stipulate (1999 and 2017): "... the Employer shall make an Advance Payment, as an interest-free loan for mobilization", thus to help the launching of the project in terms of reducing the Contractor's need for working capital and enhance its cash flow to cover initial expenditure in respect of materials, plant, labor and a fair proportion of job overheads (NIQS, 2015). The total Advance Payment, which could be a sum or a percentage of the accepted contract amount, the number and timing of instalments, and the applicable currencies, must be mentioned in the Appendix to Tender

(Tyson, 2016). The recovery mechanism by the Employer is by gradual decrease of the guarantee paralleled by a gradual decrease of the Advance Payment through deductions made to each Interim Payment Certificate at a rate stipulated in the contract (AlKattar, 2013). A further benefit of the Advance Payment is that it assists in continuous flow of work on site, since the pay back is proportionate to the amount of work performed by the Contractor, unlike having to pay back a bulk to the bank irrespective of the work performed (Palliyaguru, Amaratunga & Rameezdeen, 2006).

The Advance Payment is typically 5% to 15% of the contract price because the mobilization charges do not exceed these rates (AlKattar, 2013). The Contractor must give a guarantee in exchange for the Advance Payment. This is done through the Advance Payment Guarantee issued by an entity approved by the Employer. A sample form can be found in the FIDIC Red Book annexes. Furthermore, if payment is made by the Employer but mobilization is slow, the Employer has the right to question the use of the monies (Tyson, 2016).

#### ***2.4.3 Contractor Selection***

The best way to avoid the need for financial protection measures on construction contracts is rigorous Contractor selection procedures (Hughes et al., 1998). The Contractor is primarily evaluated based on recent performance and reputation. This criterion is translated in terms of how long has he been in business, whether he failed any contracts before and why, type of projects performed in the past, the size of these projects, whether any projects are uncompleted. All these details disclose the Contractor's financial standing,

technical capabilities in terms of staff and equipment, in addition to the management skills that he has on his team (Russel, 1990; Plebankiewicz, 2010). And finally, the project's specific criteria are considered to check the Contractor's to provide the necessities for this particular project.

However, the financial standing of the Contractor is not certain. The highest risk on a construction project is the Contractor's insolvency and the repercussions of it resembled by the inability to procure material nor pay laborers (Kniffen, 2009). The test for a solvency of a company is a direct one, it is by looking into its ability to pay its debts (Mason, 2016). This insolvency is felt not only from the staff in the company, but also from the jeopardized suppliers and subcontractors. This affects the performance of the Contractor on the project and calls for security measures from the Employer's side. Thus, the Employer holds retention money from the progress payments and also requires guarantees (Kniffen, 2009; Severson et al., 1994) as mentioned earlier. Furthermore, and as seen above in the cash flow diagrams, the Employer's payment on time reduces the risk of insolvency of the Contractor (Hughes et al., 1998).

If the Contractor fails to obtain the required bonds for the project, then the Employer should question the reason. While in some situations the cause is the policies of the surety company (Russel, 1990), but in the majority of the circumstances it could be that the Contractor misses the requirements. In the surety industry, the availability and costs of guarantees depend on the Contractor's history in previous contracts (Russell, 1990), sufficient working capital, and Contractor's capacity in the sense of ability and skills that shall allow him to execute the works (The Surety Place, 2019). Therefore, there is huge probability that the Contractor who fails to get the bonds on a project is incompetent and



this is a sign for the Employer that there is something wrong. An Employer is comfortable to deal with a bonded Contractor since the bank or surety company has conducted a review of the Contractor's abilities to meet the project (Kniffen, 2009).

## **2.5 Engineer's Role in Construction Contracts**

Stein and Hiss (2003) describe the three roles that the Engineer (design professional) has in a construction project:

- Independent Contractor: prepares the design drawings and specifications,
- Employer representative: supervises the project, inspects work and certifies payments
- Judge of disputes: decides disputes between the Employer and Contractor.

Therefore, the sooner the Engineer gives his approval on submittals made by the Contractor and certify them, the earlier the Employer can make his payments to the contractor and thus nourish him financially to be able to perform the work as planned. The Engineer's duty regarding bonds depends on the terms stipulated in the contract between him and the Employer. Usually, an Engineer's duty is to use reasonable skill and care; however, it could be absolute liability, depending on the wordings used in the contract (Chappell, 2015). There are many circumstances where failure to obtain security will not lead to a good outcome for a project manager (Cobb, 2014). The Engineer is legally liable for all his acts under the tasks of independent Contractor and Employer representative, but not for his quasi-judicial role.

## **2.6 Deviating from The Construction Contract Formation Process**

### **2.6.1 *Reasons***

Ideally, Employers and Contractors would settle all aspects of their deal in a written and signed contract before any work is performed or money is spent. In reality, there could be commercial pressure to begin the works as soon as possible (Alty, 2011). Furthermore, some Employers might choose the Contractor based on previous experience and personal preference (Huang, Tserng, Jaselskis & Lee, 2014). These reasons could lead both parties to enter into a contract without following the contract formation timeline and instead the Employer issues a 'letter of intent' to enable works to commence while they continue to negotiate the full contract, and in some cases no formal contract is ever formed (Alty, 2011). This will reflect major drawbacks on the project and the relation between the Employer and the Contractor due to defaults from both parties.

### **2.6.2 *Resorting to Letters of Intent***

In the construction industry there might be a situation where immediate commencement of work is required despite the need for further time to conclude the contract. Thus, the letter of intent could be used between the parties. A letter of intent is a letter from the Employer to the Contractor conveying an intention to sign up a contract at a future date (Alty, 2011), or in other words: the parties agree to agree. The letter of intent could give instructions for partial works, all of the works, or just a statement of agreement (Naylor & Green, 2007). The letter must mention exactly the duration, quantity, and the related payment (Surahyo, 2018). Therefore, the letter of intent is a manifestation of the

presence of an offer and an acceptance; thus, a legal contract could be considered to have been formed between the parties.

Based on the wording of the letter and the decision of the court, this letter of intent could be considered (Alty, 2011 and Naylor & Green, 2007):

- a non-binding comfort letter (no effect)
- an interim contract until the final contract is signed (“if” contract)
- a final contract (complete binding contract)

Whether it becomes binding or not, the Employer will still be liable for payment for the cost of works performed, quantum liability (Naylor & Green, 2007). Therefore, signing a letter of intent exposes the parties to the risk of negotiating with no good faith from the opposite party, or being breached a fiduciary duty (to treat the other party as a partner and share business opportunities) during negotiations, or accountable for a promise despite the circumstances that might occur (Schopf, Kraus & Flaming, 1996).

Although the letter of intent is drafted to comfort the parties, the lack of proper and precise wording is highly probable to lead to dispute (Naylor & Green, 2007) even though it might refer to standard contract conditions. The best practice when dealing with letters of intent is to speed up the formation of the original binding official contract because as time passes, the chances to obtain a successful contract will deteriorate.

### ***2.6.3 Consequences of deviating from normal contract formation***

If, due to the reasons aforementioned, the works begin without following the proper due-diligence of contract formation, disputes will arise most probably after the works have commenced and the parties incurred losses. Thus, the Employer might still be expecting the

Contractor to perform his duties of presenting the guarantees required from him under the standard contract conditions and performing the works agreed on, if this is what they agreed on in the wording of the letter of intent.

The failure to ensure the completed and executed documents are provided can have serious financial consequences (Cobb, 2014). This could lead to the Employer not paying the Contractor, thus affecting the project schedule. FIDIC (1999 and 2017) states in sub-clause 14.6, Interim Payment Certificates, that no payments shall be certified or paid to the Contractor until the Employer receives the Performance Security. Thus, the Contractor should be able to get the performance bond for his own benefit, so that he is paid for the work he performed and also to financially be able to continue the works.

In addition to that, granting the Advance Payment to the Contractor by the Employer and consultant improves credit accessibility which enhances the Contractor's progress and quality of work (Palliyaguru, Amaratunga & Rameezdeen, 2006). Therefore, the non-availability of the Advance Payment will increase the Contractor's overdraft requirements and result in working capital deficiencies and affect the continuous flow of work on the construction site (Omopariola and RUSSEL, 2019).

FIDIC gives the Contractor the chance to remedy his failure to abide by the obligations in the contract (Saunders, not dated) under sub-clause 15.1, which is a better solution for both parties. The option of replacing the Contractor is costlier to the Employer than giving him a chance to remedy. This is because it leads to great delay in the project since the process of finding a new capable Contractor needs weeks to months (Kniffen, 2009).

However, in worst cases, the failure to comply with the provisions of the contract could lead to its termination (Calvey, 2005). Termination does not mean considering that the contract never existed but that the performance of future obligations under it is no longer required (Merkin & Saintier, 2019). Furthermore, the FIDIC conditions of contract in both considered editions state in sub-clause 15.2, termination for Contractor's default, that the Employer is entitled to terminate the contract if the Contractor fails to provide the Performance Security within the required time and comply with the chance to remedy. However, resorting to the next lowest bidder is not always the best resort for the Employer since there might be a great gap between his bid and that of the successful Contractor, or because the contract has been formed based on negotiation.

In regards to letter of intent, the Contractor and the Employer put themselves in front of high risks of not being able to compensate any losses due to the ambiguity that might arise. In regards to whether a contract exists based on the letter of intent, the courts look at the wordings of the letter of intent, the correspondence between the parties, and the conduct (Mac Roberts, 2014). The best situation would be when the Contractor's work is considered part of a full contract. However, the worst option is when it is deemed that no contract exists and the Contractor is thus deprived from the protection under the terms of the standard contract (Adriaanse, 2016). Here, the Contractor finds himself unable to claim his right for work he performed since the Employer is able to use the non-binding aspect of the letter of intent as an alibi (Mac Roberts, 2014). However, there remains the situation of the Contractor being able to claim payment for the work performed despite that no contract has been formed. This all depends on the wording used in the letter of intent, and the court's decision on the matter.

## **2.7 Substitute Practices for Securing Construction Contracts**

Although in broad title construction contracts might not differ, but in the details, different methods are applied and particularly for securing the construction contracts. Securing construction contracts puts a burden on the Contractor requiring bid bonds and performance bonds. Therefore, some countries have aimed to improve the Contractor's cash flow by reducing the amounts required from the Contractor, or reducing the amount of money required as retention on Contractors' interim payments, or shortening the period it takes to hand the Interim Payment Certificates, or providing the Contractor with the necessary expensive equipment necessary for mobilization (Eyiah, 2001). This depends on the cultures and policies in the country on how to manage contracts. The procedures followed in Malaysia and Japan are discussed since they are different from the norms followed in our region.

### **2.7.1 Malaysia**

The standard form of contract published by the Public Works Department in Malaysia, P.W.D. Form 203 A (2007), states in sub-clause 13.1(a) that the Contractor should provide the Employer with the performance bond of amount equivalent to 5% of the contract price on the date of possession of site. But, sub-clause 13.1(b) states that if the Contractor fails to do so, he can resort to the option of presenting it is a Performance Bond in the form of Performance Guarantee Sum. Sub-clause 13.2 explains that the Performance Bond in the form of Performance Guarantee Sum in lieu of the bank or financial company is *“whereby deductions of ten percent (10%) shall be made from the first interim payments*

*and subsequent interim payment until the total amount deducted aggregate to a sum equivalent to five (5) percent of the Contract Sum. The amount deducted shall be retained by the Government up to twelve (12) months after the expiry of the Defect Liability Period or the issuance of the Certificate of Completion of Making Good Defects, whichever is the later.”*

#### 2.7.1.1 Advantages

The advantage of this procedure resides in cases where the Contractor is unable to be bonded on a project and therefore resorts to the Performance Guarantee Sum. Hence, he is able to commence the works normally, be paid for his expenditures on the site since there is no restriction on the certification, and avoid the probability of breaching a contract due to the bonding. And the Employer benefits by not delaying the works waiting for the Performance Guarantee, or maybe baring the hassle of choosing another Contractor on the job.

#### 2.7.1.2 Disadvantages

##### 2.7.1.2.1 For the Contractor

The Contractor in the situation of having a Performance Guarantee as a sum, with deductions from interim payments, is subjecting himself to further expenditures during the project duration. Thus, with each interim payment there are deductions for retention, Performance Guarantee sum, and Advance Payment. This shall put a great burden on the cash flow of the Contractor, unless he is financially strong and capable of handling it.

It could be argued that had the Contractor been strong financially, he would have been able to bond himself on the project. But, the case could be that he is waiting money from other projects, or he is new in the market but with strong financial capabilities.

#### 2.7.1.2.2 For the Employer

There is a risk for the Employer if the termination is to take place before the completion of works, which could also take place in the Defects Liability Period. Nothing guarantees for the Employer if the termination occurs at any point of time that he will have 10% of the contract price in his hand. But, the Performance Guarantee gives him the 10% at any time. Unless, the deduction is a lot which allows the Employer to have the 10% within a little time.

However, the Performance Security in this situation is 5% and the deduction is 10% taking into consideration a construction project of two years' duration, the Employer will have got the Performance Security by the end of works, which is fair. This is because the probability of termination within one year is low and the Employer will not be hasty in his termination decision in case of default, since it is costlier, as explained earlier.

Another risk could be the inability of the Contractor to obtain an Advance Payment Guarantee, which is highly probable if the Contractor is unable to obtain Performance Guarantee. And this case where the Contractor could not provide the Performance Guarantee nor the Advance Payment Guarantee, it is safer for the Employer to choose the Performance Security. This precludes the Advance Payment being paid to the Contractor. Therefore, the Contractor is on greater burden since he is commencing the works without the Advance Payment and also enduring heavy deductions from interim payments.



However, this could be avoided if the Employer decides to proceed with the job with accepting the Performance Guarantee as a sum, and giving the Contractor the Advance Payment. By that, the Employer is facilitating the commencement of works and thus protecting the project.

### ***2.7.2 Japan***

Among the reasons of success of the Japanese building industry is the relationship between the Contractor and the Employer, thus they depend on familiar parties to engage in contracts. The effect of the community also lays its hand on the Advance Payment which has evolved from the aura of the pre-industrial customs where craftsmen would need money to buy the material for their work. Nowadays, the construction contracts in Japan put 40% of the contract sum as an Advance Payment as seen in the payment schedule included in the Form of Contracts Under JICA's Grants (Japan International Cooperation Agency, 2016). But usually, since this sum is large to be handed upon signature, the Employer pays it with the authority of a surety company on instalments in monthly payments till the 40% is reached. In return, the remaining 60% of the contract price is only paid at the end of the defects liability period or divided based on the percentage completion of the works throughout the project. However, if the Employer defaults on payment, the surety company covers the loss (Hillebrandt et al ,1998).

#### ***2.7.2.1 Advantages***

Although this procedure may be looked at as interim payments in familiar contracts, the payment here is made monthly and secured till 40% of the contract price is reached. This provides security for the Contractor and lifts burden from the cash flow. This

mechanism also helps the Employer since it lifts more than half of the contract price till after the completion of the project.

#### **2.7.2.2 Disadvantages**

This procedure requires great skill and managerial capabilities from both sides to be able to arrange the financial aspects of project and also overhead costs that might arise.

### **2.8 Conclusion**

Contracts are made to ensure proper project execution and protect the participants in case of defaults. This is done through protective measures in the contract conditions and guarantees. However, contracts are not always formed properly which jeopardizes the rights of the parties involved. Standard forms of contract are formed with care and preciseness to encompass the rights and obligations of all parties in utmost fairness. However, other practices can be observed in different countries based on the culture and common practice which could benefit the standard forms in further improvements. The case of Malaysia could be an example in which the performance bond could be as a sum deducted from interim payments and thus not a prerequisite for the payments. Also, the case of Japan reveals that the Employer can give the Contractor a great sum in advance and delay the remaining amount till the end of the project, which makes it stand between turnkey and fixed-price contracts.

## CHAPTER 3

### STEPS INVOLVED IN THE CONTRACT FORMATION MECHANISM

#### 3.1 Preamble

This chapter aims to shed light on the mechanism followed for contract formation through highlighting the timeline related to contract signature and payments. The timeline under study is based on the FIDIC Conditions of Contract for Construction which is also known as the Red Book. The 1999 version of the Red Book is mostly used nowadays, but it is worth studying the difference between this version and the latest one. The FIDIC's 2017 edition imposes changes in the time bars specified for certain milestones in this timeline. This chapter includes an overview of the 1999 and 2017 FIDIC conditions for the contract formation process and thus a comparison between both.

#### 3.2 The Contract Formation Timeline Based on FIDIC 1999

The contract formation timeline is based on the time frame set for the different actions of the parties through contract formation. The timeline milestones and their contract standard language description extracted from the 1999 Red Book are listed in Table 3.1.

*Table 3.1 Standard contract language pertaining to the contract formation process based on FIDIC 1999*

Sub-clause	Sub-clause Description	Described Role (FIDIC 1999)
1.1.1.3	Letter of Acceptance	“Letter of Acceptance” means the letter of formal acceptance, signed by the Employer, of the Letter of Tender, including any annexed memoranda comprising agreements between and signed by both Parties. If there is no such Letter of Acceptance, the expression “Letter of Acceptance” means the Contract Agreement and the date of issuing or receiving the Letter of Acceptance means the date of signing the Contract Agreement.

<b>Sub-clause</b>	<b>Sub-clause Description</b>	<b>Described Role (FIDIC 1999)</b>
<b>1.6</b>	Contract Agreement	The Parties shall enter into a Contract Agreement within 28 days after the Contractor receives the Letter of Acceptance, unless they agree otherwise. The Contract Agreement shall be based upon the form annexed to the Particular Conditions.
<b>2.1</b>	Right of Access to the Site	The Employer shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the Contract Data. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Specification. However, the Employer may withhold any such right or possession until the Performance Security has been received.
<b>4.2</b>	Performance Security	The Contractor shall deliver the Performance Security to the Employer within 28 days of receiving the Letter of Acceptance, and shall send a copy to the Engineer.
<b>8.1</b>	Commencement of Works	The Engineer shall give the Contractor not less than 7 days' notice of the Commencement Date. Unless otherwise stated in the Particular Conditions, the Commencement Date shall be within 42 days after the Contractor receives the Letter of Acceptance. The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date, and shall then proceed with the Works with due expedition and without delay.
<b>8.3</b>	Programme	The Contractor shall submit an initial programme for the execution of the Works to the Engineer within 28 days after receiving the Notice under Sub-Clause 8.1 [Commencement of Works].
<b>14.2</b>	Advance Payment	The Employer shall make an Advance Payment, as an interest-free loan for mobilisation, when the Contractor submits a guarantee in accordance with this Sub-Clause... Unless and until the Employer receives this guarantee, or if the total Advance Payment is not stated in the Appendix to Tender, this Sub-Clause shall not apply... The Engineer shall issue an Interim Payment Certificate for the first instalment after receiving a Statement (under Sub-Clause 14.3 [Application for Interim Payment Certificates]) and after the Employer receives (i) the Performance Security in accordance with Sub-Clause 4.2 [Performance Security] and (ii) a guarantee in amounts and currencies equal to the Advance Payment.
<b>14.6</b>	Issue of Interim Payment Certificates	No amount will be certified or paid until the Employer has received and approved the Performance Security. Thereafter, the Engineer shall, within 28 days after receiving a Statement and supporting documents, issue to the Employer an Interim Payment Certificate which shall state the amount which the Engineer fairly determines to be due, with supporting particulars.
<b>14.7</b>	Payment	The Employer shall pay to the Contractor: (a) the first instalment of the Advance Payment within 42 days after issuing the Letter of Acceptance or within 21 days after receiving the documents in accordance with Sub-Clause 4.2 [Performance Security] and Sub-Clause 14.2 [Advance Payment], whichever is later.
<b>15.1</b>	Notice to Correct	If the Contractor fails to carry out any obligation under the Contract the Engineer may, by giving a Notice to the Contractor, require the Contractor to make good the failure and to remedy it within a specified time ("Notice to Correct" in these Conditions).

Sub-clause	Sub-clause Description	Described Role (FIDIC 1999)
15.2	Termination by Employer	The Employer shall be entitled to terminate the Contract if the Contractor: (a) fails to comply with Sub-Clause 4.2 [Performance Security] or with a notice under Sub-Clause 15.1 [Notice to Correct].
16.1	Contractor's Entitlement to Suspend Work	If the Engineer fails to certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates] or the Employer fails to comply with Sub-Clause 2.4 [Employer's Financial Arrangements] or Sub-Clause 14.7 [Payment], the Contractor may, after giving not less than 21 days notice to the Employer, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.
16.2	Termination by Contractor	The Contractor shall be entitled to terminate the Contract if... (b) the Engineer fails, within 56 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate, (c) the Contractor does not receive the amount due under an Interim Payment Certificate within 42 days after the expiry of the time stated in Sub-Clause 14.7 [Payment] within which payment is to be made

These milestones are drafted on the contract formation timeline as shown in Figure 3.1 below.

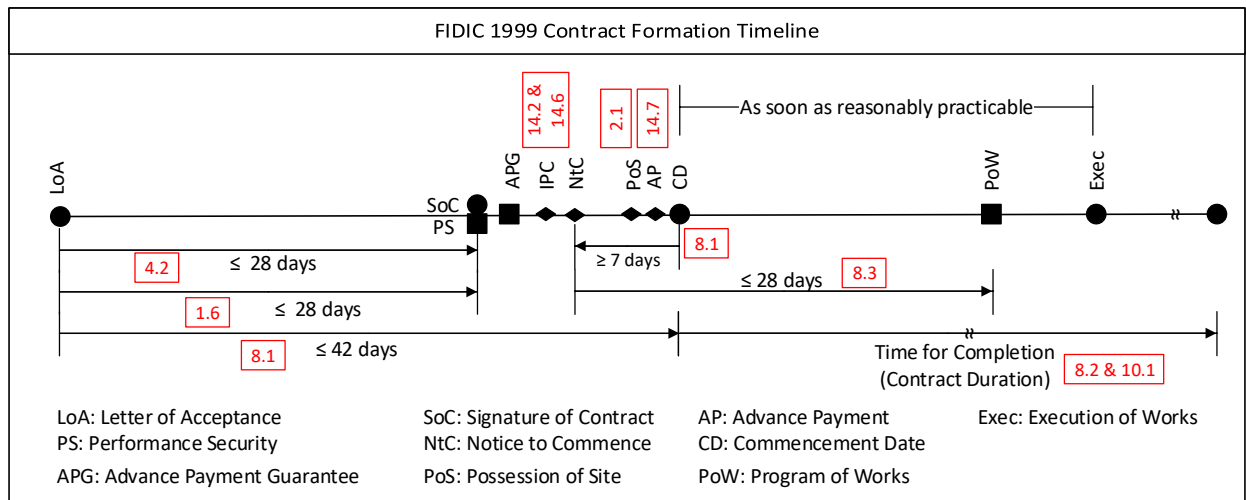


Figure 3.1 FIDIC 1999 contract formation timeline

### 3.2.1 The Advance Payment Procedure based on FIDIC 1999 Conditions

The construction works do not always abide by the timeline and the contract formation mechanism. When works commence based on a letter of intent, it is possible that

the Contractor starts working without having the Advance Payment in hand. Furthermore, the Advance Payment is directly linked to the presence and validity of the Performance Security, which is a reflection of the Contractor's financial capabilities. Therefore, in this study, the Advance Payment is taken as a measure of the effectiveness of the contract formation timeline. The procedure for the Advance Payment has been explained in Table 3.1. Figure 3.2 below puts these conditions in a flow chart presented by Totterdill (2006).

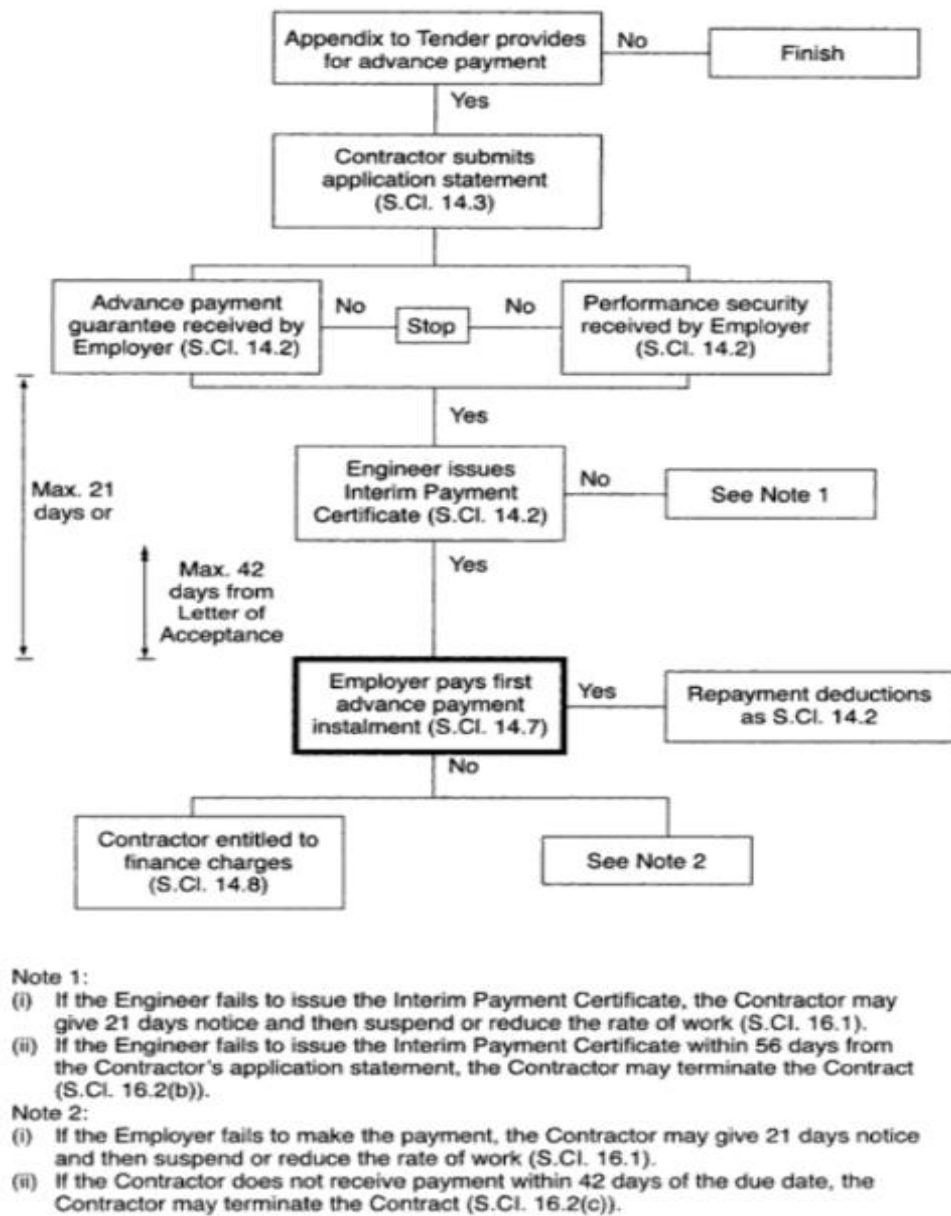


Figure 3.2 Procedure for Advance Payment based on FIDIC 1999 contract conditions (Totterdill, 2006)

### 3.3 FIDIC 2017 Contract Formation Timeline

FIDIC has incurred a few changes on the contract formation timeline in the new edition of the Red Book: extending the contract agreement deadline, increasing the time between the Notice to Commence and the Commencement Date, and dedicating a sub-

clause for the Advance Payment with a role for the Engineer's certificate in the timing of it.

The sub-clauses pertaining to the contract formation process based on the FIDIC 2017 are listed in Table 3.2 below.

*Table 3.2 Standard contract language pertaining to the contract formation process based on FIDIC 2017*

<b>Sub-clause</b>	<b>Sub-clause Description</b>	<b>Described Role (FIDIC 2017)</b>
<b>1.1.50</b>	Letter of Acceptance	“Letter of Acceptance” means the letter of formal acceptance, signed by the Employer, of the Letter of Tender, including any annexed memoranda comprising agreements between and signed by both Parties. If there is no such Letter of Acceptance, the expression “Letter of Acceptance” means the Contract Agreement and the date of issuing or receiving the Letter of Acceptance means the date of signing the Contract Agreement.
<b>1.6</b>	Contract Agreement	The Parties shall sign a Contract Agreement within 35 days after the Contractor receives the Letter of Acceptance, unless they agree otherwise. The Contract Agreement shall be based on the form annexed to the Particular Conditions.
<b>2.1</b>	Right of Access to the Site	The Employer shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the Contract Data. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Specification. However, the Employer may withhold any such right or possession until the Performance Security has been received.
<b>4.2</b>	Performance Security	The Contractor shall deliver the Performance Security to the Employer, with a copy to the Engineer, within 28 days after receiving the Letter of Acceptance.
<b>8.1</b>	Commencement of Works	The Engineer shall give a Notice to the Contractor stating the Commencement Date, not less than 14 days before the Commencement Date. Unless otherwise stated in the Particular Conditions, the Commencement Date shall be within 42 days after the Contractor receives the Letter of Acceptance. The Contractor shall commence the execution of the Works on, or as soon as is reasonably practicable after, the Commencement Date and shall then proceed with the Works with due expedition and without delay.
<b>8.3</b>	Programme	The Contractor shall submit an initial programme for the execution of the Works to the Engineer within 28 days after receiving the Notice under Sub-Clause 8.1 [Commencement of Works].
<b>14.2</b>	Advance Payment	If no amount of Advance Payment is stated in the Contract Data, this Sub-Clause shall not apply. After receiving the Advance Payment Certificate, the Employer shall make an Advance Payment, as an interest-free loan for mobilisation (and design, if any). The amount of the Advance Payment and the currencies in which it is to be paid that be as stated in the Contract Data.
<b>14.2.1</b>	Advance Payment Guarantee	The Contractor shall obtain (at the Contractor's cost) an Advance Payment Guarantee in amounts and currencies equal to the Advance Payment, and shall submit it to the Employer with a copy to the Engineer.



Sub-clause	Sub-clause Description	Described Role (FIDIC 2017)
14.2.2	Advance Payment Certificate	The Engineer shall issue an Advance Payment Certificate for the Advance Payment within 14 days after: (a) the Employer has received both the Performance Security and the Advance Payment Guarantee, in the form and issued by an entity in accordance with Sub-Clause 4.2.1 [Contractor's Obligations] and Sub-Clause 14.2.1 [Advance Payment Guarantee] respectively; and (b) the Engineer has received a copy of the Contractor's application for the Advance Payment under Sub-Clause 14.2.1 [Advance Payment Guarantee].
14.7	Payment	The Employer shall pay to the Contractor: (a) the amount certified in each Advance Payment Certificate within the period stated in the Contract Data (if not stated, 21 days) after the Employer receives the Advance Payment Certificate.
15.1	Notice to Correct	If the Contractor fails to carry out any obligation under the Contract the Engineer may, by giving a Notice to the Contractor, require the Contractor to make good the failure and to remedy it within a specified time ("Notice to Correct" in these Conditions).
15.2.1	Termination for Contractor's Default	The Employer shall be entitled to give a Notice (which shall state that it is given under this Sub-Clause 15.2.1) to the Contractor of the Employer's intention to terminate the Contract... if the Contractor: (a) fails to comply with: (i) a Notice to Correct... (e) fails to comply with Sub-Clause 4.2 [Performance Security]
16.1	Suspension by Contractor	If: ... (c) the Employer fails to comply with Sub-Clause 14.7 [Payment]... the Contractor may, not less than 21 days after giving a Notice to the Employer (which Notice shall state that it is given under this Sub-Clause 16.1), suspend work (or reduce the rate of work) unless and until the Employer has remedied such a default.
16.2	Termination by Contractor	The Contractor shall be entitled to give a Notice (which shall state that it is given under this Sub-Clause 16.2.1) to the Employer of the Contractor's intention to terminate the Contract... if: ... (b) the Engineer fails, within 56 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate; (c) the Contractor does not receive the amount due under any Payment Certificate within 42 days after the expiry of the time stated in Sub-Clause 14.7 [Payment]

The contract formation timeline based on the FIDIC 2017 contract conditions is drafted in Figure 3.3.

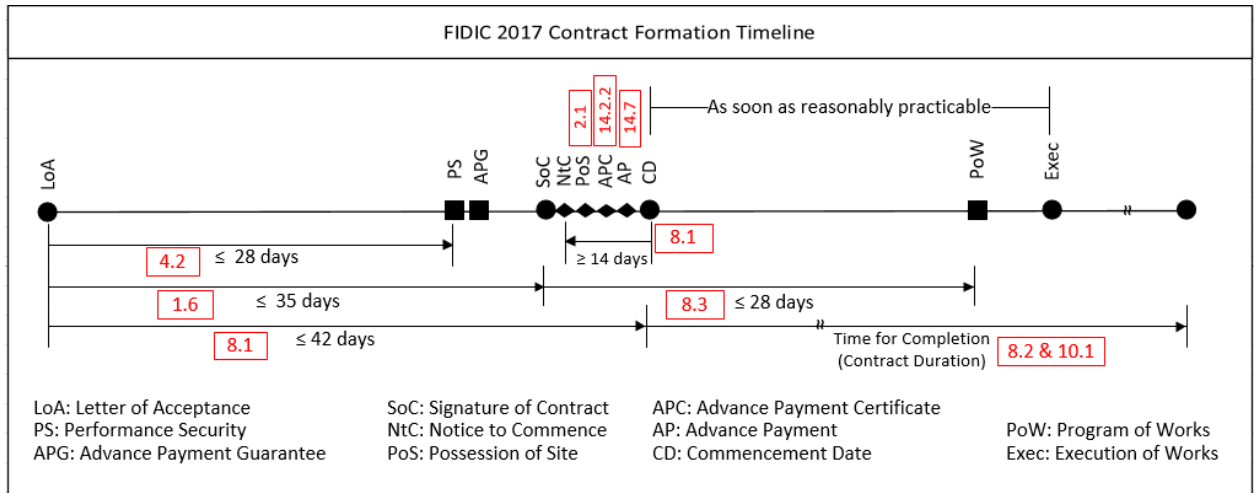


Figure 3.3 FIDIC 2017 contract formation timeline

### 3.3.1 The Advance Payment Procedure based on FIDIC 1999 Conditions

Since there has been changes on the Advance Payment in the FIDIC 2017 contract conditions, Totterdill's diagram does not apply for it. And thus, it has been mimicked to match the new sub-clauses and is shown in Figure 3.4.

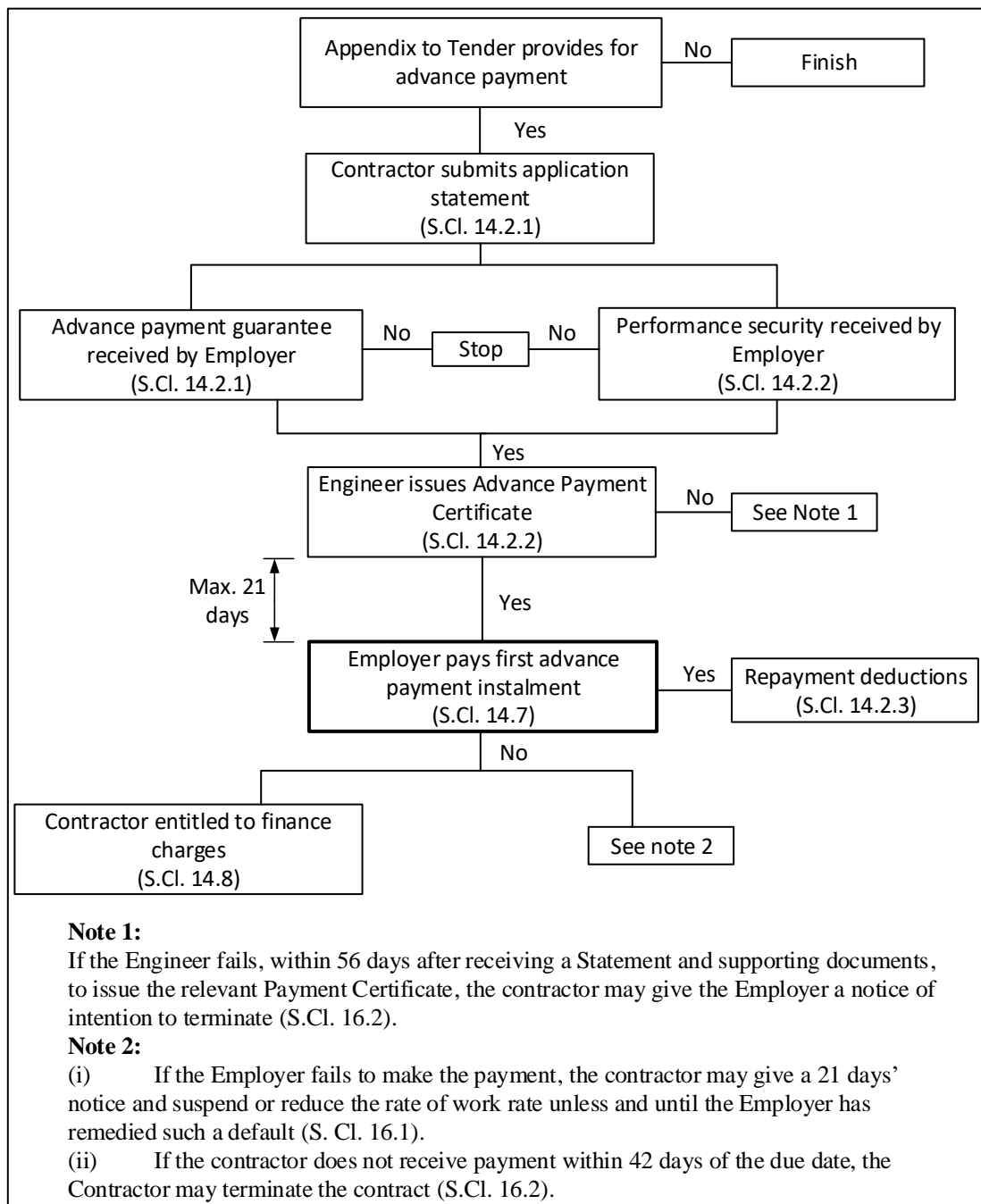


Figure 3.4 Procedure for Advance Payment based on FIDIC 2017 contract conditions

### **3.4 Comparison and Analysis of the Differences Between Both Versions**

These changes on the timeline could be comprehended as benefits for both parties. The increase of the time from the date of issuing the Letter of Acceptance to the signature of contract from 28 to 35 days avoids the overlapping of the contract signature and the Performance Security submission deadlines (28 days from the Letter of Acceptance). This modification gives the Engineer more time to certify the guarantee before the signature of the contract. Moreover, this gives further chance for the Contractor to hand in a Performance Security on the project, had he failed to do so within the 28 days. Furthermore, this additional time also gives both parties the chance to agree on any pending points without rushing into signing an agreement.

As for the Notice to Commence, when the Contractor receives it not less than 14 days from the Commencement Date instead of 7 days, this allows for more preparation time to be physically ready on the site without consuming this time from the contract duration. Finally, the effect of the change made to the Advance Payment will be best studied through the generated scenarios on contract formation which are presented in the next chapter.

## CHAPTER 4

### EFFICIENCY AND EFFECTIVENESS IN HANDLING THE CONTRACT FORMATION PROCESS

#### 4.1 Preamble

Under the contract conditions, the Employer, Contractor and Engineer are restricted with time bars for their responsibilities; therefore, different scenarios might arise depending on the timing at which each delivers his duties. Through this section, all the different possible and reasonable scenarios for the contract formation timeline are presented, compared and analyzed for the 1999 and 2017 editions of the Red Book. This shall reveal how the 1999 edition can be managed better and also highlight the changes in the 2017 edition with respect to the timeline. Furthermore, the conclusion from the analysis shall give the Contractor, Engineer and Employer the confines of the optimal time frame so that proper contract execution is performed for the betterment of the project.

#### 4.2 Contract Formation Timeline Scenarios

The contract formation timeline is not always abided by which could lead to deprivation of the payments and in worst case termination of the works. One of the important milestones in the contract formation timeline is the Advance Payment, if agreed on by the parties, due to its important role in helping the Contractor commence the works with ease on finance and thus relieving the schedule throughout the project. The simulated scenarios have been produced based on the parameters pertaining to the Advance Payment and then compared based on the relative effect on the execution phase of the project, in

particular the timing of the first installment of the Advance Payment with respect to the Commencement Date.

#### ***4.2.1 Parameters and Rationale***

The scenario parameters are the Performance Security, Advance Payment Guarantee, Interim Payment Certificate, Advance Payment, and Commencement Date. The options for each is described below.

- **Performance Security:** FIDIC gives the Contractor 28 days from the Letter of Acceptance to submit the Performance Security. The options available are that it is either submitted at the time limit, before time limit, or not given at all. The possibility that the Contractor will exceed the time limit of submitting the Performance Security is excluded in the scenarios, since this puts him under the risk that the Employer will forfeit the bid bond and move to the next suitable bidder.

- **Advance Payment Guarantee:** FIDIC 1999 does not provide a timing for the Advance Payment Guarantee. The Contractor either hands it with the Performance Security, after it or might not hand it at all. It is illogical that the Contractor would hand the Advance Payment Guarantee before the Performance Security because the Performance Security secures the contract which is more important to be handed on time.

- **Interim Payment Certificate:** The 1999 edition does not link the time of payment to the time of issuance of the Interim Payment Certificate, but states that it must be issued within the reasonable time for the Employer to pay the payment within the specified time. Furthermore, failing to issue the payment certificate on time puts the Engineer in front of 21 days' notice by the Contractor and then suspension or reduction of the rate of work (sub-

clause 16.1). And if this exceeds 56 days from the Contractor's application statement, he may terminate the contract (sub-clause 16.2 (b)).

- Advance Payment: It is either handed on time limit or before time limit. The scenarios also exclude the probability that the Employer fails to make the payment on time. If this happens, the Contractor may give 21 days' notice and then suspend or reduce the works (sub-clause 16.1). Furthermore, if the Contractor does not receive the payment within 42 days of the time limit, the Contractor might terminate the contract as clarified in sub-clause 16.2(b).

- Commencement Date: For practicality and ease of start on the project, the Commencement Date is the benchmark before which, or maximum on which, the Advance Payment must be handed to the Contractor so that it facilitates the start of the works on the construction project.

#### 4.2.1.1 The Rationale for Building the Scenarios

Based on this, all the reasonable and practicable scenarios are built in order to obtain the optimum time frames for the Contractor, Engineer and Employer to ensure most benefit to the project and thus the parties of the contract. The scenarios have been formed by systematically varying the elements that affect the timing of the Advance Payment. This is done by fixing an element individually while varying the others within the options available to each. The aim of the scenarios is to inspect the extreme boundary conditions that the participants can act within to ensure best performance.

In addition to the fixed time bars stipulated by the FIDIC, an assumption of 7 days is considered as the time consumed to formulate the scenarios of early delivery of the

guarantees by the Contractor and the Advance Payment by the Employer. This one-week time (5 working days) is chosen as an optimistic time for submissions from all the parties. This is based on good relations with the financial institutions, anticipated high efficiency from the bank to give the guarantees to the Contractor, and an assumption of diminishing the effect of bureaucracy from the Employer's company and rapid response from the financial institute to transfer the money from the Employer to the Contractor.

Moreover, 7 days have been also assumed to be the time between the Advance Payment Guarantee and Performance Security in the scenarios where the Performance Security and the Advance Payment Guarantee are given separately. This option is considered since the submittal of the Performance Security means that the Contractor is credit worthy, but does not imply that he is unlimited. Also, there is the possibility that the Advance Payment Guarantee could be sought from another bank which might take different timing. In this case, the Advance Payment Guarantee becomes governing in the time calculations.

The FIDIC contract conditions give a maximum of 42 days from the Letter of Acceptance for the works to commence. In cases where the Employer might opt for early commencement of works, the Contractor is informed of amendments to the standard conditions before the submittal of the bid price. The Employer might choose to bind the Commencement Date to the maximum date of submittal of the Performance Security and thus assigns it to be on 28 days from the Letter of Acceptance. Another option is if the Contractor presents the Performance Security early-on and thus gives an incentive for the Employer to commence the works ahead of time. Here, the Notice to Commence is given to the Contractor right after the Performance Security is handed aiming for an early



commencement. Those two options for early commencement are studied with their branching scenarios in this work.

The rationale for building the scenarios based on the FIDIC 1999 is explained in Figure 4.1 and summarized in Table 4.1 below.

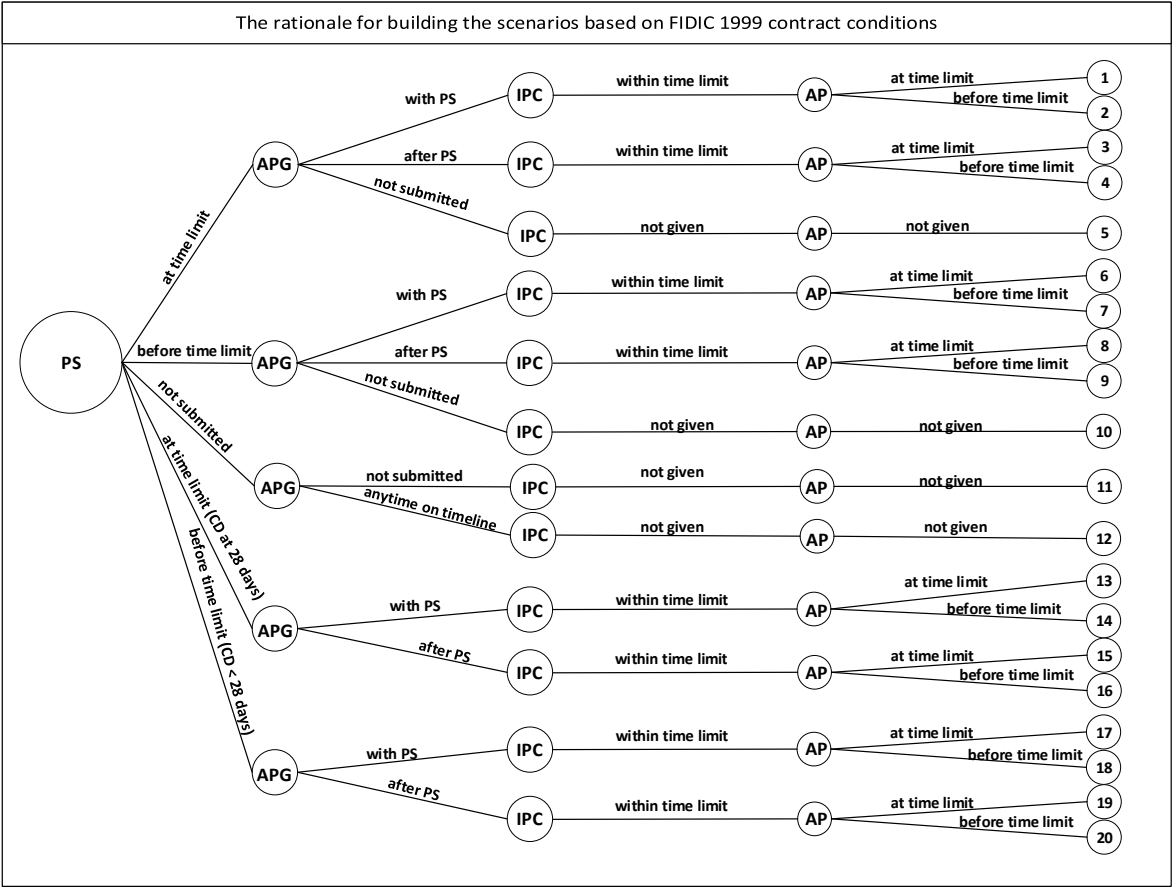


Figure 4.1 The rationale for the timeline scenarios based on FIDIC 1999

Table 4.1 Rationale for the timeline scenarios based on FIDIC 1999

Rationale for building the scenarios for FIDIC 1999 conditions				
Scenario	Time to the submission of			
	Performance Security	Advance Payment Guarantee	Advance Payment Certificate	Advance Payment
<b>CD at 42 days from LoA</b>				
<b>1</b>	at time limit	with the PS	within time limit	at time limit
<b>2</b>	at time limit	with the PS	within time limit	before time limit
<b>3</b>	at time limit	after the PS	within time limit	at time limit
<b>4</b>	at time limit	after the PS	within time limit	before time limit
<b>5</b>	at time limit	not submitted	not submitted	not submitted
<b>6</b>	before time limit	with the PS	within time limit	at time limit
<b>7</b>	before time limit	with the PS	within time limit	before time limit
<b>8</b>	before time limit	after the PS	within time limit	at time limit
<b>9</b>	before time limit	after the PS	within time limit	before time limit
<b>10</b>	before time limit	not submitted	not submitted	not submitted
<b>11</b>	Not submitted	Anytime on timeline	not submitted	not submitted
<b>12</b>	Not submitted	<b>Not submitted</b>	not submitted	not submitted
<b>Early CD at 28 days from LoA</b>				
<b>13</b>	at time limit	with the PS	within time limit	at time limit
<b>14</b>	at time limit	with the PS	within time limit	before time limit
<b>15</b>	at time limit	after the PS	within time limit	at time limit
<b>16</b>	at time limit	after the PS	within time limit	before time limit
<b>Early CD induced by early PS</b>				
<b>17</b>	before time limit	with the PS	within time limit	at time limit
<b>18</b>	before time limit	with the PS	within time limit	before time limit
<b>19</b>	before time limit	after the PS	within time limit	at time limit
<b>20</b>	before time limit	after the PS	within time limit	before time limit

#### 4.2.2 Scenario Analysis Based on FIDIC 1999 Contract Conditions

Scenario 1 (Figure 4.2) is a representation of the maximum time bars stipulated by FIDIC. It is evident that when the Contractor, Engineer and Employer exhaust all the time specified by the conditions of contract, the Advance Payment does not serve its purpose of facilitating mobilization at the beginning of the project.

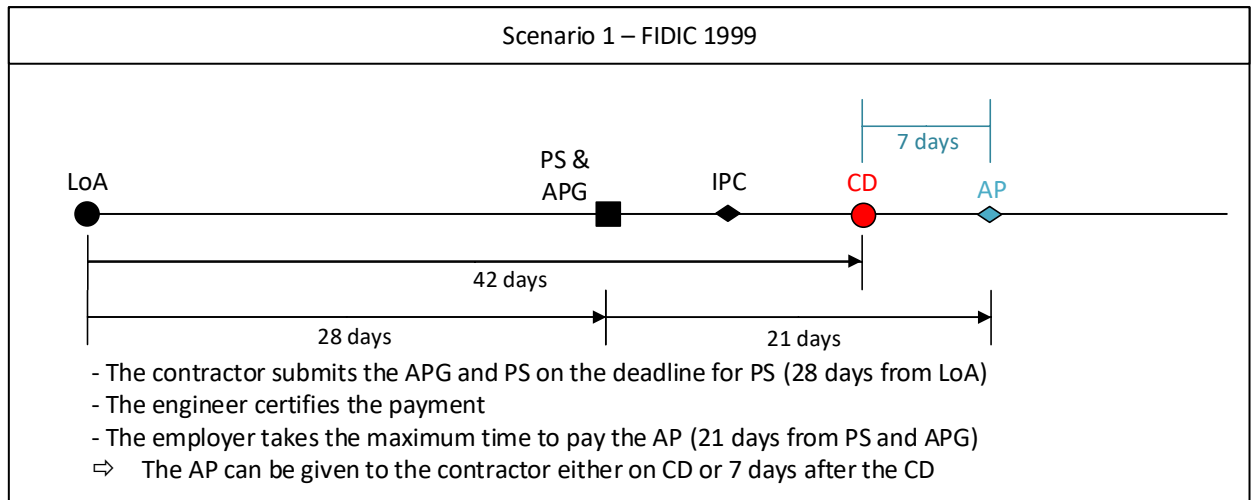


Figure 4.2 Scenario 1 - FIDIC 1999

Scenario 2 (Figure 4.3) reveals that if the payment is made earlier than the deadline, the Contractor can make use of the Advance Payment before the Commencement Date.

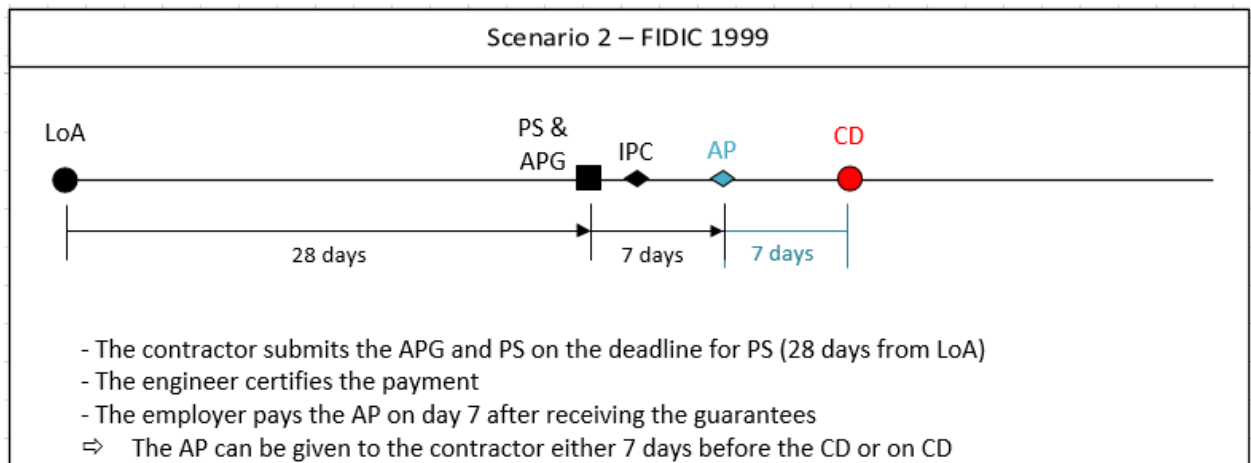


Figure 4.3 Scenario 2 - FIDIC 1999

As mentioned earlier, the Advance Payment Guarantee is not crucial for the contract formation, but its timing is bound to the timing of the Advance Payment which is

calculated from the latest of the guarantees presented. Scenario 3 (Figure 4.4) shows that the Contractor's tardiness in delivering the Advance Payment Guarantee is a drawback for him since this delays the payment if the Employer consumes the full allowed time to pay.

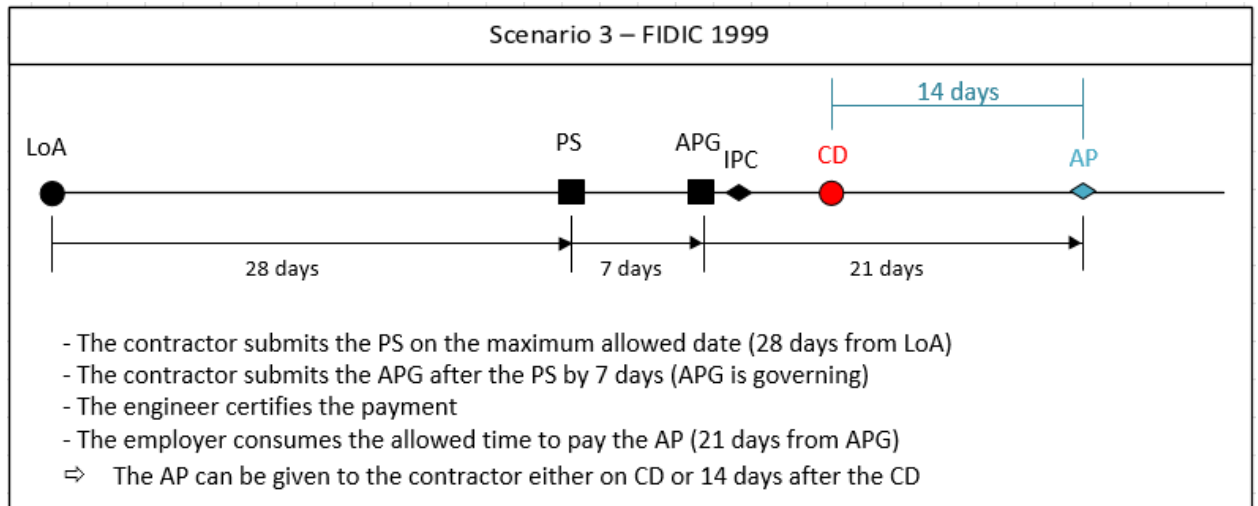


Figure 4.4 Scenario 3 - FIDIC 1999

However, Scenario 4 (Figure 4.5) shows that the Employer could mitigate the downsides of the latency by the Contractor and pay early. Thus, the Contractor is able to receive the payment on the Commencement Date if he is paid within 7 days. Therefore, this one-week delay by the Contractor prevents the benefit from the Advance Payment before the Commencement Date. In addition to that, if the Contractor submits the Advance Payment Guarantee even further than 7 days from the Performance Security, he is subjecting himself to more delay which is only worst for the Contractor and does not require any action to be taken from the Employer's side. Hence, delaying the submittal of the Advance Payment Guarantee by the Contractor prevents the Contractor from receiving the Advance Payment before the Commencement Date.

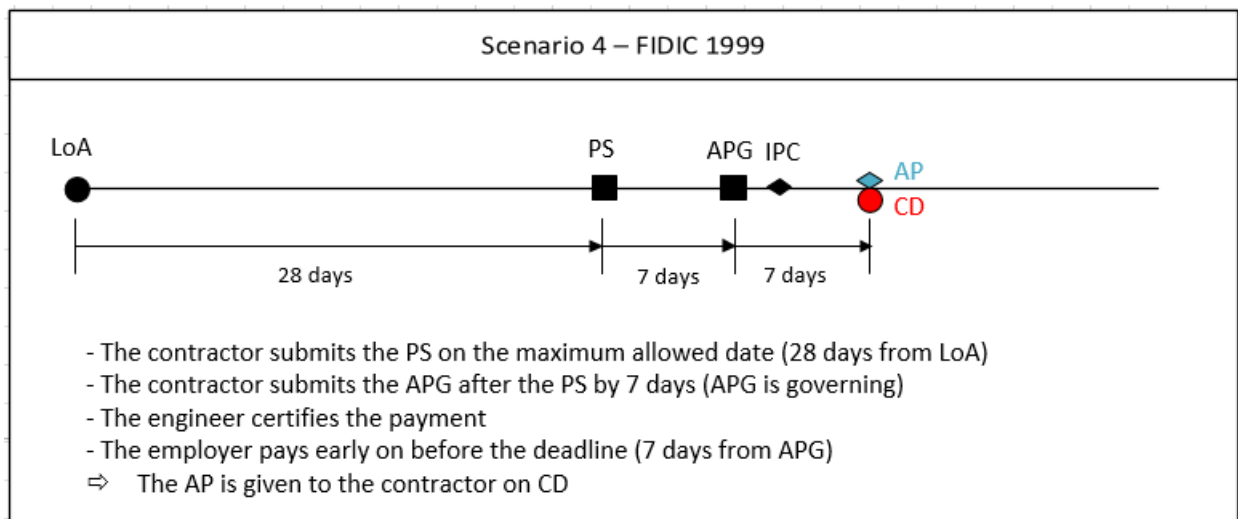


Figure 4.5 Scenario 4 - FIDIC 1999

Scenario 5 (Figure 4.6) represents the timeline with the absence of the Advance Payment Guarantee, which definitely precludes the attainment of the Advance Payment.

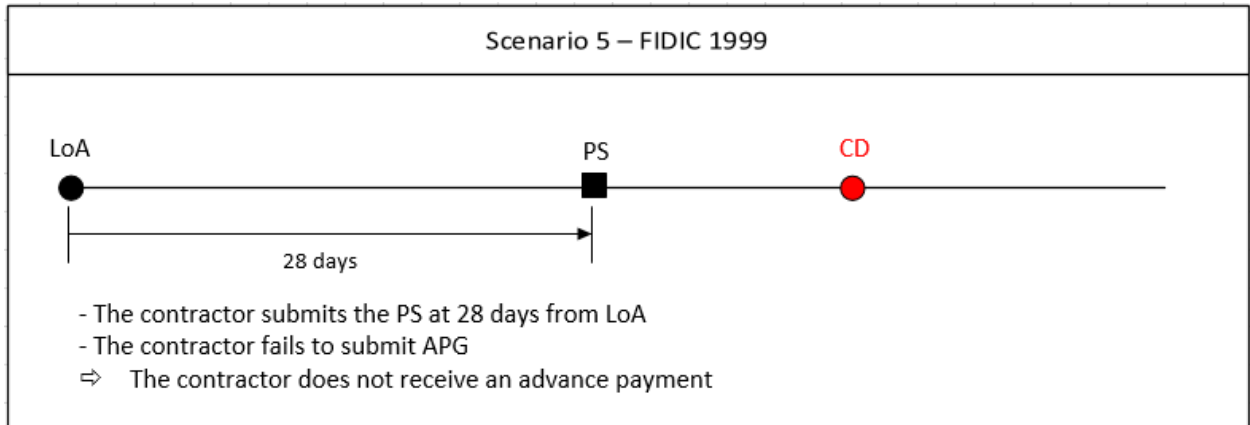


Figure 4.6 Scenario 5 - FIDIC 1999

In Scenario 6 (Figure 4.7), the Contractor submits the documents as early as 7 days after the Letter of Acceptance. This promptness gives the Contractor the chance to receive the Advance Payment as early as 14 days before the Commencement Date even if the

Employer took the full time to pay. This yields better results than when the Employer was early to pay (Scenario 2), which asserts the advantage of the Contractor acting before the deadlines.

Scenario 7 (Figure 4.8) combines the rapidity of the Contractor and the Employer. It reveals the best arrangement with the Contractor receiving the Advance Payment as early as 28 days before the Commencement Date. This time is considered abundant enough for any arrangements and payments to facilitate smooth commencement. And by that, the early acting of the Contractor and the Employer reveal the lower boundary of the timeline which is 28 days before the Letter of Acceptance.

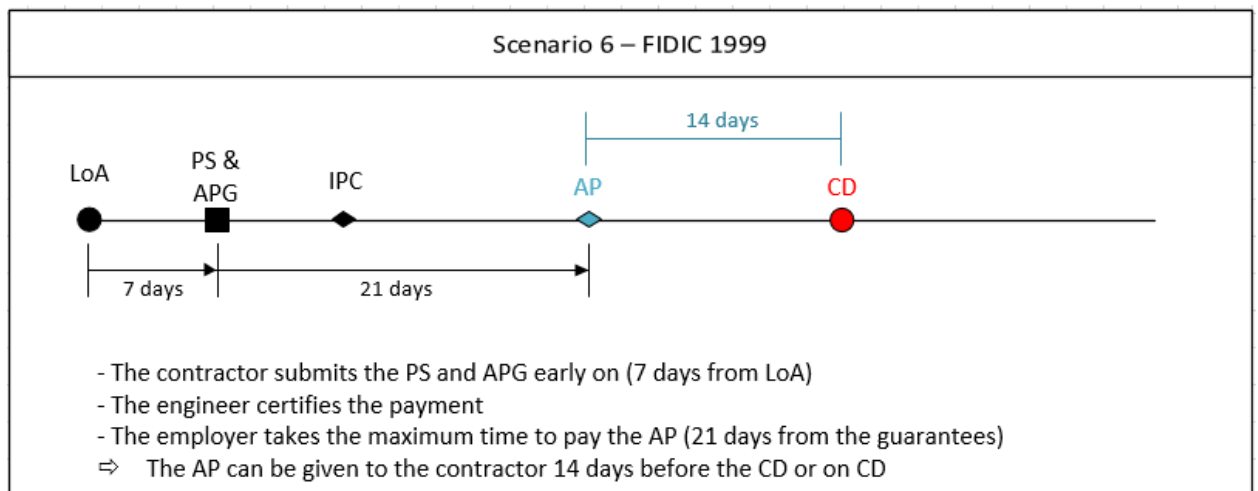


Figure 4.7 Scenario 6 - FIDIC 1999

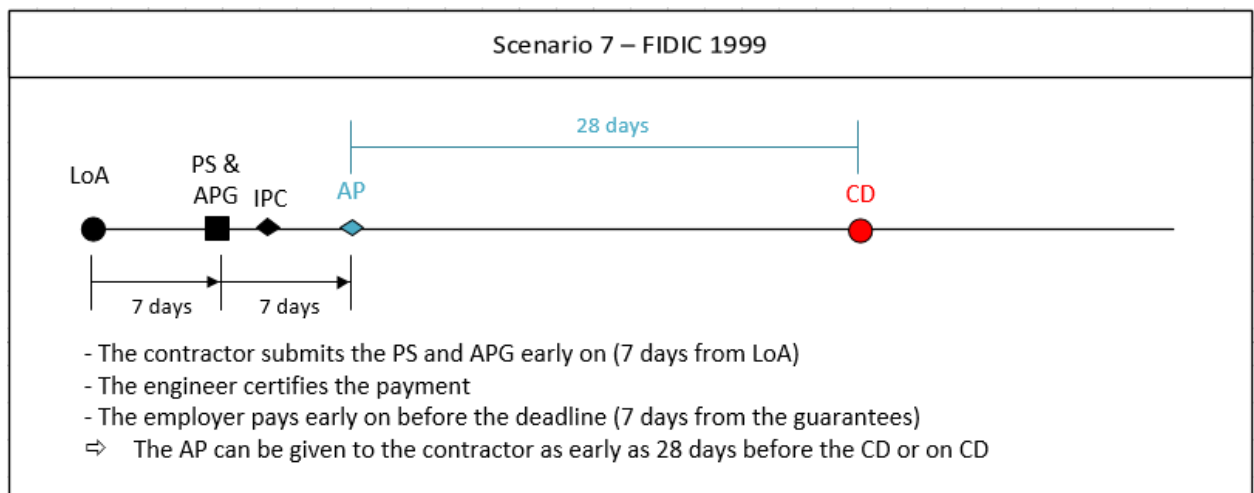


Figure 4.8 Scenario 7 - FIDIC 1999

The situation of a Performance Security handed early-on might also be matched with an Advance Payment Guarantee handed after it. In Scenario 8 (Figure 4.9), the Employer consumes all the allowed time to pay but despite that, the Contractor receives the Advance Payment before the Commencement Date. However, Scenario 9 (Figure 4.10) shows better results since the Employer paid early on.

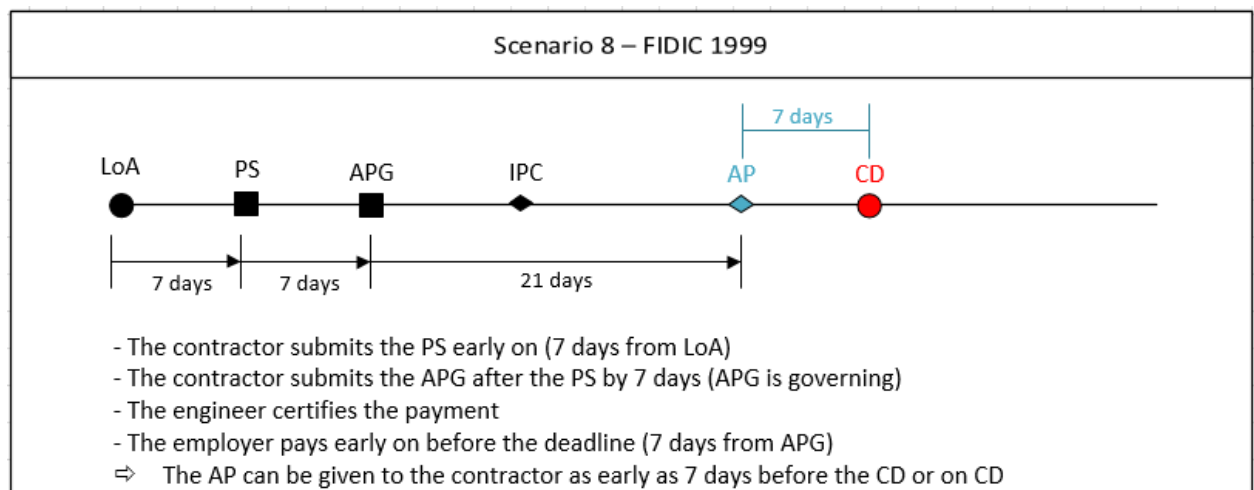


Figure 4.9 Scenario 8 - FIDIC 1999

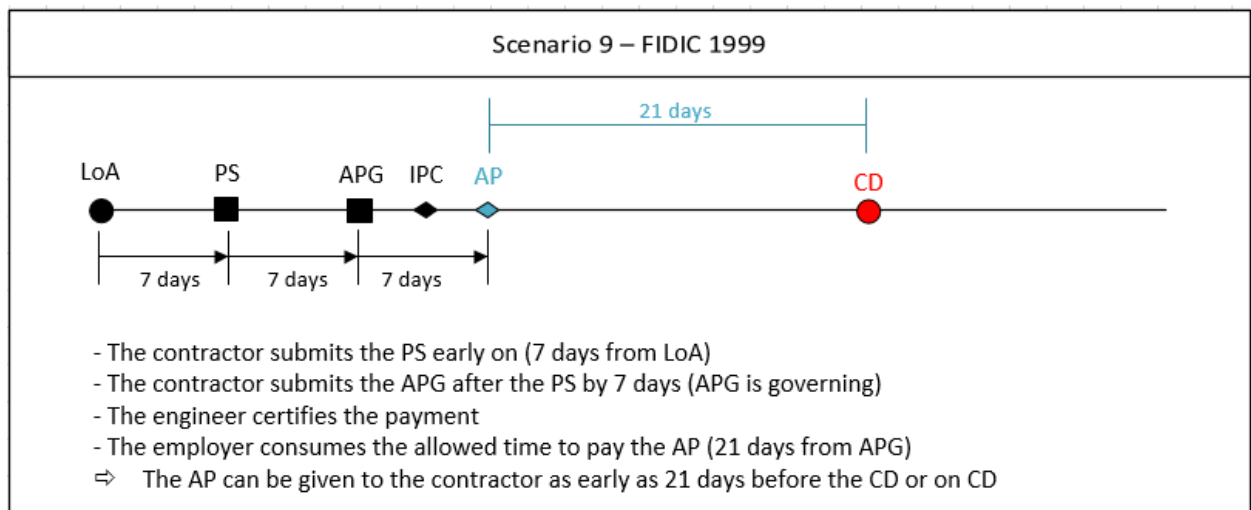
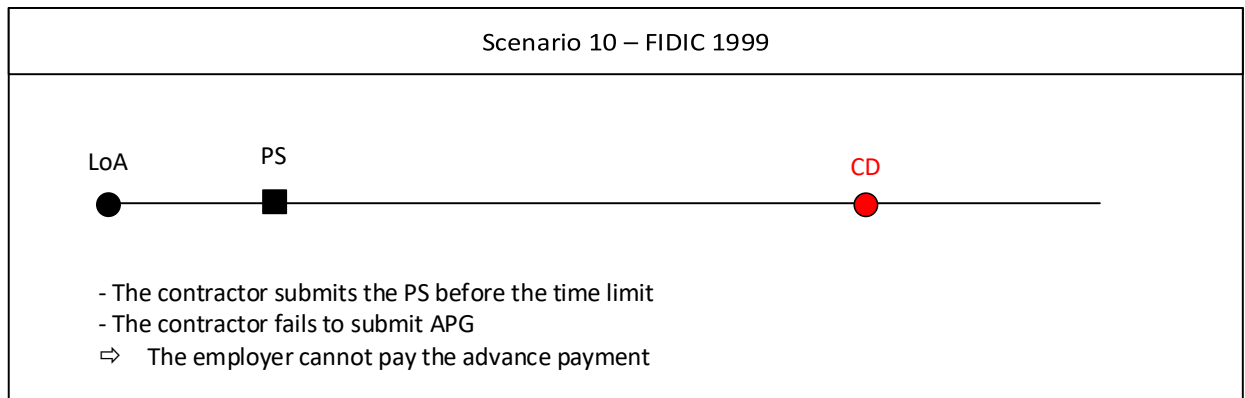


Figure 4.10 Scenario 9 - FIDIC 1999

This reveals that the Contractor's strong connection and relation with financial institutions asserts him the procurement of the guarantees early on, and thus the Advance Payment is secured before the Commencement Date even if the Employer consumes his full time to pay.

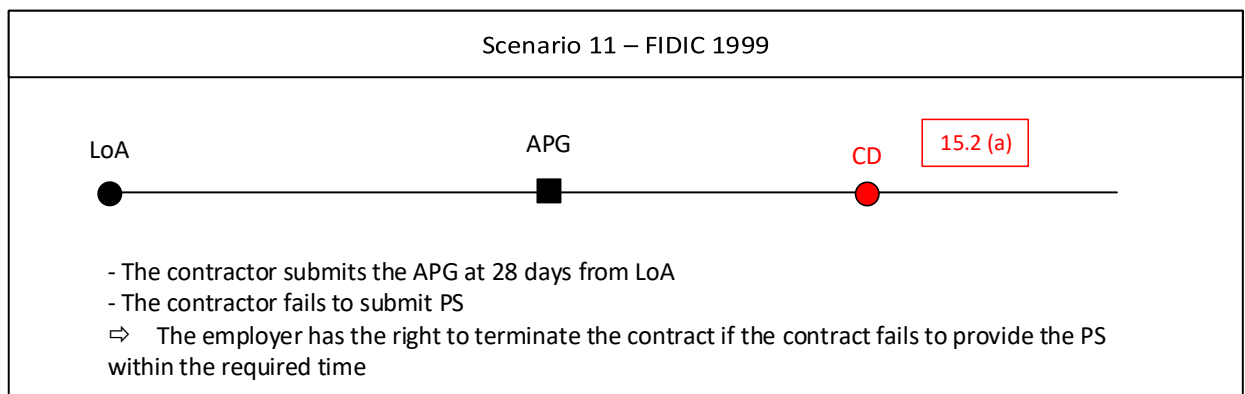
Scenario 10 (Figure 4.11), similar to Scenario 5, shows that delivering the Performance Security at any time without delivering the Advance Payment Guarantee definitely deprives the Contractor from the Advance Payment. Though, being able to obtain the Performance Security early on assumes the ability of the Contractor to obtain an Advance Payment; unless, it is sought from a different source, or the Contractor is good standing financially enough to work despite the absence of the Advance Payment.



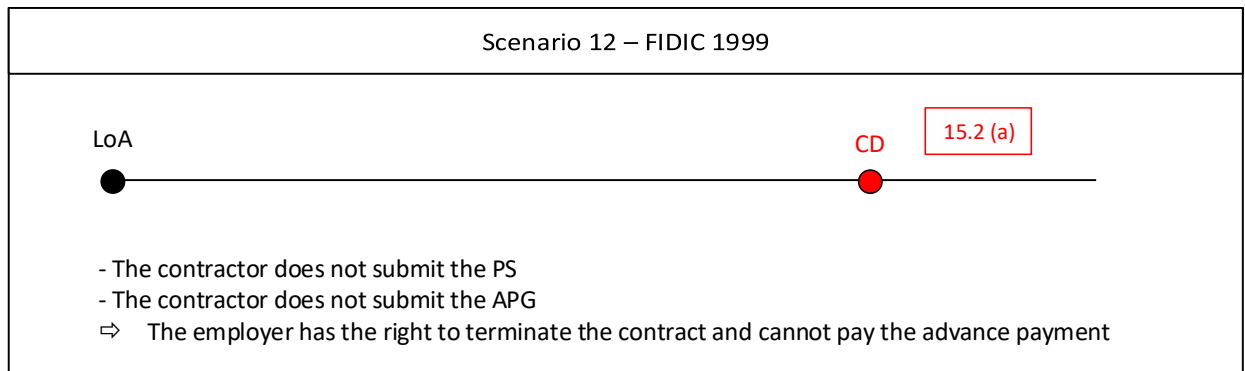


*Figure 4.11 Scenario 10 - FIDIC 1999*

Scenarios 11 and 12 (Figures 4.12 and 4.13) show that the Performance Security is a prerequisite for the Advance Payment and its absence might lead to termination under sub-clause 15.2 (a) even if the Advance Payment Guarantee is handed.



*Figure 4.12 Scenario 11 - FIDIC 1999*



*Figure 4.13 Scenario 12 - FIDIC 1999*

The scenarios above have been simulated for a Commencement Date at the maximum contract condition time which is 42 days from the Letter of Acceptance. Scenarios 13 to 16 consider the situation where the Employer links the Commencement Date to the deadline of submittal of the Performance Security. Thus, the Commencement Date is considered to be at 28 days from the Letter of Acceptance. The Notice to Commence is handed at least before the Commencement Date by 7 days according to the FIDIC 1999 conditions. Considering 7 days between the Notice to Commence and the Commencement Date in these scenarios is to study the action of the Employer taking maximum advantage of the option of early commencement.

Scenario 13 (Figure 4.14) reveals that the action of tying the date of the commencement of works to the submittal of the guarantees puts the Contractor on great financial burden since a slight comparison between the default time bars illustrated in Scenario 1 and the scenario here, it is seen that the time to attain the Advance Payment is moved by 14 days after the Commencement Date. Thus, it is clear that shifting the

Commencement Date earlier than 42 days from the Letter of Acceptance is done to hasten the works irrespective of the Contractor's resulting situation.

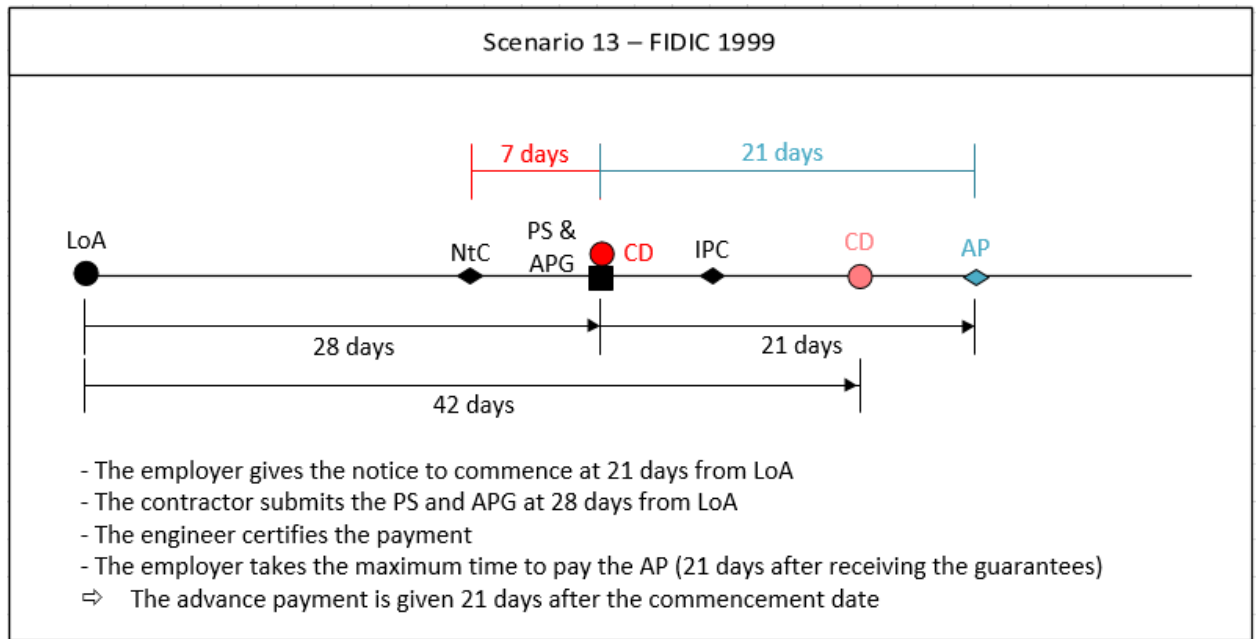


Figure 4.14 Scenario 13 - FIDIC 1999

However, Scenario 14 (Figure 4.15) reveals that this could be mitigated if the Employer pays the Advance Payment as soon as possible, thus the Contractor commences work and takes the first installment of the Advance Payment a week after. This mimics the situation of Scenario 1, the FIDIC maximum time bars.

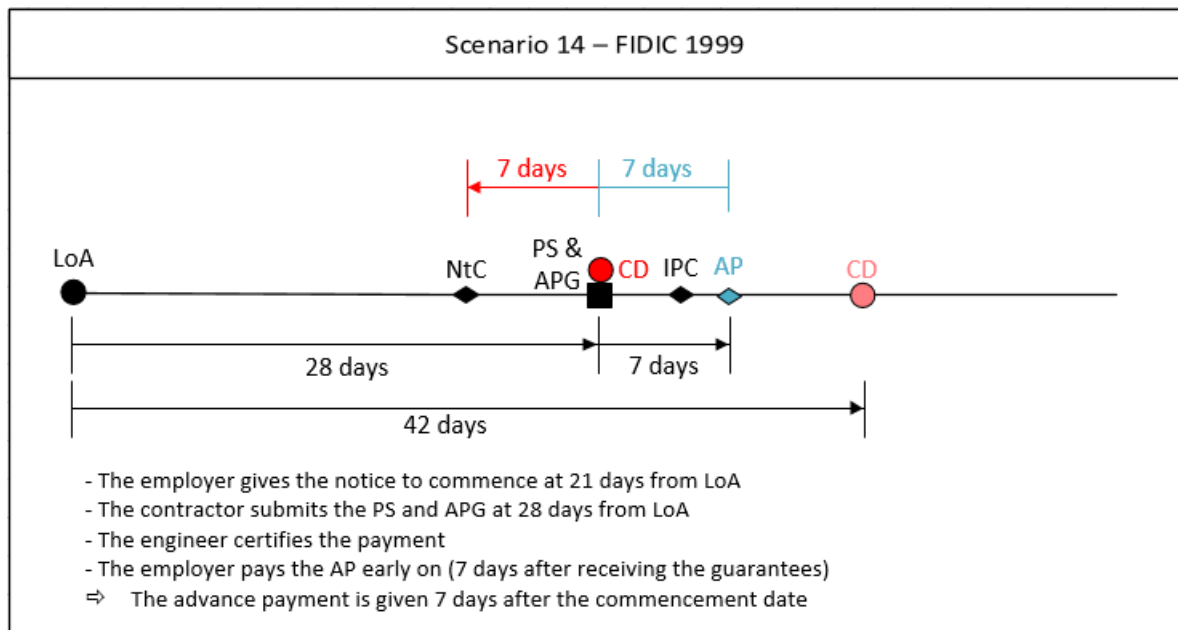


Figure 4.15 Scenario 14 - FIDIC 1999

Scenarios 15 and 16 (Figures 4.16 and 4.17) put in hand the option of the guarantees submitted separately. This definitely delays the payment further and exerts greater pressure on the Contractor with the Advance Payment handed later than the Commencement Date. Furthermore, the early payment made by the Employer, shown in Scenario 16, does not alleviate the risk borne by the tardiness but it depresses it. The Contractor still receives the Advance Payment after the Commencement Date, unlike Scenarios 2 and 4 where the Employer's promptness helped the late Contractor obtain the first installment of the Advance Payment before or on the Commencement Date. Thus, this further asserts that this action taken by the Employer is only to his own benefit gaining more time on the schedule without considering the financials of the Contractor.

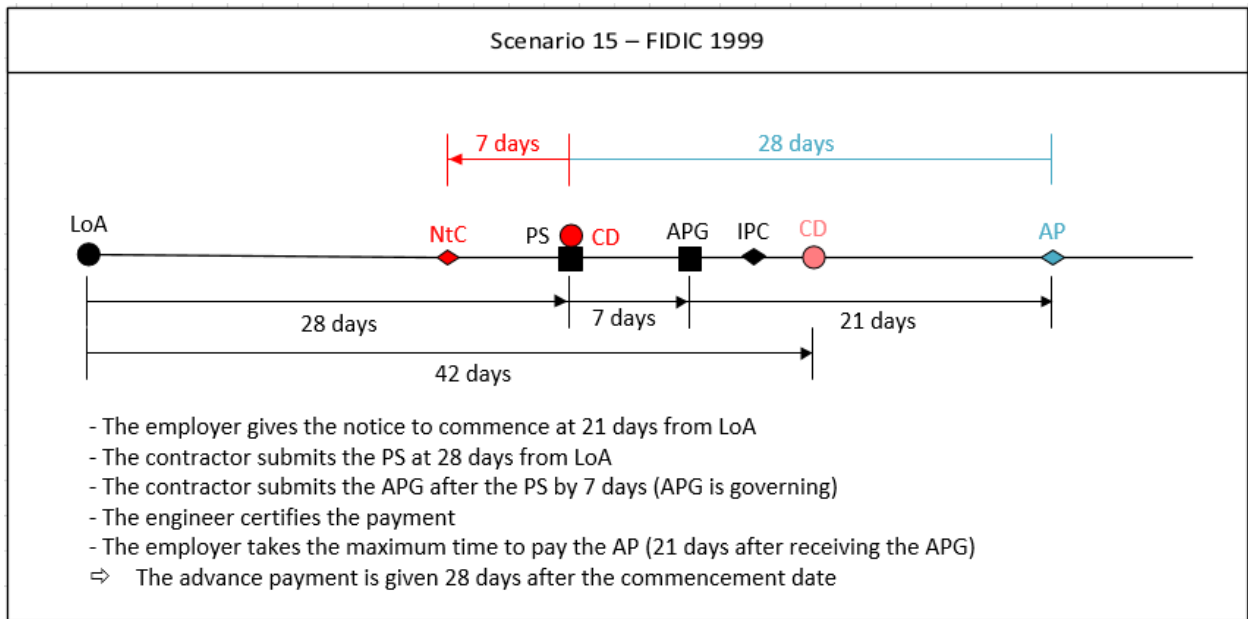


Figure 4.16 Scenario 15 - FIDIC 1999

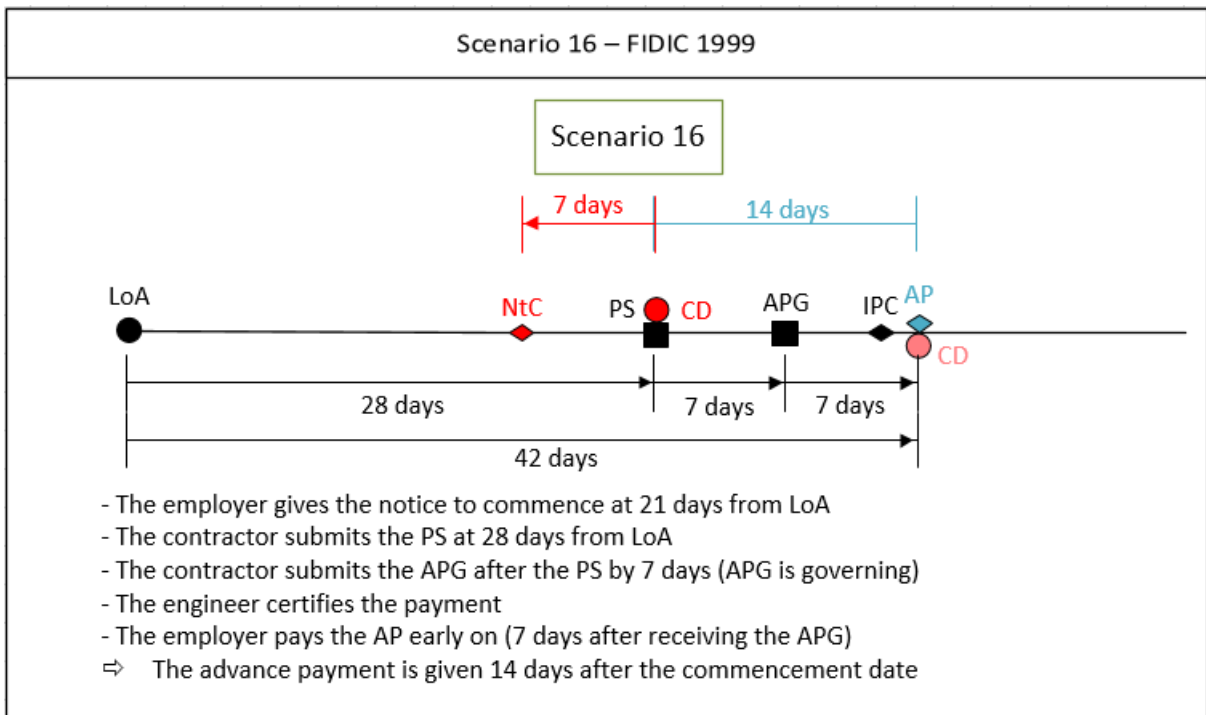


Figure 4.17 Scenario 16 - FIDIC 1999

In addition to the reason for early commencement above, the Commencement Date can also be due to diligence from the Contractor which motivates the Employer to take a step further. This is represented in Scenarios 17 to 20 below where the Contractor submits the Performance Security and the Advance Payment Guarantee early on after the Letter of Acceptance, and thus the Employer decides to give a Notice to Commence so that the works begin as soon as possible. Thus, based on the FIDIC 1999 conditions, the Commencement Date could be as early as 14 days from the Letter of Acceptance and thus the Employer gains 28 days on the contract durations. Scenario 17 shows that if the Employer takes the full time to pay, the payment is given 14 days after the Commencement Date as seen in Figure 4.18. Although the Employer gains time on the duration of the contract, but that does not reflect any benefit to the Contractor since the Advance Payment is not in his hand. The 14 days here are different than the 14 days after the Commencement Date in the normal conditions, since here the Employer has gained already more days on the contract durations taken from the time assigned to the Contractor on the work.

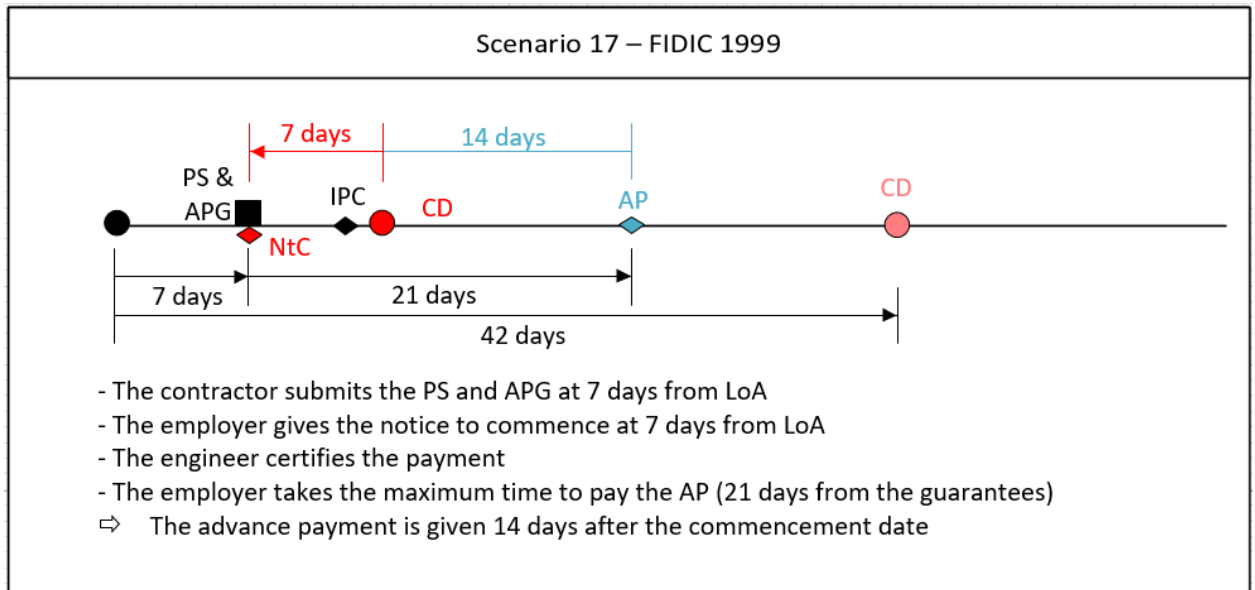


Figure 4.18 Scenario 17 - FIDIC 1999

However, Scenario 18 (Figure 4.19) shows that if the Employer pays within one week, the Contractor is able to commence the works with the Advance Payment in hand. And of course, the Contractor puts himself under higher risk of entering the site without the Advance Payment if he is late to submit the Advance Payment Guarantee as seen in Scenario 19 (Figure 4.20), and although the early payment given by the Employer decreases the effect of this tardiness but not diminishes it as observed in Scenario 20 (Figure 4.21).

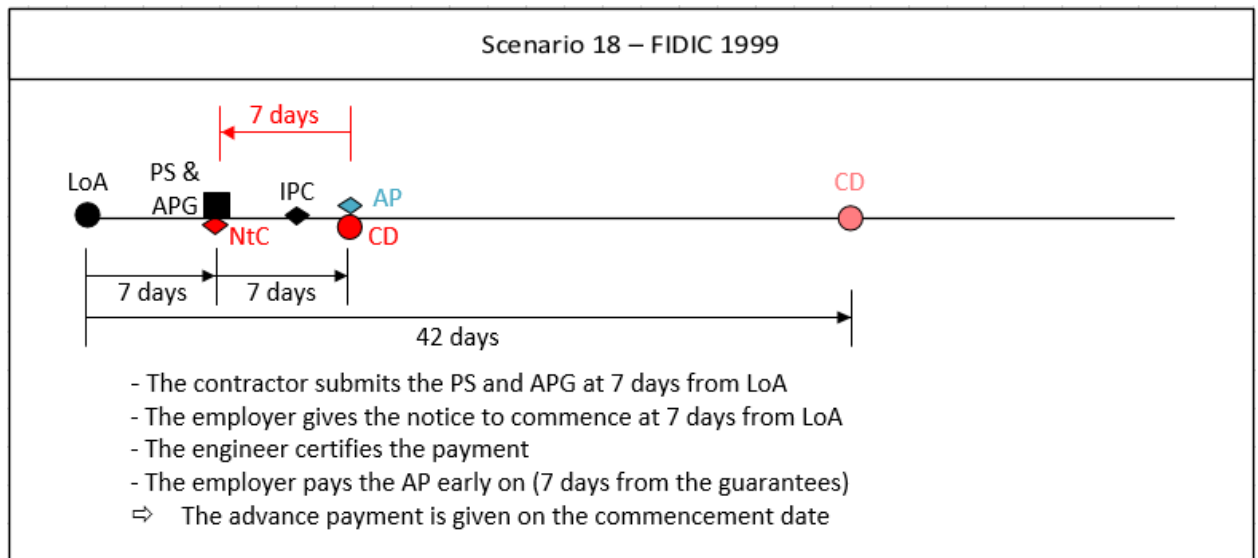


Figure 4.19 Scenario 18 - FIDIC 1999

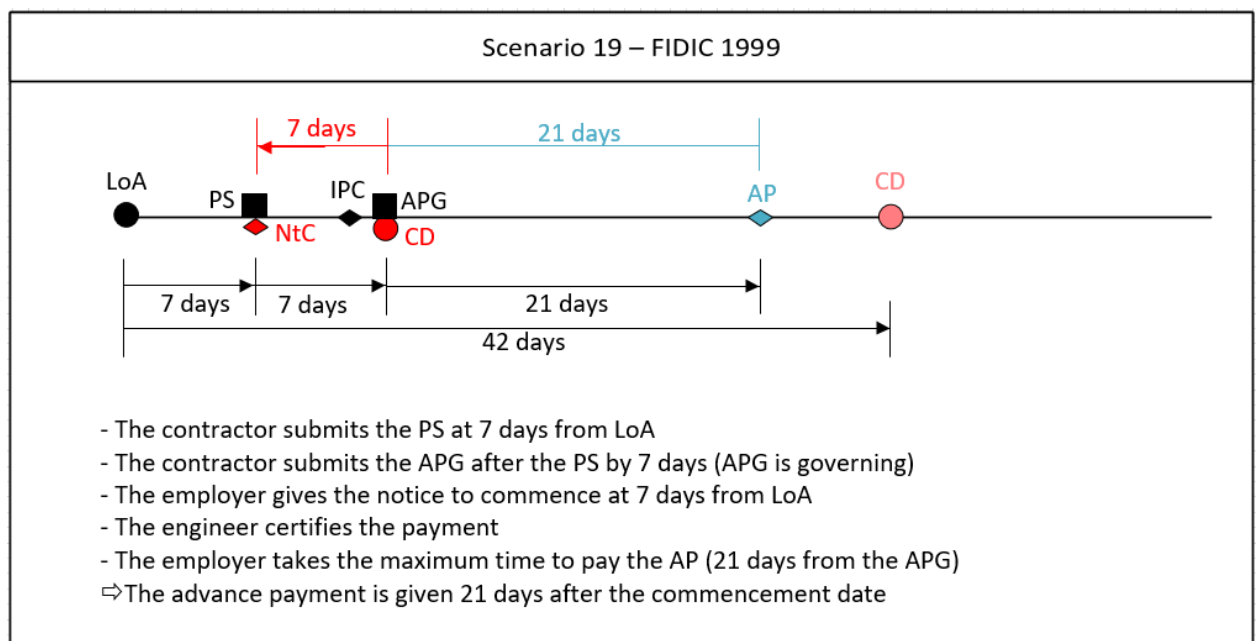


Figure 4.20 Scenario 19 - FIDIC 1999



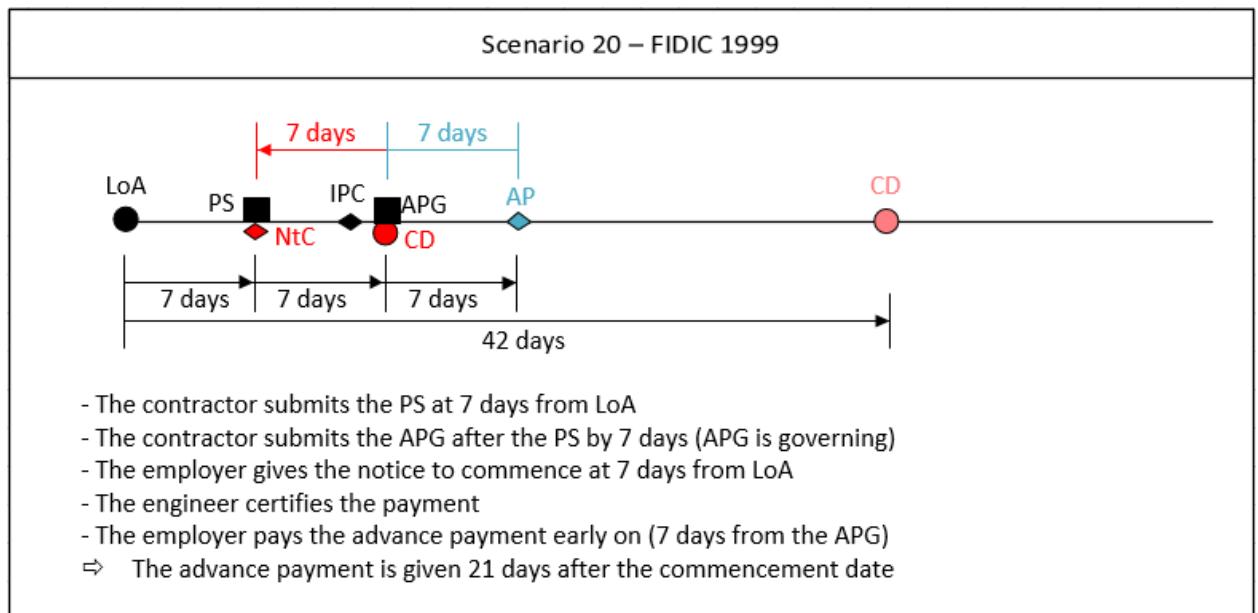


Figure 4.21 Scenario 20 - FIDIC 1999

#### 4.2.3 Summary of the Scenarios Based on FIDIC 1999 Contract Conditions

The results of the scenarios based on the FIDIC 1999 contract conditions are summarized in Table 4.2 below. It is worth noting, as mentioned earlier, that in all the results which yield an Advance Payment earlier than the Commencement Date, FIDIC 1999 gives the Employer the option to delay this payment till 42 days from the Letter of Acceptance, which is the timing of the Commencement Date.

Table 4.2 Results of the timeline scenarios based on FIDIC 1999

<b>Scenarios Based on FIDIC 1999 Conditions of Contract</b>				
<b>Scenario</b>	<b>Time to submission of PS from LoA</b>	<b>Time to submission of APG from LoA</b>	<b>Timing of AP from APC</b>	<b>Timing of AP from CD</b>
<b>CD at 42 days from LoA</b>				
1	28 days	28 days	21 days	+ 7 days
2	28 days	28 days	7 days	- 7 days
3	28 days	35 days	21 days	+ 14 days
4	28 days	35 days	7 days	0 days
5	28 days	Not submitted	—	—
6	7 days	≤ 7 days	21 days	- 14 days
7	7 days	≤ 7 days	7 days	-28 days
8	7 days	14 days	21 days	- 7 days
9	7 days	14 days	7 days	- 21 days
10	7 days	Not submitted	—	—
11	Not submitted	Anytime on timeline	—	—
12	Not submitted	Not submitted	—	—
<b>Early CD at 28 days from LoA (Employer gaining 14 days on the contract duration)</b>				
13	28 days	28 days	21 days	+ 21 days
14	28 days	28 days	7 days	+ 7 days
15	28 days	35 days	21 days	+ 28 days
16	28 days	35 days	7 days	+ 14 days
<b>Early CD induced by early PS (Employer gaining 28 days on the contract duration)</b>				
17	7 days	≤ 7 days	21 days	+ 14 days
18	7 days	≤ 7 days	7 days	0 days
19	7 days	14 days	21 days	+ 21 days
20	7 days	14 days	7 days	+ 7 days

#### 4.2.4 Scenario Analysis Based on FIDIC 2017 Contract Conditions

##### 4.2.4.1 Analysis Parameters and Rational based on FIDIC 2017 conditions

FIDIC 2017 counts the days for payment from the time of the issuance of the Advance Payment Certificate by the Engineer. Therefore, the options to be varied in the scenarios are that it is either handed at the maximum time given to the Engineer or before it. The option that the Engineer will exceed the time allocated by the contract conditions to

submit the Advance Payment Certificate is excluded since he is expected to diligently attend to the issuance of the Advance Payment Certificate. Furthermore, an assumption of 7 days is considered as the time consumed to formulate the scenarios of early delivery of the Advance Payment Certificate by the Engineer. This assumption is based on an expected high efficiency from the bank to give the guarantees to the Contractor and also from the Engineer to study the documents and give consent.

The same rationale of varying the parameters systematically one by one is made for the FIDIC 2017 scenarios. However, due to the changes described above, more scenarios are produced for this edition. The rationale for simulating the scenarios is presented in Figure 4.22 and summarized in Table 4.3.

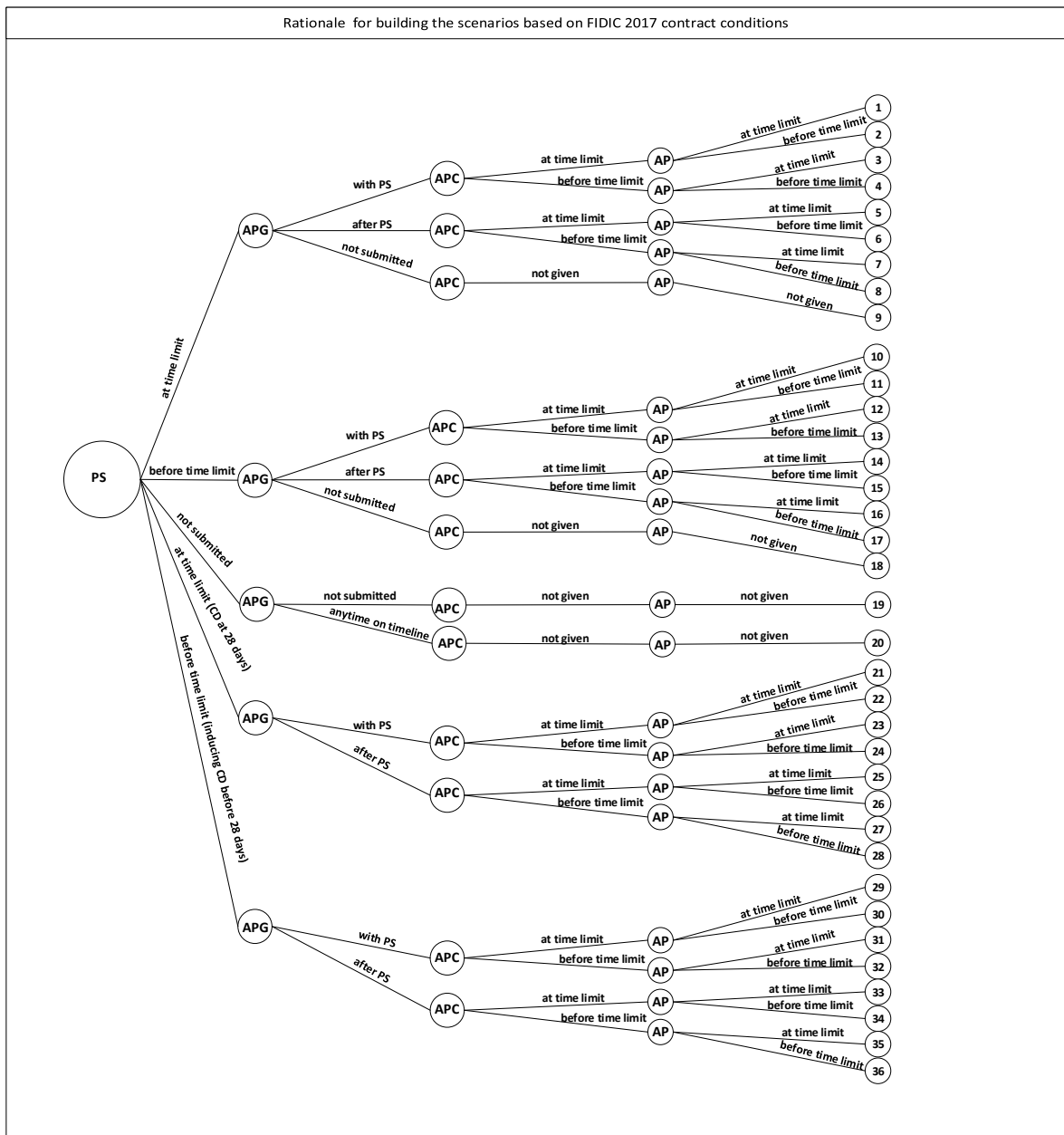


Figure 4.22 The rationale for the timeline scenarios based on FIDIC 2017

Table 4.3 Rationale for the timeline scenarios based on FIDIC 2017

Rationale for building the scenarios under FIDIC 2017 conditions				
Scenario	Time to the submission of			
	Performance Security	Advance Payment Guarantee	Advance Payment Certificate	Advance Payment
<b>CD at 42 days from LoA</b>				
1	at time limit	with the PS	at time limit	at time limit
2	at time limit	with the PS	at time limit	before time limit
3	at time limit	with the PS	before time limit	at time limit
4	at time limit	with the PS	before time limit	before time limit
5	at time limit	after the PS	at time limit	at time limit
6	at time limit	after the PS	at time limit	before time limit
7	at time limit	after the PS	before time limit	at time limit
8	at time limit	after the PS	before time limit	before time limit
9	at time limit	not submitted	not submitted	not submitted
10	before time limit	with the PS	at time limit	at time limit
11	before time limit	with the PS	at time limit	before time limit
12	before time limit	with the PS	before time limit	at time limit
13	before time limit	with the PS	before time limit	before time limit
14	before time limit	after the PS	at time limit	at time limit
15	before time limit	after the PS	at time limit	before time limit
16	before time limit	after the PS	before time limit	at time limit
17	before time limit	after the PS	before time limit	before time limit
18	before time limit	not submitted	not submitted	not submitted
19	Not submitted	Anytime on timeline	not submitted	not submitted
20	Not submitted	not submitted	not submitted	not submitted
<b>Early CD at 28 days from LoA</b>				
21	at time limit	with the PS	at time limit	at time limit
22	at time limit	with the PS	at time limit	before time limit
23	at time limit	with the PS	before time limit	at time limit
24	at time limit	with the PS	before time limit	before time limit
25	at time limit	after the PS	at time limit	at time limit
26	at time limit	after the PS	at time limit	before time limit
27	at time limit	after the PS	before time limit	at time limit
28	at time limit	after the PS	before time limit	before time limit
<b>Early CD induced by early PS</b>				
29	before time limit	with the PS	at time limit	at time limit
30	before time limit	with the PS	at time limit	before time limit
31	before time limit	with the PS	before time limit	at time limit
32	before time limit	with the PS	before time limit	before time limit
33	before time limit	after the PS	at time limit	at time limit
34	before time limit	after the PS	at time limit	before time limit
35	before time limit	after the PS	before time limit	at time limit
36	before time limit	after the PS	before time limit	before time limit

Scenario 1 (Figure 4.23) is a representation of the maximum time bars stipulated by FIDIC 2017 contract conditions. The presence of 2 weeks allocated for the Engineer to hand in the Advance Payment Certificate increases the time to acquire the Advance Payment. Thus, in the 2017 edition, if all the participants consume the full time apportioned by the contract, the Advance Payment is given 21 days after the Commencement Date. This reveals that the 2017 FIDIC conditions of contract did not alleviate the risk of receiving the Advance Payment later than the Commencement Date.

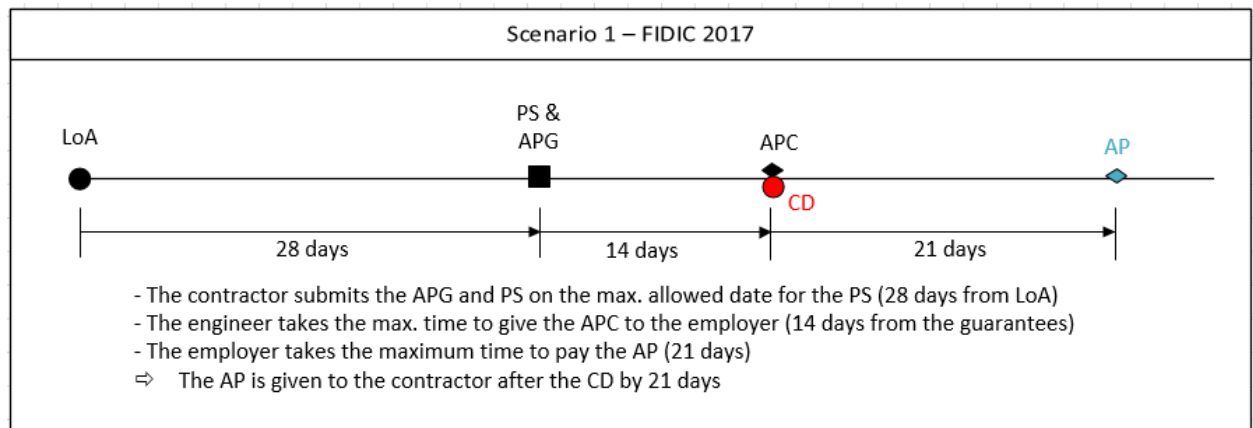


Figure 4.23 Scenario 1 - FIDIC 2017

In Scenario 2 (Figure 4.24) it is seen that although the Employer gives the payment early after certification, the payment is still received after the Commencement Date. And even if the Engineer certifies the payment as early as 7 days from receiving the guarantees, the Contractor receives the first installment of the Advance Payment within 14 days from the Commencement Date, as seen in Scenario 3 (Figure 4.25). Thus, it is noticed that the early action by the Employer has a greater effect than that by the Engineer.

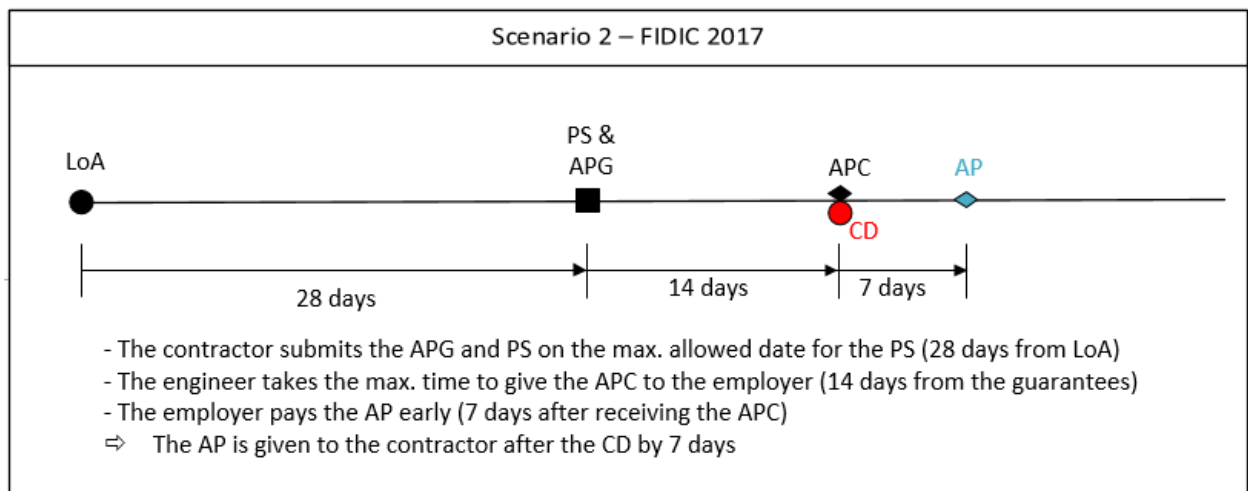


Figure 4.24 Scenario 2 - FIDIC 2017

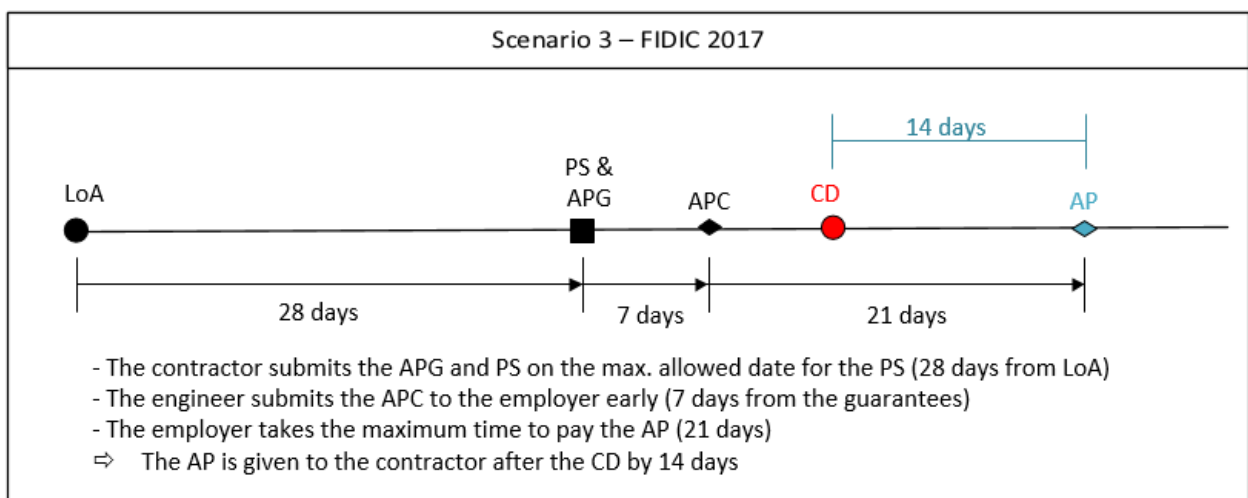


Figure 4.25 Scenario 3 - FIDIC 2017

In Scenario 4 (Figure 4.26), it is revealed that the behavior of the Employer and the Engineer is conducive in the deliverance of the Advance Payment early on. Even if the Contractor consumes the full time allocated in the contract to hand the guarantees, the Engineer and the Employer can assert a payment as early as the Commencement Date.

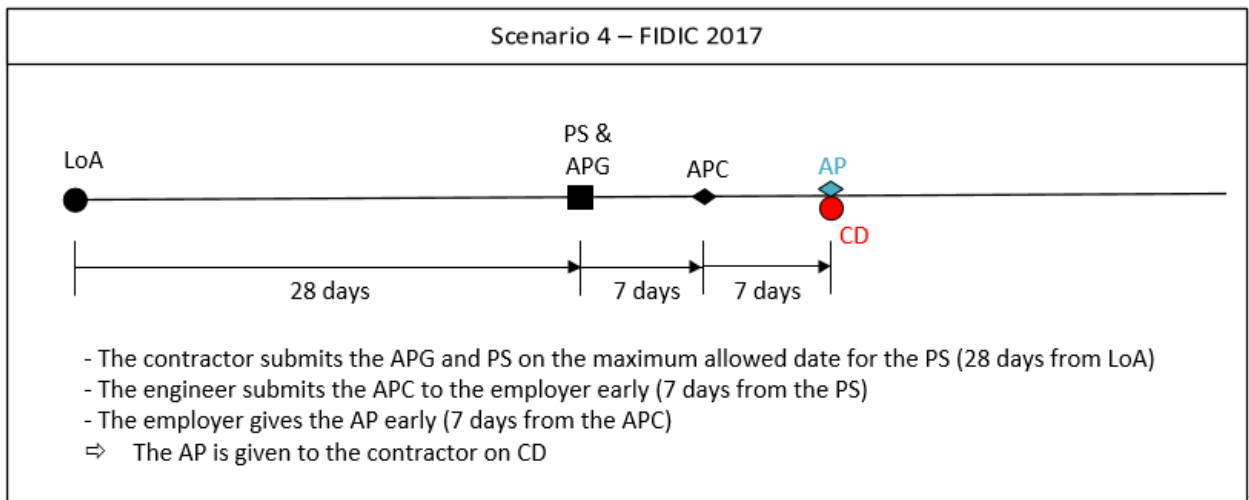


Figure 4.26 Scenario 4 - FIDIC 2017

However, when the Contractor is late to submit the Advance Payment Guarantee, he excludes the possibility of receiving the Advance Payment before or on the Commencement Date despite the rapidity in action by the Engineer or the Employer. This is revealed in Scenarios 5 to 8 (Figures 4.27 to 4.30).

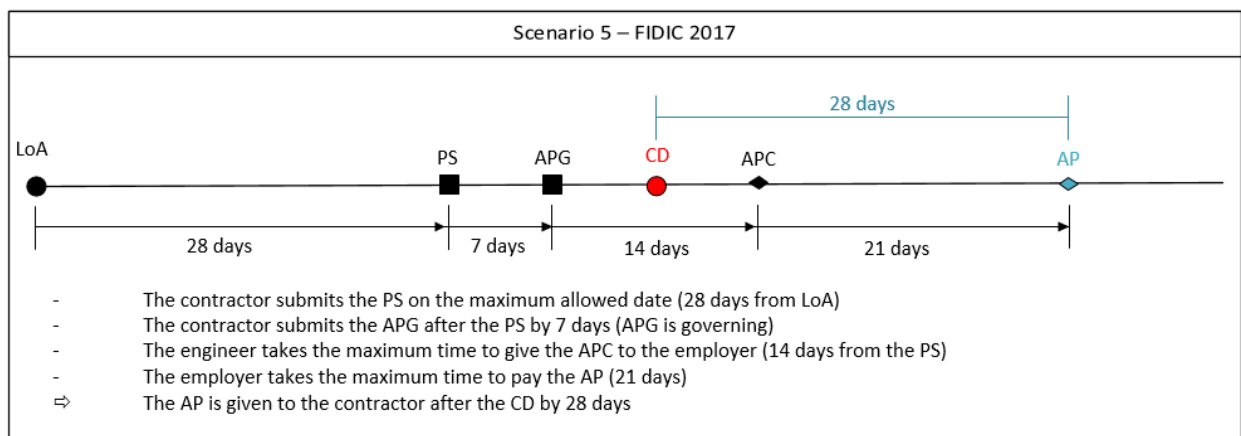


Figure 4.27 Scenario 5- FIDIC 2017



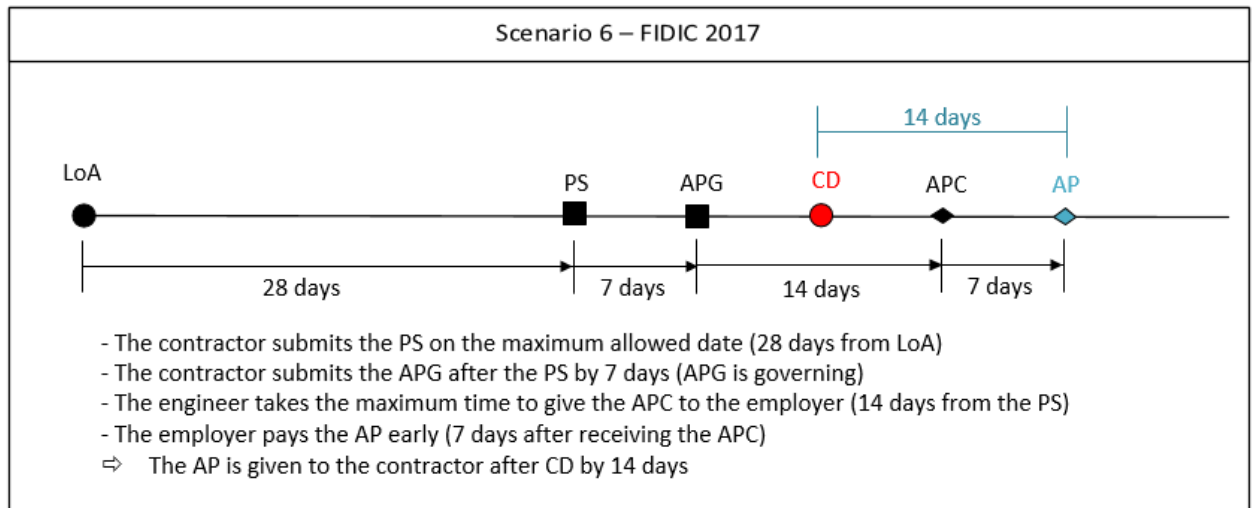


Figure 4.28 Scenario 6 - FIDIC 2017

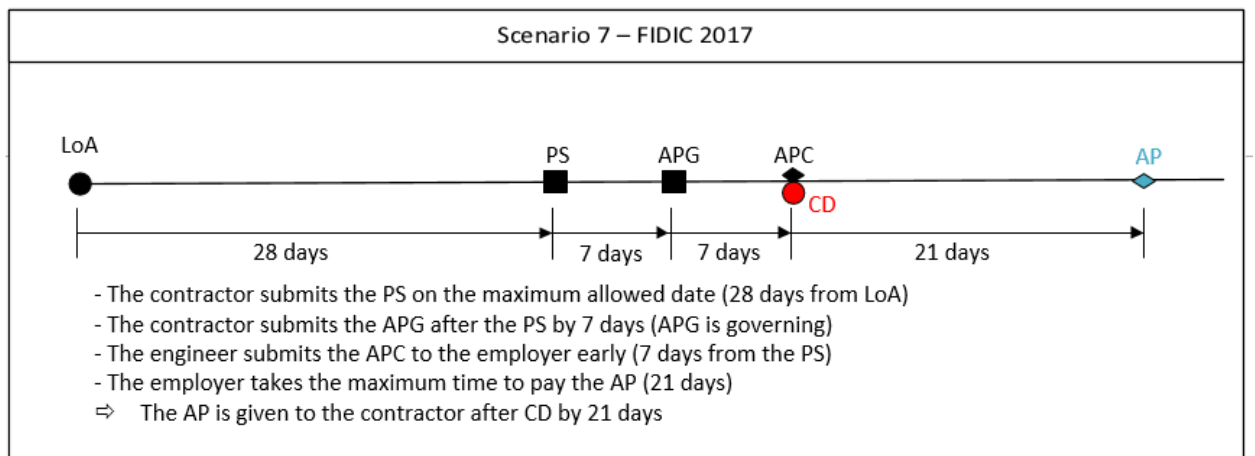


Figure 4.29 Scenario 7 - FIDIC 2017

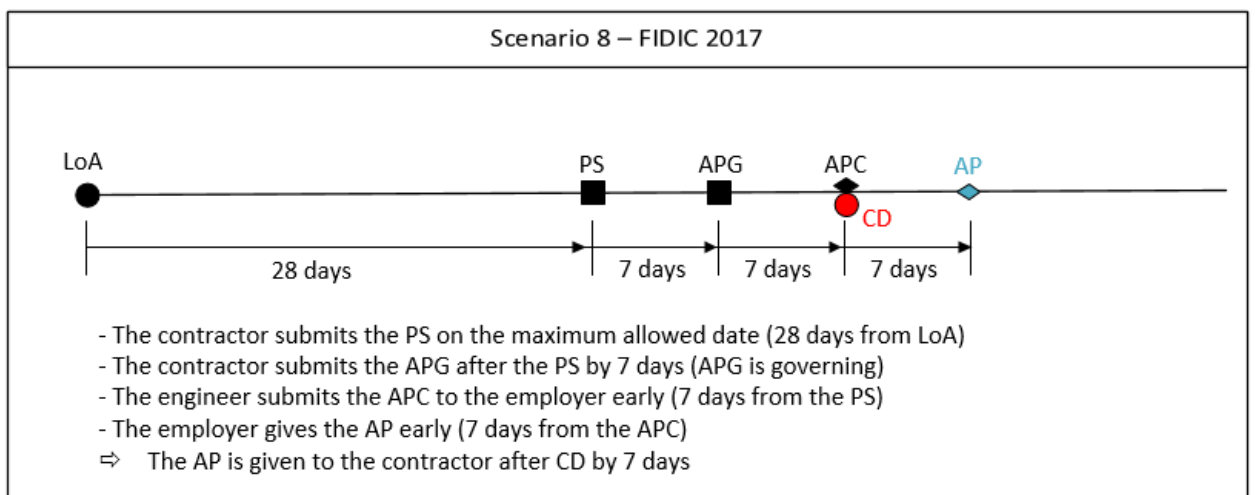


Figure 4.30 Scenario 8 - FIDIC 2017

Scenarios 9, 18, 19 and 20 deprive the Contractor from the Advance Payment due to the lack of either the Advance Payment Guarantee or the Performance Security, similar to the 1999 edition. The only difference is that the repercussions of the failure to submit the Performance Security are explained in sub-clause 15.2 (e) in FIDIC 2017.

Scenarios 10 through 13 (Figures 4.31 – 4.34) convey the advantage of submitting the guarantees early on. The Contractor could receive the Advance Payment on the Commencement Date if he gives the guarantees after 7 days from the Letter of Acceptance, and can even get it as early as 21 days before the works begin if the Engineer and the Employer are able to certify and give the payment within 7 days each.

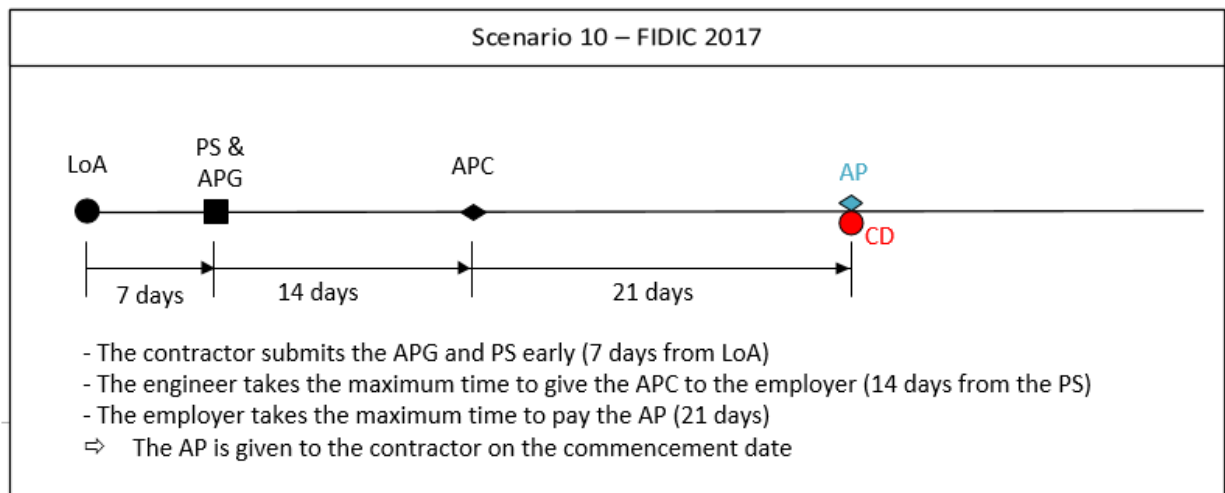


Figure 4.31 Scenario 10 - FIDIC 2017

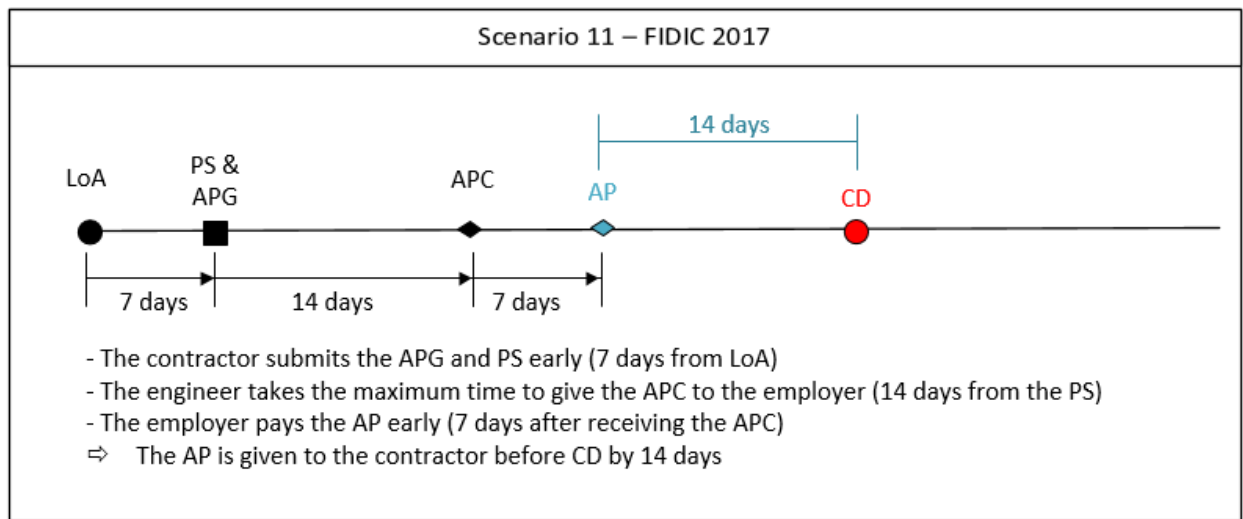


Figure 4.32 Scenario 11 - FIDIC 2017

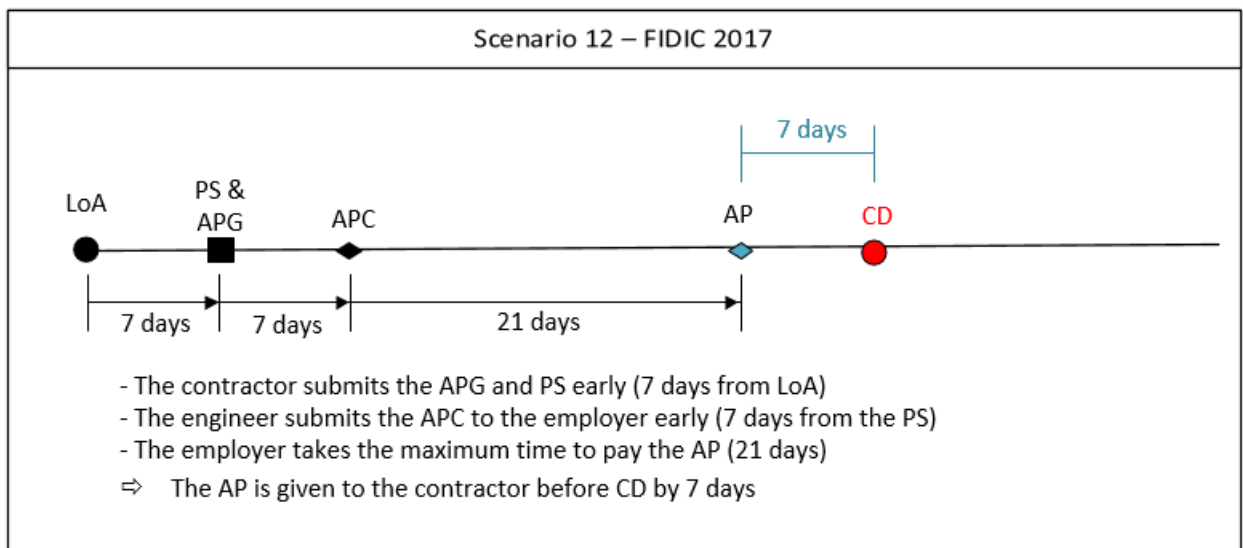


Figure 4.33 Scenario 12 - FIDIC 2017

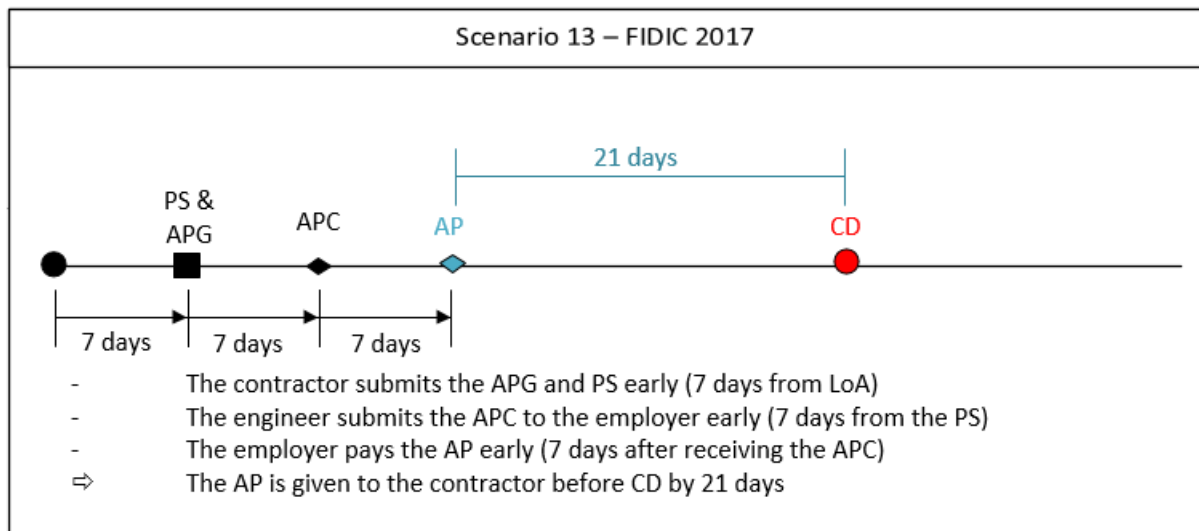


Figure 4.34 Scenario 13 - FIDIC 2017

Similar to the results above, Scenarios 14 to 17 (Figures 4.35 to 4.38) assert the importance of the Contractor's good relation with the banks and his good financial standing. This is observed through observing how the tardiness in delivering the Advance Payment Guarantee shifts the results of early delivery of guarantees by the delay made. Despite that, the Contractor can still attain the Advance Payment as early as 14 days before the Commencement Date if the Engineer and the Employer act promptly.

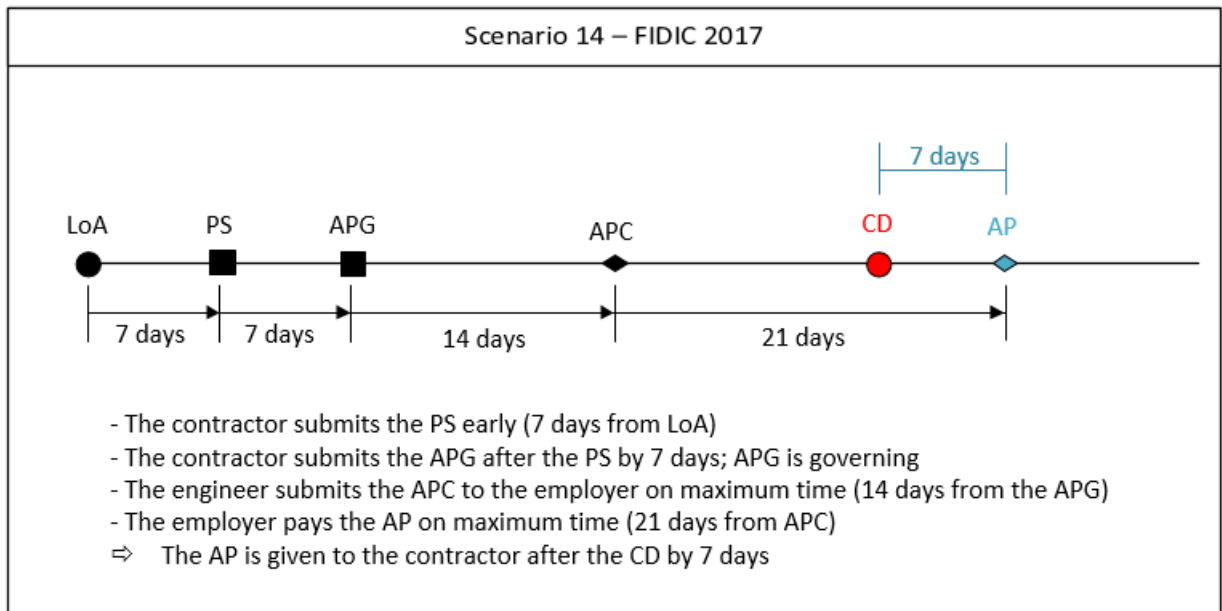


Figure 4.35 Scenario 14 - FIDIC 2017

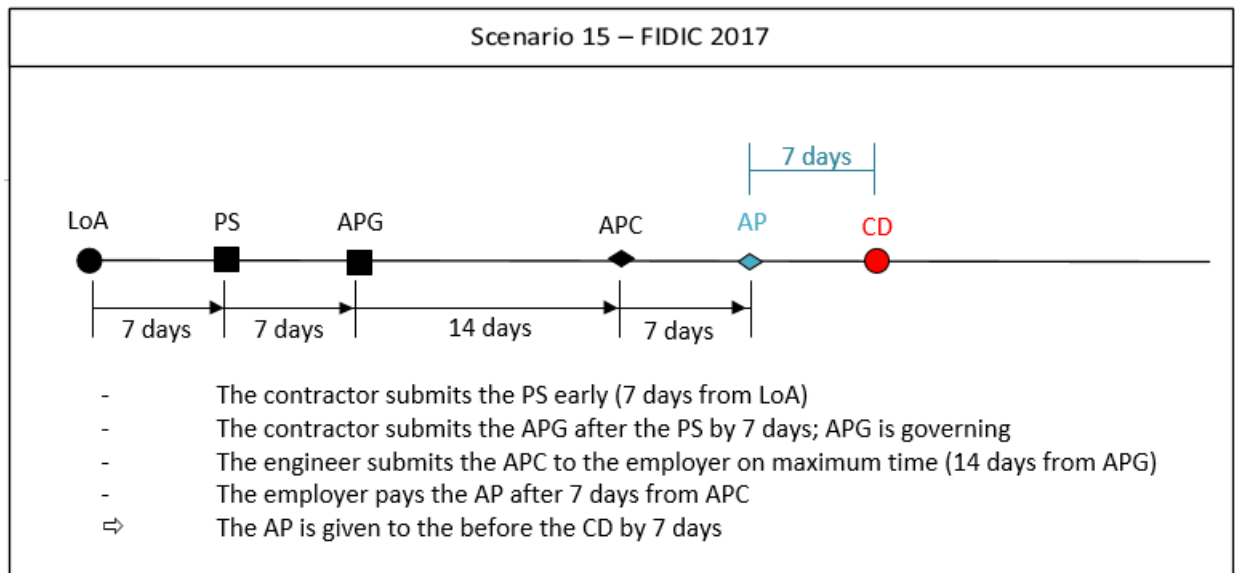


Figure 4.36 Scenario 15 - FIDIC 2017

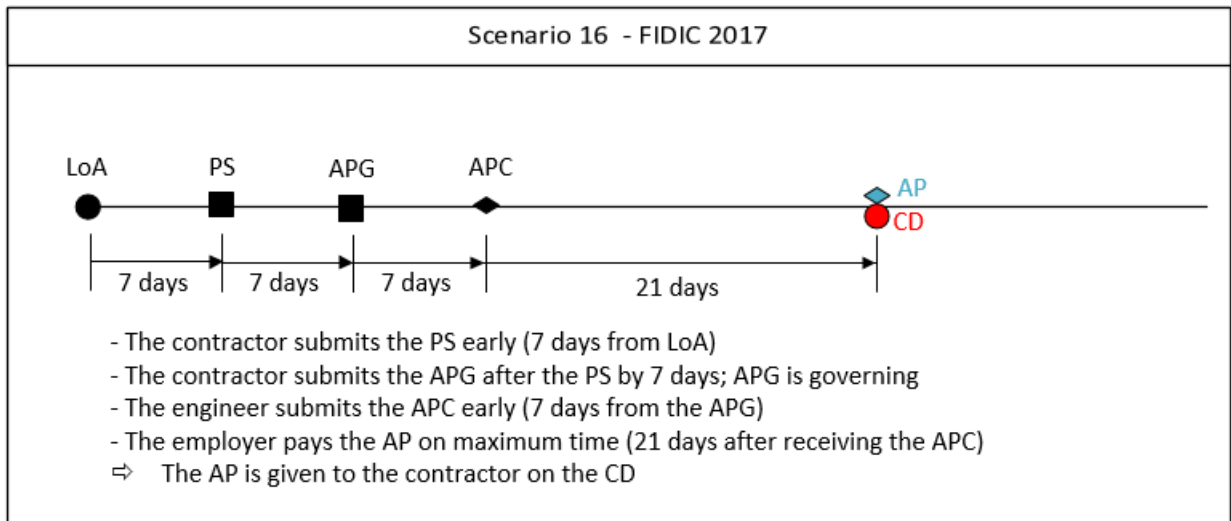


Figure 4.37 Scenario 16 - FIDIC 2017

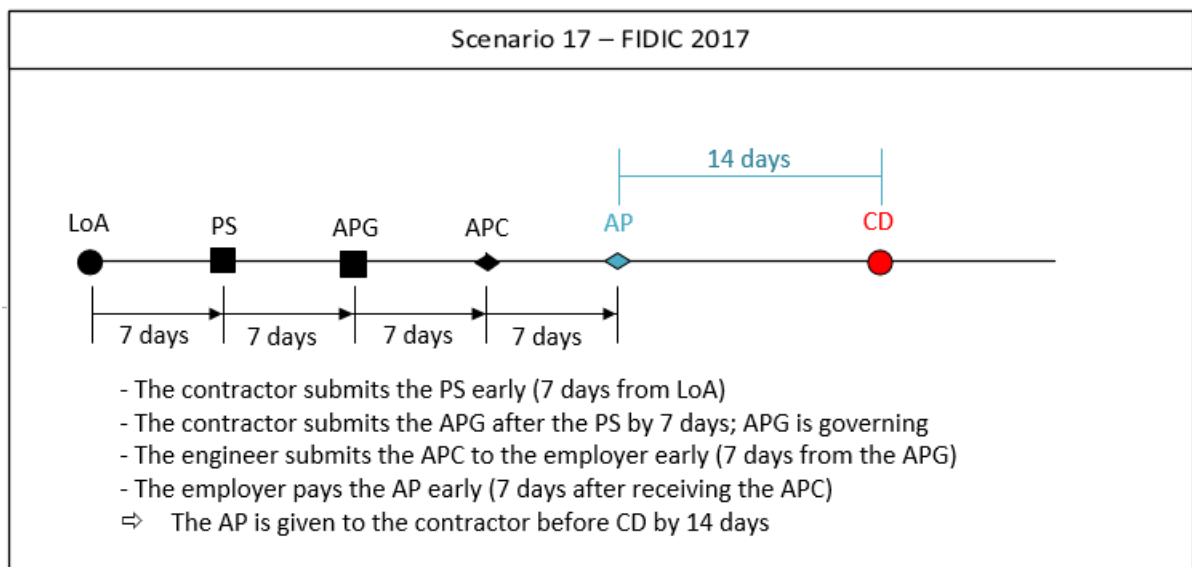


Figure 4.38 Scenario 17 - FIDIC 2017

In the following scenarios, the Employer assigns the Commencement Date at the maximum allowed time to submit the Performance Security. Since the earliest time between the Commencement Date and the Notice to Commence is 14 days, as assigned by

FIDIC 2017, this duration is used in the scenario formulation to assume maximum benefit by the Employer.

In Scenario 21 (Figure 4.39) the Contractor receives the Advance Payment after 35 days from the Commencement Date which is 14 days more than if the Commencement Date is at 42 days from the Letter of Acceptance in Scenario 1 (Figure 4.23). Thus, this action from the Employer puts a great burden on the Contractor also in the FIDIC 2017 edition, even greater than that due to the 1999 FIDIC conditions. However, the early behavior of the Engineer or the Employer make this duration shorter as seen in Scenarios 22 and 23 (Figures 4.40 and 4.41). And even if both are to certify and pay early, the first installment of the Advance Payment is handed at least 14 days after the Commencement Date as seen in Scenario 24 (Figure 4.42).

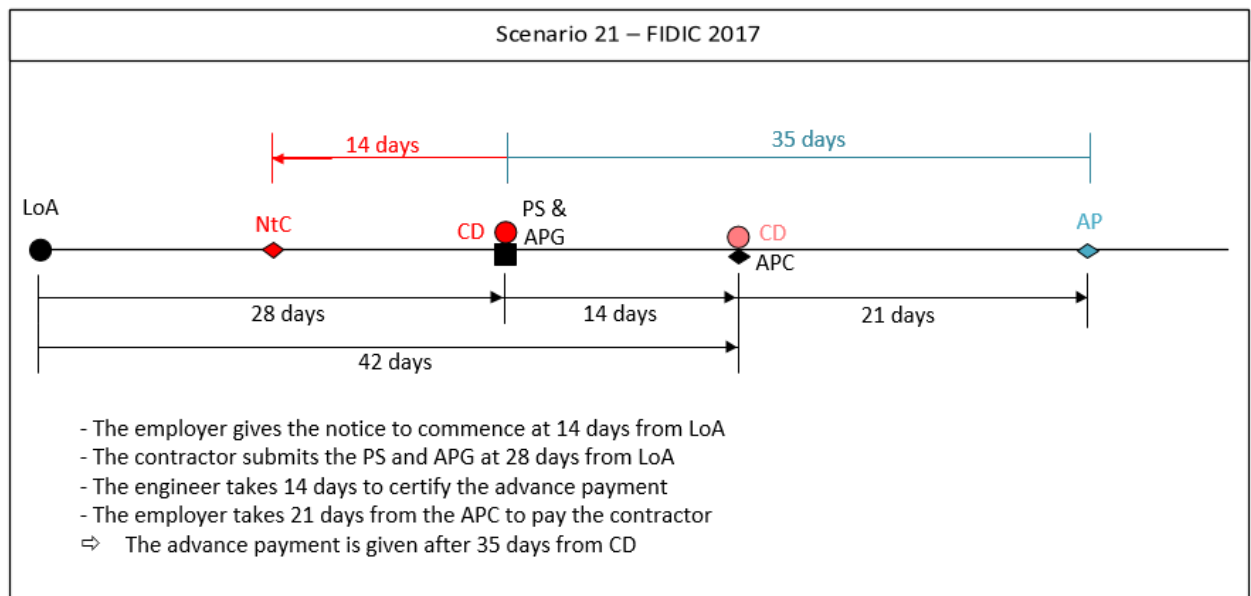


Figure 4.39 Scenario 21 - FIDIC 2017

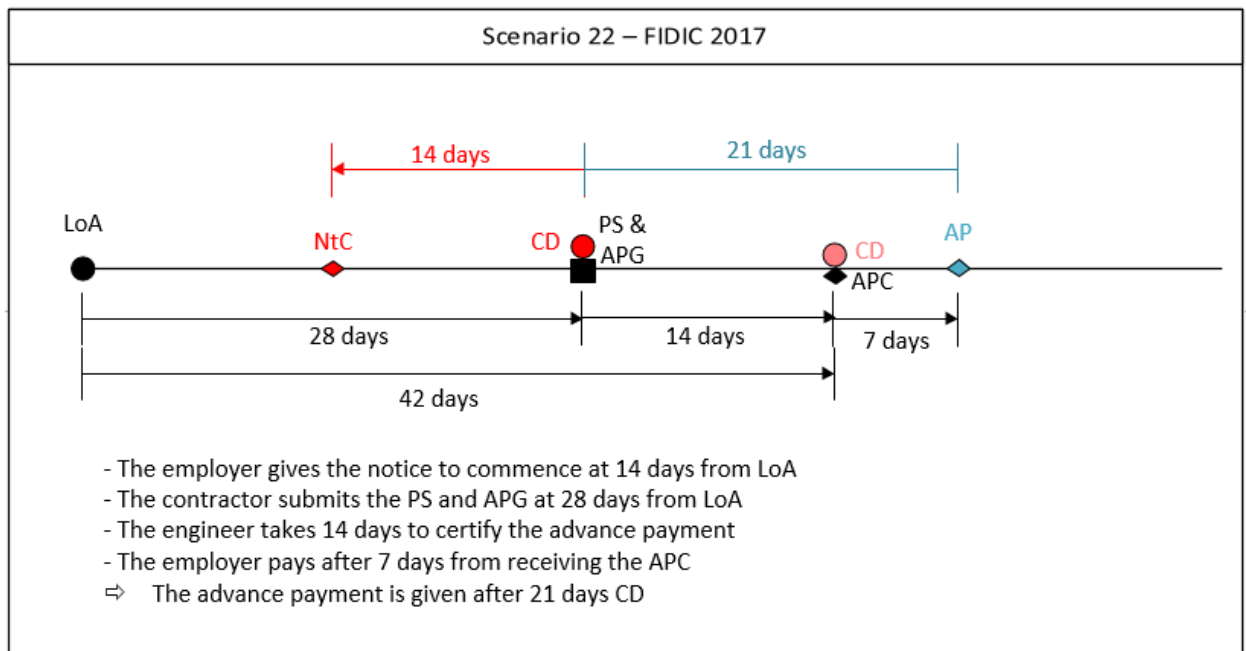


Figure 4.40 Scenario 22 - FIDIC 2017

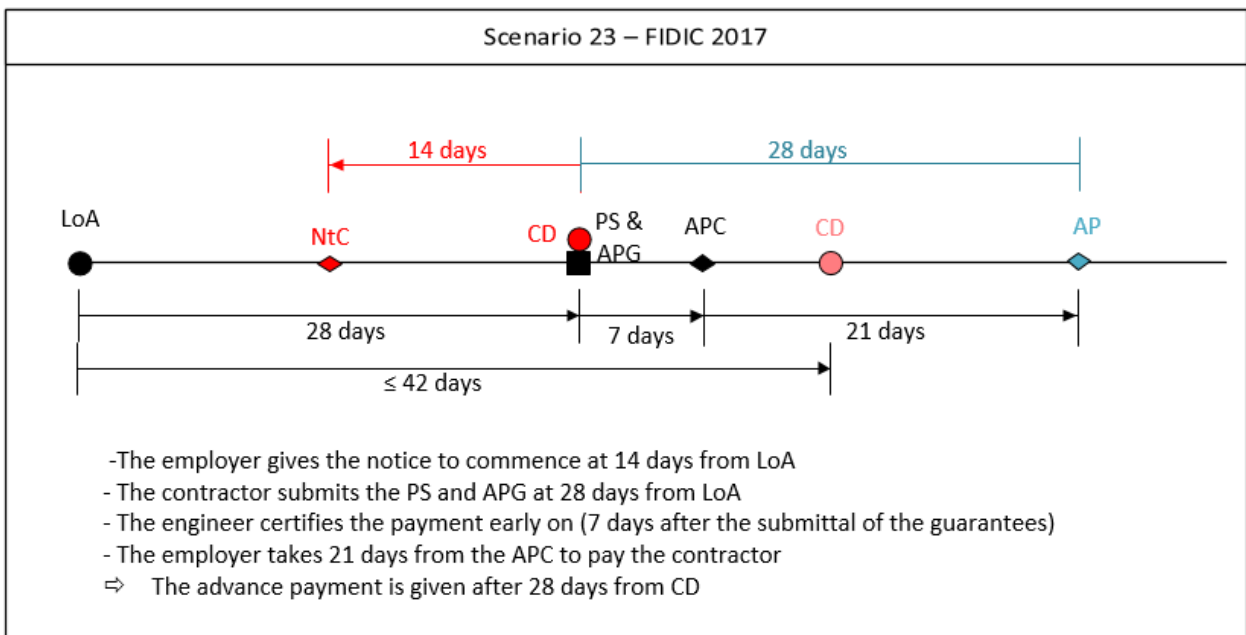


Figure 4.41 Scenario 23 - FIDIC 2017



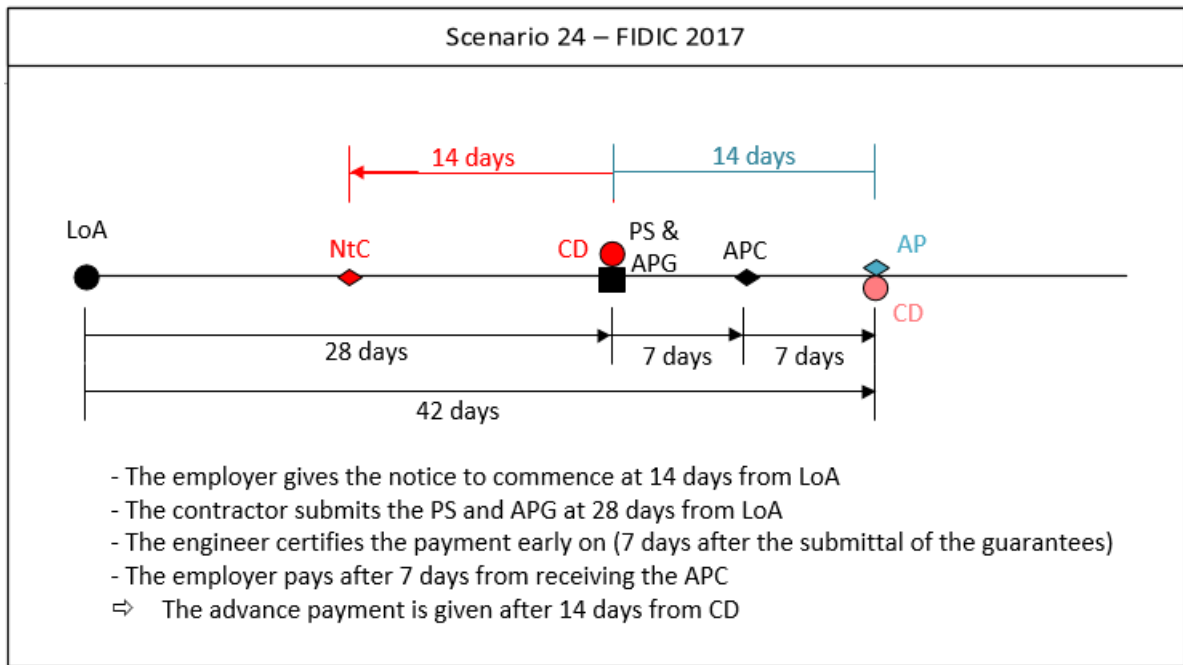


Figure 4.42 Scenario 24 - FIDIC 2017

The duration between the Commencement Date and the Advance Payment could further increase if the Contractor fails to submit the Advance Payment Certificate with the Performance Security. This is illustrated in Scenarios 25 to 28 (Figures 4.43 to 4.46), where the Engineer and the Employer's conducive behavior could attenuate the effect of the Contractor's latency.

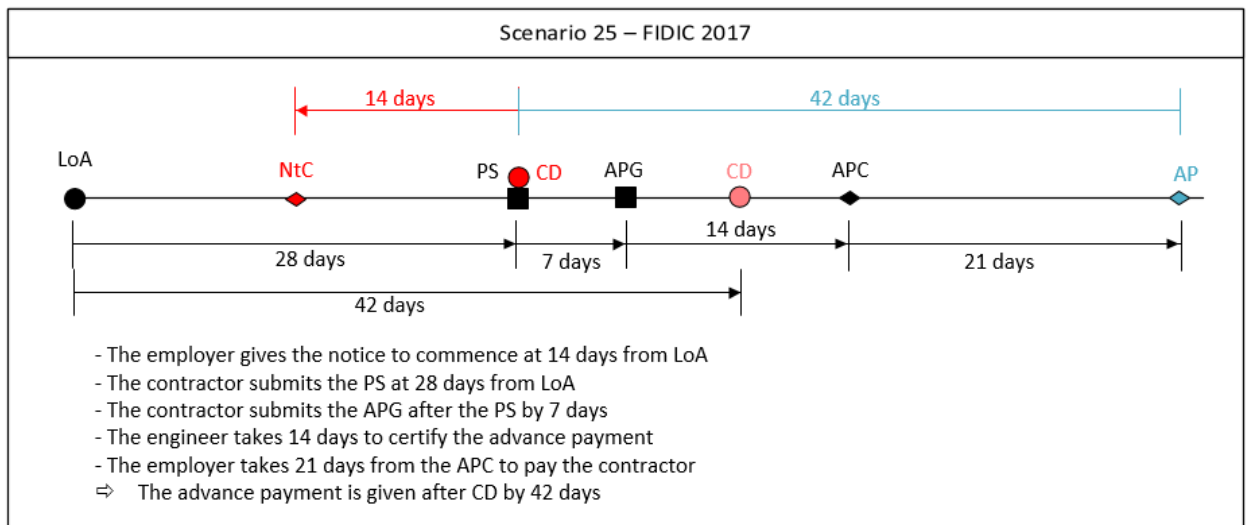


Figure 4.43 Scenario 25 - FIDIC 2017

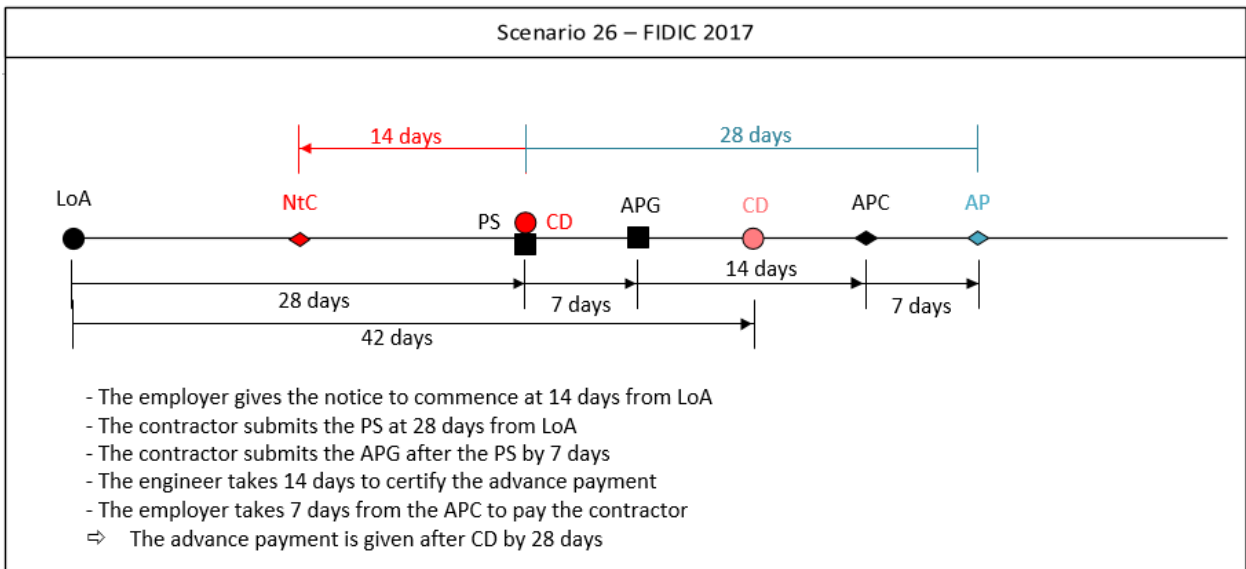


Figure 4.44 Scenario 26 - FIDIC 2017

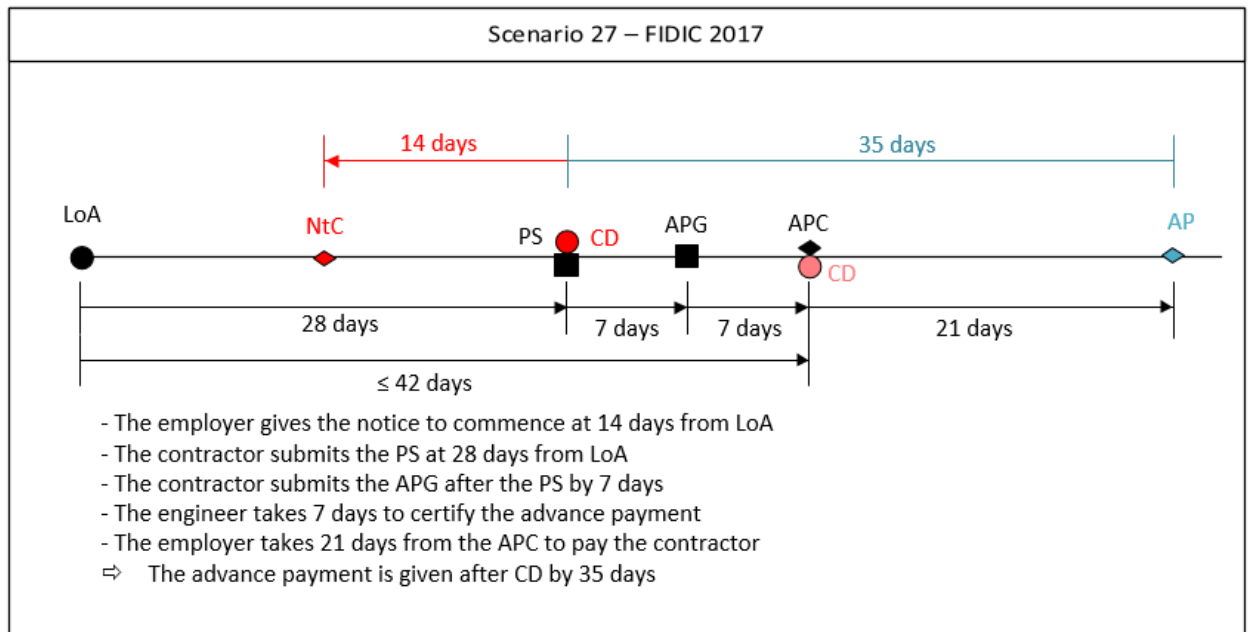


Figure 4.45 Scenario 27 - FIDIC 2017

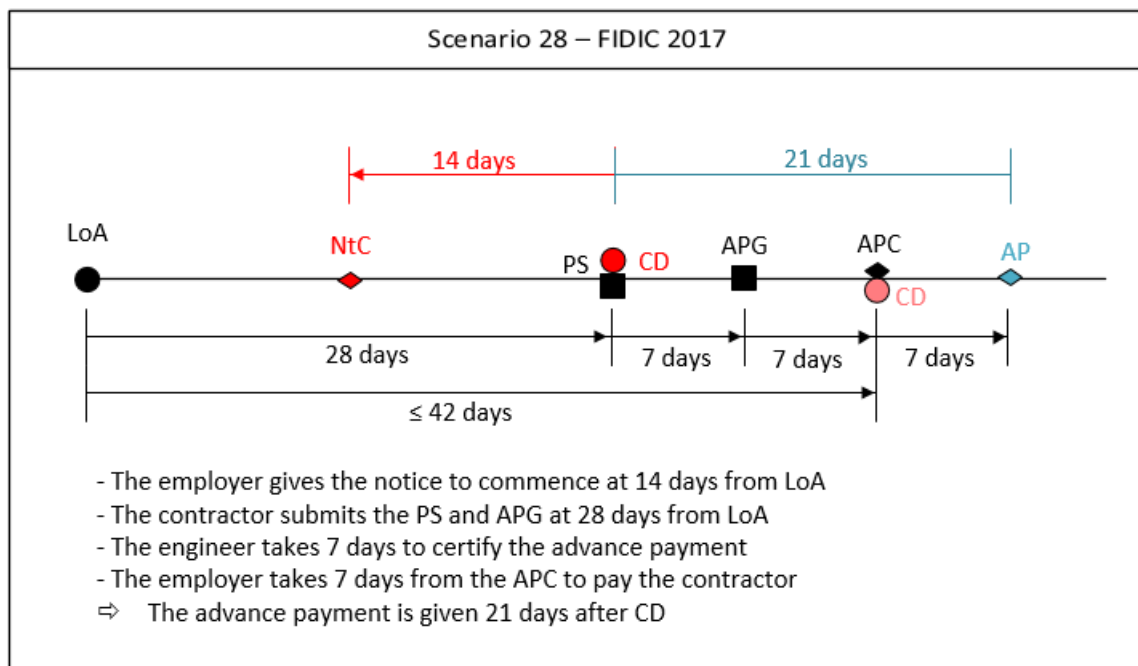


Figure 4.46 Scenario 28 - FIDIC 2017

The early submittal of documents by the Contractor could induce the early commencement of the project by the Employer giving the Notice to Commence as soon as Advance Payment Guarantee and the Performance Guarantee are handed. The Employer ensures maximum benefit with Commencement Date at 14 days from the notice, which is assumed in the relevant scenarios illustrated below. Scenario 32 (Figure 4.50) represents the optimum case for early commencement where all the participants act early-on and thus the Advance Payment is handed to the Contractor on the early Commencement Date.

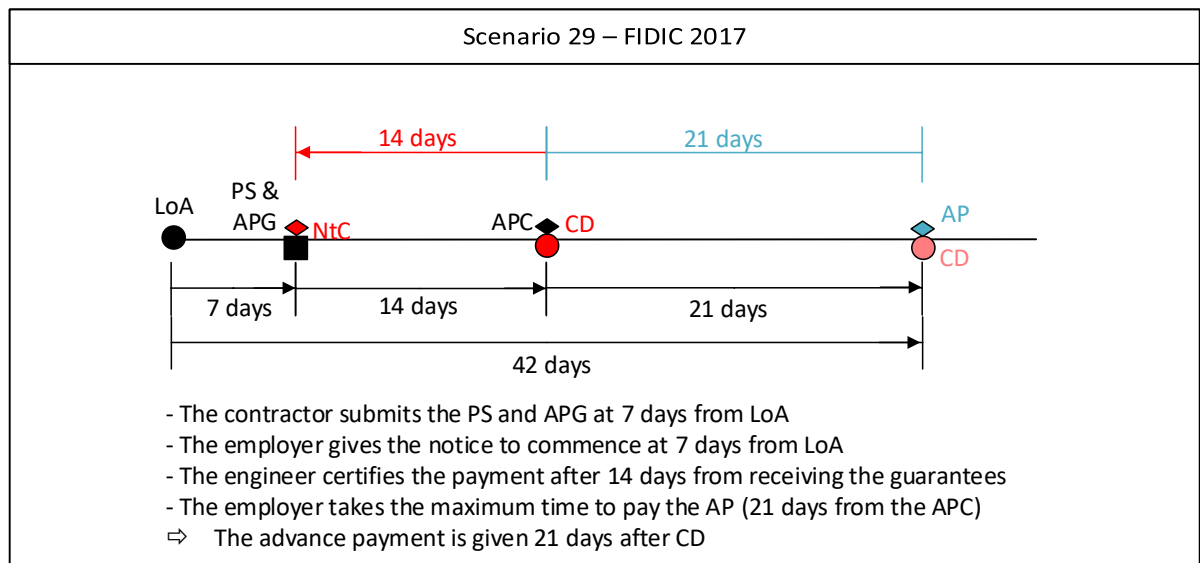


Figure 4.47 Scenario 29 - FIDIC 2017

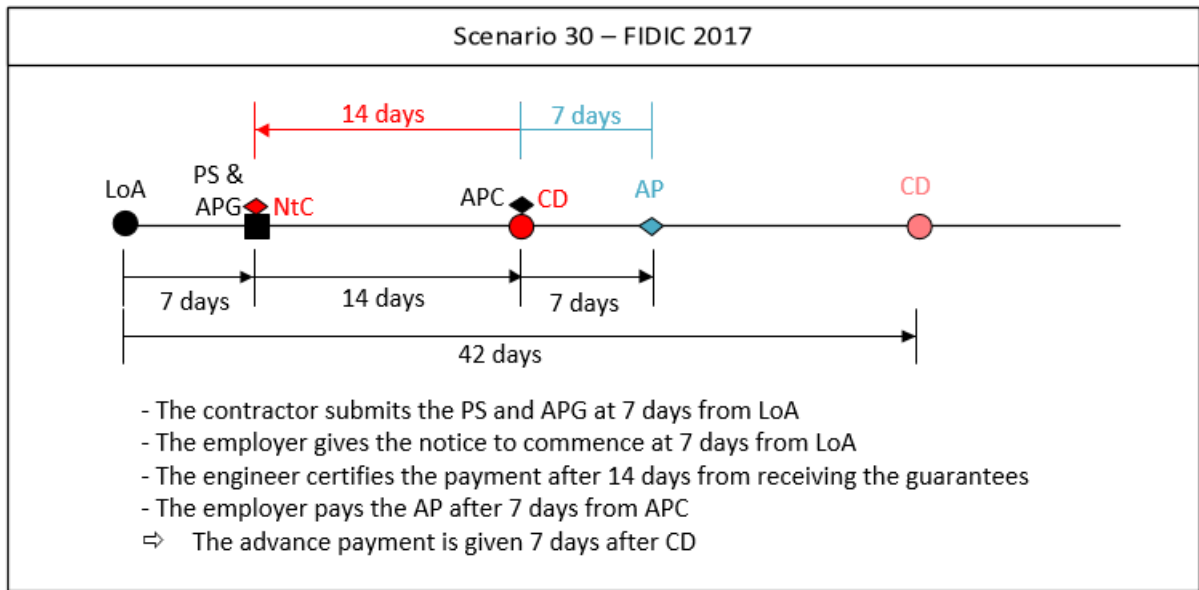


Figure 4.48 Scenario 30 - FIDIC 2017

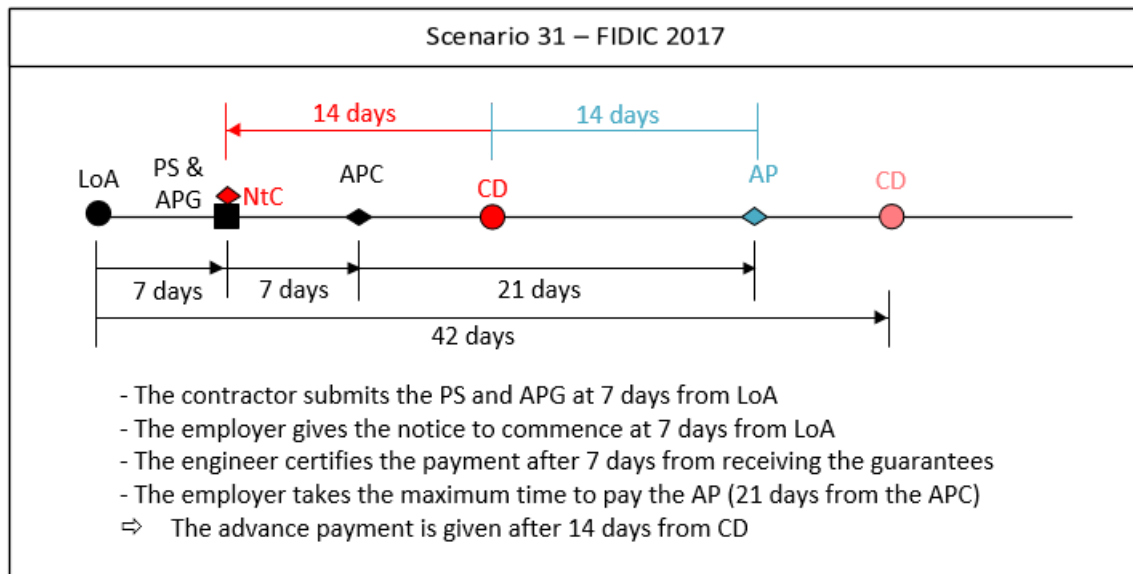


Figure 4.49 Scenario 31 - FIDIC 2017

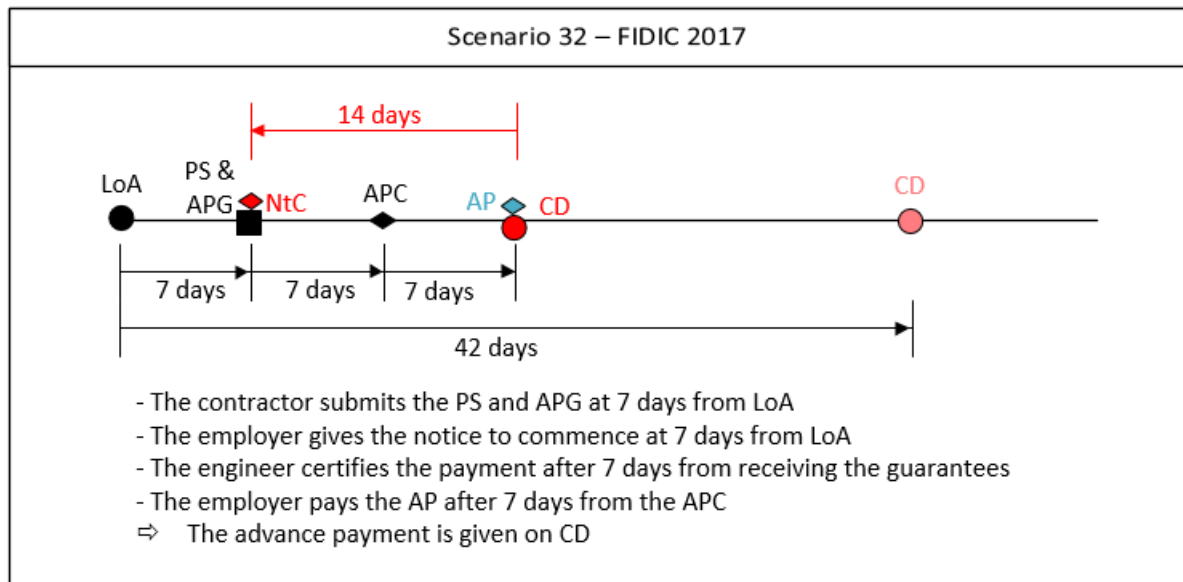


Figure 4.50 Scenario 32 - FIDIC 2017

In Scenarios 33 to 36 (Figures 4.51 to 4.54) the conditions for the early Commencement Date persist with the only variance of the Advance Payment Certificate being handed after the Performance Security. This definitely delays the first installment of the Advance Payment.

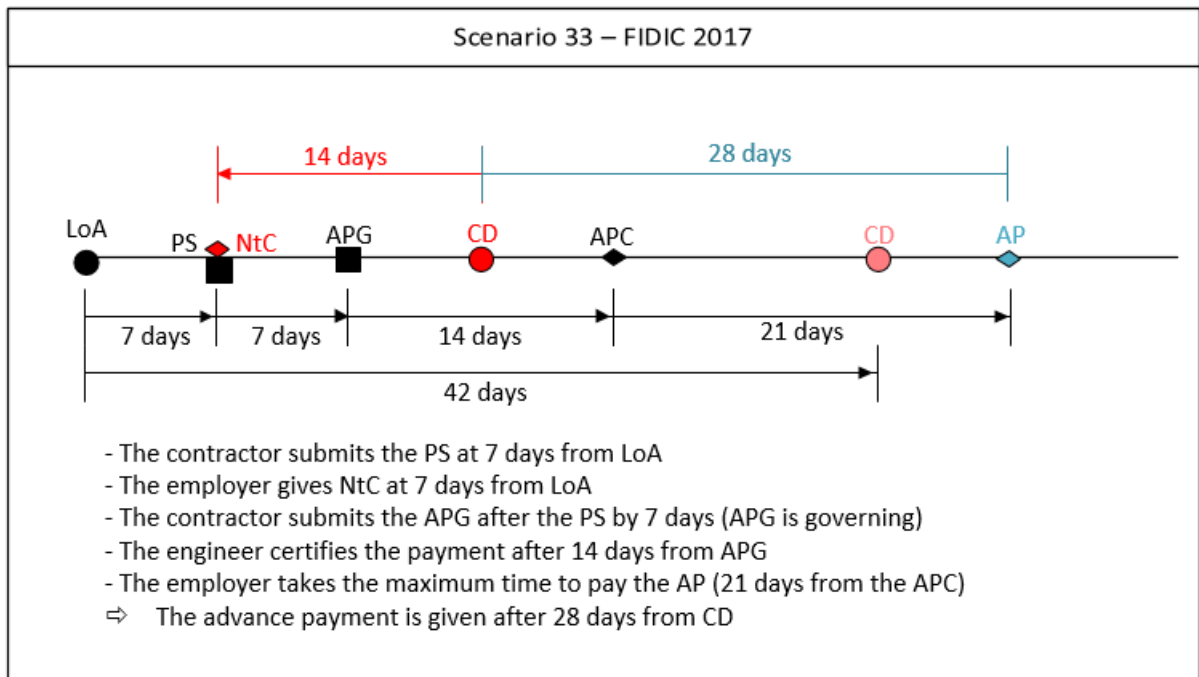


Figure 4.51 Scenario 33 - FIDIC 2017

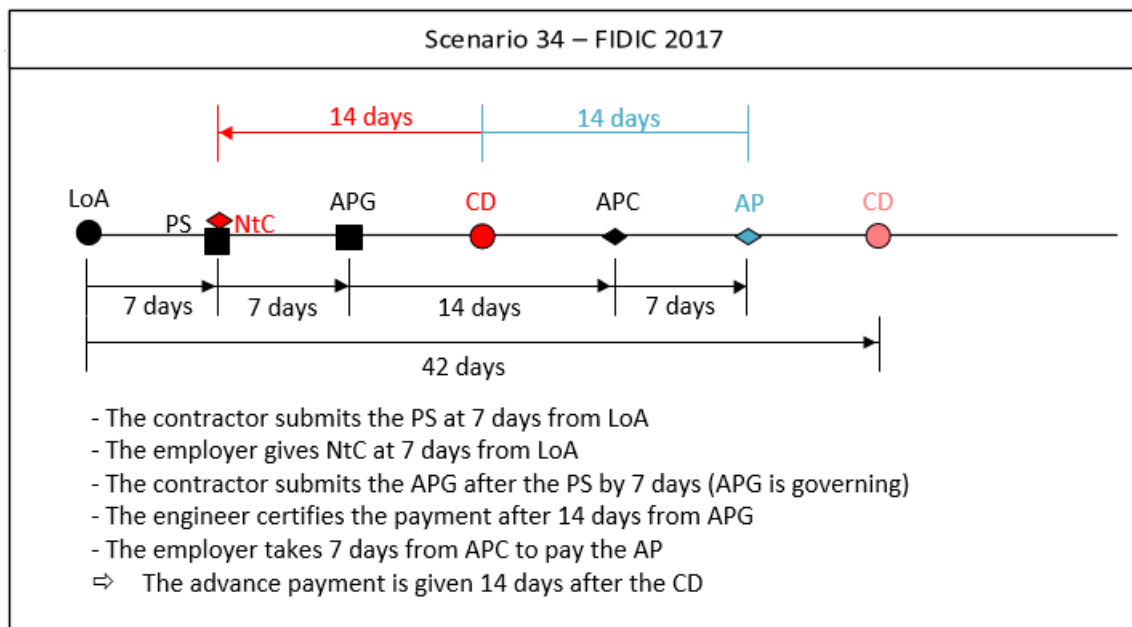


Figure 4.52 Scenario 34 - FIDIC 2017

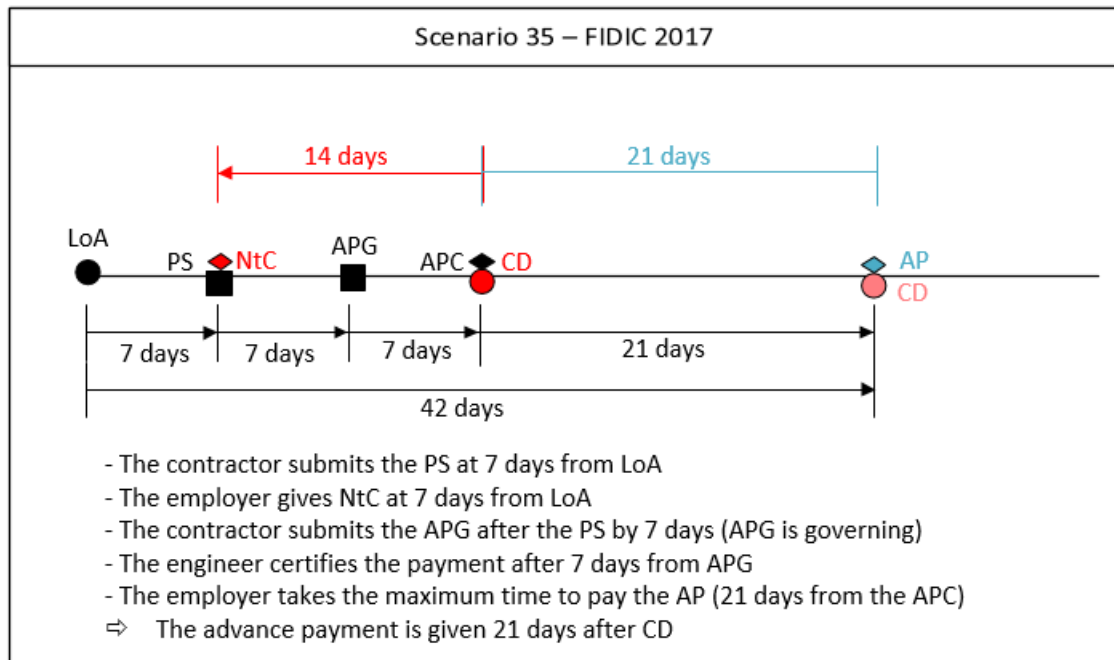


Figure 4.53 Scenario 35 - FIDIC 2017

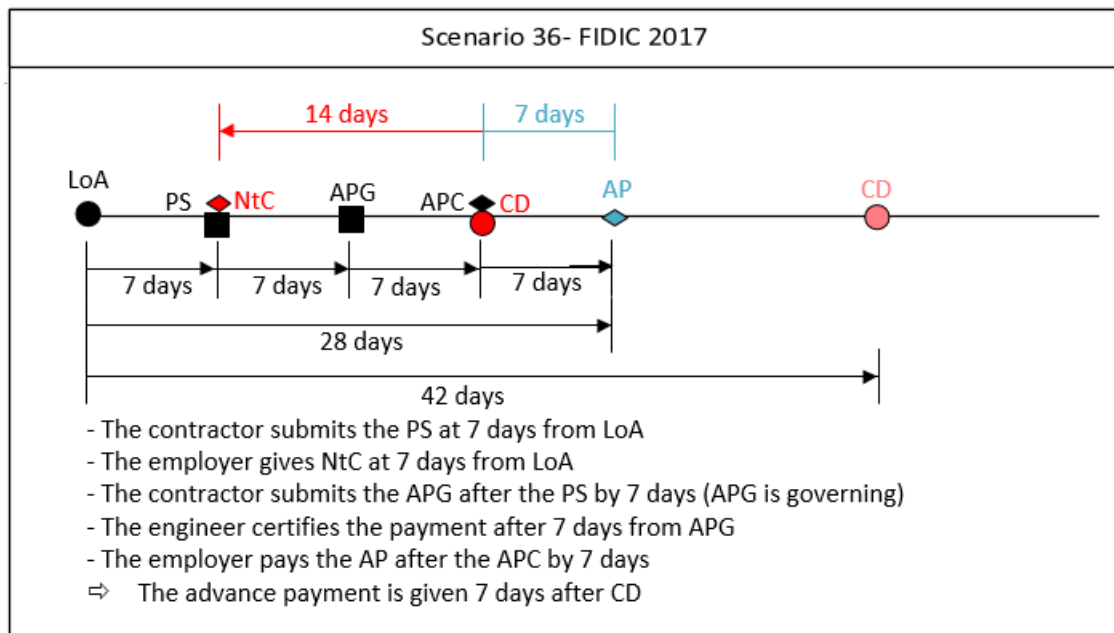


Figure 4.54 Scenario 36 - FIDIC 2017

#### 4.2.5 Summary of the Scenarios Based on FIDIC 2017 Contract Conditions

Table 4.4 includes a summary of the scenario simulation based on FIDIC 2017.



Table 4.4 Results of the timeline scenarios based on FIDIC 2017

<b>Scenarios Based on FIDIC 2017 Conditions of Contract</b>					
<b>Scenario</b>	<b>Time to submission of PS from LoA</b>	<b>Time to submission of APG from LoA</b>	<b>Time to submission of APC from PS and/or APG</b>	<b>Timing of AP from APC</b>	<b>Timing of AP from CD</b>
<b>CD at 42 days from LoA</b>					
1	28 days	28 days	14 days	21 days	+ 21 days
2	28 days	28 days	14 days	7 days	+7 days
3	28 days	28 days	7 days	21 days	+ 14 days
4	28 days	28 days	7 days	7 days	0 days
5	28 days	35 days	14 days	21 days	+ 28 days
6	28 days	35 days	14 days	7 days	+ 14 days
7	28 days	35 days	7 days	21 days	+ 21 days
8	28 days	35 days	7 days	7 days	+ 7 days
9	28 days	Not submitted	—	—	—
10	7 days	≤ 7 days	14 days	21 days	0 days
11	7 days	≤ 7 days	14 days	7 days	- 14 days
12	7 days	≤ 7 days	7 days	21 days	- 7 days
13	7 days	≤ 7 days	7 days	7 days	- 21 days
14	7 days	14 days	14 days	21 days	+ 7 days
15	7 days	14 days	14 days	7 days	- 7 days
16	7 days	14 days	7 days	21 days	0 days
17	7 days	14 days	7 days	7 days	- 14 days
18	7 days	Not submitted	—	—	—
19	Not submitted	Anytime on timeline	—	—	—
20	Not submitted	Not submitted	—	—	—
<b>Early CD at 28 days from LoA (Employer gaining 14 days on the contract duration)</b>					
21	28 days	28 days	14 days	21 days	+ 35 days
22	28 days	28 days	14 days	7 days	+ 21 days
23	28 days	28 days	7 days	21 days	+ 28 days
24	28 days	28 days	7 days	7 days	+ 14 days
25	28 days	35 days	14 days	21 days	+ 42 days
26	28 days	35 days	14 days	7 days	+ 28 days
27	28 days	35 days	7 days	21 days	+ 35 days
28	28 days	35 days	7 days	7 days	+ 21 days
<b>Early CD induced by early PS (Contractor gaining 21 days on the contract duration)</b>					
29	7 days	≤ 7 days	14 days	21 days	+ 21 days
30	7 days	≤ 7 days	14 days	7 days	+ 7 days
31	7 days	≤ 7 days	7 days	21 days	+ 14 days
32	7 days	≤ 7 days	7 days	7 days	0 days
33	7 days	14 days	14 days	21 days	+ 28 days
34	7 days	14 days	14 days	7 days	+ 14 days
35	7 days	14 days	7 days	21 days	+ 21 days
36	7 days	14 days	7 days	7 days	+ 7 days

## 4.1 Summary of the Results

Based on the conditions tackled through the represented scenarios, the tables below present a comparative summary of the results for all the scenarios for both editions.

Table 4.5 Summary and comparison for the scenarios of both editions (1)

Analysis of the Scenarios - CD at 42 days from LoA				
Scenario Number		Conditions	Timing of AP from CD, 1999	Timing of AP from CD, 2017
1999	2017			
1	1	Maximum time frame	+ 7 days	+ 21 days
2	2	early AP	- 7 days	+7 days
-	3	early APC	-	+ 14 days
-	4	early APC, early AP	-	0 days
<b>Result</b>		The Employer and the Engineer (2017) have a conducive role in the timing of the Advance Payment.		
3	5	APG after PS	+ 14 days	+ 28 days
4	6	APG after PS, early AP	0 days	+ 14 days
-	7	APG after PS, early APC	-	+ 21 days
-	8	APG after PS, early APC and AP	-	+ 7 days
<b>Result</b>		The Contractor's delay in the submittal of the documents risks the timing of the AP. The Employer and the Engineer (2017) could attenuate the effect. The AP is not received before the CD no matter how early the Employer and the Engineer are.		
6	10	early PS and APG	- 14 days	0 days
7	11	early PS and APG, early AP	-28 days	- 14 days
-	12	early PS and APG, early APC	-	- 7 days
-	13	early PS, APG, APC and AP	-	- 21 days
<b>Result</b>		An early C definitely makes a great advantage to the timing of the AP and definitely has it on time or even less in the 2017 edition; in the 1999 edition, the early O and E make things even better.		
8	14	early PS, APG after PS	- 7 days	+ 7 days
9	15	early PS, APG after PS, early AP	- 21 days	- 7 days
-	16	early PS, APG after PS, early APC	-	0 days
-	17	early PS, APG after PS, early APC and AP	-	- 14 days
<b>Result</b>		The submittal of the APG after the PS increases the time to the AP since it is linked to the later document.		
5	9	PS on time, no APG	—	—
10	18	early PS, no APG	—	—
11	19	no PS, APG any time on timeline	—	—
12	20	no PS, no APG	—	—
<b>Result</b>		The absence of either of the guarantees excludes the attainment of the Advance Payment.		

Table 4.6 Summary and comparison for the scenarios of both editions (2)

<b>Analysis of the Scenarios - Early CD at 28 days from LoA</b>					
<b>Scenario Number</b>		<b>Conditions</b>	<b>Timing of AP from CD, 1999</b>	<b>Timing of AP from CD, 2017</b>	<b>Time gained by Employer</b>
<b>1999</b>	<b>2017</b>				
<b>13</b>	<b>21</b>	CD at 28 days from LoA, maximum time frame for PS, APG and APC	+ 21 days	+ 35 days	14 days
<b>14</b>	<b>22</b>	CD at 28 days from LoA, Early PG and APG, early AP	+ 7 days	+ 21 days	14 days
-	<b>23</b>	CD at 28 days from LoA, Early PG and APG, early APC	-	+ 28 days	14 days
-	<b>24</b>	CD at 28 days from LoA, Early PG and APG, early APC, early AP	-	+ 14 days	14 days
<b>Result</b>		Setting the CD on 28 days after the LoA puts a great burden on the Contractor on both finance and schedule.			
<b>15</b>	<b>25</b>	CD at 28 days from LoA, APG after PS	+ 28 days	+ 42 days	14 days
<b>16</b>	<b>26</b>	CD at 28 days from LoA, APG after PS, early AP	+ 14 days	+ 28 days	14 days
	<b>27</b>	CD at 28 days from LoA, APG after PS, early APC	-	+ 35 days	14 days
	<b>28</b>	CD at 28 days from LoA, APG after PS, early APC and AP	-	+ 21 days	14 days
<b>Result</b>		Submitting the APG after the PS and CD increases the time to get the AP.			

Table 4.7 Summary and comparison for the scenarios of both editions (3)

<b>Analysis of the Scenarios - Early CD induced by early PS</b>						
<b>Scenario Number</b>		<b>Conditions</b>	<b>Timing of AP from CD, 1999</b>	<b>Time gained by Employer, 1999</b>	<b>Timing of AP from CD, 2017</b>	<b>Time gained by Employer, 2017</b>
<b>1999</b>	<b>2017</b>					
<b>17</b>	<b>29</b>	early PS and APG, early CD	+ 14 days	28 days	+ 21 days	21 days
<b>18</b>	<b>30</b>	early PS and APG, early CD, early AP	0 days	28 days	+ 7 days	21 days
-	<b>31</b>	early PS and APG, early CD, early APC	-	-	+ 14 days	21 days
-	<b>32</b>	early PS and APG, early CD, early AP and APC	-	-	0 days	21 days
<b>Result</b>		When the CD is made earlier based on the Contractor's due-diligence, this also puts the Contractor in front of a late AP unless the Employer (1999) and the Engineer (2017) act rapidly.				

<b>Analysis of the Scenarios - Early CD induced by early PS</b>						
<b>Scenario Number</b>		<b>Conditions</b>	<b>Timing of AP from CD, 1999</b>	<b>Time gained by Employer, 1999</b>	<b>Timing of AP from CD, 2017</b>	<b>Time gained by Employer, 2017</b>
<b>1999</b>	<b>2017</b>					
<b>19</b>	<b>33</b>	early PS, APG after PS, early CD	+ 21 days	28 days	+ 28 days	21 days
<b>20</b>	<b>34</b>	early PS, APG after PS, early CD, early AP	+ 7 days	28 days	+ 14 days	21 days
-	<b>35</b>	early PS, APG after PS, early CD, early APC	-	-	+ 21 days	21 days
-	<b>36</b>	APG after PS, early CD, early AP and APC	-	-	+ 7 days	21 days
<b>Result</b>		Even if the CD is earlier, the delay in the submittal of the APG increases the time to get the AP.				

The scenarios presented in this chapter reveal that the maximum time bars stipulated by FIDIC 1999 conditions lead to the Contractor entering the site without the first installment of the Advance Payment in hand; but instead, the Contractor receives it after a week from the Commencement Date. Moreover, this duration is prone to further increase if the Contractor fails to submit the Advance Payment Guarantee with the Performance Security for financial reasons or organizing with the financial institutions. The maximum observed timing for the Advance Payment is thus at 14 days after the Commencement Date. Thus, the presence of this gap precludes the purpose of the Advance Payment for serving mobilization to the site.

However, on the other hand, the early behavior of the Employer could assist the Contractor with respect to the timing of the Advance Payment. The optimum scenario lies in having both the Contractor and the Employer expeditiously acting on the submittal of the guarantees and the payment respectively. This is achieved through the strong financial standing of the Contractor, the ease of operations in the bank, and smooth actions in the

Employer's organization. This can result an Advance Payment as early as 28 days before the Commencement Date which shall give a great time for the Contractor to prepare himself and get ready for the site and works.

However, in the cases where the Employer tries to take advantage of the timbers and chooses to specify the Commencement Date at 28 days from the Letter of Acceptance, the duration between the Commencement Date and the Advance Payment could jump up to 21 days. This reveals that although the Employer is working in accordance to the specified time bars, but with this step, he is depriving the Contractor from 2 weeks of the contract duration which will affect the Contractor's ability to mobilize at ease to the site. The Employer thinks he is benefiting by gaining 14 days on the schedule, but in fact he is not, since the Contractor is mobilizing without the Advance Payment in hand. And even if the Employer is able to hand the first installment of the Advance Payment early-on in this situation, it will still be given after the Commencement Date. The delay from the Contractor to submit the Advance Payment Guarantee further increases the damage which will definitely strain the Contractor's financial and scheduling programs. This condition reflects the Employer's readiness to submit the site to the Contractor and allow the clock to tick, thus acting with smartness in terms of tactics but lack of managerial forecast.

This also applies to the situations of early submittal of the Performance Security triggering the issuance of the Notice to Commence, also by the Employer trying to make righteous advantage of the time bars by shifting backward the Commencement Date. The Employer is gaining 28 days, but there is double penalty on the Contractor: the time starts ticking earlier and he is not fully ready for execution. Despite that, the Advance Payment may be received on the Commencement Date if the Employer pays early-on. Similar to the

earlier settings, the Contractor delays himself furthermore if he is unable to hand in the Advance Payment Guarantee with the Performance Security.

As for the FIDIC 2017 Red Book edition, the time frame drawn by the contract conditions delays the first installment of the Advance Payment to 21 days after the Commencement Date due to the 14-days duration allowed to the Engineer to certify the payment. This puts the Contractor in great urge to be able to submit the Advance Payment Guarantee and the Performance Security as soon as possible in order to attain the Advance Payment before or on the Commencement Date combined with both the Engineer and the Employer performing expeditiously.

However, in the scenarios pertaining to the change of the Notice to Commence, the duration between the first installment of the Advance Payment and the commencement of the works is decreased to 7 days. This is due to the additional change in the minimum time between the notice and the Commencement Date, which revealed a decrease of 7 days between both FIDIC versions.

Further analysis of the scenarios presented above reveals that in 7/20 (35%) of the cases in the 1999 edition, the Contractor is handed the Advance Payment before the Commencement Date. Whereas in the 2017 edition this ratio is 9/36 (25%) of the scenarios. This reveals that inserting the time for certifying the Advance Payment by the Engineer and increasing the minimum time between the Commencement Date and its notice intensifies the gap between the Advance Payment and the Commencement Date.

Therefore, the promptness of all the parties plays a vital role in determining the timing of the Advance Payment. And while the Contractor's punctuality is the basis for an early Advance Payment, the Engineer and the Employer, in their readiness to certify and

pay, can mitigate the effect of a Contractor's delay and thus facilitate the execution of the works.

In summary, Figure 4.55 shows the maximum and minimum time bars for the first installment of the Advance Payment with respect to the Commencement Date for each of the FIDIC versions.

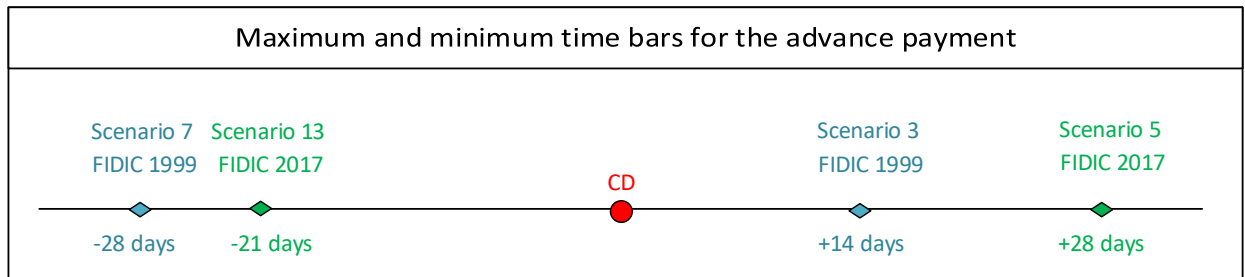


Figure 4.55 Maximum and minimum time bars for the Advance Payment

## 4.2 Conclusion and Recommendations

To conclude, the contract formation timeline presented by the contract conditions defines time bars for each of the contract participants in order to ensure proper execution of the contract and by securing the timely delivery of the works. The FIDIC amendments on the conditions of contract in the 2017 edition do not address the risks that are faced by the Contractor due to obtaining the Advance Payment after the commencement of the works and thus negatively affecting the progress of the project as a whole. This puts the Employer also in front of further pressure to meticulously choose the Contractor to deliver the project.

In general, the Contractor and the Employer could improve their experience with the contract under the FIDIC 1999 conditions if they are able to act with due diligence and in an expeditious manner, particularly the Contractor. This is the prime warranty for the Contractor that the Advance Payment will serve its purpose in facilitating mobilization to

the site and commencing the works with ease. However, the Employer should also resent the urge to benefit from the conditions irrespective of the effects on the Contractor.

On another hand, the addition of the time required by the Engineer to certify the Advance Payment to the timeline, in the 2017 edition, puts great burden on the Contractor's finances and work capacity in the early phase of the works. This can be considered as an unnecessary step that can be reversed. Instead, FIDIC can only increase the minimum time between the notice and the Commencement Date, and by that the time between the Advance Payment and start of the works is decreased if the Employer decided to play his card on this early commencement aspect. And this step also helps the Contractor prepare himself to get on board.

Shedding the light on the performance bond and the Advance Payment with respect to the Commencement Date in the scenarios showed the risks that place the Contractor in a disadvantageous situation in terms of money and time. But other risks might emerge due to the signature of the contract. While it seems definite that works should only commence based on agreed terms, it is surprising to learn that the execution phase might be entered into before finalizing the preceding milestones on the contract formation timeline which is the topic addressed in Chapter 5.



## CHAPTER 5

### LESSONS LEARNED IN CONTRACT FORMATION: CASELAW REVIEW

#### 5.1 Preamble

Contracts are formed to protect all the contracting parties. However, the contracting parties expose themselves to risks from not having gone through the formalities of the contract formation process. Thus, the risks of nonperformance or nonpayment emerge. When the contracting participants do not reach a consensus, they resort to courts. In dealing with legal issues, the solutions are sought in the general norms and also in special norms, which are relevant cases (Mitkus & Trinkūniene, 2008). This chapter presents a study of various cases about construction contract formation mistakes under the common law of the United States, Scotland, the United Kingdom, and Canada. The analysis of these cases sets expectations on the liability and rights of each of the contracting parties when faced with contract formation mistakes. Those cases have been arrived at mainly through books on contract law and the original case law through Google Scholar, CaseMine, Fenwick Elliot, Bailii, and other law-specialized search engines.

#### 5.2 The Cases

Mistakes are hardly inevitable but when they are consequential the only solution might be to resolve disputes through law. The mistakes are either unintentional and involuntarily or as a result of potential accidents. In construction contracts, mismanagement could occur at any stage of the formation process; but, when conflicts arise and the costs

are to be assessed, the validity of the contract emerges into question. However, it is worth noting that the way a certain case is tackled does not necessarily represent the ideal resolution for similar cases. Instead, each case must be looked at holistically and on its own. (Merkin & Saintier, 2019).

30 cases, spanning over a duration of more than 100 years, have been chosen to be studied. The distribution of the number of cases over the years is shown in Figure 4.1.

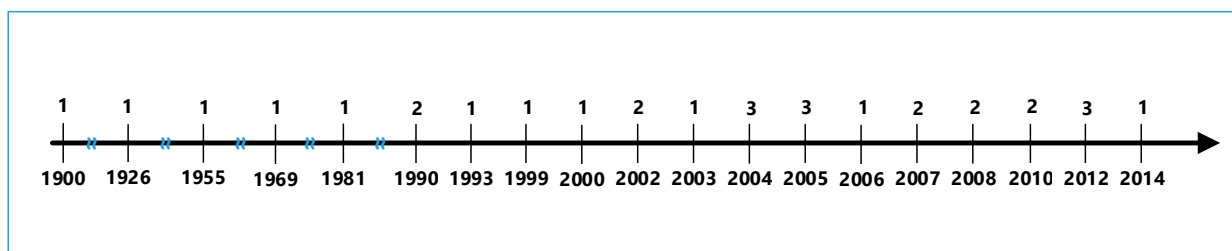


Figure 5.1 Distribution of the number of cases based on the date of the court decision

The cases have been carefully examined to gain insight into the claimant and defendant's allegations and the court's reasoning for its decision. The cases are presented in the table below through a case description and the decision of the court using excerpts from the official case law. Then, the matter of dispute is explained so the base of the dispute between the claimant and the defendant is depicted. And since the topic in hand is contract formation, it is important to notice if a contract has been formed before the dispute and if the court considered that a contract was construed in place or not. This analysis yields the deduction inferred in each case. And in order to depict liability, the final column states the court's decision was in which party's favor. The cases are not arranged based on date of court decision nor category, but on the date of occurrence during research.

Table 5.1 Cases' details and deductions

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C1	<i>Ry-Tan Construction, Inc. v. Washington Elementary School District No. 6 (2004)</i>	Contractor v Employer	" School District's governing board (the Board) voted to accept Ry-Tan's bid, and the Board's executive director signed a Notice to Proceed... Ry-Tan took equipment to the construction site and began work prior to execution of the formal contract. Upon learning of Ry-Tan's action, District personnel refused to sign the contract and cancelled Ry-Tan's bid... Ry-Tan denied that District personnel had instructed it not to begin work before signing the contract and argued that the District lacked authority to cancel or modify the contract. Nevertheless, the Board voted to re-bid the project."	"At the time of award, the district accepts the offer of the bidder to enter into the advertised contract at the price specified in the bid. The award is thus the point at which both sides — the bidder and the district — have a meeting of the minds. The district has at that point made the determination that it was not in its best interests to cancel the solicitation and that the bidder is a responsible entity which is willing to enter the contract at the lowest price. The district may take its time before award to carefully consider whether it is in its best interests to cancel the solicitation and may carefully review the qualifications of the low bidder, but once an award is made a contract is formed... I would hold that a contract was formed when the District awarded the contract to Ry-Tan and that the District breached that contract when it refused to accept the performance and payment bonds, execute the formal contract document, and accept Ry-Tan's contractual performance."	Commencing work prematurely, upon issuing of letter of award of contract	No	Yes	The mobilization to site is possible upon a letter of award that is deemed to have put the contract in place.	Contractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C2	<i>Quake Construction, Inc. v. American Airlines, Inc. (1990)</i>	Subcontractor v Employer and construction manager (general Contractor)	" Jones [the Engineer] and Quake thereafter [after the letter of intent] discussed and orally agreed to certain changes in the written form contract. Jones advised Quake it would prepare and send the written contract to Quake for Quake's signature. No such formal written contract, however, was entered into by the parties... American informed Quake that Quake's involvement with the project was terminated... The damages Quake allegedly suffered included the money it spent in procuring the contract and preparing to perform under the contract, and its loss of anticipated profit from the contract... The letter contained a description of the properties, the total price, the earnest money amount and certain other terms... the letter of intent unambiguously demonstrates the parties' intent to make the execution of a formal agreement a condition precedent to a binding contract."	"The letter of intent included detailed terms of the parties' agreement. The letter stated that Jones awarded the contract for the project to Quake. The letter stated further "this notice of award authorizes the work." Moreover, the letter indicated the work was to commence approximately 4 to 11 days after the letter was written. This short period of time reveals the parties' intent to be bound by the letter so the work could begin on schedule. We also agree with the appellate court that the cancellation clause exhibited the parties' intent to be bound by the letter because no need would exist to provide for the cancellation of the letter unless the letter had some binding effect... The cancellation clause could be interpreted to mean that the parties did not intend to be bound until they entered into a formal agreement. Therefore, the appellate court correctly concluded that the letter was ambiguous regarding the parties' intent to be bound by it."	The subcontractor is seeking to cover damages from canceling the claimed contract to have been formed by the LOI	No	No final decision	The LOI is not considered an enforceable contract upon referral to necessity of final contract/ Conflicting clauses in the LOI render it ambiguous and the parties could fail to cover their losses.	Employer and general Contractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C3	<i>Koch Hightex Gmbh v. New Millennium Experience Company Limited [1999]</i>	Contractor v Employer	"Millennium Company, acting through its agents... sent to Koch the engrossed trade contract, supplemental agreements and contract drawings, for signature and sealing... Koch executed the documents and returned them [but] did not include the guarantee or performance bond... on learning that it might lose the existing contract, Koch told R & M and Deutsche Bank to suspend execution of the guarantee and performance bond until after the position had been resolved... It is in those circumstances that the Millennium Company now asserts that it is under no obligation to make payments in accordance with Clause 32(2) of the trade contract because the condition precedent referred to in Clause 3 of the Articles of Agreement [payment is not to be made without the guarantee and performance bond] has not been fulfilled."	"It was suggested, on behalf of the Millennium Company, that that purpose is achieved by relieving the Employer from the obligation to make any payments until the guarantee and performance bond have actually been provided. But, as it seems to me, the Employer and the trade Contractor cannot have intended that the effect of their agreement should be that the trade Contractor should be entitled to carry on works without being paid for some indefinite period until it chose to provide the guarantee and performance bond. Such an arrangement could properly be described, in my view, as commercial nonsense... In the result it is clear, in my judgment, that the Employer cannot claim the benefit of Clause 31(5) [termination of the contract by the Employer] and yet deny the burdens which it places upon him."	The contract was terminated after progress was achieved while the PB was not submitted	Yes	Yes	Since the Contractor did not provide a PB, the contract was terminated by the Employer and this makes him liable to compensate for the order made by him to the Contractor to perform the works.	Contractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C4	<i>City Of Lonsdale v. Newmech Companies (2008)</i>	Employer v Contractor	"When Ptak [NewMech's bid captain] called BNR [excavating subcontractor] to confirm its bid minutes before NewMech's bid was due, Walde [BNR's project manager and estimator] was shocked to learn that BNR's bid was more than \$1,000,000 lower than the other excavation subcontractor's bid. Indeed, when he called his boss a few minutes after learning this, Walde was told that he "should have withdrawn [BNR's] bid." But it was too late... After awarding the project to the next-lowest bidder, the city sued NewMech for breach of contract, seeking both \$863,600, the difference between NewMech's bid and the next-lowest, and \$245,500 as forfeiture of the bid bond."	"Under the bidding contract, NewMech voluntarily obligated itself to sign and deliver the Agreement. We conclude that the district court correctly found that NewMech's refusal to sign the Agreement breached its obligation to perform under the bidding contract and that the parties never entered into a construction contract... the district court found that limiting recovery to the bid bond was "the more reasonable interpretation" of the parties' intent. Because the city did not have a common-law right to expectation damages on a contract that was never formed.... the record reasonably supports the district court's determination that NewMech's continued reliance on BNR's bid, despite the opportunity to withdraw without penalty, was equally unreasonable. Thus, there is sufficient record support for the district court's finding that NewMech is at fault for one-half of the damages."	Recovery sought by the Employer for the difference between the lowest bidder and the highest bidder and the bid bond upon the lowest bidder's refusal to sign the contract due to a mistake in the subcontractor's bid	No	No	Not accepting to sign a contract because of a mistaken bid that had the chance to be withdrawn requires the Contractor to pay the bid bond for breach.	Employer

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C5	<i>Sweett (UK) Ltd (Formerly Cyril Sweett Ltd) v. Michael Wight Homes Ltd (2012)</i>	Engineer v Employer	"Following the insolvency of Diamond (the Contractor company), the Defendant company terminated that contract... Diamond was contractually obliged to provide a performance bond of 10% of the contract sum... Michael Wight Homes Limited alleged that the Claimant failed in its duty of service to the Defendant... The services included a requirement on the Claimant to prepare the works contract and associated contract documents and arrange for such documents to be executed. The Claimant was therefore responsible to ensure that Diamond executed a performance bond. "	"In my experience an Employer's agent often has to push a Contractor to execute a bond. He cannot be forced to but the Employer's agent should use reasonable endeavours to cajole the Contractor into complying with his contractual obligations, keeping the Employer informed of progress. I believe that the claimant did exactly this up to the point he [Employer] terminated his services... 'Did the Claimant owe an absolute duty to ensure a bond was provided, or was its duty limited to exercising reasonable skill and care?'. I answer that by saying that the Claimant did not owe an absolute duty. The contractual duty did not add to the default duty and therefore the duty was limited to exercising reasonable skill and care... the Claimant was not in breach of duty in relation to the provision of a performance bond... Therefore, on each of the issues that are before me, the Defendant fails."	The Engineer is allegedly held liable for the Contractor not handing the performance bond	Yes	Yes	The Engineer is not held liable if he exercised reasonable skill and care in persuading the Contractor to submit the performance bond.	Engineer

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C6	<i>Ampleforth Abbey Trust v. Turner &amp; Townsend Project Management Limited (2012)</i>	Employer v project manager	" The works were satisfactory as to quality but were completed significantly later than had been envisaged. A dispute arose between Kier [Contractor] and the Trust: Kier contended that it was entitled to extensions of time and to additional payments in respect of the prolongation of the works... they [the H5 works, the project] were carried out by Kier under letters of intent that the Trust issued from time to time. The intended building contract mentioned in the letters of intent was executed only long after the works had been completed and then on terms, agreed at the mediation, that excluded any entitlement on the part of the Trust to liquidated damages for delay. In these proceedings, the Trust claims against TTPM damages for professional negligence. It alleges that, if TTPM had acted with the care and skill reasonably to be expected of a project manager, it would have procured Kier's execution of the building contract and that in those circumstances Kier would have been liable to pay liquidated damages for delay and the Trust would have achieved a more advantageous outcome of the dispute with Kier."	"...reliance might have been placed on the terms of the letters of intent, which say that "payment shall be in accordance with the payment conditions" in the JCT contract. But it is far-fetched to suppose that those words suffice to incorporate the liquidated damages provision. The relevant part of the letters of intent is the express statement that neither party would be bound by the intended contract unless and until the contract was signed.... advised that it was "clear beyond any real doubt that the parties contracted on the basis of the letters of intent only" and that an entitlement to recover liquidated damages under the letters of intent was "extremely improbable" ... In conclusion, the availability of the argument that despite the failure to execute a formal contract there was an implied contract containing the liquidated damages provision does not significantly derogate from the advantage that would have accrued to the Trust from the execution of the formal contract...It follows from my findings that the Trust has established that it suffered loss and damage as a result of the negligence and breach of contract of TTPM."	The contract formed under the LOI does not specify the right of the Employer for liquidated damages and the Employer blames the Engineer for not causing the execution of a formal contract	No	Yes, the LOIs	The Employer has the right to recover damages from the Engineer who did not perform his task in writing a comprehensive LOI to protect the Employer ('the fact that the period mentioned in the final letter of intent had expired does not make it necessary to imply a full contract').	Employer



Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C7	<i>TLT Construction Corp. v. Ri. Inc. Seating Solutions (2007)</i>	Contractor v subcontractor	"Here, after a protracted-and ultimately failed-nine-month negotiation between a general Contractor and a potential subcontractor, the general Contractor brought suit against the subcontractor for breach of contract, claiming that at some point during the negotiations a binding contract had been formed... Seating agreed to accept a letter of intent, and granted TLT two weeks to draft and execute a final contract, but said that it could not hold the price any longer than that... Over the next few months, the parties continued to try to reach agreement [over price], but with decreasing levels of cooperation... TLT ultimately had the work performed by another company... Both parties acknowledge that the negotiations were drawn out and involved a series of offers and counteroffers. Seating argues that this is all it was, and that no offer was ever accepted, because each response was only a counteroffer. "	" While "[a] written contract, signed by only one party, may be binding and enforceable even without the other party's signature if the other party manifests acceptance," ... we see no manifestation of acceptance here. The only communication in the record from TLT following the receipt of the July 5 draft contract is the July 21 draft contract, which on its face does not accept all of the terms of the July 5 draft contract. In addition, there is no evidence in the record that TLT took any actions that could be construed as manifesting acceptance... There is no evidence in the record that the parties came to an agreement... summary judgment be entered in favor of Seating."	The Contractor aims to enforce an offer over the subcontractor claiming that it has been accepted	No	No	Continuous offer and counter offer does not infer an agreement at any point unless there is a sign of acceptance by both parties.	Each side bears its own costs

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C8	<i>Honeywell International Middle East Ltd v. Meydan Group LLC Meydan [2014]</i>	Subcontractor (later Contractor) v Employer	"Honeywell submitted monthly interim payment applications to TAK [the design consultants] and payments were made against certificates... but no further payments were made by Meydan after that date [15 February 2010] ... As a result, Honeywell reduced work on 14 June 2010 and suspended work on 20 July 2010... Honeywell included a termination claim based on the Termination Notice. It made claims for the recovery of retention money, payment for completed works, materials on site and Contractor's equipment left on site. It also requested orders requiring the return of the Performance Security and Advance Payment Guarantee and prohibiting a call on those documents... Meydan denies that the Performance Security was provided... It submits that under Clause 14.6 of the Contract no payment could be certified under Clause 14.7 in the absence of Meydan having received the relevant Performance Security. Meydan says that Honeywell made a deliberately false claim when it said that the original document had been delivered to Meydan... They also say that the document allegedly provided refers to Meydan LLC not Meydan Group LLC."	"Meydan did not at the relevant times during the performance of the Contract refuse to make payment to Honeywell on the basis that the relevant Performance Security had not been provided. Further there do not appear to have been any requests for the Performance Security which, if it had not been provided and Meydan had been insisting that it should have been provided, would have been expected. It is correct that the document which Honeywell says enclosed the Performance Security was not sent until May 2010 and that does not appear to have been of concern to Meydan at the time... The evidence that the document was sent and that the attached Performance Security issued by HSBC was genuine is, I consider, very strong evidence that the Performance Security was obtained from HSBC and that on that basis it is strong evidence that it would have been sent to Meydan at the time. "	Upon failure to meet the payment obligations, the Contractor claims for compensation, but the Employer alleges that the performance bond was never submitted	Yes	Yes	Since payments were made by the Employer without expressing dissatisfaction from the absence of the performance bond, he loses his allegation of its absence.	Contractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C9	<i>G Percy Trentham Ltd v. Archital Luxfer Ltd [1993]</i>	Contractor v subcontractor	<p>"Archital performed the agreed work and Trentham made the agreed payments. That fact calls for an explanation of the relevance of the dispute about the formation of the two alleged sub-contracts. The answer is to be found in subsequent claims made by Municipal Mutual [the Employer] against Trentham under the main contracts. Those claims were for alleged delays and defects... Trentham instituted proceedings against seven sub-Contractors for an indemnity in respect of such sums... One of these sub-Contractors is Archital... Trentham alleges that there were defects... Trentham's claim against Archital is brought in contract. Archital by their amended defense deny or do not admit the alleged defects. But Archital also disputes that any sub-contracts ever came into existence."</p>	<p>"I therefore conclude that Mr. Chapple (on behalf of Trentham) modified the terms of PGT's offer contained in their Order dated 30th January, in his telephone conversation with Mr. Hazell (on behalf of Archital) on 9th March, and that those terms were accepted on behalf of Archital by the letter dated the same day. If such acceptance is to be construed as being subject to the resolution of the issues of insurance and of the disputes procedure, rather than, as I think, those 'queries' being left for subsequent agreement, those matters were, in fact, duly resolved in the following months. At least from that point, Archital accepted PGT's modified offer by their conduct in carrying out the sub-contract work, and applying for and accepting payment on the agreed terms."</p>	Remuneration for delays and defects by the subcontractor who is denying the existence of any subcontract	No	Yes	A contract is concluded to have taken place by conduct of the parties despite the continuous negotiations	Contractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C10	<i>Highway Commission v. State Construction Co. (1955)</i>	Employer v Contractor	"The cost of steel sheet piling was entirely omitted from the bid... Unless some other way or arrangement could be made to increase our bid, as previously stated, we would appreciate it if you could see your way clear to return our bid bond to us... [The Highway Commission] is not responsible for the mistake and has no alternative but to declare the company in default and to order recovery of the amount of the bond... The Bureau of Public Roads was dissatisfied with the award of the contract to the second low bidder and demanded that all bids be rejected and new bids be called for. The Commission refused to accede to this demand and, as a result, the Bureau withdrew all Federal aid to the project and the state paid the entire cost."	""It is our belief that although the plaintiff [defendant] alone made the mistake, the City [Highway Commission] was aware of it. When it accepted plaintiff's [defendant's] bid, with knowledge of the mistake, it sought to take an unconscionable advantage of an inadvertent error. Equity is always prepared to grant relief from such situations." The decree is affirmed with costs to defendants."	Despite the honest mistake and declaration of it by the lowest bidder, the Employer insists that he is awarded the contract or declared in default	No	No	The Contractor by reporting the mistake as soon as possible prior to being awarded the contract would help not being held to be attempting to gain unconscionable advantage	Contractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C11	<i>ERDC Group Ltd v. Brunel University (2006)</i>	Contractor v Employer	"Pending full planning permission, it was agreed that ERDC would progress with the design of the works under the terms of a letter of appointment... Clear planning permission had still not been obtained when ERDC started work, and two further letters of appointment were issued... (ERDC did not countersign and return these letters) ... Contract documents were never executed... ERDC continued with the works even though no further letters of appointment were forthcoming... On being sent contract documents for signature ERDC, in a letter to CAP [Brunel's Employer's Agent and Quantity Surveyor] of 3 December 2002, declined to do so and claimed (for the first time) that it would only continue work on the basis that all work carried out by it would be valued on a quantum meruit basis rather than in accordance with the valuation principles applicable under the JCT Standard Form of Building Contract with Contractor's Design... Brunel did not accept ERDC's contention that all the work should be valued on a quantum meruit basis... ERDC left site... The works were then not entirely complete... The first primary issue between the parties is whether the work done prior to 1 September [the expiry of the last of the letter of appointments] was done prior to any contract or contracts and, if so, what contract(s). The second main issue concerns the valuation of the work done. "	"I do not consider that there was any uncertainty or other factor that prevents each letter and its acceptance being a contract. the second and subsequent contracts effectively superseding the previous one. The fourth and fifth letters were accepted by ERDC's conduct in continuing to execute the works without demur to the terms upon which they were carried out. The work is clearly set out in each letter. The amount payable is that to be determined by the application of the JCT conditions on the assumption that the work formed part of a contract for the whole works... The upshot therefore is that the work done prior to 1 September 2002 is to be valued under the JCT Valuation Rules and that the amount due in respect of the work done thereafter although recoverable upon a quantum meruit is also to be assessed primarily by reference to the rates and prices pertaining to the work done before that date."	The valuation of the work done through LOIs and after the expiry of the latest LOI	No	Yes	Works done under LOI is paid for based on contract conditions, while work done after the expiry of LOI is paid based on quantum meruit	Employer

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C12	<i>Robertson Group (Construction) Ltd v. Amey-Miller (Edinburgh) Joint Venture And Others (2005)</i>	Subcontractor v Contractor	"It was intended that that contract would be for a specific lump sum and be subject to certain JCT conditions... By that date [the agreed date to begin works on site] the formal contract had not been entered into, for reasons connected with delays in the finalisation of the financial arrangements between Amey-Miller and its Employer... To allow work to commence on site... a letter: "In the event that Financial Close cannot be reached, for whatever reason, then any losses incurred, including but not restricted to loss of profit, shall be related to the spending limit of £500,000 [later increased to £5million] and not the entire Contract Sum... Should a formal contract fail to be entered into for any reason other than the default or negligence of Robertson Construction, then all direct costs and directly incurred losses shall be underwritten and reimbursed by the Joint Venture"... As the work proceeded interim payments were made to Robertson by Amey-Miller... the spending limit of £5m had been reached... work on site ceased... A number of legal issues were discussed before the Lord Ordinary at debate. Included among these was an issue as to the meaning of the expression "all direct costs and directly incurred losses.""	"Robertson contended that that expression entitled it to recover not only the costs of labour and materials expended on the High School contract, together with the cost of plant and sums paid to sub-Contractors, but also an appropriate sum to cover head office overheads and an appropriate element of profit; sums in respect of the latter elements are sought by Robertson... Amey-Miller, while accepting that the quoted expression was apt to include the cost of labour, plant and materials used on the particular contract, contended that it excluded head office overheads and any element of profit... The Lord Ordinary accepted Robertson's contention and in due course allowed a proof before answer, so permitting its contention to proceed to probation... The Lord Ordinary's conclusion that in a commercial context the failure of a Contractor to make a profit and his failure to earn a contribution to general corporate overheads may be accounted a "loss"."	Whether the indirect costs are reimbursable for the subcontractor since no formal contract was entered into	No	"If contract"	The inability to recover overhead is a loss that is paid for in the absence of the LOI being construed as a part of the final contract	Subcontractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C13	<i>British Steel Corp v. Cleveland Bridge &amp; Engineering Co Ltd (1981)</i>	Subcontractor v Contractor	" BSC's claim for payment, and in particular whether there was any binding contract between BSC and CBE and, if so, what were its terms. As I have already indicated, it is the contention of CBE that there was such a contract [to claim damages for breach of contract]; whereas BSC contends that they are entitled to payment in quasi contract... In that letter, the request to BSC to proceed immediately with the work was stated to be 'pending the preparation and issuing to you of the official form of sub-contract'... BSC did indeed state that they were not prepared to proceed with the contract until they had an agreed specification, a reaction which, in my judgment, reflected not only the commercial, but also the legal, realities of the situation."	" ... but, since the parties were still in a state of negotiation, it is impossible to say with any degree of certainty what the material terms of that contract would be... I therefore reject CBE's submission that a binding executory contract came into existence in this case... There remains the question whether, by reason of BSC carrying out work pursuant to the request contained in CBE's letter of intent, there came into existence a contract by virtue of which BSC were entitled to claim reasonable remuneration; i.e. whether there was an 'if ' contract... But the more I have considered the case, the less attractive I have found this alternative. The real difficulty is to be found in the factual matrix of the transaction, and in particular the fact that the work was being done pending a formal sub-contract the terms of which were still in a state of negotiation... Judgment for the plaintiffs."	The liability for consequential loss for delay in case of works commenced based on LOI amid negotiations with no contractual basis	No	No	Given that the LOI was taken not to have established a formal contract, payment for work done was assessed on quantum meruit without the Employer being able to recover against such delay	Subcontractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C14	<i>John J. Bowes Co. v. Milton (1926)</i>	Contractor v Employer	" The building committee, after opening the bids, found that the lowest bid together with the amounts required to construct and complete the building was in excess of the amount appropriated by the town. Representatives of the town and the lowest bidder conferred and certain alterations in the plans and specifications were made, which by agreement reduced that bid to a point where, after conference with the committee, it was accepted.... Later he [Contractor] stated that a substantial error had been discovered and that he would have to increase his bid to cover that error. He refused to sign a contract on the basis of the revised bid which the committee had accepted. Upon the committee's refusing to return his certified check, he brought a suit in equity to have his proposal declared null and void and his check returned. The town, by a cross bill, sought damages by reason of a breach of an alleged contract to build the schoolhouse."	"[The Supreme Judicial Court of Massachusetts] held that (1) The plaintiff's written offer and the defendant's acceptance of that offer, communicated to the plaintiff, constituted a binding preliminary contract between the parties which was separate and distinct from the formal contract to erect the building; (2) A finding that the committee did not intend to bind the town except by a formal written contract was not inconsistent with the fact that a complete preliminary agreement was entered into between the parties; (3) The plaintiff was bound to the extent of his deposit upon the acceptance of his amended proposal; (4) There being no mutual mistake, the error of the plaintiff, if any, was no justification for repudiation of the preliminary agreement; (5) The plaintiff was not entitled to a return of his check, and his bill must be dismissed; (6) The terms of the invitation for proposals must be regarded as an intention to treat the deposit as liquidated damages; (7) There was no ground for the maintenance of the cross bill and it should be dismissed."	The Contractor is demanding the return of the bid bond since he did not sign the construction contract after his bid price was reduced with his agreement	No	No	A Contractor cannot refuse to sign a contract in which his bid price was reduced by agreement without losing the bid bond	Employer



Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C15	<i>A.C. Controls Ltd v. BBC (2002)</i>	Contractor v Employer	"The project was not successful; the parties' relationship broke down... The parties adopted significantly different positions as to the meaning and intent of the letter of intent. ACC contended that this document constituted a contract requiring it to carry out and complete the entire project and that its terms would govern that work unless and until the contract was replaced and superseded subsequently by a formal contract... On the BBC's case, the document was a true letter of intent. Thus, it authorized but did not commit ACC to start work, either side could terminate the relationship without notice and only a limited financial obligation was imposed on the BBC, namely to pay for the work actually carried out up to but not beyond the cost limit set by the letter or subsequently notified by the BBC... the revised contract sum based on Tender B had been agreed in the sum of £2,545,612. What remained for finalisation and agreement was a detailed programme and specification."	"In conclusion, therefore, the letter of intent provided for a limited "if" contract whereby, if ACC accepted the offer it contained to undertake limited survey work, it was then to perform all of that limited survey and other pre-installation work that the letter provided for. The work that was instructed by the letter was intended to cover all the work that was needed to enable the BBC to finalize the contract documents and to decide whether or not to proceed with the project and with ACC in circumstances where it would want that project, if it proceeded, to be completed within the tight revised timescale that it had previously decided upon.... In summary, therefore, the BBC was obliged to pay ACC for the full value of its work and services as reasonably determined by Hanscombe [the quantity surveyors] even if that value exceeded the authorised total value."	Whether the Contractor must be paid for the full scope he executed rather than the set limit in the LOI	No	"If contract"	When the contract is construed to take place based on the LOI, the Contractor is paid for the full scope of work authorized rather than the cost limit set by the letter	Contractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C16	<i>Traditional Structures Ltd v. HW Construction Ltd [2010]</i>	Subcontractor v Contractor	" There seems to be a problem between our hard copy and your copy attached to your email dated yesterday's date. The two copies are not the same.... The essence of the dispute is founded on the difference between the two versions of the tender. The Claimant's case is that Dominic Hopkins [an estimator employed by the Claimant] made a mistake when he sent the Defendant the tender in a form which omitted the last line of page 3. As a result, the Claimant seeks a reasonable price for the cladding element of the works and/or rectification of the sub-contract on the grounds of unilateral mistake. The Defendant's case is that it received the Claimant's tender containing one price, which it accepted for all the work for which the Defendant had invited the Claimant to tender... acceptance email did not mention the sum. "	" I find that Mr. Henscoe [the Managing Director of the Contractor] willfully and recklessly failed to enquire of the Claimant whether the price of £37,573.43 plus VAT related to both the structural steelwork and the cladding elements of the work for which the Claimant was tendering, which enquiry in my judgment an honest and reasonable man would have made in the circumstances of this case... Accordingly, the Claimant succeeds in its primary claim for rectification. The Claimant also succeeds in its alternative secondary claim for a reasonable price for carrying out and completing the cladding works. "	The subcontractor seeks rectification of the contract price or a reasonable pricing for the work items upon a mistake in the bid price while the Contractor insists on paying him based on the bid price	Yes	Yes	A sub-Contractor is entitled for correction of the subcontract price if the mistake is easily noticed by the other party who is deemed to have acted "unconscionably"	Subcontractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C17	<i>Merit Process Engineering Ltd v. Balfour Beatty Engineering Service (HY) Ltd [2012]</i>	Sub-subcontractor v main subcontractor	<p>"... the Claimant was invited to start the Main Installation works under the terms of the letter pending the agreement of a formal sub-contract..." it is agreed that if the contract is not concluded between us, subject to the following restriction, you will be entitled to re-imbursement of your actual costs, properly and exclusively incurred in complying with these instructions, but you will have no entitlement to claim loss of profit or any other consequential loss, cost or expense... not exceeding £500,000 [later increased on £1,600,000]"... no one on behalf the Defendant replied to Mr. Paterson's [Commercial Manager of the Claimant] e-mail of 30 March 2004 in order to point out that the agreed figure was not £1,637,500, but £1.6 million... There matters rested for some months and in the meantime the Claimant continued to work under the terms of the letter of intent... the Defendant sent a letter [enclosing the sub-contract agreement] ... the Claimant acknowledged the letter and requested that the sub-contract be re-issued... "Amend to reflect agreed amount of £1,637,500"... No further correspondence followed and in the meantime the work continued. The Claimant never signed or returned the contract documents....the parties were £37,500 apart."</p>	<p>" The subsequent conduct of the parties may be used as evidence that they varied the contract or entered into a fresh one, but that is not suggested here... I can find nothing in the exchange of letters in April and May 2005 that suggests that the Claimant was prepared to be bound by all the other terms, and to enter into a contract accordingly, leaving just the price - or the application of the main Contractor's discount - to be negotiated at some stage in the future... In this case the Claimant was entitled to reimbursement of its "actual costs, properly and exclusively incurred in complying with" the letter of intent. Since that arrangement was stated to be "subject to contract", the parties' relationship would be covered by the letter of intent until formal terms were agreed... For these reasons I conclude that the Main Installation package [the works the price of which is in dispute] was not carried out under the terms of any sub-contract that included an arbitration clause. Accordingly, the Defendant's application for a stay of the proceedings insofar as they relate to the Main Installation package fails."</p>	The claimant is requesting a higher price for the works after negotiations on the price that did not reach an agreement on a minor value difference	No	Yes (LOI)	If the disputed matter is essential to the contract formation, the contracting parties must not expect that performing the works will eventually lead to the formation of a contract by conduct	Sub sub-Contractor

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C18	<i>Bryen &amp; Langley Ltd v. Boston (2005)</i>	Contractor v Employer	"B & L did not countersign the letter or write a reply by way of a formal agreement to it, but they promptly assumed occupation of the building and embarked upon the works.... B & L returned to Mr. Welling [Quantity Surveyor employed by Mr. Boston] both sets of contract documents signed and witnessed... [Mr. Boston] never signed any contract in JCT Form... B & L continued with the building works... Mr. Gallagher [the architect] issued 52 instructions... followed the procedure in the JCT Form for the issue of interim certificates as to the amount due to B & L... B & L, Mr. Welling, Mr. Gallagher and Mr. Boston – had acted as if a contract in such form was in place. He asserts that it was only upon the commencement of the adjudication reference that Mr. Boston challenged this. Mr. Boston paid nothing further and so in due course B & L referred to the adjudicator their claim for £65,995 [claimed by the Contractor due under the 11th architect's certificate for payment]."	"There is nothing in the wording of the letter that suggests that Mr. Boston was offering to pay for unspecified (or even specified) work on a quantum meruit basis... The mere fact that two parties propose that their agreement should be contained in a formal contract to be drawn and signed in the future does not preclude the conclusion that they have already informally contractually committed themselves on exactly the same terms. Of course, if they negotiate on a "subject to contract" basis such a conclusion will be precluded. But otherwise it will not, or at least may not... Like the terms of any contract, the terms of the letter must be construed in their context... the parties had agreed all the terms, including the terms of the JCT Form, and when B & L started the specified work in August they accepted the offer contained in the letter on those terms and carried out the work on the basis of them. It makes no commercial sense to hold that when they started the specified work they did so on a simple quantum meruit basis."	The Contractor seeks payment for works based on quantum since no contract was signed despite that previous payments were done based on JCT contract conditions	No	Yes	If a final contract is not signed between the parties, but they act upon its conditions, then it is construed to be in place provided that all the necessary ingredients of a valid contract are present	Employer

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C19	<i>Harvey Shopfitters Ltd v. ADI Ltd (2003)</i>	Contractor v Employer	<p>"The essence of the dispute is that the appellants [Contractor] now claim that work they carried out was pursuant to a quantum meruit, whereas the respondents [Employer] say that it was pursuant to a lump sum contract... The respondents informally indicated through the architects that that tender was acceptable, and the appellants commenced work on site in accordance with the tender... the architects wrote the letter upon which both parties now rely... 'If, for any unforeseen reason, the contract should fail to proceed and be formalised, then any reasonable expenditure incurred by you in connection with the above will be reimbursed on a quantum meruit basis'... no formal IFC84 contract was prepared... interim payments were made pursuant to certificates from the architects based on a percentage of the lump sum amount... replacing provisional cost items with those required by architects' instructions, again in accordance with ICF84; the final account was accordingly based on the lump sum tender figure and formed the basis of an adjudication."</p>	<p>"... the mere fact that the letter giving instructions to proceed envisages the execution of further documentation, does not preclude the court from concluding that a binding contract was nonetheless entered into, provided that all the necessary ingredients of a valid contract are present... Having concluded that the parties had agreed to a fixed sum contract under ICF84 conditions, it is not surprising that the Recorder [in the Technology and Construction Court] held that the words in question, construed conjunctively, mean what they say. In other words, the only circumstance in which the appellants were to be entitled to a quantum meruit was if the contract did not proceed and was not finalised. The contract did proceed. In my judgment, the Recorder was not only entitled to conclude as he did, that the contract was one for a lump sum under ICF84 conditions, but was also correct to reject the argument of the appellants that the proviso, if I can put it that way, as to quantum meruit applied so as to entitle them to a quantum meruit under the terms of the letter of 7th July 1998... ORDER: Appeal dismissed with costs."</p>	The Contractor demanding to be paid on quantum due to a conflict that aroused on the final payment despite having been paid based on contract conditions in earlier payments	No	Yes	Even with the presence of a clear language that upon failure to sign a contract then the Contractor is to be paid based on quantum meruit, the action of the parties stood in the face of this being interpreted literally by observing the intent of the parties	Employer

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C20	<i>RTS Flexible Systems Ltd v. Molkerei Alois Müller GmbH &amp; Co KG (2010)</i>	Contractor v Employer	<p>"The claim was brought by RTS for "money due under a contract, alternatively damages" ... The parties had initially intended to enter into a detailed written contract which would set out all the complex terms on which the work was to be carried out and the equipment supplied... The terms were not finalised before it was agreed that work should begin... They continued after the expiry of the LOI Contract just as they had before, by calling for and carrying out the work without agreement as to the applicable terms [on the schedule of some of the works] ... Problems arose [mainly due to delay of installing items and testing them]... a dispute arose between the parties leading to the litigation... Müller's case was that no further contractual terms as to payment had been agreed, with the result that RTS was not entitled to payment of the balance of the price over and above the amount in fact paid by Müller as set out below until it had completed substantial performance... RTS' primary case was that there was a continuing contract on the terms of the LOI Contract, but that it had two alternative cases, namely that there was either no contract (but RTS was entitled to a quantum meruit) or, if there was a contract, that it was on MF/1 terms."</p>	<p>" First, neither party suggested in the course of the project that the price was not agreed and RTS invoiced for percentages of the price and Müller paid sums so calculated as described above. Second, the price of £1,682,000 was agreed and included in the LOI Contract on the footing that there would be a detailed contract containing many different provisions including, as expressly recognised in the LOI Contract, the MF/1 terms. Third, there was an agreed variation on 25 August which nobody suggested was not a contractual variation... all the terms were agreed between the parties and that substantial works were then carried out and the agreement was subsequently varied in important respects... it does not seem to us to make commercial sense to hold that the work was carried out on some but not all the terms agreed...CONCLUSION For the reasons we have given, we have a reached a different conclusion from both the judge [no contract] and the Court of Appeal [partial contract]... (1) that the parties reached a binding agreement on or about 25 August on the terms agreed on or before 5 July as subsequently varied on 25 August and (2) that that binding agreement was not subject to contract or to the terms of clause 48 [the contract is not effective until it is signed by both parties]". "</p>	The payment that must be made to the Contractor for damages and delay upon the expiry of the LOI	No	Yes	When work begins within a "subject to contract clause" before the finalization of the contract, it depends on the conduct of the parties if this clause is waived or not, and thus the award of the rights of each is determined and this could shed its repercussions till the substantial completion period	Contractor

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C21	<i>Felton Construction Ltd v. Liverpool City Council [2007]</i>	Contractor v Employer	" Felton argues that the parties failed to reach any agreement and claims that it is entitled to be paid on a quantum meruit... The parties therefore failed to reach agreement on the precise scope of the works.... The draft Addendum Bill dated 22 May 2003 was not agreed with Felton and differed from the earlier savings proposed on 16 April 2003... In these circumstances Felton was entitled to reject the contract documents which The Council sent to Felton for signature in February 2004 on the grounds that they were not complete and accurate... There is no evidence that Felton suffered any practical difficulty during the construction in operating the contract and at all times at least until after 7 April 2005, nearly seven months after practical completion, conducted itself as though the contract incorporating the JCT Standard Form was valid and subsisting."	"1. Whatever the position in relation to these items there is no question that the contract was in other respects a valid contract, there was a clear meeting of the minds... i) There was a binding contract between the parties as set out in or evidenced by The Council's letter dated 25 April 2003 and Felton's signed response. ii) The contract price was that set out in the letter... iii) It incorporated Felton's priced Bills of Quantities and the tender and drawings and other documents referred to therein... iv) The JCT Standard Form subject to amendments set out in The Council's letter and further identified in the Bill of Quantities No.1 with the appendix completed as set out in Bill of Quantities No.1."	Upon disagreement on the scope and price of the works, the Contractor asks to be paid on quantum not based on the agreed statement in the LOI	No	Yes	Once the contract is construed to happen in place due to signature of on a letter of agreed terms, the Contractor cannot expect to be paid on quantum basis, but only on the contract conditions	Employer

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C22	<i>Conwell Corp. v. City Of Albuquerque (1990)</i>	Contractor v Employer	"Conwell on three occasions submitted three separate requests to substitute subcontractors on the project. According to the provisions of the Act, subcontractors to be substituted are entitled to notice and hearing... should such hearings cause a delay, Conwell could not obtain additional time for performance or additional monies for performance of the contract [paragraph 8-G of the contract]... the City asked Conwell to agree to extend the time for bid irrevocability... Conwell responded to the City's request by asking the City to waive paragraph 8-G of the contract ... Conwell received a letter from the City withdrawing its notice of award... the City argues, was a material and substantive change in the terms and conditions of the notice of award..."	" We hold then, that a valid, binding contract was formed on December 8, and that the City repudiated this contract by withdrawing its notice of award. We do not construe Conwell's efforts to persuade the City to waive paragraph 8-G as a repudiation of the contract. It appears to us that Conwell was merely trying to trade paragraph 8-G against the City's request for a lengthening of the bid-irrevocability period. Conwell did not express to the City an intention not to abide by the contract. It merely was bargaining for deletion of one of the terms of the contract... Accordingly, summary judgment in favor of the City is reversed. We remand the case with instructions to enter summary judgment in favor of Conwell as to liability and to hold a trial on the merits as to the issue of damages. If a contract such as this "is awarded to the lowest bidder, and the municipality then illegally refuses to enter into a contract, the successful bidder is generally entitled to recover damages."	The Employer decides to take back the award of the project after the Contractor asks to modify a substantial contract clause that hinders his right for compensation for delay	No	Yes	Bid irrevocability related bargaining after the notice of award does not entitle the Employer to withdraw the notice of award	Contractor



Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C23	<i>The United States Of America, For The Use Of J. C. Schaefer Electric, Inc. v. O. Frank Heinz Construction Co., Inc. (1969)</i>	Subcontractor v Contractor	"Heinz thereby became the successful bidder on the government contract... Schaefer, with the knowledge and consent of defendant Heinz and under the above quoted authority [in the letter from Heinz to proceed with the works], commenced to perform the subject electrical work... This amount [contract amount] was accurately and successively changed as change orders were issued, so that the final figure was Schaefer's bid price adjusted by the changes. The electrical work was completed and accepted... Schaefer has been paid... but seven invoices and three requests for payment... have been submitted to defendant Heinz and have not been honored. That balance, which is the balance of the Schaefer bid price as adjusted by change orders, is the subject of this law suit... there was no "meeting of the minds" on the Schaefer price for the electrical work. Heinz acknowledges that Schaefer was entitled to something for his work and materials, but contends that it must be on a quantum meruit basis"	"... this Court is fully satisfied that, as a matter of law, there is an implied contract between Schaefer and the defendant Heinz at the price originally quoted, as subsequently changed by agreed change orders. In brief, the facts that defendant Heinz used Schaefer's name in the bid submitted to the General Services Administration after receipt from Schaefer of its offer; that Schaefer refused to lower his price; that the defendant Heinz' request to substitute subcontractors was denied; that the message of November 2, 1966 instructed Schaefer to proceed with the work at the "quoted price"; that full performance with the admitted knowledge and consent of defendant Heinz followed; that sixteen change orders had the designation of "Contract Amount" and "Revised Contract Amount" upon their faces, all clearly consistent with a contract at the amount shown thereon, clearly establish an implied contract."	The amount due to the subcontractor based on changes in the scope of works which differ from the value in the LOI	No	Yes	When the contract is concluded from the conduct of the parties, payment must be made based on the agreed price, subsequently changed by variation orders, and not on quantum meruit. The subcontractor is also paid interest on delay of payment.	Subcontractor

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C24	<i>Clarke &amp; Sons v. ACT Construction Ltd [2002]</i>	Employer v Contractor	" He [Mr. Clarcke] instructed Mr. Blake [who ran the building side of ACT's business] to embark on the necessary design work... The first issue which arises in this appeal is whether or not those discussions led to a contract between the two companies... There was little discussion about the precise scope of the work, the contract period and generally Mr. Clarke conducted the negotiation in an informal way as he did all his business and he relied on Mr. Blake to honour his promises... He [Mr. Blake] agreed to work within the flexibility Mr. Clarke would demand on a time and materials basis... Clarke was contending that the price would not exceed £815,000 [the price orally agreed on between Blake and Clarcke]. They were also contending that an implied term of the contract was that it be completed within a reasonable time. ACT did not complete the work and so Clarke was seeking to reduce the value of its entitlement to below £815,000."	" As so often happens when the contracting parties appear to be working on good terms, there was too high a degree of informality and too much laxity for the court to draw any certain conclusions about the terms of engagement. None of the arrangements appear to have been confirmed in any letter. No attempt was made to agree and to record the basis on which ACT were to do the work. In those circumstances I conclude that the only finding open to the judge was the finding he made that the work was to be done for a reasonable remuneration."	The payment due to the Contractor after having performed some of the works despite not having agreed on the scope, timing and price	No	Yes	The contract can be construed to happen in place based on instruction and acceptance of them despite the absence of agreement on time and price. Thus, payment is made based on quantum meruit if it is not agreed on.	Contractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C25	<i>Moffett, Hodgkins C. Co. v. Rochester (1900)</i>	Contractor v Employer	" The city of Rochester invited proposals from Contractors for two separate contracts... [Moffett, Hodgkins C. Co.'s] bids were the first opened, and as they were read aloud their Engineer noticed the errors and called attention to them... The city government rejected one of their bids and accepted the other, and called for its performance at the prices stated in the bid. The company declined to enter into a contract for the performance of the work at that price; and, claiming that the city threatened to enforce the bond give with the proposals, brought suit praying for a reformation of the proposals to conform to the asserted intention in making them and their execution as reformed, or their rescission; and for an injunction against the officers of the city, restraining them from declaring the complainant in default, and from forfeiting or enforcing its bond."	"Judgment was rendered in the Circuit Court in the company's favor, which was reversed in the Circuit Court of Appeals. The case was then brought here... There was no doubt of the mistake, and there was a prompt declaration of it as soon as it was discovered and before the city had done anything to alter its condition...it is now urged by counsel that there was no mistake, but that the prices were deliberately and consciously inserted for the purpose of making an "unbalanced bid," in which low prices in some items are compensated by high prices in others. The Circuit Court and the Circuit Court of Appeals found against this view, and this court usually accepts such concurrence as conclusive... This action [of the Employer entering a contract with other bidders] made a reformation of the proposals impossible - made any action of the Circuit Court impossible, except to annul the proposals or dismiss the bill and subject the complainant to a suit on its bond. The decree of the Circuit Court of Appeals is reversed and that of the Circuit Court is affirmed."	After noticing a mistake in the bid price when bids were opened, the Contractor asks for reformation of the bid price or not forfeiting the bid bond for declaring him in default	No	No	The Contractor is able to rescind his proposal due to a mistake that is disclosed as soon as bids are open before the Employer's conditions have changed	Contractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C26	Jarvis Interiors Limited v. Galliard Homes Limited [2000]	Contractor v Employer	<p>“<i>In the event that we do not enter into a formal contract with you through no fault of Jarvis Interiors, you will be reimbursed all fair and reasonable costs incurred and these will be assessed on a quantum meruit basis.</i>”... There then follows a period of several months in which Galliard by its Architects propose changes... Nor was any JCT standard form mentioned... “GMP” had not been mentioned, nor had “Lump Sum Price with variations”... [Galliard] wrote to Jarvis “confirming for the avoidance of doubt” in their first main paragraph that the “Contract Sum” [with GMP] ... Jarvis could not sign... Work on the flats progressed... the Architects gave notice to Jarvis under clause 27.2.1.2 of the JCT Contract (“Default by Contractors”). On the same day Jarvis again asserted there was no contract. Mr. Black asserted that they had shaken hands on £1.325m and Mr. Shaw said that that was so but said that they had not agreed what works were to be within that price... Galliard gave notice... determining Jarvis’ employment with immediate effect. Jarvis were no longer at the site and Galliard finished the fitting out itself... Jarvis [issued a claim that they] were entitled to remuneration on a quantum meruit basis in the absence of any contract all.”</p>	<p>“ I could also agree with the judge's conclusion, that “there was no meeting of the minds between the parties”, if, as I understand, he meant that, notwithstanding the handshake and the parties’ beliefs, they were insufficiently agreed... no contract for carrying out the works ever came into existence, and that for this reason Galliard's defense, that the Letter of Intent was superseded by a ‘formal’ contract, must fail. Both parties apparently were prepared to agree that there was a contract and that its terms are to be found in the Letter of Intent... Appeal dismissed with costs.”</p>	<p>The Contractor is claiming remuneration of works done based on quantum meruit since he did not sign the contract with the price which was orally agreed on</p>	No	No	<p>Oral agreement is overruled by the inability to come to an understanding and therefore the parties are bound to any preceding terms. The presence of a “subject to contract” clause excludes the possibility of a contract to have taken place.</p>	Contractor

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C27	<i>Diamond Build Ltd v. Clapham Park Homes Limited (2008)</i>	Contractor v Employer	<p>""Should it not be possible for us to execute a formal Contract with you in place of this letter ...total costs will not exceed the sum of £250,000"...after the Letter of Intent, DB placed orders with suppliers and subcontractors to a total value of about £1.5m...The works had been proceeding on site... a number of problems had arisen... CPH resolved to send a letter: "...Although the letter of intent does not require us to demonstrate any breach in order to terminate, we note the following • The works have been ongoing for 16 weeks, over 40% of the anticipated contract period... • Attendance by workman is unreliable"... Mr. Gray of DB responded, relatively vigorously, to CPH's letter:"... You have issued the contract documents for signature after we raised the issue of being unable to place orders with sub-contracts as a result of the non-issue of the main contract documents... If it is your intention to terminate this contract you are bound to follow the rules laid down in the 2005 form of contract"...It was accepted by DB's witnesses that DB did not return the signed and executed contract because they had more pressing things to do and did not think that it was essential in any event."</p>	<p>"The first question to consider is whether from its terms and its acknowledgment and acceptance by DB the Letter of Intent give rise to a contract in itself. I have no doubt that it did give rise to a (relatively) simple form of contract... Although this is a simple contractual arrangement, it has sufficient certainty: there is a Commencement Date, requirement to proceed regularly and diligently, a completion date, an overall contract sum and an undertaking to pay reasonable costs in the interim... By accepting the Letter of Intent, the parties were accepting that the terms of that Letter should dictate the rights and obligations of the parties until the formal contract was signed... It is argued by DB that the cap produces an unfair position for DB because it was foreseeable that the cap could be reached within a relatively short time. I reject that argument... If the sole reason why the formal Contract was not being executed was the withholding of signing by CPH, the insistence by CPH that DB proceed beyond the cap would lead to at the very least an equitable claim for additional payment... Decision: For the above reasons DB's claim is dismissed."</p>	The claimant seeks a declaration that by the time its relationship with the defendant was terminated the Letter of Intent had been replaced by the standard form contract	No	Yes (a simple form contract based on the conditions of the LOI)	<p>Although the parties acted as if the contract was signed, but the LOI was held to be in force / where a cap is in place under a LOI, it is important to ensure that it is not exceeded unless properly replaced by a formal contract or varied in writing and the Contractor is entitled only to be paid for the variations instructed by the Employer</p>	Employer

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C28	<i>Emcor Drake and Scull Ltd v. Sir Robert McAlpine Ltd [2004]</i>	Subcontractor v Contractor	"SRM required EDS to leave the site because they contended that EDS were in repudiatory breach of contract... The main dispute between the parties is whether there was a sub-contract that obliged EDS to carry out the whole of the M & E works for the project, or only a contract or series of contracts of limited value in anticipation of the conclusion of a full sub-contract... The value of the works programmed by EDS exceeded the value of the orders [by SRM] ... negotiation of the terms of a sub-contract for execution not having reached a successful conclusion... [SRM] had exceeded the £14 million order [the limit in the last LOI] ... The process of issuing orders had commenced on the basis that they would be cancelled and superseded by the issue of the formal sub-contract. EDS were not prepared to move to a situation of rising order values without resolution of the issues whether contractual terms could in fact be agreed... SRM replied stating that they accepted EDS's repudiation of their sub-contract... "We intend to withhold the sum of £1,105,160.65, (excluding VAT) ... As a result of your actions we have sustained loss and damage in excess of £3,000,000 and we are exercising our equitable rights of set off accordingly."	"...the conduct of SRM was consistent with an intention or expectation on its part that a sub-contract would be entered into. SRM urgently required the work to be done and benefited from having it carried out when it was... The contract under which EDS was working was the order of 15th August 2002, accepted by performance. The terms were net monthly account. The parties had since August 2001 adopted an ad hoc system whereby EDS made monthly applications for payment for work done and materials supplied, and SRM certified the gross and net valuations and the amount of the payment due at the end of the month.... Was the Claimant under an obligation to complete the whole of the mechanical and electrical works on the Dudley Hospitals PFI project? Answer: No. If not, (1) What work was the claimant obliged to carry out? Answer: To carry out design, procurement and site works for the M & E works for the project consistently with the Construction Contract but limited in value to £14 million... (3) What were the payment terms or on what basis is the Claimant to be paid for the work it has done? Answer: EDS were entitled to be paid a reasonable sum for the works carried out, up to a limit of £14 million."	The subcontractor is claiming the right for payment for all the works performed while the Contractor is limiting it to the cap in the final LOI with retaining a sum to cover damages and replacement of the subcontractor	No	Yes, the final LOI	Work must be performed based on the instructions in the LOI and not further than the scope and price described, counting on the possibility that the final contract might override the LOI, and thus not being compensated for the further works if a contract was not signed	The subcontractor is paid based on cap and the Contractor is not entitled to cover damages.

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C29	<i>Mowlem v. Stena Line Ports [2004]</i>	Contractor v Employer	"the Works were carried out pursuant to 14 letters of intent... Mowlem continued to carry out works [after the expiry of the last LOI] ... Stena was fully aware of this... issued various orders for extra work after being informed that the cost of the works as they stood would exceed £10,000,000 and after the limit date... The highest that Mowlem's case was put was that the effect of the matters relied upon – in particular the alleged insistence on the part of Stena that Mowlem carry on after 18 July 2003 and after its costs allegedly had exceeded £10 million and complete the Works – was that Mowlem became entitled as a result of compliance with the alleged instruction to be remunerated for the whole of the Works on a quantum meruit basis."	"In my judgment, as from 4 July 2003 the relationship between Stena and Mowlem was governed by the letter dated 4 July 2003: "...such reasonable amounts as can be substantiated in respect of your costs for orders placed or work done, subject to the maximum amount given below [namely £10 million]"...Grammatically that is what the letter said, and it would make no commercial sense to have a financial limit on Stena's obligations to make payment which could be avoided by the simple expedient of continuing to carry out work after 18 July 2003. It would be even more bizarre commercially if the financial limitation on Stena's obligations could be avoided simply by Mowlem exceeding that limit... Mowlem's entitlement to payment for the Works is subject to a maximum of £10 million."	The Contractor is claiming to be entitled to be paid a reasonable sum for the works carried out above the cap and beyond the expiry of the final LOI	No	Yes, each LOI is considered a contract	The Contractor must bind his work to the limit provided in the instructions and not exceed it seeking remuneration later without being certain that it will be paid	Employer

Case Code	Case Name	Plaintiff v Defendant	Case Description	Court Citation/Ruling	Matter in Dispute	Was there a signed contract?	Was the contract held in place?	Deduction	Ruling in favor of
C30	<i>Allen Wilson Shopfitters v. Anthony Buckingham [2005]</i>	Contractor v Employer	"on the Claimant's case, by the beginning of February 2005, the total sum of £50,401.35 in respect of Valuations 12 and 13 was outstanding..... [the Employer] permitted the architect or supervising officer to instruct the Contractor to perform additional work outside the original contract [first LOI] work scope... This first letter of intent was signed and returned by the Claimant... no formal contract documents were ever prepared... It [second letter of intent] endeavoured to set out a proposed agreement in which all of the proposed Works would be carried out and completed for £650,250... Claimant did not sign this... on their [contract administrator's] instructions, [the claimant] was carrying out work far more extensive in scope than the work covered by the two lump sums in the Contract [1st LOI]... [the Contractor:] "We are of the view that because of the continuous breaches of our payment agreement that we are not bound by the contract terms and conditions.""	"It seems to me clear that, because the second letter of intent was deliberately never signed or returned by the Claimant, it can have no contractual significance... The work which was the subject matter of those Valuations was carried out because it was instructed by Deacon & Jones on behalf of the Defendant. Like much of the work carried out by the Claimant at the property, and paid for by the Defendant, such work was not included within the two specific lump sum items in the first letter of intent; however, it was work carried out by the Claimant and paid for by the Defendant because it was work which the supervising officer, Deacon & Jones, instructed the Claimant (on behalf of the Defendant) to carry out... I therefore grant summary judgment to the Claimant for the following: (a) The sum of £50,401.35, being the total due in respect of valuations 12 and 13"	The payment due to the Contractor upon failure to agree on the final contract price and scope of works which was subjected to constant variations	No	Yes (the first LOI, but not the 2nd one with the limit)	The Employer must expect that in the absence of clear pricing and scope of works, it will be hard to impose his price limits on the project after the works have commenced	Contractor



### 5.3 Contract Mismanagement: Reasons and Results

As observed from the cases, mismanagement in contract formation could occur: (1) before or after the award of the contract, (2) after works have commenced, or (3) after the works are completed, at the substantial completion phase. The dispute could occur at these stages in the contract timeline due to the consideration of one or both of the parties that a contract has been formed between them although a formal contract has not been signed. Based on the content of the cases, it has been chosen to categorize the contract mismanagement into five dimensions:

- Discovery of a mistake in the bid price prior to the award of the contract
- Dispute after the award of the contract and prior to its signature
- Disagreement on the essential contract terms
- Contract formation is held by the conduct of the parties
- Works begin based on Letter of Intent

The formation of a contract due to the conduct of the parties is observed as a result of the case incidents, and the remaining 4 categories are the basis of disputes due to mismanagements. Yet, it is chosen as a category on its own for its importance in determining contracts and stands out as a subject matter by itself.

Figure 5.2 below shows the distribution of cases over these categories. A case might tackle more than one of the categories. And this is why it is important to keep in mind that each case is to be studied on its own.

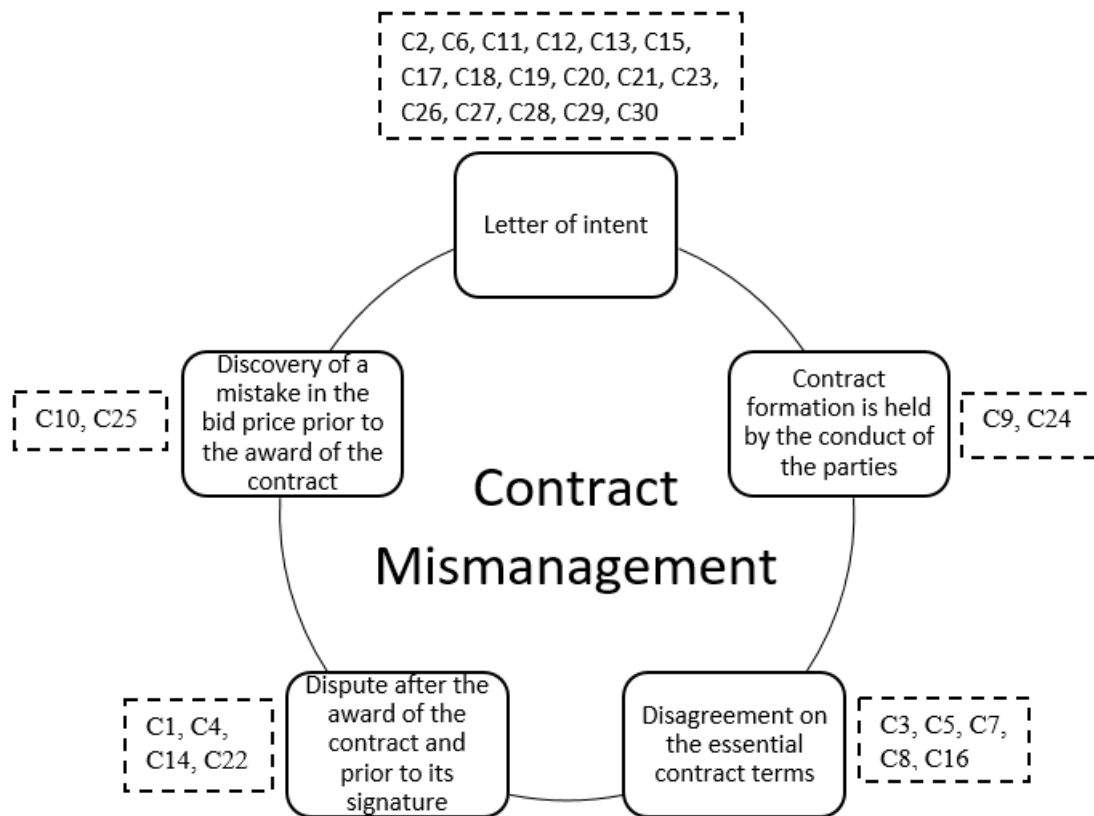


Figure 5.2 The cases categorized under Contract Mismanagement

The courts in their decision consider primarily whether a contract is considered to be in place or not in order to determine the rights and liabilities of the parties in dispute. The judge in case C21 explains how a contract is created by explaining:

“In essence there are three basic essentials to the creation of a contract: agreement, contractual intention and consideration. The normal test for determining whether the parties have reached agreement is to ask whether an offer has been made by one party and accepted by the other. Even where an apparent agreement has been reached it may fail to give rise to a binding contract because the agreement is incomplete or insufficiently certain”.

Therefore, if a contract is deemed in place, the contract conditions apply for payment. Whereas in the absence of a contract between the parties, the court may allow

the Contractor/sub-Contractor to be paid on quantum meruit basis (Buckby & Croft, 2012). Surahyo (2018, p11) defines quantum meruit as: “Quantum meruit is basically a reasonable payment for work that has been earned.”

### ***5.3.1 Contract formation is held by the conduct of the parties***

The usual procedure for the contract formation is by correspondence through offer and acceptance, but it could also be formed by performance. This has been explained by the judge in case C9 where it has been ruled that the contract is deemed to be effective by the conduct of the sub-Contractor who has performed the work, and applied for and accepted payments on the agreed terms. Case C24 exhibits the absence of agreement on definite terms, yet the contract is construed to be in place due to the acceptance by conduct of the instructions of the Employer. When a contract is formed by performance, payment is made based on quantum meruit if there is non-agreement on the pricing. Table 5.2 below elaborates on the tackled cases.

*Table 5.2 Contract mismanagement: Contract formation is held by the conduct of the parties*

<b>Case code</b>	<b>Relevant Details</b>	<b>Case Particular Conclusion</b>	<b>General Deduction</b>
<b>C9</b>	Work was performed and payments were made, but the Contractor sought remuneration from the subcontractor for delays and defects as imposed on him by the Employer	The contract is concluded to have taken place by conduct of the parties despite the continuous negotiations	The performance of works upon instructions resembles acceptance and thus a contract is held in place, and in absence of agreement on price, the payment is made based on reasonable pricing of the works performed.
<b>C24</b>	There is no agreement on exact price, time and price	The contract can be construed to happen in place based on instructions and acceptance of them despite the absence of agreement on time and price. Thus, payment is made based on quantum meruit if it is not agreed on.	

### 5.3.2 Disagreement on the essential contract terms

The failure to sign a contract is mainly due to disagreement on vital contract terms. Case C7 reveals how this might hinder the commencement of the works and also lead to litigation. Yet, the parties might override the missing contract condition and sign the contract to allow the works to commence. Cases C3, C5 and C8 deal with the failure to submit a performance bond (PB) by the Contractor which does not only affect the contracting parties, but the Engineer might also be blamed as seen in case C8. The Contractor is bound by the price of his tender; however, this principle can be upset as seen in case C16. It deals with disagreement on the price of items within the contract due to the Contractor's mistake. But eventually, the knowledge of both parties is vital in decisions in such cases which shed the light on the importance of fair dealing and conscionable action if the mistake is easily detected. Table 5.3 features the cases pertaining to disagreement on essential contract terms.

Table 5.3 Contract mismanagement: Disagreement on the essential contract terms

Case code	Relevant Details	Case Particular Conclusion	General Deduction
C3	The Contractor demands payment from the Employer for terminating the works without breach despite not having submitted a PB	Termination by the Employer holds him liable to compensate for the works performed despite the absence of the PB	
C5	The Contractor did not submit a performance bond and became insolvent, the Employer blames the Engineer for not performing his duty	The Engineer is not held liable if he exercised reasonable skill and care in persuading the Contractor to submit the PB	
C7	Battle of forms, no sign of acceptance by any of the parties	Continuous offer and counter offer does not infer an agreement at any point unless there is a sign of acceptance by both parties	The failure to submit the PB subjects the Contractor to non-payment unless the Employer did not express dissatisfaction and paid accordingly, or terminated the works without breach from the Contractor.
C8	Upon failure to meet the payment obligations, the Contractor claims for compensation, but the	Since payments were made by the Employer without expressing dissatisfaction from the absence of the PB, the	The Contractor is allowed to rectify his contract price if the mistake is

Case code	Relevant Details	Case Particular Conclusion	General Deduction
	Employer alleges that the PB was never submitted	Contractor has the right to be paid the demanded compensation	easily depicted in it.  The failure to agree on the contract terms without any manifestation of acceptance excludes the presence of a contract.
<b>C16</b>	The subcontractor seeks rectification of the contract price or a reasonable pricing for the work items upon a mistake in the bid price while the Contractor insists on paying him based on the accepted bid price	A sub-Contractor is entitled for correction of the subcontract price if the mistake is easily noticed by the other party who is deemed to have acted "unconscionably"	

### 5.3.3 Discovery of a mistake in the bid price prior to the award of the contract

Mistakes in the bid pricing might be discovered prior to the award of the bid. Table 4.3 below represents these cases. The mistake could be taken advantage by the Employer and claimed to be willingly put for basis of bid unbalancing as seen in C25. However, the rule is explained clearly by the judge in C10:

“The governing rule is well stated in Story's Equity Jurisprudence, 12th ed., 135, § 138 (i), as follows:

*"But where the mistake is of so fundamental a character, that the minds of the parties have never, in fact, met; or where an unconscionable advantage has been gained, by mere mistake or misapprehension; and there was no gross negligence on the part of the plaintiff, either in falling into the error, or in not sooner claiming redress; and no intervening rights have accrued; and the parties may still be placed in statu quo; equity will interfere, in its discretion, in order to prevent intolerable injustice. This is the clearly defined and well established rule upon the subject, in courts of equity, both in England and America."*

Therefore, as long as the mistake is honest and acknowledged prior to the change of conditions of the parties, then the Contractor is not held in breach. Cases C10 and C25 are discussed in Table 5.4 below.

*Table 5.4 Contract mismanagement: Discovery of a mistake in the bid price prior to the award of the contract*

<b>Case code</b>	<b>Relevant details</b>	<b>Case particular conclusion</b>	<b>General deduction</b>
<b>C10</b>	Despite the honest mistake and declaration of it by the lowest bidder, the Employer insists that he is awarded the contract and declares the Contractor in default and asks to retrieve the bid bond	The Contractor by reporting the mistake as soon as possible prior to being awarded the contract would help not being held to be attempting to gain unconscionable advantage	Any declaration of mistake prior to the award of the contract allows the Contractor to withdraw his bid without any penalties if it is proven that there were no intentions to make the bid unbalanced.
<b>C25</b>	Due to noticing a mistake in the bid price when bids were opened, the Contractor asks for reformation of the bid price or not forfeiting the bid bond for declaring him in default	The Contractor is able to rescind his proposal due to a mistake that is disclosed as soon as bids are open before the Employer's conditions have changed	

#### ***5.3.4 Dispute after the award of the contract and prior to its signature***

The cases discussed in Table 5.5 below reveal that the dispute could also occur between the parties prior to the signature of the contract. Cases C1, C4, C14, and C22, presented in Table 4.4 below, reveal that after the contract is awarded, neither the Contractor nor the Employer are allowed to revoke their participation in the contract without being held in breach. And thus the court in case C1 considered mobilization to the site acceptable upon the award of the contract despite not having signed the contract formally. This further asserts that each case is to be studied on its own within its context.

Table 5.5 Contract mismanagement: Dispute after the award of the contract and prior to its signature

Case code	Relevant Details	Case Particular Conclusion	General Deduction
C1	Commencing work prematurely, upon issuing of letter of award of contract	The mobilization to site is possible upon a letter of award that is deemed to have put the contract in place and withdrawing the contract by Employer is considered a breach of contract	After the award of the contract to the successful bidder, neither the Employer nor the Contractor could revoke their participation in the contract without being held in breach.
C4	The Employer seeks recovery for the difference between the lowest bidder and the highest bidder and the bid bond upon the lowest bidder's refusal to sign the contract due to a mistake in the subcontractor's bid	Not accepting to sign a contract because of a mistaken bid that had the chance to be withdrawn requires the Contractor to pay the bid bond for breach	
C14	Contractor demanding the return of the bid bond since he did not sign the construction contract after his bid price was reduced with his agreement	A Contractor cannot refuse to sign a contract in which his bid price was reduced by agreement without losing the bid bond	
C22	The Employer decides to take back the award of the project after the Contractor asks to modify a substantial contract clause that hinders his right for compensation for delay	Bid irrevocability related bargaining after the notice of award does not entitle the Employer to withdraw the notice of award	

### 5.3.5 Contract mismanagement due to the letter of intent

Where the terms have not been finally agreed on between the parties but works must commence in order to gain time, it is common in the construction industry that works begin based on a letter of intent that communicates the intention to enter a contractual relation between the Employer and Contractor or Contractor and subcontractor (Wilson, 2006). Therefore, it is observed that the greater number of cases falls under the category of “Letter of Intent” due to the clashes that might arise.

The letter of intent could by itself become the bidding contract between the parties based on the same criteria which are used to consider if a formal contract is in place or not. The judge in case C27 explains the categories of letters of intent by stating that: *“It is of course necessary in all cases involving letters of intent to construe the*

*letter of intent to see whether it falls within one of several categories. There can be letters of intent which do not give rise to a contract at all. There are others which do give rise to a simple contract in themselves and are applicable pending the execution of a formal contract. There are others which are a contract so far as they go, but not subject to the entering into of a formal contract.”*

This classification can be observed in the court decisions regarding each of the cases examined which depends on the range of clarity, accuracy, and scope of the letter for it to be considered a comfort letter, a quasi-contract (also called an “if contract”), or a final binding contract.

If the details are sufficient in terms of works to be done, payment and start date, it can give rise to a binding contract if it has been accepted by both parties (Mac Roberts, 2014).

In case C13 the judge mentions that: “There can be no hard and fast answer to the question whether a letter of intent will give rise to a binding agreement: everything must depend on the circumstances of the particular case.”

The mismanagement in using letters of intent arises from its wording. But in general, for the letter of intent to be binding, it should encompass the approval of both parties and be clear in its terms for time, cost and scope of works (Mac Robert, 2014).

The quasi-contract, also called unilateral or “if” contract, applies where the terms of the letter of intent are not enough to deem the means of compensation for the Contractor (or subcontractor). The “if” contract is further explained by the judge in case C13: “a contract under which A requests B to carry out a certain performance and promises B that, if he does so, he will receive a certain performance in return, usually remuneration for his performance.” The law of quantum meruit is likely to apply and



the rates of calculating the due amount for delays or defects will have to be determined by the courts (Naylor & Green, 2007).

The cases pertaining to the letter of intent have been categorized in Figure 5.3 below. The categories have been chosen on the basis of them being noticed to be the most occurring among the cases either as a matter of dispute or as an outcome of the decision. Thus, the same case could tackle more than one point.

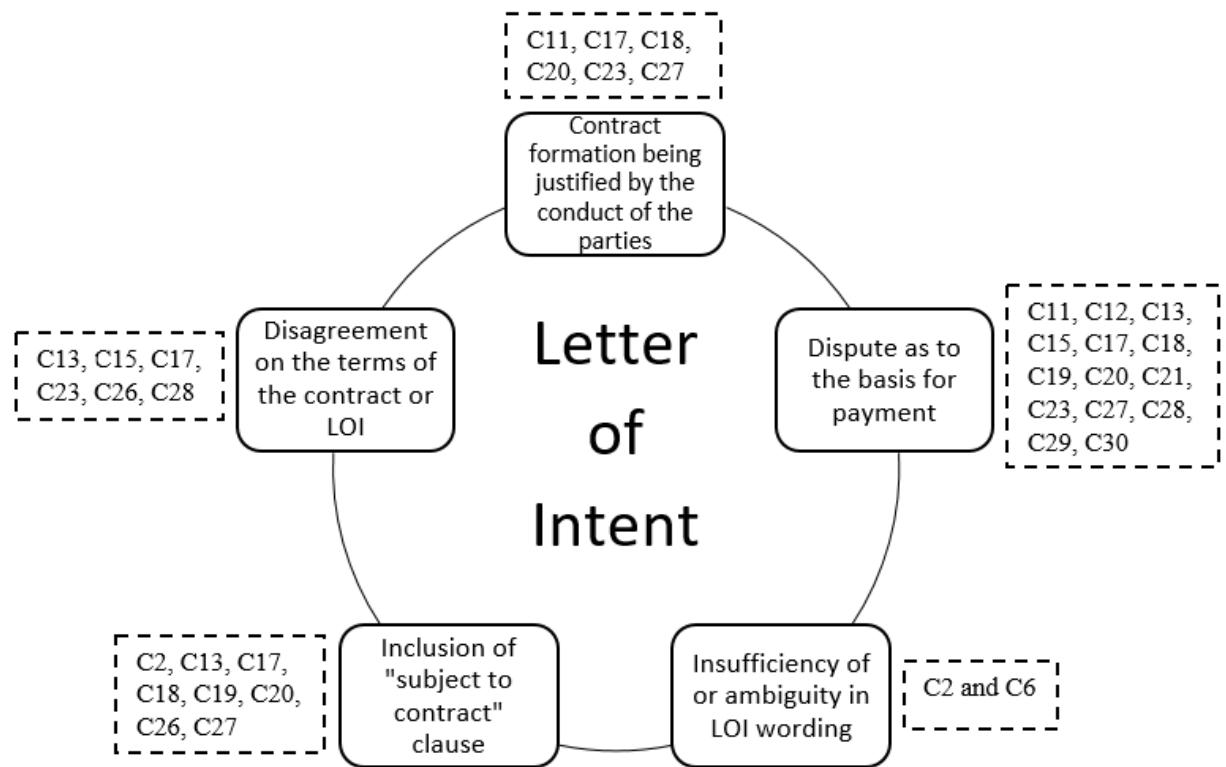


Figure 5.3 The cases categorized under Letter of Intent

#### 5.3.5.1 Inclusion of "subject to contract" clause

The works required and the sum to be paid for them is normally set out in the letter of intent. But in the presence of a “subject to contract” clause, any liability from any obligation becomes a basis of dispute. When the letter of intent includes a “subject to contract” clause it reflects the necessity of the signature of a formal agreement from

both sides in order for the relation to be considered legally binding. The “subject to contract” clause might also be referred to as a “cancellation clause” since it cancels the letter of intent if the contract is construed to be in place.

As observed from cases C20 and C27, the letter of intent that includes a “subject to contract” clause could be considered the legal relation between the parties if it includes contract elements agreed on between the parties. However, when there is disagreement on essential contract terms such as price, timing, and price, then the contractual relation is considered absent between the parties as seen in cases C13, C17 and C26. In case C17 the payment is to be made based on reasonable pricing of the works performed which reflects the term “if” contract for the LOI. However, when the parties act based on the contract conditions despite it not having been signed between them, then the intent is interpreted from their expression of acceptance by their conduct and thus they are unintentionally legally bound as observed in cases C18 and C19. Where in case C19 the judge stated that the court must "look behind the apparent or literal meaning of the words of a letter...to determine the true intent of the parties", and particularly in that case where the work was finalized.

The greatest risk of commencing works prior to contract signature is when any of the parties could not reach a final decision even through litigation due to the wording of the letter of intent. This is examined in case C2 where the Supreme court found the letter of intent to be ambiguous and demanded parol evidence in order to rule in the situation of claimed damages by the subcontractor since the presence of the “subject to contract” clause came along with the Notice to Commence which reflects the clear intention of the parties to work together.

Table 5.6 Letter of intent: Inclusion of "subject to contract" clause

Case code	Relevant details	Case particular conclusion	General deduction
C2	The LOI included details of the works and NtC but it referred to executing a formal contract	If the writing is ambiguous, parol evidence may be introduced to show the intent of the parties	If the works are performed within a "subject to contract clause" and:
C13	The is no agreement on essential terms (scope and price)	No contractual basis in absence of agreement of essential terms	
C17	There is dispute over an essential contract term (price)	Even if works were performed, the LOI is considered an "if contract" in the absence of agreement on essential contract terms	- there is disagreement on contract terms, it is considered that there is no contractual basis between the parties.
C18	payment were made based on JCT final payment not made	although the contract was not signed, but they worked as if it was, the contract is formed by the conduct of the parties	- the LOI includes essential contract terms, then the LOI is considered the contract.
C19	Works and payments are made based on contract conditions	The parties are informally contractually committed to a contract due to the instructions to proceed and thus the intention of the parties	- the parties act as if a contract is in place, thus showing intentions to be bound through their actions, then they are informally contractually committed to a contract.
C20	The LOI includes all essential contract terms (price, program, works)	LOI is the contract	
C26	Negotiations continue over the means of pricing while works are being executed	There is no contract (but the LOI could have been considered as one if the Employer argued about it but he did not)	- the LOI has ambiguous writing, there is difficulty in reaching a final decision about the contract and liabilities.
C27	The LOI includes all essential contract terms (price, program, works) and works were performed	LOI is the contract	

#### 5.3.5.2 Insufficiency of or ambiguity in LOI wording

While the ambiguity in the wording of the letter of intent, as in case C2, could deprive the parties from their ability to retrieve their rights, and similarly does the insufficiency of the wording. In case C6 the Engineer is held liable for his lack of protecting the Employer's right to recovery of liquidated damages since he did not include it in the letter of intent that he drafted.

Table 5.7 Letter of intent: Insufficiency of or ambiguity in LOI wording

Case code	Relevant details	Case particular conclusion	General deduction
C2	The LOI included description of the works but also a necessity for the formation of a formal contract, then it was terminated without works having commenced	No final decision is reached by the court	Insufficiency or ambiguity in the wording of the LOI deprives the parties from their rights due to the inability to reach a decision, and this could put the blame on the Engineer for failure to form a comprehensive contract.
C6	The Employer fails to recover liquidated damages for delay because the LOI did not include these provisions and thus the Employer blames the Engineer	The Engineer is held liable in breach of his duties of forming a comprehensive LOI which protects the Employer's rights in all circumstances	

### 5.3.5.3 Contract formation being justified by the conduct of the parties

As contracts may be considered to be formed by the performance of the parties, letters of intent are held in place as contracts by the actions of the parties that translate the intention to be bound. This is translated in cases C11 and C23, and cases C17, C18, C20 and C27 further reveal how a “subject to contract” clause can be also waived by the action of the parties. This is expressed in the cases in Table 5.8.

Table 5.8 Letter of intent: Contract formation being justified by the conduct of the parties

Case code	Relevant details	Case particular conclusion	General deduction
C11	Multiple LOIs, with the final two not being signed but the works continued based on them	The unsigned LOIs are considered effective by the conduct of the parties	If the parties act upon the contract terms without signing the contract, it is deemed to be in place in effect of their conduct. This also applies to unsigned letters of intent which are worked upon despite not having been signed.
C17	The parties did not agree on the contract price and the LOI included a subject to contract clause but works were performed	The LOI is the contract and thus no official contract is deemed to be formed and the subcontractor is paid based on the works performed	
C18	There is agreement on the price and works were performed, but there is no signature of the formal contract	The contract is deemed to be formed by the conduct of the parties	
C20	The LOI includes a "subject to contract" clause, works performed, almost all payments were made despite not having provided the Advance Payment Guarantee	It depends on the conduct of the parties if this clause is waived or not, and thus the award of the rights of each is determined and the necessity for a guarantee is canceled upon the recipient's waiver of it by action	

Case code	Relevant details	Case particular conclusion	General deduction
C23	The contract was not signed, but the subcontractor performed the works and the Contractor made payments based on contract conditions	The contract is concluded from the action of the parties	
C27	Subject to contract clause, the formal contract was never signed but the LOI included all the essential terms and works were performed based on them waiting for the formal contract	Although the parties acted as if the contract was signed, but the LOI was held to be in force as a simple contract	

#### 5.3.5.4 Disagreement on the terms of the contract or LOI

The cases in Table 5.9 encompass situations in which works have commenced based on a letter of intent with inability to reach an agreement over the scope of the works, the program, or the contract price. In general, such cases have resorted to the payment being made based on reasonable valuation for the works performed, that is referred to as quantum meruit. However, despite the disagreement on any of these essential terms, a contract might have been construed to be in place by the letter of intent itself such as in cases C15, C17, C28 and thus the agreed pricing in the letter of intent applies. And in case C23, since a formal contract has been formed due to the performance of work from both parties, then the contract conditions apply for payment.

Table 5.9 Letter of intent: Disagreement on the terms of the contract or LOI

Case code	Relevant details	Case particular conclusion	General deduction
C13	There is no agreement on the scope of work, delivery dates, and price of the steel work	Absence of agreement on contract terms excludes contract formation. Payment is made based on works done. The Employer is not compensated for delay.	

Case code	Relevant details	Case particular conclusion	General deduction
C15	They agreed on price but not the specifications and the program, the Contractor saw the LOI as a final contract but the Employer saw it just as an intent letter	The agreement on the scope of the works and the clear intention that the works are to be completed by the Contractor, render the LOI a binding contract	When there is disagreement on the contract terms, the Contractor is paid for the works done based on quantum meruit (reasonable value of services), unless an agreement is held in place, then the relevant contract or LOI terms apply.
C17	Disagreement on the contract price which is considered as an essential contract term	No contract is formed and the LOI is considered as the binding contract and thus payment is made based on the works done	
C23	No agreement on contract price after change orders/ since the parties show agreement, the change orders are considered part of the contract amount	The Contractor is paid based on contract terms with also interest on delay	
C26	Disagreement on contract price	Since there is no contract, payment is made based on quantum meruit	
C28	Negotiations over scope and program issues and hence price, but acted based on the LOI	Last LOI applies and payment is made based on the price agreed on in the LOI	

#### 5.3.5.5 Dispute as to the basis for payment

When there is disagreement on the program of the works, or the scope if there are constant change orders, then a discrepancy over the price emerges. Therefore, practically most of the cases of contract mismanagement due to commencement of works based on the letter of intent could be observed under this category.

It has been noticed that if based on the court rulings a contract is set to be in place, the payment is made only based on contract terms and this also applies to the pricing of the change orders. This is witnessed in cases C18, C19 and C21. This is also effective in the cases where the LOI is held as a contract as in case C11.

However, if the contract is not held to be in place, and the LOI is considered as an “if” contract, payment is made based on quantum meruit. This is observed in cases C15 and C17.

In the cases where there is a cap on payment, or a fixed lump sum price, the Contractor must be alert not to exceed the cap in the LOI as in cases C12, C27, C28 and C29. Any work above the cap is not compensated for unless it is due to change orders made by the Employer which are calculated based on quantum meruit. But if the variations are due to the Employer's instructions, then the payment must be made based on the contract conditions, as deduced from cases C19, C21, C23 and C30. Furthermore, it is worth noting from case C12 that the court considered the Contractor's inability to recover overhead as a loss that must be compensated for in the calculation of the payments despite the Contractor having exceeded the agreed cap.

The work performed beyond the expiry of the letter of intent is treated similarly, where any work beyond the dates agreed on is not to be paid based on the conditions, but on quantum meruit basis. This is seen in cases C11 and C29.

Cases C13 and C20 show that it is illegal for the Employer to intended holding payments till the end of the substantial completion period or as liquidated damages, if this has not been agreed to earlier between the parties.

This analysis is represented in Table 5.10.

Table 5.10 Letter of intent: Dispute as to the basis for payment

Case code	Relevant details	Case particular conclusion	General deduction
C11	Disagreement on the price of the works which were described in unsigned LOIs but performed after the expiry of the final signed LOI	Works performed within the signed LOIs is paid for based on contract conditions, and those after the expiry of LOI are paid for based on quantum meruit	
C12	The spending limit has been reached and the parties disagree on the right of the Contractor for recovery of overhead	Inability to recover overhead is a loss that is paid for in the absence of the LOI being construed as a part of the final contract	

Case code	Relevant details	Case particular conclusion	General deduction
C13	There is disagreement on the price; the Employer claims charges for delay and liquidated damages, but the Contractor asks for payment to be made under quantum meruit	In the absence of a contract, the Contractor is paid based on quantum meruit and not held liable for delay damages	
C15	They agreed on price but not the specifications and the program, and the dispute is whether the Contractor is paid for the full scope he executed rather than the set limit	Since the LOI is considered here as an "if contract", the Contractor is paid for work performed rather than the cost limit set by the letter	- When a contract is set to be in place, payment is made only on contract terms even the pricing of the change orders.
C17	Works were performed, but the parties failed to agree on the price	It is an "if contract" and the Contractor is paid based on works done (quantum meruit)	- Cap on payment: Any work above the cap is not compensated for unless it is due to change orders made by the Employer which are calculated based on quantum meruit if no contract is held in place.
C18	The Contractor is claiming for payment for the final unpaid certificate which is further than the agreed price	Since a contract was deemed to be formed, payment is done based on the contract price and not on works performed	
C19	Payments were made based on JCT contract conditions, the final payment was conflicting because it was based on changes by the Engineer but its rates were calculated based on the contract conditions	Since the contract is deemed to be formed, the payment is made based on contract price and not on quantum meruit	- If no contract is held to be in place nor the LOI is considered as an "If contract", payment is made based on quantum meruit.
C20	Payments were made based on percentages from the total agreed sum but the Employer refused to pay the final remaining percentage till the end of substantial completion period	The Contractor is entitled for the full price agreed on in the LOI	- The Employer cannot hold payments till substantial completion if this has not been agreed on earlier between the parties.
C21	The Contractor is demanding to be paid more than the amount agreed on since there was a change in the scope of the works and thus also the price	Once the contract is construed to happen in place due to signature of on a letter of agreed terms, the Contractor cannot expect to be paid on quantum basis, but only on the contract conditions	
C23	The Contractor only paid the subcontractor the amount in the contract excluding the change orders later agreed on	Payments due to change orders are considered part of the contract and thus must be paid on contract rates since a contract is deemed to be in place	
C27	The LOI included a cap but the works were performed above the cap without objection by the Contractor	The cap in the LOI is related to the work which was in the tender, any additional work ordered by the Employer must be paid based on quantum meruit	
C28	Negotiations over scope and program issues and hence price/ successive letters of	In presence of cap, the subcontractor must abide to the	



Case code	Relevant details	Case particular conclusion	General deduction
	intent each raising the limit of expenditure, the Contractor paid all the required amount except for a portion to substitute for defects	cap and he is not entitled for further payment	
C29	Works were performed beyond the expiry date of the LOI and the cost exceeded the cap	The LOI binds the parties to its wording and payment to be done is limited to the cap in the LOI which is considered the contract	
C30	The Employer wants to pay based on a LS price but the Contractor is demanding to be paid for the variations	The Employer must pay the Contractor for works based on orders by him even if above the limit in the LOI construed as a contract	

#### 5.4 Summary of the Cases

The cases tackled a broad spectrum of incidents that result from the mismanagement of contracts. This mismanagement is mainly due to the inability to reach consensus prior to signature. The award of the contract is considered a milestone in the contract formation, after which both parties will be held liable for any breach in their duties toward each other. The Contractor is exempted from liability towards the Employer, or subcontractor towards the Contractor, if an honest mistake is discovered in the contract price prior to the award of the contract.

Furthermore, continuous offers and counter offers do not lead to a contract even if the negotiations stretched over months, and none of the parties is held liable in this case. However, if the negotiations coincide with actions on any of the terms, then a contract is concluded by conduct and thus the suitable payment is to be made.

Moreover, the performance bond is considered vital in the contract formation because its nonexistence hinders the payments unless the Employer did not express dissatisfaction from its absence and performed some payments accordingly.

The same conditions of contract formation are mimicked in the letter of intent. No contractual basis applies in the absence of clear agreement unless it is manifested by the action of the parties which deems a contract to be held by conduct. On the other hand, the presence of a “subject to contract clause” in some of the letters of intent plays a major role in the determination of the legal relation, the main factor of which is the presence of essential contract terms. The letter of intent could be part of a contract, a contract by itself or merely an intention letter. The result depends on the clarity and sufficiency of information in the letter of intent.

And since payment is usually the main conflict between the parties, the court’s decision revealed that the contract conditions apply in presence of a concluded contract and otherwise, payment is to be made based on a fair assessment of the works performed.

## **5.5 Conclusion and Recommendations**

The demonstrated cases reveal the pitfalls due to mismanagement in contract formation. This is translated into disputes between the parties due to not having signed a contract before the works commence, thus any of the parties considers that there has been a breach of the claimed contract, or the letter of intent. Whether it is the Employer or the Contractor who is seeking a final statement regarding the dispute in hand, the payment for compensation for claimed loss or right is the main objective. Hence, the courts resort to solving the matter by primarily tackling the existence of the contract in the first place. The court looks into the details of each case separately and based on the prevailing circumstances.

The disagreement on essential contract terms is the main reason behind commencing a project prior to finalizing the contract, in addition to the presence of a

mistake in the bid price. Despite of the absence of a formal contract between the parties, a contract may be concluded due to their conduct that reveals the intent to be bound by acting upon the discussed conditions.

Shading the relation with a letter of intent before the final contract is advantageous during negotiations with necessity to allow swift progress with the works. However, the letter of intent has the greatest share of disputes due to mismanagement in contract formation. Mistakes in the letter of intent are mainly due to the inability to reach a consensus on essential contract terms and also ambiguity or insufficiency in the letter content. The same rules for contract formation are applied to considering it as a final contract, part of a contract, or a simple intent letter with no attached liabilities.

The Employer must expect that in the absence of clear pricing and scope of works, it will be hard to impose his price limits on the project after the works have commenced since the Contractor will be paid based on the works performed. Also, the Employer must abide to the pricing agreed on between the parties even for the change orders and any attempt to delay payments till after the substantial completion period will fail if not agreed on between the parties.

Similarly, the Contractor must abide to the directions in the contract or the letter of intent in terms of price limit, time and scope of work. Any work performed outside this realm will not be compensated for unless it is due to change orders by the Employer.

Furthermore, any mismanagement in the contract formation not only puts the Contractor under huge risk of not being paid, or exempt the Employer from his right for compensation in cases of default by the Contractor, but also puts the Engineer or project manager in place of accountability.

Therefore, the security of the contracting parties lies in detailed and clear wordings for any actions to take place, in order to avoid ambiguity when a default occurs. And it is advised that the letter of intent includes clear description of the scope of work, duration and price. Thus, amid any dispute that might occur, the parties would still be protected.

## CHAPTER 6

### SUMMARY AND CONCLUSIONS

#### 6.1 Summary

This thesis addresses the contract formation process and the risks that reside within. Looking into the scholarly articles, Chapter 2 includes an overview of the contracts and their formation. Due to the risks in the construction industry, the protection methods for performance and payment in construction contracts have been explained along with the Engineer's role in the contract formation process and the deviations that might occur. Substitute practices for protection in contract conditions have also been observed.

Whereas Chapter 3 explained in detail the contract formation mechanism through its timeline based on the time bars stipulated under the FIDIC contract conditions. In order to explore the optimum timeframe for execution accompanied with the suitable conditions for the Contractor, all the possible reasonable scenarios have been systematically produced based on the 1999 and 2017 FIDIC contract conditions and presented in Chapter 4.

Real-life situations are rich with cases in which the deviation from the contract formation timeline led to disputes and eventually had to be solved through litigation. This has been tackled in Chapter 5. The case laws under study demonstrated the most recurring mistakes that could take place due to contract mismanagement with the supporting court decision.

## 6.2 Conclusions

Contract conditions and proper contract administration ensure the smooth execution of the construction project. Moreover, the signature of a contract based on standard contract conditions are drafted with precision and are conclusive to the rights and obligations of the parties. Also, the requirement of guarantees in the standard contract conditions provide security for the contracting parties. However, the failure of their submittal could hinder the execution of the contract or the payments.

The simulation of the scenarios emphasizes the importance of the due-diligence of the Employer, Contractor and the Engineering in addressing their tasks. The Contractor's ability to obtain the Performance Security the soonest possible has a positive effect on rising the probability of attaining the Advance Payment prior to commencing the works. However, any attempt by the Employer to gain time on the project time line imposes a great burden on the Contractor if not accompanied by proper measures by the Employer (and the Engineer in FIDIC 2017) to mitigate the financial pressure imposed.

FIDIC's amendments to the contract conditions in the new version revealed positive and negative effects on the timeline. While the increase of time for the certification of payment by the Engineer delayed the time of the first installment of the Advance Payment, the increase in the minimum time between the Notice to Commence and the Commencement Date revealed great advantage in the scenarios where the Employer decided to play his card on this early commencement aspect.

In normal contract conditions with the Commencement Date at 42 days from the Letter of Acceptance, the scenarios revealed that the Contractor could be handed the first installment of the Advance Payment as early as 28 days before the Commencement

Date if he can submit the performance and Advance Payment bonds at 7 days from the Letter of Acceptance and the Employer paying it also within another 7 days. The maximum boundary stretches to 14 days after the Commencement Date assuming that the Contractor delays the submittal of the Advance Payment and the Employer consumes the total allowed time to pay it.

As for the 2017 conditions the early boundary is at 21 days before the Commencement Date achieved with an additional 7 days for the Engineer to certify the payment. The maximum boundary stretches to 28 days after the Commencement Date with the same conditions explained above in addition to the maximum time allocated for the Engineer to certify the payment.

The cases have revealed that contracts remain the sole guarantee and outline for the Employer, Contractor, subcontractor, and Engineer to protect their rights and any mismanagement will be a base for great repercussions that might propagate till after the completion of the works. And if a letter of intent is to be used while finalizing the formal contract, it must be clear in addressing the duties, deadlines, and payments to mimic a contract to protect the rights of both parties in any case of discrepancy.

In conclusion, the absence of agreement on the contract terms or any drift from the proper contract formation procedure puts the Contractor under the risk of being unpaid or underpaid and the Employer being uncompensated for delay or default.

### **6.3 Recommendations**

The Contractor, Employer and Engineer must be aware of the importance of submitting their duties with expedition so the Advance Payment could serve its purpose of facilitating mobilization.

Contract Administrators/Engineer/ Employer's staff must draft clear and comprehensive Letters of Intent that it encompasses the rights of all the parties for fair compensation in case of loss, delay, or any disagreement. Also, they must always work to ensure a contract is signed and the conditions are applied.

The Contractor/subcontractor must not fall in the trap of the Letter of Intent and perform the works as if the contract is finalized. The work must be done only within the instructed scope and cap in the Letter of Intent.

The Contractor or subcontractor must note that upon the award of the project the bid becomes irrevocable and thus any mistake is uncorrectable unless it is proven to be honest, and similarly the Employer must not attempt to gain an unconscionable advantage of any mistake which will put him in breach.

#### **6.4 Limitations**

The presented work includes assumptions of time durations to simulate the scenarios. Although the fixed numbers have been chosen to mimic the most reasonable situations, definitely results might slightly vary in terms of number but not the general deductions and conclusions. Furthermore, the scenarios only tackled the alteration of the Performance Guarantee and the Advance Payment with respect to the Commencement Date, which only focus on a part of the timeline.

In regards to the cases, 30 case laws have been chosen thus yielded the deductions above. If more cases laws have been studied, probably a wider spectrum of mismanagements and inferences could have been produced. But this does not negate the outcomes reached, it enriches it further.



## **6.5 Future Work**

As for future works, further simulations of scenarios for other sections of the timeline could be performed. This could be done for the construction phase as a whole with focus on interim payments and the substantial and final completion phases. Thus, the contract formation timeline will be observed for optimum performance by the contracting parties.

Moreover, considering further case laws pertaining to contract mismanagements will augment the conclusions and recommendations displayed in this work.

## LIST OF CASES

- A.C. Controls Ltd v. BBC (2002) EWHC 3132 (TCC)
- Allen Wilson Shopfitters v. Anthony Buckingham [2005] EWHC 1165 (TCC)
- Ampleforth Abbey Trust v. Turner & Townsend Project Management Limited (2012) EWHC 2137
- British Steel Corp v. Cleveland Bridge & Engineering (1981) 24 BLR 94
- Bryen & Langley Ltd v. Boston [2005] EWCA Civ 973
- City of Lonsdale v. Newmech Companies (2008) Nos. A07-0105, A07-0107, A07-0108 (Minn. Ct. App. Jan. 22, 2008)
- Clarke & Sons v. ACT Construction Ltd [2002] EWCA Civ 1341
- Conwell Corp. v. City of Albuquerque (1990) 802 P.2d 634 (1990); 111 N.M. 125
- Diamond Build Ltd v. Clapham Park Homes Limited (2008) EWHC 1439 (TCC)
- Emcor Drake and Scull Ltd v. Sir Robert McAlpine Ltd [2004] EWCA Civ 1733, 98 Con LR 1
- ERDC Group Ltd v. Brunel University (2006) EWHC 687 (TCC)
- Felton Construction Ltd v. Liverpool City Council [2007] EWHC 3049 (TCC)
- G Percy Trentham Ltd v. Archital Luxfer Ltd [1993] 1 Lloyd's Rep 25
- Harvey Shopfitters Ltd v. ADI Ltd (2003) EWCA Civ 1757
- Highway Commission v. State Construction Co. (1955) 203 Or. 414 (1955); 280 P.2d 370
- Honeywell International Middle East Ltd v. Meydan Group Llc Meydan [2014] EWHC 1344 (TCC)
- Jarvis Interiors Limited v. Galliard Homes Limited [2000] CLC 411; BLR 33; 71 Con LR 219
- John J. Bowes Co. v. Milton (1926) 151 N.E. 116 (Mass. 1926)
- Koch Hightex Gmbh v. New Millennium Experience Company Limited [1999] EWCA Civ J0315-10

Merit Process Engineering Ltd v. Balfour Beatty Engineering Service (HY) Ltd [2012] EWHC 1376 (TCC) (28 May 2012)

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Sweett (UK) Ltd v. Michael Wight Homes Ltd [2012] EW Misc 3 (CC) (23 February 2012)

The United States of America, For The Use of J. C. Schaefer Electric, Inc. v. O. Frank Heinz Construction Co., Inc., 300 F. Supp. 396 (S.D. Ill. 1969)

TLT Construction v. RI, INC., No. 06-2214 (1st Cir. 2007)

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