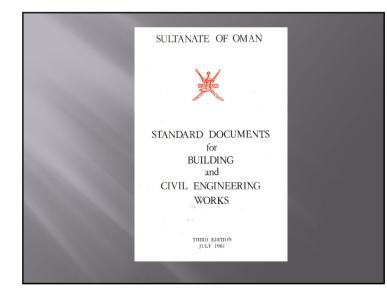


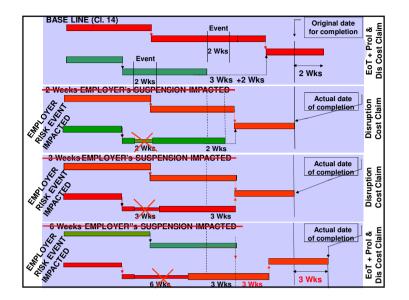
Ex Board Member - Construction Law & Dispute Resolution Advisory Board of the British University in Dubai Ex Middle East Representative - Australian Institute of Quantity Surveyors

#### Terminology delav - lateness disruption - interference - Claim for EoT and Prolongation **Delay Claim Costs & Disruption Costs** Claim for Costs (to compensate loss Disruption Claim of productivity / inefficient working) Productivity - Degree of output (Quantity produced -:- resources input time) Efficiency - Degree of utilization of the resources



#### 6.(4) - Delays and costs of delay of Drawings

If, by reason of any failure or inability of the Engineer to issue within a time reasonable in all the circumstances any drawing or order requested by the Contractor in accordance with sub-clause (3) of this Clause, the Contractor suffers delay and/or incurs costs then the Contractor shall notify the Employer of such events and the Engineer shall take such delay into account in determining any extension of time to which the Contractor is entitled under Clause 44 hereof and the Contractor shall be paid the amount of such cost as shall be reasonable.



### 6.(3) – Disruption of Progress

The Contractor shall give written notice to the Engineer whenever planning or progress of the Works is likely to be delayed or disrupted unless any further drawing or order, including a direction, instruction or approval, is issued by the Engineer within a reasonable time. The notice shall include the details of the drawing or order required and of why and by when it is required and of any delay or disruption likely to be suffered if is it late.



New Edition – May 2019 (Rev 01) Sub -Clause 1.9 -Wording is some what similar (old 6.3 + 6.4) Sub-Clause 8.5 - Authority Delays & Disruptions (Entitlement is only to EoT but not to cost).

## 6.(4) - Delays and costs of delay of Drawings

If, by reason of any <u>failure or inability of the Engineer</u> to issue within a time reasonable in all the circumstances any drawing or order requested by the Contractor in accordance with <u>sub-clause</u> (3) of this Clause the Contractor <u>suffers delay</u> and/or incurs costs then the Contractor shall notify the Employer of such events and the Engineer shall take such delay into account in determining any extension of time to which the Contractor is entitled under Clause 44 hereof and the Contractor shall be paid the amount of such cost as shall be reasonable.

Affected C		Prolongat'n Cost Claim	Disruption Cost Claim	Remarks:-
1. Contractual Requirements	- Performance Bond - Contract Insurance	- Yes - Yes	- No - No	
2. Specified Requirements	- Temporary Works - Eng's Facilities	- May be - Yes	- May be - No	yes, if affected
qui onionio	- Testing	- No	- No	proportional to qty
3. Contractor's Requirements	- Site Cabins/Yards - Equipment :-	- Yes	- No	
(Method Related	- Prj. sp. (Tower Cra	ne) - Yes	- No	
Charges - MRC)	<ul> <li>Trade sp. (e.g. JCB</li> <li>Scaffolding</li> </ul>	- May be	- Yes - May be	only if affected yes, if affected
	- Dewatering	- May be		yes, if affected
	- Temporary Works	- May be - Yes	- May be - Yes	yes, if affected
	- Prj Mgt/admin/Sup'vi		- Tes - No	only if affected
	- Sp. Superv'n of activ		- Yes	only if affected
	- Testing - Other Insurance	- No - Yes	- No - No	proportional to qty
4. Labour	- Comm. Lab (cleaning)	- Yes	- No	
	- Labour sp. to activity	- No	- Yes	only if affected
5. Miscellaneous	- Additional financing - Head Office O/H	- Yes - Yes	- Yes - No	
	- Late retention release	e - Yes	- No	
6. Additional Worl	<u> - Addit'l Equip / Lab / Sup</u>	'n - No	- No	valuation of variations

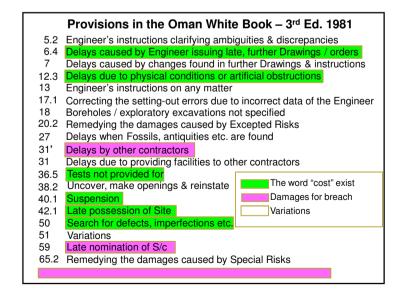
# **Detailed Particulars – (Claim)**

1. Facts:

- contemporary records.
- witness statements.
- other evidence (news releases/TV footage).

#### 2. Law:

- contractual/legal provisions.
- arguments.
- 3. Liability:
  - client's liability to provide relief.
- 4. Quantum:
  - amount of additional payment.



#### 6.(4) - Delays and costs of delay of Drawings

If, by reason of any <u>failure or inability of the</u> <u>Engineer</u> to issue within a time reasonable in all the circumstances any drawing or order requested by the Contractor in accordance with sub-clause (3) of this Clause, the Contractor suffers delay and/or incurs costs then the Contractor shall notify the Employer of such events and the Engineer shall take such delay into account in determining any extension of time to which the Contractor is entitled under Clause 44 hereof and the Contractor shall be paid the amount of such cost as shall be reasonable.

## Royal Decree No. 29 of 2013 – The Civil Code

Book 1 – Personal Obligations or Rights

Part One – Sources of Obligation

Chapter 1

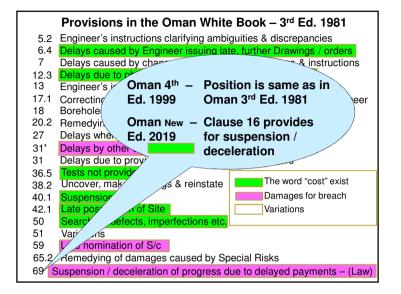
Contracts

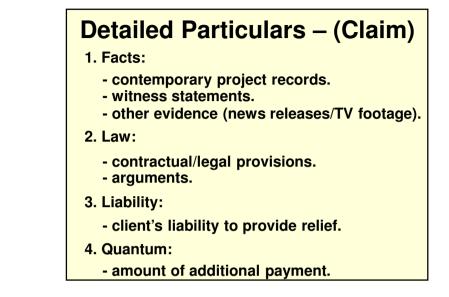
Section 3

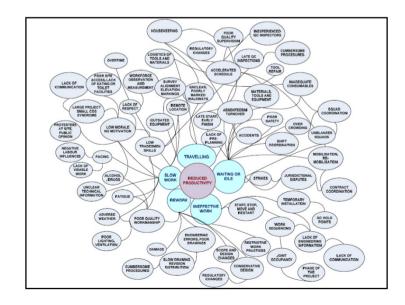
Effects of the Contract

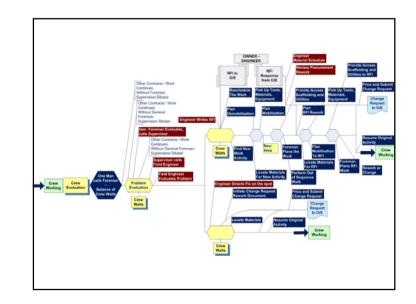
#### Article 157:

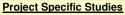
In contracts binding upon both parties, if the cross obligations are due for performance, each of the parties may refuse to perform his obligation if the other contracting party does not perform his.











- Measured Mile StudyEarned Value Analysis
- Larrie Consultant Mathematics
- Work Sampling Method
- System Dynamic Modelling
- Craftsmen Questionnaire Sampling Method

#### **Project Comparison Studies**

- Comparable Work Study
- Comparable Project Study

#### Cost Basis

Total Unit Cost Method
 Modified Total Labor Cost
 Method
 Total Labor Cost Method

## Productivity Impact on

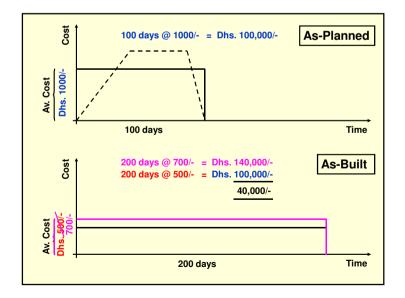
Schedule

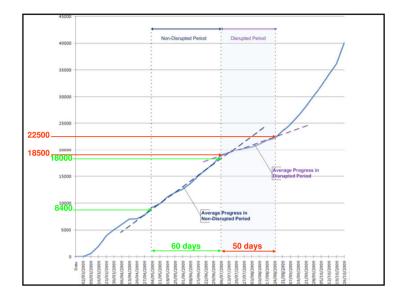
Schedule Impact Analysis

# **Justification for Additional Costs :-**

- reduced productivity / efficiency of labour (and also morale and attitude).
- reduced productivity / efficiency of equipment.
- adverse effects on labour rhythm and team effort.
- Ripple (adverse effect of disruption on part of the Works on other parts / other subcontractors).







# 1.(4) - Cost

The word "cost" shall be deemed to include overhead costs whether on or off the Site.

# Demonstration of Disruption (Cont'd .....)

- 4. Methodology :-
  - Suitability for the nature of the activity.
  - Appropriate selection of windows.
  - Records.
- 5. Quantum of Additional Payment :-
  - Loss / decrease in the productivity / efficiency (productivity ratio).
  - Total Cost of the Resources (labour and/or equipment) for the affected duration (and the loss based on the productivity ratio).
  - Discounting for any :-
    - Culpabilities of the Contractor.
    - Mitigating action taken or could / should have taken.
    - Recoveries through valuation of variations.

In addition to cost, can the Contractor claim Profit as well?

## Royal Decree No. 29 of 2013 – The Civil Code

**Book 1 – Personal Obligations or Rights** 

Part One – Sources of Obligation

Chapter 1

Contracts

Section 4

**Construction of the Contract** 

#### Article (166)

A doubt shall be construed in favour of the debtor.

1.1 (g) (i)	"cost" means all expenditure properly incurred or to be incurred, whether on or off the Site, including overhead and other charges properly allocable thereto but does not include any allowance for profit.	
<u>Clause One</u> 1.	Cost: The word cost shall include overhead costs whether in or off the Site.	OMAN 4 <sup>th</sup> Ed. 1999
1.1.4.4	[Cost] means all expenditure reasonably incurred or to be incurred by the Contractor, whether on or off the Site, including overhead and similar charges, but not including profit	OMAN (New) May 2019

#### 52.(2) - Power of Engineer to Fix Rates

Provided that if the nature or amount of any omission or addition relative to the nature or amount of the whole of the Works or to any part thereof shall be such that, in the opinion of the Engineer, the rate or price contained in the Contract for any item of the Works is, by reason of such omission or addition, rendered unreasonable or inapplicable, then a suitable rate or price shall be agreed upon between the Engineer and the Contractor. In the event of disagreement the Engineer shall fix such other rate or price as shall, in his opinion, be reasonable and proper having regard to the circumstances.

Provided also that no increase or decrease under sub-clause (1) of this Clause or variation rate or price under sub-clause (2) of this Clause shall be made unless, as soon after the date of the order as is practicable but not later than seven days and in the case of extra or additional work, before the commencement of the work or as soon thereafter as is practicable but not later than seven days notice shall have been given in writing:-

(a) by the Contractor to the Engineer of his intention to claim extra payment or a varied rate or price,

(b) by the Engineer to the Contractor of his intention to vary a rate or price.

# 1.(4) - Cost

The word "cost" shall be deemed to include overhead costs whether on or off the Site.

### Cost plus profit :-

- ..... the Employer shall pay such additional sum ......
  ... expense of rectifying the same shall be borne by the Employer.
- .....at the cost of the Employer .....
- ..... at the expense of the Employer ......
- ...... Employer shall pay to the Contractor in respect of such use or service such sum or sums ......
- ..... the value of such work shall be ascertained and paid .....
- ...... the Contractor shall be entitled to payment ...... of such cost plus profit ......

Provisions in the Oman White Book – 3rd Ed. 1981						
5.2	Engineer's instructions clarifying ambiguities & discrepancies					
6.4	Delays caused by Engineer issuing late, further Drawings / orders					
7	Delays caused by changes found in further Drawings & instructions					
12.3	Delays due to physical conditions or artificial obstructions					
13	Engineer's instructions on any matter					
17.1	Correcting the setting-out errors due to incorrect data of the Engineer					
18	Boreholes / exploratory excavations not specified					
20.2	Remedying of damages caused by Excepted Risks					
27	Delays when Fossils, antiquities etc. are found					
31'	Delays by other contractors					
31	Delays due to providing facilities to other contractors					
36.5	Tests not provided for					
38.2	Uncover, make openings & reinstate	The word "cost" exist				
40.1	Suspension	Damages for breach				
42.1	Late possession of Site	Variations				
50	Search for defects, imperfections etc.	(only for the disrupting				
51	Variations	effect, if any)				
	59         Late nomination of S/c           65.2         Remedying of damages caused by Special Risks					
69	due to delayed payments					

## Demonstration of Disruption (Cont'd ......)

4. Methodology :-

- Suitability for the nature of the activity.
- Appropriate selection of windows.
- Records.
- 5. Quantum of Additional Payment :-
  - Degree of reduction in the productivity / efficiency (productivity ratio).
  - Total Cost of the Resources (labour and/or equipment) for the affected duration (and the loss based on the productivity ratio).
  - Discounting for any :-
    - Culpabilities of the Contractor.
    - Mitigating action taken or could / should have taken.
    - Recoveries through valuation of variations (where the contemporary records have not already separated the resources time utilized for variations from those which have been affected by the variations).
- 6. Further Reading :-

https://www.hillintl.com/PDFs/The%20Analysis%20and%20Valuation%20of%20 Disruption%20-%20Derek%20Nelson.pdf

