



مدیریت ادعاء و اختلافات در طول چرخه حیات پروژه

بخش پنجم:

اجرای برنامه و مدیریت ادعاء، دعاوی و اختلافات در فاز ساخت/اجرا (Construction Phase)

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What we will learn?

☐ Claims management

- ❖ Introduction
- ❖ Project and claim documentation
- ❖ Contract and claim administration
- ❖ Types of claim
- ❖ Claim and dispute notification
- ❖ Claim and dispute tracking and processing
- ❖ Notes to consider before writing the claim

☐ Claims and disputes resolution

- ❖ Resolution methods
- ❖ Contract forms

What we will learn?

☐ Parties' considerations

- ❖ Construction manager
- ❖ General contractor and subcontractors
- ❖ Design consultant

☐ Lessons learned from case studies

- ❖ Recommendations
- ❖ Examples

☐ Final recommendations

Lessons Learned from Case Studies

(Recommendations)

Excusable delay

❑ Contractor has burden of showing delay excusable

- ❖ Because **critical path changes over time**,

***critical path schedule updates** necessary to analyze delays*

- ❖ Contractor also bears burden of separating and apportioning **concurrent delays**

- ❖ When government caused part of project delay,

LD's either waived or apportioned.

- ✓ When demonstrating extent of government delay,

***contractor** bears burden of proving critical path delay*

Compensable delay

- ❑ Burden of proving **compensable delay** falls on **contractor as claimant**
 - ❖ Contractor must prove extent of **government's delay** and **increased costs** to recover
- ❑ Contractor may **recover wage rate increases** that would not have been incurred **but for government delay**
- ❑ Contractor must prove amount of **home and field office overhead** directly related to **government delay**
- ❑ **Increased costs** of **winter** construction **may be recoverable**
 - ✓ Provided that contractor can **demonstrate work** would **have been completed** prior to winter **but for government delay**
 - ✓ **Increased cost** of **winter work** must be **apportioned** if there are **concurrent delays**

Notices

❑ Many contracts include statement that:

- ❖ *“Claim submittals not in compliance with these requirements shall be conclusively deemed to have been waived by contractor.”*
- ❖ However, there are **some general exceptions** to notice requirements:
 1. Written notice actually provided
 2. Owner had actual knowledge of claim facts
 3. Owner considered claim “...on its merits...” despite lack of formal written notice

Notices

❑ Many contracts include statement that:

- ❖ Failure to give proper and **timely notice** is invariably an **owner's** first line of defense.
 - ✓ **State law** is very important in this regard because some states **strictly enforce** these provisions.
 - ✓ In the **federal arena**, the best practice is always to give timely notice, but failure to give notice will **not necessarily be fatal** to the claim if the owner was aware.
- ❖ The **contractor** should give notice **as soon as possible** after identifying a problem,
even if the notice is late or informal.

Site conditions

❑ Contractor's risk of recovering for latent site conditions substantially increases

- ❖ When **silence** in **differing site conditions**
- ❖ When **“silence”** in soils reports
- ❖ When **fail to obtain & review** “...further information available upon request”

*In many cases contractors have **no way to assess the risk other than through increased bid contingency***

Site conditions

- ❑ Contractor's risk of recovering for latent site conditions substantially increases
 - ❖ Most vulnerability a contractor will experience in claiming extra costs and additional time as a result of **differing site condition** is when he or she *failed to conduct a diligent and reasonable investigation of construction site before submitting a bid.*

What does reasonable investigation mean?

Site conditions

- ❑ Contractor's risk of recovering for latent site conditions substantially increases

What does reasonable investigation mean?

- ❑ In general, site investigations are based on **observance** of the apparent surface conditions, however

Bidders do not usually have access to the project site

1. Bidder's duty is to investigate the site to **become familiar** with local conditions.
2. Owner is responsible for allowing appropriate time and **access** so that the bidders can conduct a reasonable investigation.

Site conditions

- ❑ Contractor's risk of recovering for latent site conditions substantially increases

What does reasonable investigation mean?

- ❑ Under the term of **"site investigation,"**
the **contractor** is obligated to **review**
 1. **Any and all documentation**
 2. **Other material** that the **owner has provided** to the contractor,
either in the **contract documents** or as a **part of the bid process**.

Site conditions

❑ Contractor's risk of recovering for latent site conditions substantially increases

In preparing a bid, the contractor assumes responsibility for adequately investigating the site and materials made available. Failure to do so will not excuse extra costs incurred in overcoming the adverse conditions encountered.

Let's see some examples of inadequate investigation

Site conditions

❑ Contractor's risk of recovering for latent site conditions substantially increases

Let's see some examples of inadequate investigation

❑ A **contractor** did not notice that the **existing paint** undermines the paint surface was peeling when it entered into a contract to **repaint existing bridges**.

❖ When the **contractor sued for the additional cost**, the court rejected its claim because of the **failure to notice** the paint condition even though the contract did **not specifically address** removal of peeling paint. The court held that

*“[t]he company here **explicitly assumed the responsibility** for examining the bridge and determining the **subsurface [beneath the paint surface] conditions**. This duty cannot be excused simply because the company's visual inspection proved to be inadequate.”*



Site conditions

❑ Contractor's risk of recovering for latent site conditions substantially increases

Let's see some examples of inadequate investigation

- ❑ A highway contractor asserted a claim for **extra compensation and time** based on the type of excavation material it encountered.

❖ In rejecting the contractor's claim, the Board of Claims found that *Although the contractor's personnel **inspected the project site**, they took no soil borings, conducted no subsurface investigation, and reviewed no government's engineering consultant's report.*

- ❖ No moisture content of materials in **formulating the bid considered** and the contractor's estimate did not account for any equipment, trucks, or loaders for rock excavation.

Essentially, the contractor's inadequate pre-bid site inspection caused it to underestimate the difficulty of the work

Risks transferred

❑ Be careful about risks that are transferred

- ❖ Clauses declaring **concurrent delays** are **non-excusable**
- ❖ Expanded exclusions from **Force Majeure clauses**
- ❖ Contractor **not entitled** to **rely** on **design/build documents** when bidding
- ❖ **Bidders** required to bid **using a pricing book** but **no guarantee of accuracy** of prices included
- ❖ **Contractor** remains **solely responsible** and liable for **design sufficiency** and should **not depend on reports** provided by the **government** as part of the contractor documents
- ❖ **Offerors** shall **not rely** on any **information provided** by the **government concerning the host country**, such as climatology data at the site, local laws, customs, currency restrictions, taxes or the availability of local labor.

Damages recovery

❑ To recover damages, the contractor must

- ❖ Prove they encountered **compensable delay**
- ❖ Provided **notice** of delay as required
- ❖ Submitted **time extension request** as required
- ❖ Demonstrate **event caused** delay to **end date** of project
- ❖ Document there was **no concurrent** delay
- ❖ Document daily **field office** overhead costs as required

➤ If meet requirements, contractor entitled to time extension & extended FOOH costs

Damages recovery

❑ To recover home office overhead (HOOH), the formula in delay analysis course can be used only if

1. Like all claims for delay damages, to recover home office overhead costs, the Contractor must first establish that the **delay was indeed compensable**.
 - ❖ This typically entails establishing that the delay was the **Owner's fault** or **responsibility** and could **not have been** reasonably **anticipated** or otherwise **mitigated** by the **Contractor**.
2. Contractor must also **demonstrate** that there was **other revenue available** which, in the **absence of the employer delay**, would have been **secured by the contractor**.

In addition, many courts that have accepted the Eichleay Formula have attached other prerequisites to its application.

What prerequisite?

Delay Analysis Course!

Acceptance of final payment

❑ Be careful about a provision of acceptance of final payment

❖ Construction contracts frequently contain a provision that

*acceptance of final payment by the contractor shall be considered as a general release in full, of all **unsettled claims** against the owner arising out of, or in consequence of, the work.*

Acceptance of final payment

❑ Be careful about a provision of acceptance of final payment

- ✓ The AIA General Conditions of the Contract for Construction provides that the *acceptance of final payment* shall constitute a waiver of all claims by the contractor **except** those previously made in writing and still unsettled.
- ✓ This can be an **important point** because, where such contract provisions appear, they are given effect and enforced by the courts.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

Acceptance of final payment

*Read a great paper that compared
FINAL PAYMENT CLAUSES
Between different form of agreement

Will be uploaded online!*

Alternative dispute resolution (ADR)

1. Check alternative dispute resolution (ADR) clause in your contract before a dispute arises

- ☐ **Cannot mediate** successfully without all parties being a willing participant
- ☐ **Cannot arbitrate** without an agreement / contract selecting arbitration
- ☐ Generally cannot litigate first **if contract requires** mediation or arbitration first
- ☐ AIA (American Institute of Architects) contract forms – sample clause:
 - ❖ Mediation is a **condition precedent** to arbitration or litigation.

Alternative dispute resolution (ADR)

2. Negotiate the ADR clause before signing your contracts
3. Suggest an ADR clause to your owner / customer before construction contracts are executed

❖ **Sample term:**

sole and exclusive option to elect mediation or arbitration or litigation proceedings

Alternative dispute resolution (ADR)

4. Familiarize yourself with...

- ❖ Construction industry **mediation** rules of American Arbitration Association (**AAA**)
- ❖ Construction industry **arbitration** rules of American Arbitration Association (**AAA**)

Note “compulsory arbitration”

Lessons Learned from Case Studies

(Examples)

Example of EOT

- *In the Matter of Phillips National, Inc.*
- ASBCA held Phillips responsible for delay because
 - ✓ Phillips did not submit schedule delay analysis separating owner from contractor delays
 - ✓ “Without a CPM schedule, there was nothing to approve”
- Board denied claim solely on basis of non-compliance with contract’s schedule requirements

Example of EOT – Gantt Chart

Minmar Builders, Inc.’s claim against the government (72-2 BCA [P9599] GSBCA No. 3430. July 28, 1972. Contract No. GS-03B-15477).

In this case, the two construction schedules submitted for the addition of a classroom and laboratory at Gallaudet College were nothing more “than a bar chart showing the duration and projected calendar dates for the performance of the various contractual tasks.”

The fact that bar charts are not acceptable as evidence to show the cause of project delays is clearly stated in this decision:

“Since no interrelationship was shown as between the tasks, the charts cannot show what project activities were dependent on the prior performance of the [activities], much less whether overall project completion was thereby affected. In short, the schedules were not prepared by the Critical Path Method (CPM) and hence are not probative as to whether any particular activity or group of activities was on the critical path or constituted the pacing element for the project.”

Example of EOT – Impacted as planned with only EDE

❑ Example: Court decision

“We have found that [his] analysis systematically excluded all delays and disruptions except those allegedly caused by the Government ... We conclude that his analysis was inherently biased, and could lead to but one predictable outcome ... To be credible, a contractor’s CPM analysis ought to take into account, and give appropriate credit for all of the delays which were alleged to have occurred.”

Haney v. United States 30 CCF ¶ 70, 1891], 676 F.2d 584 (Ct. Cl. 1982); Pathman Construction Co. , ASBCA No. 23392, 85-2 BCA ¶ 18,906

Example of EOT – Contemporaneous analysis

❑ Example: Court decision

Mr. Maurer, appellant's expert, testified about the critical delays to the Project.... The analysis about the critical delays was based on appellant's original schedule, the schedule updates, the daily reports, Project correspondence, and the contract documents. Mr. Maurer described his analysis as a step-by-step process, beginning with the original schedule and proceeding chronologically through the Project, updating the sequence at intervals to see what happens as the Project progressed [(tr. 262) ASBCA No. 34, 645, 90–3 BCA ¶ 12, 173 (1990)].

A second judge's decision is also relevant to this discussion.

In the absence of compelling evidence of actual errors in the CPMs, we will let the parties "live or die" by the CPM applicable to the relevant time frames [Santa Fe, Inc. VABCA No. 2168, 87–3 BCA ¶ 20677].

Example of compensation

- *Jackson Construction Co., Inc. v. U.S.*
- Court's decision provides checklist of what not to do when presenting a delay claim
- Jackson
 - ✓ Improperly calculated HOOH amount claimed
 - ✓ Unable to prove "intended early completion"
 - ✓ Failed to support contention of cumulative impact of multiple changes beyond merely pointing to a large number of change orders
 - ✓ Signed all government issued change orders with no reservation of rights

Example of differing site conditions

➤ Appeal of Bean Stuyvesant LLC

➤ Board looked at what conditions were “indicated” in contract documents

- ✓ Contractor relied on documents provided at bidding
- ✓ But did not request information “...available upon request” which indicated conditions encountered
- ✓ Contractor “has a duty” to review available information

➤ Board ruled against contractor as condition encountered not differ materially from indications in “available” document

Example of inspection

- Appeal of Tawazuh Commercial & Constr. Co. Ltd
- “Underinspection” claimed to recover additional costs to pay for completion of punchlist work
- Tawazuh contracted to build 40 km of road in Afghanistan – terminated for default for failure
 - ✓ To perform contract obligations
 - ✓ To provide remediation plan required by cure notice
 - ✓ To perform as per contract requirements
- Tawazuh argued government owed cost of repair & replacement as USACOE not inspected properly throughout project

Example of inspection

➤ Court ruled

- ✓ "...well established that the government's right to inspect work generally does not relieve contractor of its obligations to perform, nor can the contractor properly rely on government inspection for the discovery & correction of any errors"
- ✓ "...[contractor's] legal responsibility to maintain an adequate inspection system to ensure that its work conformed to the contract requirements"

➤ Tawazuh lost claim but less experienced contractors likely submit similar claims

Example of equipment productivity loss

➤ Contractors starting to assert “equipment inefficiency claims” using following formula –

$$\frac{\text{Actual Equipment Cost}}{\text{Total Labor Cost}} = \frac{\text{Equipment Cost}}{\text{Adder}}$$

➤ But equipment cost generally increases only when idled or extended

Example of home office overhead rejection

- Acme Contracting, Ltd. v. TolTest, Inc. 2010 WL 1140997 (6th Cir. Mich.)- Contractor must prove it can immediately restart the work under Ohio law, or else no stand by
- 2006 Alaska case- recovery denied because although contractor could not perform planned work, it could do major portions of other work

Final Recommendations

Recommendations for owners

- ☐ **Maintain** focus on **project success**, not party interests
- ☐ **Allocate risk fairly** in contract documents
- ☐ **Avoid unrealistic schedules** at time of bidding
- ☐ **Coordinate changes** in design phase
- ☐ **Requirements for schedule management** should be specified and maintained by CM
- ☐ Make sure **delivery method** is appropriate
- ☐ Issue **time extensions** in a timely fashion
- ☐ **Track costs** during construction for **disputed issues**.
- ☐ **Approve schedule** on time
- ☐ **Do not pay schedule line item/bid item if not submitted**
- ☐ Issue **change orders** for legitimate changes as soon as **practicable**
- ☐ **Investigate DSC** in a timely fashion

Recommendations for owners

- ☐ Ensure **baseline** is **accepted** by all parties
- ☐ **TIA** should be performed **during the project** to forecast impacts.
- ☐ **Time extension** should be granted **on time**.
- ☐ You should always **control** the project **completion time**.
- ☐ Have **change provisions**
- ☐ Have **scheduling specifications**
- ☐ Contractually **mandate forms and documentation**
- ☐ Have **audit provisions**
- ☐ Have **alternative dispute resolution** clauses
- ☐ Ask for **contemporaneous data**
- ☐ Generate **reliable meeting minutes**
- ☐ Record complete **daily reports**

Recommendations for contractors

- ☐ Strictly comply with **notice, scheduling and claim filing requirements**
- ☐ Understand **risks**
- ☐ Learn **new rulings** concerning **different site condition claims**
 - ❖ Apply rulings both during **bidding** and when making **DSC claims**
- ☐ Understand there is **no right to rely on owner inspections**
- ☐ Contractors seeking to be “creative” with **new forms of claims**
 - ❖ **Need to seek competent legal advice** to avoid false claim counterclaims and to avoid **spending money on unrecoverable claims**
- ☐ Address **deficiencies** during construction, **not after construction** is complete and/or building is occupied.
- ☐ Submit **schedule on time**
- ☐ Abide with **contract terms and notices**



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بخش ششم:

آنالیز، ارزیابی و حل دعاوی و اختلافات در فاز پس از ساخت/اجرا (Post-Construction Phase)

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What we will learn?

- ❑ Claim analysis and assessment
 - ❖ Suggested stages
 - ❖ Assessment of claims against contractors
 - ❖ Attorney's analysis



Introduction

- ❑ From a claims management perspective,
the **post-construction** primarily **focused** on closeout and resolution of cost, time, and quality management issues.
- ❑ In the event a dispute or claim results in litigation,
this phase can **extend for years** beyond project completion and owner occupancy.
- ❑ The CM's roles and responsibilities during this phase can **vary significantly** depending on the size and nature of potential claims and the CM's contract with the owner.

Claim Analysis and Assessment

(Suggested Stages)



Stages in analysis

❑ For various reasons,

contractors may not submit claims until the project construction is **complete**.

❖ This can be due to:

- ✓ Specific contract provisions that delay the dispute identification until final contract payment
- ✓ Owner or contractor preference to resolve issues at the end of the project
- ✓ Contractor not wanting to expend resources on developing a claim during the construction period, or
- ✓ Difficulties projecting the impact of certain issues during construction

Regardless of the reason, upon receiving a claim, the CM should confirm that the contractor has previously given proper contract notice of its intent to submit a claim.

Stages in analysis

1. Preliminary analysis
2. Schedule analysis
3. Damage analysis
4. Financial audits
5. Settlement negotiations
6. Formal disputes resolution
7. Litigation



Stages in analysis – Preliminary analysis

- ❑ A complete claim document presents the quantification of the cost impact, the time extension request, and all supporting documentation.
 - ❖ Usually, the **contract outlines** the **submission procedures** for claims.
 - ❖ In certain **government contracts**, claims may need to be certified by a **CM** who has **authority** to make such certification.
- ❑ Proper data to support **quantity calculations** are required, including:
 - ❖ Time records showing the extent of labor involved,
 - ❖ Equipment/machinery usage,
 - ❖ Wage rates,
 - ❖ Equipment rates,
 - ❖ Invoices for materials that are included in the fully documented claim.
 - ❖ Any time extension
 - ❖ Request should be fully described and presented in a form of schedule analysis.

Stages in analysis – Preliminary analysis

- a) Ensure that the contractor issued a proper contract notice
- b) Identify each issue
- c) Identify and evaluate contract language
- d) Establish issue files
- e) Analyze each issue
- f) Determine contractual entitlement
- g) Allocate costs to specific issues if possible to prioritize further analysis
- h) Request additional information, if necessary

Stages in analysis – Preliminary analysis

General Information			
Project County:	Pike	Project Designer:	Palmer Engineering
Item Number:	12-308.40	Project Contractor's Name:	Bizzack Construction, LLC
PCN:	030749	Resident Engineer's Name:	Paxton Weddington
Route:	US 119 - Pikeville-South Williamson Road		
Project Type and Length:	Lighting, Grade, Drain & Asphalt Surface, 2.994 miles		
Project Description:	Bridge Replacement		
File Name:		P_12-308-40_Pike_3-10.pdf	Change Order Total:
			12
			Original Project Cost: \$ 33,340,101.96
			Change Order Total: \$ 4,898,680.18
			Total Amount: \$ 38,238,782.14
Attendees:			CO % Increase: 14.69%
Joe Tackett, KYTC D12		Kevin Damron, KYTC D12	
Samuel Hale, KYTC D12		George Collins, KYTC D12	
Paxton Weddington, KYTC D12		Shawn Ray, KYTC D12	
Mary Westfall-Holbrook, KYTC D12		Ronald Stone, KYTC D12	
John Michael Johnson, KYTC D12			
David Lindmeyer, Palmer Engr.			
Brad Robson, Palmer Engr.			
Charles Allen, KYTC CO Design			
Boddy Borres, KYTC CO Design			
Wheeler Nevels, KYTC CO Maintenance			
Vibert Forsythe, KYTC CO Construction			
Categories			
Structures	Right-of-Way		
Geotechnical	Utilities		
Drainage	Pavement		
Environmental	Operations		
Erosion Control Plan (ECP)	Design		
Traffic	Construction		
Maintenance of Traffic (MOT)	Materials		
Notes:			
Category: Design		Sub-Topic: Omission	
Settlement platforms were needed on the project and was written in the geotechnical report but not in the Plans.			
Solution:			
Review plans for constructability.			
Category: Geotechnical		Sub-Topic: Top of Rock	
Structure at Pier 1 (SB) had loose rock when excavated to the suggested elevation. Had to use mass concrete to remedy the situation.			
Solution:			
A thorough investigation for geotechnical data for areas where structures are involved. More borings are suggested possibly when substructure is designed and footer dimensions are known.			

Example KYTC post-construction review fact sheet

Stages in analysis – Schedule analysis

- ❑ Post-construction delay claims can be **complicated to evaluate** if such **documentation was not properly maintained** by the CM during the project.

- ❖ CPM schedules are essential for determining project impact arising from **time-related problems**, such as delays, suspensions, or accelerations.

Failure to prepare or update the CPM properly during construction can be cause to invalidate its use in **substantiating a claim.**

In this case, the FSA methods should be used!

Stages in analysis – Schedule analysis

- a) Obtain baseline and update schedules
- b) Cross-check and revise (if necessary) as-planned, schedule updates, and as-built schedules
- c) Determine which activities were delayed and whether concurrent delays occurred.
- d) Identify periods of delay, disruption or acceleration
- e) Associate claim issues with the identified periods
- f) Perform a detailed delay analysis



Stages in analysis – Schedule analysis

Records needed for delay analysis talked in **delay analysis course, however the following are the primary documents that should be maintained:**

- Baseline schedule;
- Contemporaneous schedule updates, which are updated periodically and regularly during the life of the project;
- Contractor and subcontractor daily reports;
- Letters or e-mails documenting any delays or issues;
- Logs tracking all documents, including
 - RFIs (Requests for Information),
 - Submittals/transmittals,
 - Letters,
 - Shop drawings/coordination drawings, and
 - Contract changes and/or potential contract changes; and
- Meeting minutes from any meeting with the owner or subcontractors.

Stages in analysis – Schedule analysis

- ❑ The **CM should review** the contractor's submission to
 - ❖ confirm that the **analysis conforms to the methodology** prescribed by the contract
 - ❖ is **appropriate**
 - ❖ is based on **reliable project schedule updates**
 - ❖ is supported by **proper documentation**
 - ❖ schedule analysis accounts for **potential concurrent or offsetting delays**

Stages in analysis – Schedule analysis

If appropriate, the CM may recommend that the owner engage a specialist to evaluate the delay claim



Stages in analysis – Damage analysis

❑ Contractors expect both to perform

1. Changed work
2. Additional work

And to **receive** appropriately adjusted **compensation** and **schedule** as a result of the **changed and/or additional work** through change orders issued by the owner.

❑ Claims result when the parties are unable to reach an agreement on

1. Price and/or
2. Time

to perform **extra work**, including **costs and time** for

- i. Delays,
- ii. Acceleration,
- iii. Impact costs

experienced on the project.



Stages in analysis – Damage analysis

❑ In case of a dispute over the amount to be paid,

the amount sought is **often termed “damages.”**

The party paying for the added work, typically

1. Owner or its representative (when a **contractor initiates a claim**)
2. Contractor (when a **subcontractor initiates a claim**),

needs detailed schedule and cost analyses

to understand, negotiate, and justify extra contract time and costs.

Stages in analysis – Damage analysis

❑ Pricing of claims falls into two categories:

1. Forward pricing

where the **price and time** are **negotiated before** the work is done.

2. Post pricing,

where **pricing and time adjustments** are made **during or after** performance of the work.

❑ In applying either type, the pricing elements of the claim itself are the same and include

1. Direct cost of performing the changed work,
2. Impact and/or delayed performance costs (impacts on direct costs),
3. Project overhead costs,
4. Markups for overhead and profit.

Stages in analysis – Damage analysis: Forward pricing

❑ Many widely used standard form contracts provide for change orders to be agreed upon in writing before the work is performed.

❖ For example, *AIA-A201 § 7.2.1* states:

A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor and Architect stating their agreement upon all of the following: 1. The change in the Work; 2. The amount of the adjustment, if any, in the Contract Sum; and 3. The extent of the adjustment, if any, in the Contract Time.



Stages in analysis – Damage analysis: Forward pricing

❑ The AIA contract recognizes that **change orders** are often not agreed upon in **advance** of performing the work and provide for changed and added work to be **unilaterally directed**.

❖ In *AIA-A201 § 7.3.1*, the term for **unilaterally directed work** is a construction change directive, and the provision states

A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

Stages in analysis – Damage analysis: Forward pricing

□ Furthermore, *AIA-A201 § 7.3.2* goes on to state,

“A Construction Change Directive shall be used in the **absence of total agreement** on the terms of a Change Order.”

Stages in analysis – Damage analysis: Forward pricing

- ❑ In **forward pricing**, the **most convenient and acceptable method** of pricing is to
 1. **Estimate production rates** for the changed work,
 2. **Show crew compositions** and **expected crew hours** required to perform the **changed work**,
 3. **Determine** the **type of equipment** and **equipment hours** needed to support the crews.
 - ❖ **Material costs** should be
 - ✓ Listed separately
 - ✓ Substantiated with
 - ❖ Quotes,
 - ❖ Invoices, or
 - ❖ Price lists



Stages in analysis – Damage analysis: Forward pricing

❑ It could be **advantageous** to the **contractor** to **delay settlement** of **modified work** until all of the work has been **completed**. **WHY?**

- The contractor can be **less cost-conscious** in doing the work when using forward pricing.
- Some of the **risks contractually assigned** to the contractor are **shifted** to the **owners**.
- The contractor will have **actual cost data** with which to confront the owners.

(Actual cost data under this circumstance does not necessarily represent reasonable cost.)

BUT...There could be a problem as well...Let's see!

Stages in analysis – Damage analysis: Forward pricing

BUT...There could be a problem as well...Let's see!

❑ When a **Construction Change Directive** is issued,

the **contractor** **must perform** the work;

the **cost of that work** will be determined at a **later date**.

❖ The **contractor** assumes that **any and all costs** it incurs will be **compensable**,

❖ The **owner** will argue that **not all costs** were necessary or reasonable and/or some **costs were excessive**,

*thereby resulting in a **dispute**.*

So, why forward pricing is important?

Stages in analysis – Damage analysis: Forward pricing

So, why forward pricing is important?

- ❑ A **major benefit** of settling modifications **before performance** is that it encourages **prompt revision** of the **progress schedule**, thus **maintaining** accurate knowledge of
 1. **Sequencing** of the remaining work
 2. Final **contract price**
 3. Final **completion date**
 - ❖ The schedule then remains a **realistic tool** for determining the **impact of changes** on the **contractor's operations**.
 - ❖ An **up-to-date CPM** schedule is a **prerequisite** for **independent analysis** of the impact of **each future change**.

Stages in analysis – Damage analysis: Forward pricing

However, although forward pricing has certain advantages, **most changes are not settled in time** to avoid impacts to the follow-on work.

As a result, **many forward-pricing proposals** are **withdrawn** then **resubmitted** with **actual costs**.

Let's look at Post-Pricing!



Stages in analysis – Damage analysis: Post pricing

❑ In **post pricing**, the **costs** of performing the work should be **known**.

❑ The **difficulty** lies in **identifying and isolating**

❖ **Changes** and their **associated costs**, such as impact costs,

❖ **Costs** of the **base contract work**

Even when the contractor has **good cost records** with adequate descriptions of work performed,

discretely identifying and **isolating** all the costs associated with the **changed and added work** can be **difficult**.

However, the inability to discretely calculate the amount being sought does not necessarily preclude recovery.

❑ The **contractor** is **obligated** to provide the **best evidence of damages** possible and **detailed presentation** of damages.

Stages in analysis – Damage analysis: Post pricing

❑ For post pricing,

❖ On force-account change orders, the work is commonly **documented and verified daily** by both the **owner and the contractor**.

✓ On large projects, a **contractor may claim**

it **had to perform** force-account work

but **no owner's agent** could be located to **confirm**

1. **Need**

2. **Costs**

incurred for the **alleged work**.

*A contractor should be cautious in performing **additional work** that is **not approved**.*

Stages in analysis – Damage analysis: Proposal for pricing the claims

- a) Determine extended field costs (direct + project overhead costs)
- b) Determine office overhead costs
- c) Determine inefficiency or lost productivity costs
- d) Determine other categories of delay damages
- e) Prepare damage calculations for each issue

Remember how we calculated them in delay analysis course?

Stages in analysis – Damage analysis: Proposal for pricing the claims

Pricing elements and details

❑ The basic elements of the change order/claim proposal include:

• Summary

- Entitlement
- Amount of request
- Time extension
- Parties involved in the claim
- Reference to contract clauses and/or contract disputes act

• Narrative

- Growth in cost amount
- Growth in time
- Facts
- Entitlement

• Schedule analysis, if applicable

- Time impact analysis, as-planned vs. as-built, windows analysis, etc.

Stages in analysis – Damage analysis: Proposal for pricing the claims

Pricing elements and details

❑ The basic elements of the change order/claim proposal include:

• Pricing

○ Direct costs

- Labor (including all burdens)
- Supervision directly related to work
- Owned and rented equipment
- Permanent materials
- Job materials

○ Mark-up

- Jobsite overhead
- Home office overhead
- Profit
- Bond
- Insurance

Stages in analysis – Damage analysis: Proposal for pricing the claims

Pricing elements and details

❑ The basic elements of the change order/claim proposal include:

• Pricing

○ Impact costs

- Impact on other activities
- Delay costs (standby time, escalation)
- Acceleration costs (overtime and premium hours, disruption)
- Lost profit
- Lost productivity costs (disruption)
- Lost overhead



Stages in analysis – Financial audits

❑ Depending on the nature of the claim,

- ❖ The **damages analysis** may also require a **financial audit** of the contractor records to **verify that actual costs** are consistent with claimed costs.
 - ✓ This may also be required to **verify equipment or home office overhead costs** that are **not specifically tracked to the project.**

The CM should be able to conduct this analysis, or if appropriate, the CM may recommend that the owner engage a forensic accountant to evaluate the claim.

Stages in analysis – Settlement negotiations

- ❑ CM has an important role in **negotiations** between the owner and the contractor.
- ❑ Ultimately, the **owner has final say** regarding settlements,
but the **CM** takes an **active role** and should provide the owner with
 1. **Detailed information**
 2. **Realistic assessments** of contractor
 3. **Owner entitlements** for disputes and claims

Stages in analysis – Settlement negotiations

- a) Complete the analysis of each issue before commencing negotiations
- b) Meet with the other parties to negotiate settlement of each issue
- c) Use an independent mediator as appropriate to facilitate settlement
- d) Draft and execute the appropriate settlement documents

Stages in analysis – Settlement negotiations

- ❑ An **owner may choose** to have counsel involved or available **during the construction** phase,
while others may not involve counsel until the post-construction phase after a claim or lawsuit is filed.
 - ❖ The **CM** should be prepared to **discuss all aspects** of the disputes and claims with the **owner's counsel**.
- ❑ The **owner and its outside counsel** may choose to **engage outside experts** in forensic scheduling, accounting, and other technical matters.
 - ❖ The **CM** needs to interface with those experts to **discuss project details**.

*As the dispute moves through the resolution process, the **CMs primary role** in testifying is to **present facts**.*



Stages in analysis – Formal dispute resolution

❑ If negotiations are unsuccessful,

the **contract** may prescribe **specific administrative remedies** for the resolution of disputes.

- ❖ Therefore, the **contractor and owner** may be required to enter **ADR**, such as mediation, arbitration, or a dispute review board.
- ❖ The **CM** would likely be a **key witness** and provide **support** to the owner during **these proceedings**.

Stages in analysis – Formal dispute resolution

- a) Failed negotiation
- b) Seek appropriate legal advice
- c) ADR or litigation – ADR
 - a) Mediation
 - b) Dispute review board
 - c) Arbitration
 - d) Etc.



Sample of contractor's claims events

❑ Many forms of contract

include specific **circumstances** that entitle the Contractor to make a **claim** for **additional time** and/or **payment**.

❖ **FIDIC** is **quite comprehensive** about this and the conditions include the following **circumstances** under which the **Contractor** may make such a claim:

Sub-Clause 1.9	Delayed Drawings or Instructions
Sub-Clause 2.1	Right of Access to the Site
Sub-Clause 4.7	Setting Out
Sub-Clause 4.12	Unforeseeable Physical Conditions
Sub-Clause 4.24	Fossils
Sub-Clause 7.4	Testing
Sub-Clause 8.4 (a)	Variations
Sub-Clause 8.4 (c)	Exceptionally Adverse Climatic Conditions
Sub-Clause 8.4 (d)	Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions
Sub-Clause 8.4 (e)	Any delay, impediment or prevention caused by or attributable to the Employer, the Employer's personnel, or the Employer's other contractors on the Site
Sub-Clause 8.5	Delays Caused by Authorities
Sub-Clause 10.3	Interference with Tests on Completion
Sub-Clause 13.7	Adjustments for Changes in Legislation
Sub-Clause 13.8	Adjustments for Changes in Costs
Sub-Clause 16.1	Contractor's Entitlement to Suspend Work
Sub-Clause 17.4	Consequences of Employer's Risks
Sub-Clause 19.4	Consequences of Force Majeure

Sample of contractor's claims events in

(Post-Construct

☐ This table is prepared by Hosam Elkmhawy – FIDIC Yellow book

Time Management (Fidic Yellow Book)											
Clause /Sub Clause NO.	Clause /Sub Clause Name	Clause /Sub Clause Text	Time Bar / days								
			7	14	21	28	42	49	56	84	140
8.11	Prolonged Suspension	If the suspension under Sub-Clause 8.8 [Suspension of Work] has continued for more than 84 days , the Contractor may request the Engineer's permission to proceed. If the Engineer does not give permission within 28 days after being requested to do so, the Contractor may, by giving notice to the Engineer, treat the suspension as an omission under Clause 13 [Variations and Adjustments] of the affected part of the Works. If the suspension affects the whole of the Works, the Contractor may give notice of termination under Sub-Clause 16.2 [Termination by Contractor].				28				84	
10.1	Taking Over of the Works and Sections	The Engineer shall, within 28 days , after receiving the Contractor's application: (a) issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or (b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this Sub-Clause. If the Engineer fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 28 days , and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.				28					
11.6	Further Tests	If the work of remedying of any defect or damage may affect the performance of the Works, the Engineer may require the repetition of any of the tests described in the Contract, including Tests on Completion and/or Tests after Completion. The requirement shall be made by notice within 28 days after the defect or damage is remedied.				28					
11.9	Performance Certificate	The Engineer shall issue the Performance Certificate within 28 days after the latest of the expiry dates of the Defects Notification Periods, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Performance Certificate shall be issued to the Employer.				28					
11.11	Clearance of Site	If all these items have not been removed within 28 days after the Employer receives a copy of the Performance Certificate, the Employer may sell or otherwise dispose of any remaining items. The Employer shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.				28					
14.2	Advance Payment	The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount may be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.				28					
14.6	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.				28					
14.13	Issue of Final Payment Certificate	Within 28 days after receiving the Final Statement and written discharge in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Engineer shall issue, to the Employer, the Final Payment Certificate which shall state: If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Engineer shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 28 days , the Engineer shall issue the Final Payment Certificate for such amount as he fairly determines to be due.				28					
15.2	Termination by Employer	to comply with a notice issued under Sub-Clause 7.5 [Rejection] or Sub-Clause 7.6 [Remedial Work], within 28 days after receiving it,				28					
15.5	Employer's Entitlement to Termination	The Employer shall be entitled to terminate the Contract, at any time for the Employer's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 28 days after the later of the dates on which the Contractor receives this notice or the Employer returns the Performance Security. The Employer shall not terminate the Contract under this Sub-Clause in order to execute the Works himself or to arrange for the Works to be executed by another contractor.				28					
17.5	Intellectual and Industrial Property Rights	Whenever a Party does not give notice to the other Party of any claim within 28 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this Sub-Clause.				28					

Sample of contractor's claims events in

(Post-Construction)

□ This table is prepared by Hosam Elkmhawy – FIDIC Yellow book

Time Management (Fidic Yellow Book)										
Clause /Sub Clause NO.	Clause /Sub Clause Name	Clause /Sub Clause Text	7	14	21	28	42	49	56	140
8.3	Programme	Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Employer's Personnel shall be entitled to rely upon the programme when planning their activities.			21					
9.2	Delayed Tests	If the Tests on Completion are being unduly delayed by the Contractor, the Engineer may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer. If the Contractor fails to carry out the Tests on Completion within the period of 21 days , the Employer's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.			21					
14.7	Payment	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;			21		42			
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.			21					
1.1.3	Dates, Tests, Periods and Completion	"Base Date" means the date 28 days prior to the latest date for submission of the Tender.				28				
1.6	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. The Costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Employer.				28				
2.4	Employer's Financial Arrangements	The Employer shall submit, within 28 days after receiving any request from the Contractor, reasonable evidence that financial arrangements have been made and are being maintained which will enable the Employer to pay the Contract Price (as estimated at that time) in accordance with Clause 14 [Contract Price and Payment]. If the Employer intends to make any material change to his financial arrangements, the Employer shall give notice to the Contractor with detailed particulars.				28				
4.2	Performance Security	The Contractor shall deliver the Performance Security to the Employer within 28 days after receiving the Letter of Acceptance, and shall send a copy to the Engineer. The Performance Security shall be issued by an entity and from within a country (or other jurisdiction) approved by the Employer, and shall be in the form annexed to the Particular Conditions or in another form approved by the Employer. The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.				28				
4.4	Subcontractors	the Contractor shall give the Engineer not less than 28 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site.				28				
8.1	Payment for Plant and Materials in Event of Suspension	the work on Plant or delivery of Plant and/or Materials has been suspended for more than 28 days , and				28				



Sample of contractor's claims events in

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Time Management (Fidic Yellow Book)										
Clause /Sub Clause NO.	Clause /Sub Clause Name	Clause /Sub Clause Text	Time Bar / days							
			7	14	21	28	42	49	56	84
20.1	Contractor's Claims	If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance. If the Contractor fails to give notice of a claim within such period of 28 days , the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply. the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.				28				
20.2	Appointment of the Dispute Adjudication Board	Disputes shall be adjudicated by a DAB in accordance with Sub-Clause 20.4 [Obtaining Dispute Adjudication Board's Decision]. The Parties shall jointly appoint a DAB by the date 28 days after a Party gives notice to the other Party of its intention to refer a dispute to a DAB in accordance with Sub-Clause 20.4.				28				
20.4	Obtaining Dispute Adjudication Board's Decision	If either Party is dissatisfied with the DAB's decision, then either Party may, within 28 days after receiving the decision, give notice to the other Party of its dissatisfaction. If the DAB fails to give its decision within the period of 84 days (or as otherwise approved) after receiving such reference or such payment, then either Party may, within 28 days after this period has expired, give notice to the other Party of its dissatisfaction. If the DAB has given its decision as to a matter in dispute to both Parties, and no notice of dissatisfaction has been given by either Party within 28 days after it received the DAB's decision, then the decision shall become final and binding upon both Parties.				28				84
4.2	Performance Security	failure by the Contractor to pay the Employer an amount due, as either agreed by the Contractor or determined under Sub-Clause 2.5 [Employer's Claims] or Clause 20 [Claims, Disputes and Arbitration], within 42 days after this agreement or determination, failure by the Contractor to remedy a default within 42 days after receiving the Employer's notice requiring the default to be remedied, or					42			
14.4	Schedule of Payments	If the Contract does not include a Schedule of Payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.					42			
16.2	Termination by Contractor	the Contractor does not receive the reasonable evidence within 42 days after giving notice under Sub-Clause 16.1 [Contractor's Entitlement to Suspend Work] in respect of a failure to comply with Sub-Clause 2.4 [Employer's Financial Arrangements], the Contractor does not receive the amount due under an Interim 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 (except for deductions in accordance with Sub-Clause 2.5 [Employer's Claims]),					42			
20.1	Contractor's Claims	Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect: Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time.					42			
20.3	Failure to Agree Dispute Adjudication Board	the Parties fail to agree upon the appointment of a replacement person within 42 days after the date on which the sole member or one of the three members declines to act or is unable to act as a result of death, disability, resignation or termination of appointment,					42			
11.8	Adjustments for	"Ln", "En", "Mn", ... are the current cost indices or reference prices for period "n", expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 49 days prior to the last day of the period (to which the particular Payment Certificate relates); and						49		

Sample of contractor's claims events in

☐ This table is prepared by Hosam Elkmhawy – FIDIC Yellow book

Time Management (Fidic Yellow Book)										
Clause /Sub Clause NO.	Clause /Sub Clause Name	Clause /Sub Clause Text	Time Bar / days							
			7	14	21	28	42	49	56	84
4.21	Progress Reports	Unless otherwise stated in the Particular Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.	7							
8.1	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.	7				42			
19.6	Optional Termination, Payment and Release	If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment].	7							84 140
9.1	Contractor's Obligations	The Contractor shall give to the Engineer not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion . Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Engineer shall instruct.		14	21					
10.1	Taking Over of the Works and Sections	The Contractor may apply by notice to the Engineer for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections , the Contractor may similarly apply for a Taking-Over Certificate for each Section .		14						
10.3	Interference with Tests on Completion	If the Contractor is prevented, for more than 14 days from carrying out the Tests on Completion by a cause for which the Employer is responsible, the Employer shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.		14						
		The Engineer shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Engineer shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.		14						
12.1	Procedure for Tests after Completion	The Tests after Completion shall be carried out as soon as is reasonably practicable after the Works or Section have been taken over by the Employer. The Employer shall give to the Contractor 21 days' notice of the date after which the Tests after Completion will be carried out. Unless otherwise agreed, these Tests shall be carried out within 14 days after this date, on the day or days determined by the Employer.		14	21					
		The Tests after Completion shall be carried out as soon as is reasonably practicable after the Works or Section have been taken over by the Employer. The Employer shall give to the Contractor 21 days' notice of the date after which the Tests after Completion will be carried out. Unless otherwise agreed, these Tests shall be carried out within 14 days after this date, on the day or days determined by the Employer.		14	21					
15.2	Termination by Employer	In any of these events or circumstances, the Employer may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (e) or (f), the Employer may by notice terminate the Contract immediately.		14						
16.2	Termination by Contractor	In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Employer, terminate the Contract. However, in the case of sub-paragraph (f) or (g), the Contractor may by notice terminate the Contract immediately.		14						
19.2	Notice of Force Majeure	If a Party is or will be prevented from performing any of its obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.		14						
4.2	Performance Security	The Employer shall return the Performance Security to the Contractor within 21 days after receiving a copy of the Performance Certificate.			21					
4.16	Transport of Goods	The Contractor shall give the Engineer not less than 21 days' notice of the date on which any Plant or a major item of other Goods will be delivered to the Site.			21					
5.2	Contractor's Documents	Unless otherwise stated in the Employer's Requirements, each review period shall not exceed 21 days , calculated from the date on which the Engineer receives a Contractor's Document and the Contractor's notice. This notice shall state that the Contractor's Document is considered ready, both for review (and approval, if so specified) in accordance with this Sub-Clause and for use. The notice shall also state that the Contractor's Document complies with the Contract, or the extent to which it does not comply.			21					

Sample of contractor's claims events in (Post-Construction)

- This table is prepared by Hosam Elkmhawy – FIDIC Yellow book

Time Management (Fidic Yellow Book)											
			Time Bar / days								
Clause /Sub Clause NO.	Clause /Sub Clause Name	Clause /Sub Clause Text	7	14	21	28	42	49	56	84	140
14.00	Changes in Cost	If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices thereafter shall be made using either (i) each index or price applicable on the date 49 days prior to the expiry of the Time for Completion of the Works, or (ii) the current index or price: whichever is more favourable to the Employer.						49			
14.7	Payment	the amount certified in each Interim Payment Certificate within 56 days after the Engineer receives the Statement and supporting documents; and the amount certified in the Final Payment Certificate within 56 days after the Employer receives this Payment Certificate.							56		
14.11	Application for Final Payment Certificate	Within 56 days after receiving the Performance Certificate, the Contractor shall submit, to the Engineer, six copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer;							56		
16.2	Termination by Contractor	the Engineer fails, within 56 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,							56		
14.1	Statement at Completion	Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Engineer six copies of a Statement at completion with supporting documents, in accordance with Sub-Clause 14.3 [Application for Interim Payment Certificates], showing:								84	
20.4	Obtaining Dispute Adjudication Board's Decision	Within 84 days after receiving such reference or the advance payment referred to in Clause 6 of Appendix - General Conditions of Dispute Adjudication Agreement, whichever date is later, or within such other period as may be proposed by the DAB and approved by both Parties, the DAB shall give its decision, which shall be reasoned and shall state that it is given under this Sub-Clause.								84	

Sample of contractor's claims events

❑ This table is prepared by Fatma Hussein – FIDIC Yellow book

Sub-Clause	Event Summary	Entitlement		
		EOT	Cost	Profit
1.9	Error in Employer's Requirements an experienced Contractor would not have discovered before Tender	✓	✓	✓
1.13	Employer delay in obtaining permit	✓	✓	✓
2.1	Delayed Access to the Site	✓	✓	✓
4.6	Instruction for unforeseeable extra cooperation with others	✓	✓	✓
4.7	Error in setting-out data an experienced contractor could not reasonably have discovered such error	✓	✓	✓
4.12	Unforeseeable physical conditions at Site	✓	✓	X
4.15	Changes to an access route	✓	✓	X
4.24	Fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site	✓	✓	X
7.4	Delay in tests due to Engineer/Employer	✓	✓	✓
7.6	Remedial work prior to Taking-Over due to Employer	✓	✓	✓

Sample of contractor's claims events in

❑ This table is prepared by Fatma Hussein – FIDIC Yellow book

8.4	(a) Variations, (b) a cause of delay giving an entitlement to EOT (c) exceptionally adverse climatic conditions, (d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or (e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the Site.	✓	X	X
8.5	Delays Caused by Authorities: (a) the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in the Country, (b) these authorities delay or disrupt the Contractor's work, and (c) the delay or disruption was Unforeseeable	✓	X	X

Sample of contractor's claims events in

❑ This table is prepared by Fatma Hussein – FIDIC Yellow book

8.90	Suspension instructed by Employer unless Contractor default	✓	✓	X
10.2	Employer taking over and/or using a part of the Works, other than such use as is specified in the Contract or agreed by the Contractor	✓	✓	✓
10.3	Delay in carrying out the Tests on Completion	✓	✓	✓
11.7	Delayed access after Taking-Over	X	✓	✓
11.8	Search for defects not Contractor's fault	X	✓	✓
12.2	Delay in Tests after Completion	X	✓	✓
12.4	Delay in access to remedy failure to pass Tests after Completion	X	✓	✓

Sample of contractor's claims events in

❑ This table is prepared by Fatma Hussein – FIDIC Yellow book

13.3	Engineer requests a proposal, prior to instructing a Variation.	X	✓	✓ + value Engineering if applicable
13.7	Changes in the Laws of the Country (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.	✓	✓	X
14.8	Delayed Payment	the Contractor shall be entitled to receive financing charges compounded monthly on the amount unpaid during the period of delay		
16.1	Suspending work (or reducing the rate of work)	✓	✓	✓
16.2	Right to terminate occurred by Employer	✓	✓	✓
16.3 & 19.6	Works instructed after termination	X	✓	✓

Sample of contractor's claims events in

❑ This table is prepared by Fatma Hussein – FIDIC Yellow book

16.4	Termination for Employer's default	(a) return the Performance Security to the Contractor, (b) pay the Contractor in accordance with Sub-Clause 19.6 [Optional Termination, Payment and Release], and (c) pay to the Contractor the amount of any loss of profit or other loss or damage sustained by the Contractor as a result of this termination.		
17.4	Rectify loss/damage to Works due to Employer's Risks listed in Sub-Clause 17.3	✓	✓	✓
19.4	If the Contractor is prevented from performing any of his obligations under the Contract by Force Majeure pursuant to Sub-clause 19.1	✓	✓	X

Claim Analysis and Assessment

(Assessment of Claims Against Contractors)



Introduction

- ❑ An **owner** will also **consult** with the **CM** regarding **claims against the contractors**.
- ❑ The **CM** should be **prepared to advise** the **owner** as to the **potential claims** that may be **declared** by the contractor.
- ❑ The **CM** should **confirm** that **contractual notice provisions** are adhered to if the **owner** is asserting **claims against a contractor** for
 - ❖ Liquidated damages
 - ❖ Inspection and repair of non-conforming
 - ❖ Contract work performed by the owner, or
 - ❖ Other categories



Assessment of liquidated damages

- ☐ **A stipulated amount of liquidated damages,**
are **typically incorporated into contracts** to account for owner costs resulting from late completion of a project.
- ☐ If the **CM and owner** believe that the contractor is **responsible for delays**, they should **provide notice** to the contractor of **potential assessment** of liquidated damages.
- ☐ In assessing liquidated damages in the **post-construction phase**, **CM** should provide a **complete delay analysis** justifying the assessment.



Withholding of retainage

❑ The **CM** should **evaluate the potential cost** of

1. Incomplete punch-list work,
2. Non-conforming work,
3. Liquidated damages, or
4. Other delay costs

❑ The **CM** should **recommend** an **adequate amount to be withheld**,

to **protect the owner's interests** for these **potential claims** against the contractor.



Performance and payment bond claims

- ❑ To the extent that the **owner has claims against the contractor for non-conforming work or delays**,

CM should **advise** the owner regarding **performance bond requirements** and the need to **notify the contractor's surety**.

The CM's involvement may also be critical if a surety is attempting to resolve payment bond claims from the contractor's subcontractors or suppliers.

Claim Analysis and Assessment

(Attorney's Analysis)

How to write an attorney's analysis?

The IRAC Formula

IRAC (*Issue, Rule, Analysis, and Conclusion*) forms the fundamental building blocks of legal analysis. It is the process by which *all* lawyers think about *any* legal problem. The beauty of IRAC is that it allows you to reduce the complexities of the law to a simple equation.

- | | |
|------------|---|
| ISSUE | -> What <i>facts</i> and <i>circumstances</i> brought these parties to court? |
| RULE | -> What is the <i>governing law</i> for the issue? |
| ANALYSIS | -> Does the rule <i>apply</i> to these unique facts? |
| CONCLUSION | -> How does the <i>court's holding</i> modify the rule of law? |

We will teach this in an Advanced Level (Consulting Level)!

How to write an attorney's analysis?

12- How to Write attorney's analysis (Refer to article in this folder)

1. Write all issues

- What facts and circumstances brought these parties to court?

- نوشتن تمام سوالات و مشکلاتی که طرفین را به دادگاه آورده به ترتیب شماره

2. Alternatives (just for ethical issues)

- در مواردی که موضوعات مربوط به ethic است میتواند چندین حالت وجود داشته باشد و این مرحله بدون توجه به قوانین rules مطرح شده در شماره ۳ میباشد. باید برای هر issue که در شماره ۱ مطرح شد مواردی که امکان دارد اتفاق بیفتد (نتیجه گیری شود) را در زیر هر issue جداگانه می نویسیم.

3. Write rules

- What is the governing law for the issue?

- نوشتن قوانین مرتبط با هر مسئله که در شماره ۱ مطرح شده، با ذکر شماره مربوطه

4. Analysis

4.1. Analysis for ethical issues

- بررسی alternatives های مطرح شده در شماره ۲ برای هر issue در شماره ۱ با توجه به rules نوشته شده در شماره ۳ برای هر issue بدون اعلام نتیجه

4.2. Analysis for other issues

- بررسی هر issue مطرح شده در شماره ۱ با توجه به rules نوشته شده در شماره ۳ برای هر issue و اینکه آیا این مسئله در این قانون حاکم است یا خیر بدون نتیجه گیری

5. Conclusion

5.1. Conclusion for ethical issues

- انتخاب یکی از alternatives مطرح شده در شماره ۲ برای هر issue با توجه به آنالیز انجام شده در شماره ۴، ۱

5.2. Conclusion for other issues

- نتیجه نهایی و انتخاب position با توجه به آنالیز انجام شده در مورد ۴، ۲ برای هر issues در شماره ۱



Final Conclusion

Construction managers are key to managing and resolving potential disputes and claims on programs and projects.

While disputes and claims can threaten successful project delivery, they can also impact capital planning for future projects as well

Individuals and firms practicing and rendering construction management services should be knowledgeable and experienced in the technical disciplines and management areas.

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