



An Roinn Airgeadais
Department of Finance

Training Manual

TM-CC

PUBLIC WORKS CONTRACTS - CONTRACTORS



NOTICE

This training manual is both the course material from the training courses and a reference document for government departments, bodies under their aegis, local authorities or other relevant bodies in the new Public Works Contracts.

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The contents hereof do not form part of, and shall not affect the interpretation of, any contract.

This Training Manual was used for courses delivered to senior members of the Public Sector during December 2006–January 2007 and reflects the versions of the Public Works Contracts current at that time.

This manual refers to the following documents:

- Public Works Contract for the Provision of Civil Engineering Works Designed by the Employer.
- Public Works Contract for the Provision of Civil Engineering Works Designed by the Contractor.
- Public Works Contract for the Provision of Building Works Designed by the Employer.
- Public Works Contract for the Provision of Building Works Designed by the Contractor.
- Minor Works Contract for the Provision of Building and Civil Engineering Works Designed by the Employer.

Readers should also refer to the Guidance Note on Public Works Contracts.

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1 Course Agenda



Course Agenda for 4 Day Course in New Public Works Construction Contracts

PART 2 DAY 1			
Time	Module	Detail	Lead
09:30–10:00	Introduction	<ul style="list-style-type: none"> • Trainer introductions by Chairman • Group introductions • Capital Works Management Framework • Background • New forms of contract • Timeline for rollout • Objectives • The aims of this course • The new contracts as an enabler for good management 	MF
10:00–10:30	Introduction to New Forms	<ul style="list-style-type: none"> • The main features of the new forms • Structure of the contract • Key changes from old standard forms • Timing of decision on form of contract to use in context of project life cycle, planning • Alignment with consultant appointments 	MF MG
10:30–10:45	Tea/Coffee Break		
10:45–11:15	Risk Management	<ul style="list-style-type: none"> • What is risk? • The broader context • Risk management processes generally • Commercial context (value for money) 	MG
11:15–11:45	Risk Allocation. What is new?	<ul style="list-style-type: none"> • Introduction • Selection of the procurement strategy • What is new in terms of Risk Allocation? • Delay and compensation events • How should an Employer allocate risk? 	MG
11:45–12:15	Planning projects. What is new?	<ul style="list-style-type: none"> • Introduction • Who to do the design? • Which form of contract? • The impact on the project programme • Further issues to be considered 	MF



PART 2 DAY 1/Contd...			
12:15–12:30	The broad legal perspective. What is new?	<ul style="list-style-type: none"> • Lump Sum Contract • Fixed Price • Limits on adjustment of Contract Sum • Employer's Representative role 	MOR
12:30–13:30	Lunch Break		
13:30–14:45	Procurement. What is new?	<ul style="list-style-type: none"> • Restricted and Open Procedures • Specialists • Evaluation of tenders • Letter of Acceptance 	KK
14:45–15:15	Introduction to the new forms/Contd...	<ul style="list-style-type: none"> • Agreement • Letter of Acceptance 	MOR
15:15–15:30	Tea/Coffee Break		
15:30–16:45	Introduction to the new forms/Contd...	<ul style="list-style-type: none"> • Schedule • Conditions • Model Forms • Works Requirements • Pricing Document • Works Proposals • Post Tender Documents 	MOR
16:45–17:00	Summary	<ul style="list-style-type: none"> • Key Messages • Deferred questions arising during that day 	MF



PART 2 DAY 2			
Time	Module	Detail	Lead
09:30–09:45	Introduction to Day 2	<ul style="list-style-type: none"> Review of Day 1 Further questions from Day 1 	MF Group
10:00–10:30	The Agreement Letter of Acceptance	<ul style="list-style-type: none"> Its importance Its purpose Contract Sum Accepted Contract Sum Documents Contractor's warranties Effective date and execution 	MOR
10:30–10:45	Tea/Coffee Break		
10:45–12:15	Competing the Schedule Part 1	<ul style="list-style-type: none"> Discussion on the Schedule Dealing with and considering each element covered and also by reference to the relevant contractual provisions and commercial issues Introduction to Delay and Compensation Events Dealing with and considering each element covered and also by reference to the relevant contractual provision and commercial issues 	MOR
12:15–12:30	The Schedule Part 2	<ul style="list-style-type: none"> Consideration of all relevant issues with respect to Part 2 of the Schedule 	MOR
12:30–13:30	Lunch Break		
13:30–14:00	The Works Requirements and Works Proposals	<ul style="list-style-type: none"> Works Requirements Works Proposals 	MF MOR
14:00–14:15	The Conditions	<ul style="list-style-type: none"> Key differences between forms 	MOR
14:15–15:15	Case Study Nr 1	<p>Case Study Nr 1 will involve completing Part 1 of the Schedule for:</p> <ul style="list-style-type: none"> A roads project; or A building project <p>The aim of the exercise will be to challenge the groups to consider, in each case, how a decision should be arrived at as to how to complete Part 1</p>	MG



PART 2 DAY 2/Contd...			
15:15–15:30	Tea/Coffee Break		
15:30–16:30	Case Study Nr 1/ Contd...	<ul style="list-style-type: none">• Discussion on Case Study Nr 1	
16:30–17:00	Summary	<ul style="list-style-type: none">• Key Messages• Deferred questions arising during that day	ALL



PART 3 DAY 1			
Time	Module	Detail	Lead
09:30–10:00	Introduction to Part 3	<ul style="list-style-type: none"> Review of Part 2 Further questions from Part 2 	MG
10:00–10:30	The Conditions	<ul style="list-style-type: none"> Key Personnel Definitions Inconsistencies/Bond/Parent Company Guarantee 	MO'R
10:30–10:45	Tea/Coffee Break		
10:45–11:45	The Conditions/ Contd...	<ul style="list-style-type: none"> Loss, Damage and Indemnity Insurance Management Property Rights 	MO'R
11:45–12:00	The Conditions/ Contd...	<ul style="list-style-type: none"> Specialist Contractors The Site 	MF
12:00–12:30	The Conditions/ Contd...	<ul style="list-style-type: none"> Quality Control Time and Completion 	MO'R
12:30–13:30	Lunch Break		
13:30–14:15	The Conditions/ Contd...	<ul style="list-style-type: none"> Compensation Events and Adjustments to Contract Sum Contractor's Claims Employer's Claims 	MO'R
14:15–15:15	The Conditions/ Contd...	Price Variation	MG
15:15–15:30	Tea/Coffee Break		
15:30–15:45	The Conditions/ Contd...	<ul style="list-style-type: none"> Health & Safety 	MG
15:45–16:30	The Conditions/ Contd...	<ul style="list-style-type: none"> Payment 	MO'R
16:30–17:00	Summary	<ul style="list-style-type: none"> Key Messages Deferred questions arising during that day 	MF



PART 3 DAY 2			
Time	Module	Detail	Lead
09:30–09:45	Introduction to Day 2	<ul style="list-style-type: none"> Review of Part 3 Day 1 Further questions from Day 1 	MG
0945–10:30	The Conditions/ Contd...	<ul style="list-style-type: none"> Termination Dispute Resolution 	MOR
10:30–10:45	Tea/Coffee Break		
10:45–11:15	The Conditions/ Contd...	<ul style="list-style-type: none"> Minor Works Form 	MOR
11:15–12:15	The Conditions/ Contd...	<ul style="list-style-type: none"> Model Forms 	MOR
12:15–12:30	Case Study Nr 3	<ul style="list-style-type: none"> Case Study covering both Building and Civil Engineering Works dealing with Delay and Compensation events 	MF
12:30–13:30	Lunch Break		
13:30–15:15	Case Study Nr 3/ Contd...	<ul style="list-style-type: none"> Group work and presentations 	Group
15:15–15:30	Tea/Coffee Break		
15:30–16:15	Case Study Nr 3/ Contd...	<ul style="list-style-type: none"> Further questions from the floor 	Group
16:15–17:00	Conclusion	<ul style="list-style-type: none"> Review of Course Summary of Conditions of Engagement key learning Summary of Works Contracts key learning 	Group MG MF

2 Course Introduction



2. Course Introduction

2.1 Trainer Introductions

Michael O'Reilly is a Partner in McCann FitzGerald Solicitors, specialising in construction, planning and environmental law. He was initially with the practice of Max W Abrahamson and, following the merger of the practices in April 1991, became a partner in McCann FitzGerald, he is a Fellow of the Chartered Institute of Arbitrators and a past Council member of the Irish branch of the Institute. Together with Michael Roche and Barbara Maguire, Michael is co-author of Irish Environmental Legislation published in 1999 by Round Hall Sweet & Maxwell.

Kevin Kelly is a Partner in McCann FitzGerald specialising in construction law. He qualified in 1989 and has since worked in the area of construction law, initially with the practice of Max W Abrahamson and then with McCann FitzGerald following a merger of the two practices in 1991. Kevin has been consulted by public authorities, private developers and contractors in connection with major civil engineering and construction projects in Ireland and has considerable experience in public procurement law.

Michael Garrick is a Director of Tobin Consulting Engineers and has worked with Tobin for more than 25 years on Water Supply, Main Drainage, Waste Water Treatment and Solid Waste Projects all over Ireland. He has appeared as specialist hydrological expert related to Sworn Enquiries under 1942 Water Supplies Act. He has extensive experience of major civil engineering works, including preparation of formal Cost Benefit Analysis and Post Works EU Audits in relation to them. He has extensive experience of different form of construction contract in the Water Services Sector, including advice on litigation aspects at Irish and European Court level. He has frequently worked in multidisciplinary teams and currently works on a 45 MLD abstraction from the Liffey for Fingal Co Council and a 40 MLD water supply abstraction project on the River Barrow for Kildare Co Council with Nicholas O'Dwyer & Partners. He is a guest lecturer in Hydraulics with the BE Civil Programme of NUIG.

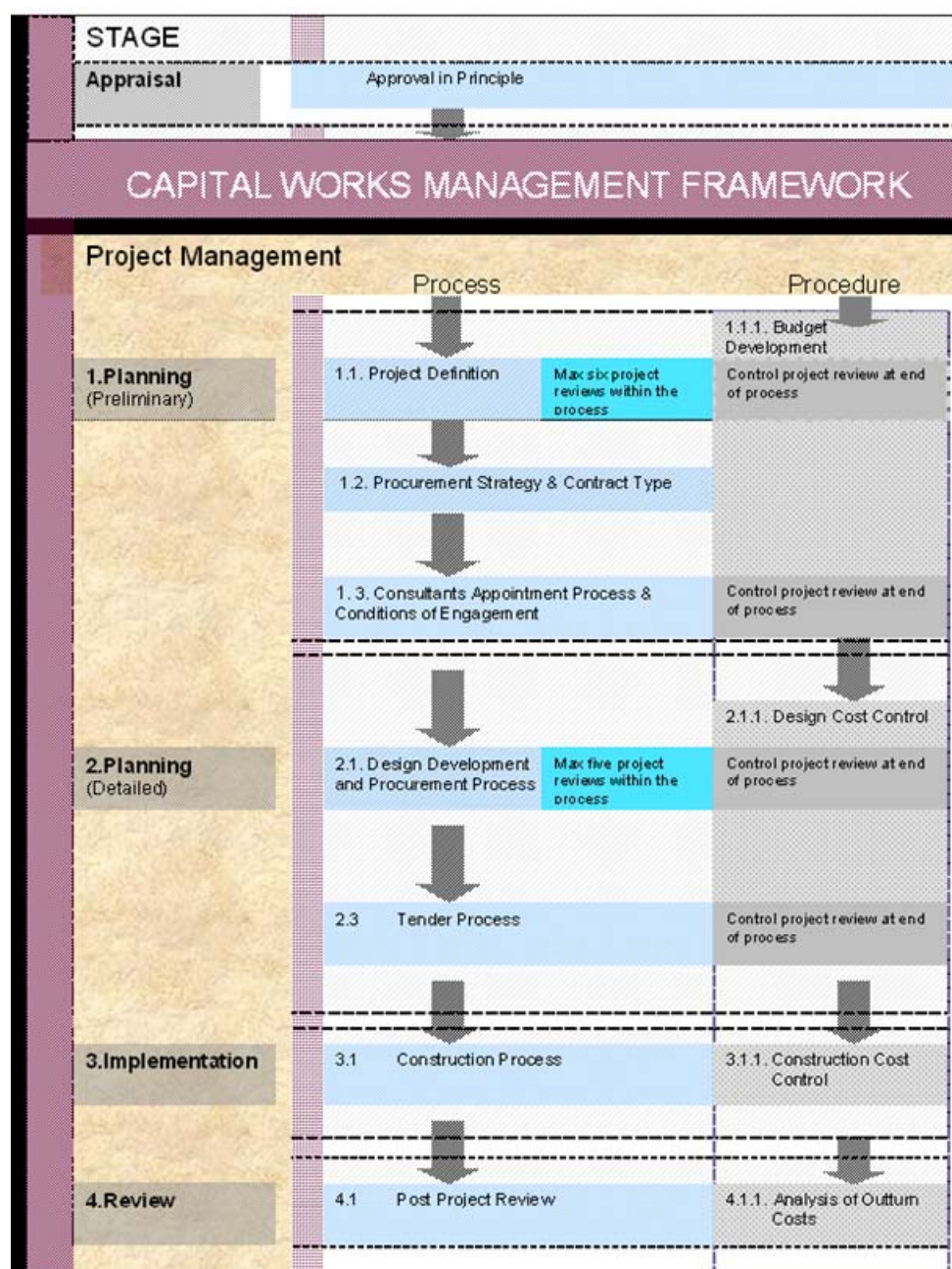
Matt Farrelly is a Chartered Quantity Surveyor and Associate Director with responsibility for the Cost Management/Quantity Surveying function in PM's Dublin office. Along with a post graduate qualification in construction law, Matt has contract administration experience on major project of value up to €500 million, under various forms of contract and procurement routes, including RIAI, GDLA, IEI Forms, FIDIC Orange and Red Books, MF/I, JCT '81 and '87 and bespoke forms. Key skills include cost management, value engineering, commercial risk management and whole life costing. Matt has carried out training in contract administration both internally in PM and for such bodies as Greencore, Dublin Airport Authority, UCD and Bristol Myers Squibb.



2.2 The Capital Works Management Framework

The *Capital Works Management Framework* is a series of documents which collectively describe the operating environment, procedures and processes to be followed for the delivery of capital works projects. It incorporates contractual provisions, guidance material and technical procedures covering the public works project lifecycle from inception to final project delivery and review.

The aim of the *Capital Works Management Framework* is to ensure that there is an integrated methodology and a consistent approach to the planning, management and delivery of public capital works projects with the objectives of greater cost certainty, better value for money and more efficient project delivery. The flow chart below describes the framework.





Participants should refer to the separate Guidance Notes prepared by the GCCC as part of the Capital Works Management Framework, including:

- Project Management Structure
- Project Definition
- Budget Development
- Procurement Strategy and Contract Type
 - Guidance Notes for Public Works Contracts
 - Public Works Contracts (5)
 - Arbitration Rules
 - Model Forms
- Consultants Appointment Process and Conditions of Engagement for Construction Consultants
 - Procurement Guidance Notes
 - Suitability Assessment of Consultants for Category 12 Services for Both Open and Restricted Procedures
 - Standard Conditions of Engagement for Construction Consultants
- Design Development and Procurement Process
 - Design Process
 - Suitability Assessment of Works Contractors for Both Open and Restricted Procedures
 - Procurement Guidance Notes
- Design Cost Control Procedures
- Tender Process
 - Template Public Works Tender Document
- Construction Process
- Construction Cost Control
- Project Review
- Analysis of Outturn Costs

2.3

The Background

Public capital works projects generally fall into two sectoral classifications:

- Civil Engineering Works;
- Building Works.

This division reflects some fundamental differences between the civil engineering and building sectors.

Civil engineering works such as roads, tunnels, bridges etc. are designed by Civil Engineers acting [for the most part] under the direction of the Contracting Authority and are carried out by civil engineering contractors.



Building works such as office buildings, schools and hospitals are designed by Architects (with other consultants) again acting [for the most part] under the direction of the Contracting Authority and are constructed by building contractors.

In both sectors the standard forms of contract used in the past have been published by the lead professionals' professional institutions. In the case of building works by the RIAI with the agreement of the Department of Finance, in the case of civil engineering works by the IEI, now Engineers Ireland.

A number of contracting authorities have also used the various FIDIC and JCT forms suitably amended for use in Ireland.

The old forms have not served the Public Sector well in the past, hence the introduction of the new forms which:

- Reflect the latest thinking in project and risk management;
- Are clear in terms of wording and in the allocation of risk;
- Recognise the development of new procurement methods such as design and build;
- Support the certainty of outcome in terms of cost, quality and programme that an effective capital asset delivery process demands.

In the private sector it now common practice for the equivalent private sector forms, mainly the RIAI Form, to be heavily amended by clients' solicitors with the objective maximising financial certainty by risk allocation.

2.4 The New Forms of Contract

CAPITAL WORKS MANAGEMENT FRAMEWORK		
Guidance Notes		
Building Works	Civil Engineering Works	Minor Building & Civil Engineering Works
		(Under €5m)
Public Works Contract for the Provision of Building Works Designed by the Employer.	Public Works Contract for the Provision of Civil Engineering Works Designed by the Employer.	Minor Works Contract for the Provision of Building and Civil Engineering Works Designed by the Employer
Public Works Contract for the Provision of Building Works Designed by the Contractor.	Public Works Contract for the Provision of Civil Engineering Works Designed by the Contractor	



1. Public Works Contract for the Provision of Civil Engineering Works Designed by the Employer ([traditional contract](#))
2. Public Works Contract for the Provision of Civil Engineering Works Designed by the Contractor ([design and build contract](#))
3. Public Works Contract for the Provision of Building Works Designed by the Employer ([traditional contract](#))
4. Public Works Contract for the Provision of Building Works Designed by the Contractor ([design and build contract](#))
5. Minor Works Contract for the Provision of Building and Civil Engineering Works Designed by the Employer ([traditional contract](#))

Contracts 1 and 3 above replace previously used employer designed standard forms and throughout this manual are referred to as the Traditional Contracts.

Contracts 2 and 4 are new forms for works designed by the contractor and throughout this manual are referred to as Design and Build Contracts.

Contract 5 above has been developed to both share and reduce the level of risk transfer to small/medium sized contractors for projects of value less than €5m.

The new contracts are currently available at the free of charge following links:

<http://www.finance.gov.ie/ViewDoc.asp?fn=/documents/publications/other/constructreformdec06.htm&CatID=61&m=p>

http://www.e-tenders.gov.ie/guides/guides_list.aspx?type=2

On 19 May 2007 a charging mechanism will be introduced for the forms.

Contracting Authorities – called "Employers" in the public works contracts – are now required to enter into fixed price lump sum contracts for public works, tendered on a competitive basis, with appropriate risk allocated to the contractor. This new arrangement will result in greater cost certainty, better value for money and more efficient delivery of public capital projects. This risk allocation is facilitated by the Contracting Authority providing appropriate information in the tender documents for the tenderers to assess and price. The information to be supplied will depend on the type of contract being used.

The new forms of construction contracts must be applied to traditional and design and build public works in Ireland that are procured directly by a government department, bodies under its aegis, including local authorities or other relevant bodies that provide public services (e.g. schools, voluntary hospitals, etc).

The new forms of construction contracts are to be used without amendments. In this context, the new forms have been drafted in a way that better protects the public sector client's interest in order to achieve value for money outcomes from public expenditure on public works projects. However, in exceptional and rare circumstances, consideration can be given to amendments to *non core*



elements of the new forms of construction contracts. The request for any such amendments from those bodies required to use the new contracts should be submitted to the GCCC for consideration and approval as appropriate. Other public bodies (such as commercial semi-state bodies) wishing to use the new forms of construction contracts but with amendments, should also submit a request to the GCCC for consideration and approval as appropriate.

Where the body procuring the public works project is not a government department or a body under its aegis or a local authority or other relevant body that provides public services (e.g. schools, voluntary hospitals, etc) and more than 50% of the funding for the project comes from a source other than the Exchequer, the government department or relevant body, as appropriate, should decide if the new Public Works contracts will apply. If it is decided not to use the new forms of construction contracts on a particular public works project, the Accounting Officer/Accountable Officer in the government department or the relevant public body must be satisfied that the contract terms in the other contract being used are framed in a manner that seeks to protect public funds. They must also be satisfied that the alternative contract conditions include the provisions on *Pay and Conditions of Employment* (i.e. clause 5.3 in the new forms of construction contracts). The rationale for this decision should be documented in an appropriate and transparent manner.

Commercial semi-state bodies (e.g. ESB, BGE, An Post) are not required to use the new forms of construction contracts on public works projects unless more than 50% of the funding for the project concerned comes directly or indirectly from the Exchequer.

2.5 Timeline for Rollout

It is intended that the new forms of Construction Contracts for Public Works will apply as follows:

- To all new public works projects about to begin the planning stage on or after Monday 19 February 2007.
- To all new public works projects where planning has commenced but where detailed tender documents have not been developed by Monday 19 February 2007.
- For those public works projects where detailed development of tender documents has commenced, contracting authorities can elect to use the new forms of construction contracts on or after Monday 19 February 2007.
- Where a contracting authority, following appropriate training, wants to use the new forms of construction contracts on or after Monday 19 February 2007.
- Where a contracting authority, following appropriate training, wants to use the new forms of construction contracts on public works projects on a date earlier than Monday 19 February 2007.

Refer to Department of Finance Circular 33/2006 for further information.



2.6 The Government's Objectives

The introduction of the new forms of contract supports the Government's objectives to:

- Move towards greater cost certainty at contract award stage and ensure as far as practicable that the accepted tender prices and the final cost are the same;
- Award contracts on the basis of a lump-sum fixed-price to the greatest extent possible;
- Rebalance risk so that there is optimal allocation of risk;
- Achieve value for money; and
- Achieve more efficient delivery of the projects.

2.7 The Aim of this Course

The aim of this course is to support deployment of the new forms by introducing them to selected front line officers and to enable them share this knowledge with those officers yet to be trained to roll out use of the forms on the projects for which they are responsible.

Having completed the course, participants should have:

- An appreciation of the Capital Works Management Framework;
- An understanding of the key differences between the new forms and those previously in use in their sectors;
- An understanding of the principles of risk assessment and appropriate risk allocation;
- An understanding of how the new conditions of conditions can allocate risks;
- An understanding of the impact of the forms on the procurement process;
- An understanding of the duties and obligations of the parties under the forms;
- An understanding of how to successfully employ the new forms to achieve the overriding objectives of:
 - Cost Certainty;
 - Value for money; and
 - Cost effective project delivery.



2.8

The New Contracts as Enablers for Better Management

The new public works contracts are very much aligned with established project management processes and their use will contribute to the effective management of Capital Works Projects.

- The contracts are legal documents written in ordinary language and are designed to be easily understood, applied and interpreted by employers, contractors and design teams;
- The contracts are arranged and organised in a structure which helps the user gain familiarity with their contents;
- The actions by the parties are defined precisely so there should be few disputes about who is to do what and when;
- Change control processes are streamlined with reasonable certainty as to their outcome;
- Early warning procedures are built in for dealing with circumstances causing delay and additional cost;
- Such circumstances which confer entitlements to additional time and money on the contractor are called Delay Events and Compensation Events respectively and all are neatly captured in two adjoining sections – this contrasts with say the old forms of contract where such clauses are dispersed throughout the conditions;
- Issues relating to assessment of Delay and Compensation Events are to be resolved as projects proceed.

The new forms will promote best practice in project implementation by employers, design teams and contractors with:

- Better pre-construction planning of projects;
- Promotion of completeness of design prior to construction;
- Consideration at the outset of risk issues such as ground conditions, archaeology;
- Clear and decisive allocation of risk to drive accountability and motivate the parties to actively contribute to project success;
- More collaborative working between employers, design teams and contractors over the life of the project;
- Proactive cooperative management of the interactions between the parties which will reduce the risk of time and cost over runs associated with capital projects.

3 The New Contracts Main Features



3. The New Contracts – Main Features

3.1 Structure of the Contract

The new public works contracts comprise the following elements regardless of whether building or civil engineering, traditional or design and build:

- A **Letter of Acceptance** issued by the Employer accepting the Contractor's successful tender. This should refer to and include any tender clarifications. The issue of the Letter of Acceptance creates a binding contract.
- The **Agreement** between the Employer and the Contractor. This identifies the date the contract is entered into, the parties to the contract, the contract sum and any post tender clarifications.
- The **Contract Conditions** which set out the roles and responsibilities of the parties and the operational and management issues which will govern the provision of the Works. This is subdivided into thirteen sections as follows:
 - a. The Contract
 - b. The Law
 - c. Loss, Damage and Injury
 - d. Management
 - e. Contractor's Personnel
 - f. Property
 - g. The Site
 - h. Quality Testing and Defects
 - i. Time and Completion
 - j. Claims and Adjustments
 - k. Payment
 - l. Termination
 - m. Disputes
- The **Schedule** containing contract-specific information referred to in the conditions but with substantially more information. This is the equivalent of the Appendix in the GDLA and Appendix to Tender in the IEI 3rd Edition. The Contracting Authority completes Part 1 and includes it in the tender documents when inviting tenders. Part 2 consists of information filled in by the Contractor and submitted with its tender. The completed Schedule should be appended to the Letter of Acceptance.
- The **Works Requirements**. For a traditional contract this includes completed drawings, specifications, site investigation and other relevant reports, consents, preliminary safety and health plan, etc. For a design and



build contract this would comprise performance or output based specifications as well as any developed design together with site investigation or other reports, such relevant consents as have been obtained, the preliminary safety and health plan etc.

- The **Pricing Document** identified in the schedule and completed by the Contractor including the bill of quantities (if any), pricing schedules, contract sum analysis and/or other documents in which the Contractor provides its detailed pricing proposals.
- The **Works Proposals** state how the Contractor proposes to carry out the works. When the Contractor has design responsibility the Works Proposals include the Contractor's design.
- A **suite of model forms** for use during procurement and administration of the contract comprising:
 - a. Form of Tender (F1)
 - b. Form of Bid Bond (F2)
 - c. Form of Letter to Apparently Unsuccessful Tenderer (F3)
 - d. Form of Letter of Intent (F4)
 - e. Form of Letter of Acceptance (F5)
 - f. Form of Performance Bond (F6)
 - g. Form of Parent Company Guarantee (F7)
 - h. Form of Novation and Guarantee Deed (F8)
 - i. Form of Appointment of Project Supervisor for Construction Stage Only (F9)
 - j. Form of Appointment of Project Supervisor for Construction Stage and Design Process (F10)
 - k. Form of Appointment of Project Supervisor for Design Process Only (F11)
 - l. Form of Professional Indemnity Certificate (F12)
 - m. Form of Collateral Warranty (F13)
 - n. Form of Novation (F14)
 - o. Form of Rates and Conditions of Employment Certificate (F15)
 - p. Form of Bond – Unfixed Works Items (F16)
 - q. Form of Retention Bond (F17)
 - r. Form of Conciliator's Agreement (F18)
 - s. Form of Bond – Conciliator's Recommendation (F19)



3.2 Key Changes from the Old Contracts

- a. The contracts are written in plain English;
- b. They have the same structure whether for building, civil engineering works; traditional or design and build works;
- c. Contracts are to be lump sum and largely fixed price with some exceptions;
- d. There are no provisional sums or provisional quantities;
- e. There are no PC Sums or nominated subcontractors, only Specialists who will be regarded as "domestic";
- f. The Contractor is responsible for design by Specialists.
- g. Health and safety regulations are reflected in the forms;
- h. There is provision for professional indemnity insurance;
- i. There are detailed provisions dealing with management of the Works, planning the Works, value engineering, communications, meetings, etc;
- j. There is provision for Collateral Warranties;
- k. Certain risks can be allocated between the parties;
- l. There is provision to build into the contract period and contract sum for delays that entitle the Contractor to extensions of time and additional monies in a new concept called programme contingency this is not to be confused with contractor's float time;
- m. Costs associated with delays which confer additional financial entitlements on the Contractor can be tendered:
- n. Tenders are evaluated on the basis of the proposed contract sum and on delay costs;
- o. There is provision for termination of the contract at the Employer's election;
- p. The contracts effectively provide for exclusive remedies;
- q. Disputes can be referred to conciliation and arbitration.

4 Risk Management



4. Risk Management

4.1 What is Risk?

An uncertain event or set of characteristics that, should it occur, will have an effect on the achievement of one or more of the project's objectives

Association of Project Managers

An uncertain event or condition that, if it occurs, has a positive or negative effect on at least one project objective such as time, cost, scope or quality

PMBok®

Risk is the likelihood of variation in the occurrence of an event, which may have either positive or negative consequences.....

RAMP Institution of Civil Engineers & Faculty of Actuaries and Institute of Actuaries

4.2 The Broader Context

Construction and engineering projects are risky ventures:

40% are late

50% over budget

30% fail to meet expectations of users

[Rethinking Construction UK DTI, 1998]

There are probably no similar statistics for Irish project outcomes.

However, Irish construction and engineering projects face the same risk pressures:

- Each project is unique;
- Site conditions and constraints are highly variable;
- The project teams of Contracting Authority, Design Team and Contractor most likely will change from project to project, so lessons learned are difficult to capture;
- Projects can take a long time from inception to completion and people can move on;
- There are often competing pressures of time and budget;
- The construction market is cyclical, subject to upswings and downswings with consequent pressures on resources.



The risks that construction and engineering projects face are manifold and can be classified under three headings:

Business Case	Project Delivery	Operational
Right Project	Safety	Owner Expectations
Right Location	Quality	Future Expansion
Interest Rates	Cost	Obsolescence
Legislative	Time	Maintenance
Demand/Availability Risk		Availability
Market		Whole Life Costs
		Defects

The potential project delivery risks issues which can impact on time, cost and quality on a project include incomplete or late project information, changes, ground conditions, archaeology, bad weather, defects, inability to secure labour and materials, etc. Typically these risks are allocated between the Employer and Contractor by the conditions of contract. Obviously if such risks are effectively managed at the outset their impact on project delivery can be effectively reduced.

4.3 Risk Management Processes Generally

A risk management approach which is based solely on past experience and dependent on judgement may work reasonably well in a stable low risk environment but is unlikely to be effective for major projects.

Risk management is a structured approach to identifying, assessing and controlling risks that emerge during the course of the project. Its purpose is to support better decision-making through understanding the risks inherent in a project and their likely impact. The benefits of formal risk management are:

- It focuses the team on managing risk effectively by directly addressing issues that threaten project success;
- Confidence in the project outcome is increased;
- It provides a mechanism for reporting risk on a regular basis to senior management and escalating severe risk issues to appropriate levels; and
- Projects can be considered on the basis that risks will be considered rationally.



There are various published methodologies and software packages for risk management and the detail of these is outside of the scope of this course, however, a generic risk management process will usually involve the following stages:

- Identification;
- Analysis;
- Evaluation;
- Risk treatment;
- Reporting.

For each risk (other than those designated as negligible) the following treatment options are available:

- Reducing or eliminating the risk;
- Transferring the risk via the contract;
- Transferring the risk by insuring for it;
- Accepting the risk and managing it;
- Obtaining better information to reduce the uncertainty.

Example:

Reducing/Eliminating Risk

It is understood that there may be contaminated soil on the site of a proposed project but there is no conclusive data on this matter. If the risk of this was to materialise during construction it would cause significant delay and a cost overrun, the effects of which would be greater than the actual cost of dealing with it in advance.

The options available are:

- (i) Ignore it and deal with it if and when it arises during the construction;
- (ii) Determine the full extent of the contaminated material and the nature and toxicity of the contaminant by means of investigatory studies. The material can then be dealt with (a) in an enabling works contract or (b) in the main contract.

A decision is made to determine the full extent of the contaminated material and the nature and toxicity of the contaminant by means of investigatory studies. The contaminated soil is then removed in an enabling works contract. In this instance better information was obtained to reduce the uncertainty and the potential risk to the main project was dealt with by having an enabling works contract.



Example:

Allocating Risk via the Contract

A project involves extensive earthworks. Considerable site investigation has been carried out and factual site investigation reports are available, indicating the likely nature of the ground, including the location of bearing strata and the type of strata encountered. On the basis of these reports, the Engineer has designed the foundations.

The options available are:

- (i) the Employer retains the risk of ground conditions;
- (ii) the risk be allocated to the Contractor.

On the basis of the extensive site investigations, the Engineer considers that the ground conditions likely to be encountered are quantifiable with a degree of certainty. A decision is made that the Contractor should have responsibility for unforeseeable ground conditions.

In this instance it was considered that there was sufficient site investigation information available to enable the contractors assess and price the risk. Thus the risk was allocated to the Contractor.

Example:

Accepting the Risk and Managing It

An existing hospital wing is to be refurbished. The refurbishment cannot commence until a new block is completed under another contract and the existing wing is decanted to this. If the Contractor is appointed for the refurbishment prior to the new block being completed there is a potential risk of delay to site possession for the refurbishment and consequent additional cost as a result. The refurbishment project dates are adjusted to ensure there is no risk of delayed possession of the site for the refurbishment.

In this instance the risk was reduced and accepted.

Implementation of the decision to allocate a risk to the Contractor may involve a financial premium and may introduce different but acceptable risks. Thus, in taking a decision, consideration needs to be given to:

- whether the risk can be effectively managed by the party allocated the risk or whether the allocation causes a different, but more damaging risk;
- whether the intended allocation of risk is effective and enforceable; and
- does the risk allocation represent value for money?

4.4 Commercial Context (Value for Money)

The governing principle is that risks should be allocated to whichever party is best placed to manage them. The optimal allocation of risk, rather than maximising risk transfer, is the objective and careful balance is required in this regard. Accordingly, the degree to which risk should be allocated to a contractor depends on an assessment of each risk on a case by case basis.



Successful allocation of risk requires a clear understanding by the contracting authority of the risks presented by a project, the broad impact that these risks may have on the attractiveness of a project to tenderers and on costs, and the limits to which a particular risk allocation might still be considered for value for money.

5 Risk Allocation,



5. Risk Allocation, What is New?

5.1 Introduction

The new forms of contract deal with risk allocation in two distinct ways:

- By offering a choice of procurement strategy;
- Within the conditions, by the allocation of risk and responsibility for certain matters

5.2 Selection of the Procurement Strategy

The Selection of the most appropriate form of contract for the project is covered by the *Guidance Note Procurement Strategy and Contract Type*.

In the selection of the procurement strategy for the project such as Traditional or Design and Build, the Contracting Authority is making an important decision on the allocation of the risk for design responsibility.

The Traditional contracts require that design information upon which tenders are sought will be comprehensively developed and the Contracting Authority retains responsibility and risk for:

- Design of the works;
- Completeness of the design of the works;
- Changes to the design of the works.

Under the Design and Build contracts it is the Contractor who has responsibility for:

- Design of the works;
- Completeness of the design of the works;
- Changes to the design of the works.

However the Contracting Authority retains risk associated with any changes to the Works Requirements.

There are particular projects that are not suited to the use of design-and-build contracts – these include certain major alteration or refurbishment projects and most maintenance projects.

Contracting Authorities should be aware that the tender evaluation and award process for design-and-build contracts is more complex than for traditional contracts. This increased complexity gives rise to greater risks regarding transparency and objectivity in determining the most acceptable submission in accordance with the award criteria



5.3

What is new in terms of risk allocation?

1. The new forms for traditional contracts contemplate that the design by the Employer's consultants will be comprehensively developed – the contracts do not provide for provisional sums or provisional quantities. thus there is a greater onus on contracting authorities to ensure completeness of design.
2. There is now an Irish standard form of contract for both building and civil engineering works under which the Contractor has responsibility and risk for design and completeness of design.
3. Contracts for the most part will be lump sum and the Contractors will own the "quantities risk", however Contracting Authorities can make a choice about the contractual status of the bill of quantities.
4. A new concept called Programme Contingency is introduced and Contractors are required to allow within the contract period and within the Contract Sum for a specified delay period, attributable to events which confer rights to extensions of time and financial compensation.
5. Risks associated with ground conditions, fossils, archaeology, human remains and utilities are now specifically referred to in the building contract; the GDLA form made no specific reference to these matters.
6. Employers can make choices at the time of tendering as to whether any of the following matters confer upon the Contractor the right to recover additional monies:
 - a. Unforeseeable fossils, archaeology, human remains;
 - b. Unforeseeable ground conditions [excepting under the Design & Build Form];
 - c. Unforeseeable utilities [excepting under the Design & Build Form];
 - d. Unforeseeable delays by utilities companies in relocating or disconnecting utilities.
7. Contractors can be required to submit at the time of tender their "all in" costs per day for events for which they are entitled to receive financial compensation. This is their only entitlement for such events and as such needs to be carefully estimated by contractors.
8. Force majeure and inability to secure labour and materials no longer entitles Contractors to extensions of time.
9. There are mandatory procedures and notice periods which must be strictly complied with by Contractors to receive extensions of time and additional financial compensation where such entitlements exist.
10. The Contractor now has responsibility for the design by Specialists [the new entity which replaces the nominated subcontractor/supplier];



11. The Contractor now owns the risk associated with appointing a replacement Specialist in the event that such is required as a result of default or insolvency of the Specialist.
12. Contracts are now effectively fixed price [except for hyperinflation and for very long durations – more of which later].

5.4 Delay and Compensation Events

At its most fundamental level [and subject to narrowly defined exceptions] the Contractor owns the commercial risk associated with providing the Works, in accordance with the Works Requirements, by the Date for Substantial Completion, for the Contract Sum.

The exceptions are those events that give rise to an entitlement to extensions to the Date for Substantial Completion which are termed Delay Events, and those events that alter the Contract Sum which are termed Compensation Events

Delay and Compensation Events are broadly defined in the Guidance Note as follows:

Delay events are events which, if they occur, are not at the Contractor's risk, and subject to the compliance with the contract, entitle the Contractor to an extension to the date for substantial completion of the works (and any affected section) equal to the amount of delay, taking into account only site working days.

Compensation events are events which, if they occur, are not at the Contractor's risk, and subject to the compliance with the contract, entitle the Contractor to be compensated for the effect the events have on the cost of the works.

The new conditions allow Contracting Authorities well defined choice as to whether certain events are Compensation Events. Moreover through a new mechanism of programme contingency which is discussed in greater detail later, there are thresholds [a single threshold only in the Minor Works Form] that apply before delay costs associated with Compensation Events become payable by the Employer.

The Contractor's contractual financial entitlement for a Compensation Event is easily ascertainable since it can be requested to bid its delay cost per site working day at the time of tender. This approach will promote resolution of issues on projects as they arise and thus less adversarial relationships allowing project teams to better direct their efforts at project delivery.



5.5 Comparison of Risk Allocation Under the Various Forms

The following table is compiled from Section K of the Schedule Part I of the traditional, design and build and minor works forms. It tabulates the permitted Delay and Compensation Events under the forms. Where "Yes" is inserted in a box an event is a delay or compensation event as appropriate. The converse applies where "No" is inserted.

The pre-completed boxes cannot be changed however, Contracting Authorities may select the risk allocation by inserting "Yes" or "No" in the boxes shaded yellow.



EVENT [See Section K of Schedule Part I]	TRADITIONAL		DESIGN & BUILD		MINOR WORKS	
	Delay Event	Compensation Event	Delay Event	Compensation Event	Delay Event	Compensation Event
1. The Employer's Representative gives the Contractor a Change Order.	Yes	Yes	Yes	Yes	Yes	Yes
2. The Employer's Representative directs the Contractor to search for Defects or their cause and no Defect is found, and the search was not required because of a failure of the Contractor to comply with the Contract	Yes	Yes	Yes	Yes	Yes	Yes
3. The Employer's Representative directs the Contractor to suspend work under sub-clause 9.2	Yes	Yes	Yes	Yes	Yes	Yes
4. The Contractor suspends work in accordance with sub-clause 12.3	Yes	Yes	Yes	Yes	Yes	Yes
5. There is a factual error in information about the Site or setting out information in the Works Requirements. [This does not include an error of interpretation].	Yes	Yes	Not Used		Yes	Yes
6. The Employer takes over part of the Works before Substantial Completion of the Works and any relevant Section.	Yes	Yes	Yes	Yes	Not Used	



EVENT [See Section K of Schedule Part I]	TRADITIONAL		DESIGN & BUILD		MINOR WORKS	
	Delay Event	Compensation Event	Delay Event	Compensation Event	Delay Event	Compensation Event
7. The Employer's Representative does not give the Contractor an instruction required under sub-clause 4.5.4 within the time required under sub-clause 4.11.2 when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1	Yes	Yes	Not Used		Yes	Yes
8. The Employer does not allow the Contractor to occupy and use a part of the Site in accordance with sub-clause 7.1.	Yes	Yes	Yes	Yes	Yes	Yes
9. The Employer does not give the Contractor a Works Item or other thing as required by the Contract when the Contractor has asked for it in accordance with sub-clause 4.11.1.	Yes	Yes	Yes	Yes	Yes	Yes
10. Employer's Personnel interfere with the execution of the Works on the Site, and the interference is unforeseeable and not in accordance with the Contract	Yes	Yes	Yes	Yes	Yes	Yes
11. The Employer instructs the Contractor under sub-clause 3.2.3 to rectify loss of or damage to Risk Items for which the Contractor is not responsible.	Yes	Yes	Yes	Yes	Yes	Yes



EVENT [See Section K of Schedule Part I]	TRADITIONAL			DESIGN & BUILD			MINOR WORKS	
	Delay Event	Compensation Event		Delay Event	Compensation Event		Delay Event	Compensation Event
12. Loss of or damage to the Works that is at the Contractor's risk in accordance with clause 3.2	Yes	No		Yes	No		Yes	No
13. A weather event as described below	Yes	No		Yes	No		Yes	No
14. A strike or lockout affecting the construction industry generally or a significant part of it, and not confined to employees of the Contractor or any Contractor's Personnel.	Yes	No		Yes	No		Yes	No
15. Delay to the Works caused by the order or other act of a court or other public authority exercising authority under Law, that did not arise as a result of or in connection with an act, omission or breach of Legal Requirements of the Contractor or the Contractor's Personnel or a breach of the Contract by the Contractor.	Yes	No		Yes	No		Yes	No
16. A breach by the Employer of the Contract delaying the Works that is not listed elsewhere in table	Yes	Yes		Yes	Yes		Yes	Yes



EVENT [See Section K of Schedule Part I]	TRADITIONAL		DESIGN & BUILD		MINOR WORKS	
	Delay Event	Compensation Event	Delay Event	Compensation Event	Delay Event	Compensation Event
17. A difference between the Contract value of the Works according to the quantities and descriptions in the Bill of Quantities [taking into account the method of measurement identified below when it applies] and the Contract value of the Works described in the Works Requirements, because the Bill of Quantities, when compared with the Works Requirements: • includes an incorrect quantity or • includes an item that should not have been included or • excludes an item that should have been included • gives an incorrect item description and the difference for an item in, or that should have been in, the Bill of Quantities is more than €500.	No		Not Used		No	
18. An item of archaeological interest or human remains is found on the Site, and it was unforeseeable.	Yes		Yes		Yes	Yes
19. The Contractor encounters on the Site unforeseeable ground conditions or man-made obstructions in the ground, other than Utilities.	Yes		Not Used		Yes	Yes



EVENT [See Section K of Schedule Part I]	TRADITIONAL		DESIGN & BUILD		MINOR WORKS	
	Delay Event	Compensation Event	Delay Event	Compensation Event	Delay Event	Compensation Event
20. The Contractor encounters unforeseeable Utilities in the ground on the Site.	Yes		Not Used		Yes	Yes
21. Owners of Utilities on the Site do not relocate or disconnect utilities as stated in the Works Requirements, when the Contractor has complied with their procedures and the procedures in the Contract, and the failure is Unforeseeable	Yes		Yes		Yes	Yes



5.6

How Should Contracting Authorities Allocate Risk?

<p>Risk Nr 17 Differences between the Works Requirements and Bills of Quantities [Traditional Contracts Only]</p>	<p><i>The Guidance Note for Public Works Contract</i> suggests that Employers should carefully consider the circumstances that warrant the use of Bills of Quantities. The policy is to have design developed so that "No" can be inserted in this box. This requires comprehensively developed design documentation including, for example, completed reinforcement drawings and mechanical and electrical designs.</p> <p>In circumstances where ground conditions risk [Risk Nr 19] is being passed on to the Contractor in traditional contracts "No" should always be inserted.</p>
<p>Risk Nr 18- Unforeseeable items of archaeological interest or human remains found on the site</p>	<p>Has the necessity for an archaeological report been determined and an appropriate preliminary archaeological report been prepared?</p> <p>Contracting Authorities are strongly advised, where the works are to be located in archaeologically sensitive locations, at feasibility stage, to seek expert advice and make contact with the National Monuments Section (NMS) of the Department of the Environment, Heritage and Local Government, which is responsible for the Identification and designation of sites through the Archaeology Survey of Ireland, if the works are to be located in archaeologically sensitive locations. In the event that the works may affect a designated site or area of archaeological potential, Contracting Authorities should take account of the NMS Framework Document on the Principles for the Protection of the Archaeological Heritage. Where the NMS requires it, a preliminary archaeological assessment (including site investigation if considered necessary) should be undertaken.</p> <p>Where practical, archaeological risks associated with sites should be resolved by way of advance contracts.</p> <p>A Contracting Authority should allocate archaeological risk to the Contractor when, having completed a preliminary site investigation in compliance with the NMS Framework, the Contracting Authority decides that there is no risk, or that the risk can be easily assessed and priced.</p>
<p>Risk Nr 19- Unforeseeable ground conditions, man-made obstructions, [Traditional Contracts Only]</p>	<p>Where excavations are required, the project should be subjected to a carefully designed, executed and accurately documented site investigations under a separate enabling work contract.</p> <p>Contracting Authorities must make every effort to ensure that the accuracy and adequacy of the information gathered is correct. All tests, descriptions and reporting procedures should be in accordance with the current relevant codes of practice and leave no room for ambiguity. Site investigation contractors should only employ trained and experienced operators and supervisory staff so as to ensure the quality and integrity of information. Contracting Authorities should consider employing their own experienced experts on site to monitor site investigation activities necessary for the duration of the site investigation works.</p> <p>Factual reports on the findings of the site investigations should be included in tender documents.</p>



	<p>Interpretative reports, where available, should also be included in the tender documents strictly on the basis that they are being made available without warranty as to their accuracy. It is important to stress that such information is given without warranty.</p> <p>Contracting Authorities should be careful as to how below ground design information is presented in the Works Requirements, particularly in relation to dimensions of depths, depths drawn to scale, pile lengths or datum levels or bearing strata to be reached arising out of an interpretation of site investigation material. To disclose such information in the Works Requirements could result in a claim for re-measurement if the actual information is different when the ground is opened up.</p> <p>A Contracting Authority should allocate the risk associated with unforeseeable ground conditions to the Contractor when, having completed a thorough site investigation, either decides that there is no risk, or that the risk can be easily assessed and priced by tenderers.</p>
Risk Nr 20- Unforeseeable utilities in the ground [Traditional Contracts Only]	<p>Surveys which will be carried out during the preconstruction should identify the location and nature of any utilities traversing the site.</p> <p>In carrying out these surveys particular care should be exercised on existing non Greenfield sites or on public roads to locate such utilities with a degree of certainty.</p> <p>Contracting Authorities should adopt a practical approach to the issue of utilities if possible dealing with them in enabling works contracts.</p> <p>Contracting Authorities should allocate the risk associated with unforeseeable utilities to the Contractor when, having completed a thorough site survey, the Contracting Authority either decides that there is no risk, or that the risk can be easily assessed and priced by tenderers.</p>
Risk Nr 21- Owners of Utilities fail to relocate or disconnect utilities in a timely manner	<p>Contracting Authorities should adopt a practical approach to the issue of utilities. In some cases, a separate enabling works contract to relocate utilities in advance of the main contract may be advisable.</p> <p>A Contracting Authority should allocate the risk associated with relocation or disconnection of utilities to the Contractor when the Contracting Authority has agreed procedures with utilities owners as to their disconnection/relocation such that there is no risk, or that the risk can be easily assessed and priced.</p>

The overriding basis on which a Compensation Event risk is allocated to the Contractor should be that there is a low level of risk or that the Contractor is furnished with sufficient information to enable it assess and price the risk.

A project risk strategy that attempts to allocate all risk to a Contractor by indiscriminate risk dumping is unlikely to achieve the objective of value for money.

6 Pre Construction Planning of Projects What is New?



6. Pre Construction Planning of Projects, What is New?

6.1 Introduction

The new conditions of contract will impact on the pre construction stage of projects in a number of ways:

1. Who is to do the design? An Employer led design team or Contractor led team;
2. Which form of contract? – Building or Civil Engineering;
3. The impact on the programme of these choices.

6.2 Who to do the Design?

When approaching the question of the appropriate Public Works contract, the first decision to be made is that of choice of procurement i.e. traditional or design and build.

This topic is the subject of Guidance Note - Procurement Strategy and Contract Type under the Capital Works Management Framework and will be touched on very briefly here.

Employer Designed

The design process is contractually separate from construction and is carried out by designers engaged directly by the Contracting Authority. Complete detailed documentation is required before tenders can be invited for carrying out the work in return for a lump sum price.

Design and Build

The Contractor is responsible for undertaking both the design and the construction of the work in return for a lump sum price.

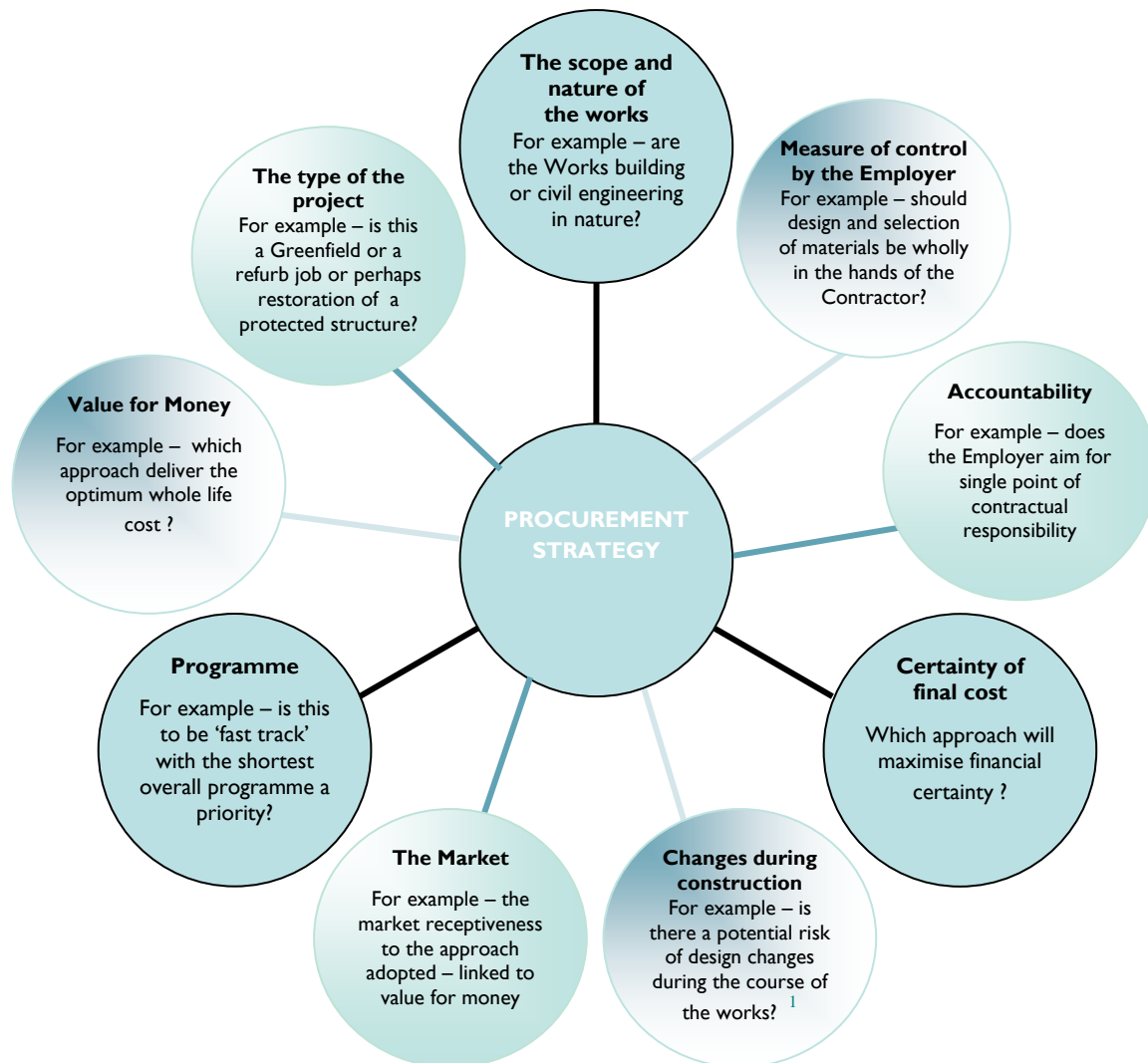
Selection of the procurement strategy for the project entails considering the nature of the project, its risks and the programme available. For every project the Employer should focus on time, cost, performance and quality, in relation both to design and construction of the project in order to make an informed decision on the procurement strategy.

Choice should be made always after a careful analysis of the situation and a list of questions to be considered in determination of the procurement strategy is presented below:



6.3

Factors to Consider in Selecting the Procurement Strategy



¹ Note that these should be kept to an absolute minimum



6.4 Alignment with Consultant's Appointments

The scope of services from the selected consultants should reflect and be aligned with the proposed procurement strategy for the project.

6.5 Which Form of Contract?

As between the building and civil engineering forms there are some minor differences. However the form deployed will depend on whether the work is predominantly of a civil engineering or building nature after which consideration should be given as to whether to follow the traditional or design and build route

Example:

A Government department requires a new green-field office building to accommodate some 200 staff to be provided on the outskirts of a major town. The options are:

- (i) Traditional procurement
- (ii) Design and build

The Client's requirements can be readily defined and it is not considered to be particularly complex project.

The design and build route is selected as it provides a single point of contractual responsibility and most likely has the shortest overall programme whilst providing maximum financial certainty.

6.6 The Impact on the Project Programme

Contracting Authorities need to be aware of the need to ensure that project risk issues are effectively addressed in contract documentation. They furthermore need to be aware, that workshops to identify these risks, with Employer participation, are necessary and that there is adequate provision in the project programme to allow time for this.

Contracting Authorities should be aware of the following factors which should be considered when deciding on the programme for a project.



The Works Requirements	<p>The Traditional Forms require that the Works Requirements will comprise comprehensive and well developed documentation which should include for example:</p> <ul style="list-style-type: none">• in the case of reinforced concrete works, full reinforcement drawings and not just estimated kilograms of reinforcement per m³ of concrete;• details of builder's work in connection with mechanical and electrical services installations; <p>Employers should note that the new forms of contract have no facility for provisional sums or provisional quantities and therefore any works which in the past were dealt with by these mechanisms will now be required to be fully designed and time should be allowed in the programme for this.</p> <p>The Works Requirements under the Design and Build forms by their very nature are different to those of the Employer Designed forms and are discussed further later</p>
The Site	<p>Site risk issues such as archaeology, ground conditions and utilities should be fully considered in order that appropriate and cost effective risk allocation may be achieved. The need for any enabling works contracts should also be considered as part of this strategy.</p> <p>The Employer has a judgement to make on the appropriate amount of preliminary work to be carried out by way of investigatory contracts, to transfer their risks in a cost effective manner and to permit tenderers assess residual risk properly.</p>
Specialists	<p>Requirements for any specialist contractors to carry out aspects of projects should be identified at prequalification stage as should be the manner in which the specialists are to be engaged.</p>
The Programme Dates	<p>The exact project programme for the Works with start and completion dates needs to be finalised for tenderers to estimate the fixed price addition for inflation. Subsequent changes to this after tenders have been received are likely to have an impact on project costs and should be avoided.</p>

6.7 Further Issues

Further issues that will need to be considered include

- Limitations on the Employer's Representative's authority.
- Copyright
- Insurance requirements
- Requirements for bonds
- Other contractors on-site concurrently with the Works
- Collateral warranties
- Requirements for liquidated and ascertained damages
- Meteorological information on the site or nearest climatological station
- The basis for ascertainment of costs for compensation events



- Programme Contingency
- Retention percentage
- Price variation options

7 The Broad Legal Perspective – What is New?



7. The Broad Legal Perspective, What is New?

7.1 The Broad Legal Prospective, What is new?

In the forms of contract presently used (the "old forms") the contract administrator is specifically either the Architect or the Engineer. In the new forms the contract administrator is the Employer's Representative ("ER") who is likely to be either an Architect, an Engineer or other technically appropriately qualified person. His role is substantially the same as that of the Architect or Engineer but there is provision for limitation on the ER's powers.

In the old forms of contract (and in many other forms) the provisions are vague enough to be interpreted in a wide manner and to give rise to claims from contractors under a variety of heads and guises. The new forms do not permit this. There is no looseness which would facilitate vague and imprecise claims and all adjustments to the Contract Sum will require a specific reason in the absence of which there is no provision for an adjustment.

The new forms of contract are designed to give meaning to the expression "fixed price lump sum contract". With regard to the lump sum aspect the Contractor is to be given full and clear information as to the works to be carried out and the risks being allocated to the Contractor so as to enable him to fully price the works including those risks. While there is provision within the Contract for adjustment to the Contract Sum the areas of such adjustment are very specifically set out and regulated and are subject to strict notice conditions. It is therefore unlikely that such adjustments will arise without easily verifiable justification.

The Contract is largely a fixed price although there is provision for adjustment in the case of extreme price fluctuations.

As discussed elsewhere, some old forms are not entirely precise in their allocation of risk as between the parties. In addition, in many instances the Contractor is not given enough information at the appropriate time to enable him price risk. This has resulted in claims and disputes. The new forms allocate risk clearly and neither party should be in doubt as to the risks allocated to him and for which he must make provision. Also, as is stated above, the Contractor is to be given all information necessary to price such risks.

8 Procurement, What is New?



8. Procurement – What is New?

8.1 Introduction

The CWMF deals with Procurement in the following guidance documents:

- Procurement Strategy & Contract Type;
- Tendering Process;
- Procurement Guidance for Suitability Assessment of Works Contractors;
- Standard Instructions for Tendering.

In essence the public procurement regime is unchanged by the introduction of the new Public Works Contracts, however, the new forms introduce some new concepts and Contracting Authorities should be aware of how these should be dealt with to ensure compliance with the public procurement regime.

The main changes are:

- The suitability assessment and procurement of specialists – the entities which replace the nominated sub-contractor
- Evaluation of tenders
- The letter of acceptance

8.2 Specialists

Specialists can be procured in a number of ways:

- (i) Specialists are named by the bidders in their Works Proposals. The Contractor must have named its proposed specialists in its suitability assessment submission. It is important to note that at least one of the Contractor's proposed specialists for each "specialism" must meet the suitability assessment criteria, otherwise the Contractor will also fail to prequalify. During the tender process, Contractors must confirm that the specialist work will be carried out by the specialist(s) that were accepted as part of the suitability assessment process. Note that any change by a Contractor from its initially suitable specialist to another specialist should be subject to a further suitability assessment by the Employer;
- (ii) The Employer may in exceptional circumstances name the proposed Specialist in the Works Requirements. In these circumstances a separate suitability assessment process and competition would have been held and the Specialist's tender included in the Works Requirements for the Contractor to include in its tender;
- (iii) The Employer may, in exceptional circumstances, create a panel of specialists for a particular package and let tendering Contractors for the main contract choose from the panel and/or add others they wish to



propose by reference to the criteria given to them by the Employer and against which the panel was chosen;

- (iv) Specialists could be novated to the Contractor. This approach is broadly similar to that mentioned at (ii) above and would be considered appropriate for novated designers in a design and build scenario or where there are exceptionally long lead items.

8.3 Evaluation of Tenders

The significant issues that arise with the introduction of the new contracts are:

- (a) Tenders are procured on a fixed price lump sum basis and there is no subsequent negotiation of the fixed price addition as has heretofore been the case;
- (b) Where bills of quantities are used for civil engineering works, the tender is the lump sum offer and not the rates in the bill of quantities;
- (c) Daily rates for delay, all-in labour rates and percentage additions for materials and plant are to be provided by tenderers. These will be required to be taken into account in the evaluation of tender.

Accordingly, the evaluation criterion used must be "most economically advantageous tender" and not the "lowest tender".

Where daily rates are tendered the following should be added to each tender sum for the purpose of comparing tenders:

- The product of the provisional number of days' delay stated in the tender documents and the tenderer's daily rate of delay cost.
- The product of the provisional number of hours for each category of craftsperson, apprentice and general operative stated in the tender documents and the tenderer's hourly rate for each.
- The provisional cost of materials and plant in relation to compensation events stated in the tender documents multiplied by the tenderer's percentage adjustment for each.

Where daily delay rates are not tendered (delay costs to be paid on an actual cost basis), the following should be added to each tender sum for the purpose of comparing tenders:

- The product of the provisional number of hours for each category of craftsperson, apprentice and general operative stated in the tender documents and the tenderer's hourly rate for each.
- The provision costs of materials and plant in relation to compensation events stated in the tender documents multiplied by the tenderer's percentage adjustment for each.



Example:

See Case Study Nr 2 and the Guidance Note on Public Works Contract

- (d) In most circumstances there is a pricing document, which tenderers complete during the tendering period.

When a successful tender is selected and prior to issue of the letter of acceptance by the Employer, it may be necessary to deal with inconsistencies between rates, balancing of rates and errors in the pricing document – for example where not all of the items have been priced or where items may have been front loaded.

Such corrections and rebalancing are necessary so that the rates and prices can be used to value work in interim progress valuations, and also that the rates and prices can be used to value change orders should they arise.

Dealing with errors, inconsistencies and rebalancing of rates should be done and notified to the preferred bidder by the Employer before rejection of all the other tenders in case the preferred bidder does not stand over his tender.

In limited circumstances – usually only in the case of some design-and-build contracts the pricing document may be very general. In these circumstances, a number of milestone payments are normally established for interim payment purposes. Where this is done it is preferable to indicate to bidders in the tender documents the percentage payable at each milestone.

8.4 Letter of Acceptance

The issue of a letter of acceptance by an Employer to a tenderer forms a binding contract. The letter must be signed by a person authorised to sign contracts on behalf of the Employer. The Employer should make sure that all required approvals and supporting documents are in place before the letter is issued. The letter of acceptance should not be confused with the "Alcatel" letter or a letter of intent.

9 Contract Administration – What is New?



9. Contract Administration, What Is New?

The conditions set out the rights and obligations of the parties and the role the Employer's Representative plays in administering the contract. Before looking in detail at the duties of the Employer's Representative as Contract Administrator it is useful to examine some of the key aspects of the conditions under specific headings.

9.1 Time

Key Dates	<u>Designated Date</u> – 10 days before the last date for submission of tenders.
	<u>Contract Date</u> – Date of issue by the Employer of the Letter of Acceptance.
	<u>Starting Date</u> – Within 20 days of the Contract Date and as notified by the Contractor.
	<u>Date for Substantial Completion</u> – Contract date for completion of the Works. This is defined in Clause 1.1 which sets out all that is required for this to occur. There is provision for sectional completion.
Programme	Detailed requirements set out in Clause 4.9.1. Can be part of the Works Proposals and therefore part of the Contract Documents. Failure to provide or update the programme can entitle the Employer to deduct money from payments to be made.
Delay Events	Date for Substantial Completion only adjusted by Delay Events listed in the Schedule Part 1K.
Suspension	Employer's Representative has power to suspend progress of the Works under clause 9.2 and the Contractor has power to suspend progress under Clause 12.3
Liquidated Damages	No requirement for a Certificate of Non Completion prior to such a deduction.
Programme Contingency	Contract period is to include for a programme contingency for both the costs and delays arising from Compensation Events. This is not to be expended against events which are Delay Events only. A worked example of use of the programme contingency is given after Clause 9.4.4 of the conditions.

9.2 Cost

Cost Certainty	Philosophy of contract set out in Article 4 of Agreement. <i>"The Contractor has included in the initial Contract Sum allowances for all risks, customs, policies, practices, and other circumstances that may affect its performance of the Contract, whether they could or could not have been foreseen, except for events for which the Contract provides for adjustment of the initial Contract Sum."</i>
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Price Variation	Two approaches – PVI or PV2. PVI is a proven cost method and under this the Contract Sum is fixed until 31 months after the Contract Date. PV2 is the formula fluctuations method and under this approach the Contract Sum is fixed for 36 months after the Designated Date. There is also limited provision for recovery at any time during the contract period for hyperinflation which is defined.
Change	Variations are now called Change Orders and are valued in accordance with clause 10.6.
Compensation Events	Listed in Part K of the Schedule Part I and entitlement is the period of delay determined by the ER multiplied with the tendered cost per site working day of delay. Note that there is also facility for the entitlement of the Contractor to be assessed on the basis of "expenses unavoidably incurred" by the Contractor if that option has been prescribed at the time of tendering. There is no entitlement to recovery of disruption costs or loss of productivity costs.
Value Engineering	Provision for sharing of savings resulting from acceptance of VE proposals from the Contractor.
Employer's Claims	There is provision for deduction of Employer's claims from payments due to the Contractor.
Interim Payment	Generally monthly. Note that there is now no automatic right of payment for unfixed Works Items (materials); unfixed Works Items now required to be vested. The value of materials off site is required to be bonded. Payment applications from the Contractor are to be accompanied by certificates covering pay and conditions of employment.
Final Payment	Final statement to be submitted within 2 months after Substantial Completion. Employer's Representative has 3 months to issue penultimate payment certificate from receipt of final statement or 5 months from substantial completion if final statement is not provided.
Deductions	The Employer is entitled to make deductions from payments due to the Contractor for (i) Failure to provide collateral warranties; (ii) Failure to provide or update a programme or progress report; (iii) Failure to comply with clause 5.3 - Pay and Conditions of Employment

9.3

Quality

Fitness for Purpose	Works Items and Works Items designed by the Contractor are required to be fit for their purpose in the Works. The Contractor is responsible for any design by Specialists and again such design is required to be fit for purpose. Under the design and build forms the Works are required to be fit for purpose.
Quality Assurance	Contractor required to have QA procedures.
Defects	Provision for replacement of defective Works Items and rejection of Works in its entirety.



9.4 Powers and Duties of the Employer's Representative

The following tabulates the duties and powers of the Employer's Representative under the Conditions of Contract

Clause	Powers	Duties
1.1	Issue Change Order including imposition or removal of constraints on how the Works are to be executed.	
1.1	Determine that the Contactor has reasonable grounds for not rectifying minor defects.	
4.1.3	Request clarifications, consultations, workshops, exchange of information or expertise.	
4.2.3	Request removal of the Contractor's Representative or Supervisor for misconduct, negligence or incompetence.	
4.3.2	Issue instructions outside of limitations stated in Schedule Part I	
4.3.3	Delegate authority to named representatives.	Notify the Contractor of such delegation and any changes to the delegation.
4.4.1	Give the Contractor instructions, directions, change orders or make objections.	
4.4.2	Give the Contractor and Employer opinions, assessments, determinations, certificates and other communications the Employer's Representative considers appropriate.	
4.5.2 & Clause 10		Determine whether or not an instruction is a change order.
4.5.3		Not give a change order to do work after Substantial Completion except in the case of defects or work that was to be done after Substantial Completion.
4.5.4	Give an instruction necessary for completion of Works	Give a change order where physically impossible or contrary to Legal Requirements to complete Works in accordance with Works Requirements.



Clause	Powers	Duties
4.5.5		Issue instructions in writing. Confirm verbal instructions in writing as soon as practicable.
4.6.2		Consider any changes to the Works Proposals.
4.7	Object to a submission of the Contractor giving reasons; request additional information; alter or withdraw an objection	
4.8.3	Determine reduction in Contract Sum and adjustment to the Date of Substantial Completion arising from a VE proposal.	Communicate the Employer's position on any VE proposal.
4.9.1	Waive content of a programme.	
4.9.3	Request a revised programme	
4.10.1	Dictate format of progress reports	
4.10.2	Waive Content of progress reports.	
4.12	Access to Contract Documents	
4.13.6	Request information from Contractor	
4.15.1	Schedule meetings with the Contractor and others;	Consult with the Contractor and act reasonably in the timing and location of meetings.
4.15.2		Issue minutes of meetings within 5 working days
4.16	Notify the Contractor of secret or confidential matters.	
5.4.5	Request details on the termination or repudiation of a contract between the Contractor and a Specialist.	
5.4.6	Object to the proposed replacement of a Specialist.	
5.6	Direct removal of workpersons.	
7.5.1(1)	Authorise personnel to be on Site.	



Clause	Powers	Duties
7.5.2		Comply with reasonable safety rules notified by the Contractor.
7.8	Issue instruction regarding archaeological objects and human remains.	
7.11(2)	Waive working times requirements set out in the Works Requirements.	
8.2	Monitor, audit or spot check the contractors QA procedures.	
8.3	Gain access, inspect, observe the Works or anywhere that Works Items are manufactured, stores, extracted, tested, etc.	
8.3.2	Request test certificates or other information on the mode, place, time of manufacture, or performance capabilities or source of supply of a Works Item	
8.3.3	Inspect Works or Works Items	
8.4.1	Agree the location and timing of tests; attend tests; request test results.	
8.4.2	Request repeat tests where they have failed.	
8.4.3	Request the carrying out of further tests.	
8.5	Direct the Contractor to search for defects; give direction on defects; accept a defect with the Employer's consent and determine the reduction in value of the Works; notify the Contractor that the Employer will not accept defect. Reject the Works and/or a part thereof.	
8.6	Instruct the Contractor to rectify defects; extend defects period and issue an interim certificate to part release retention monies.	
8.7		Issue Defects Certificate
9.1	Reduce the notice period of the Starting Date	



Clause	Powers	Duties
9.2	Suspend the Works; instruct the Contractor to resume the Works	Examine Works and Works Items affected by a suspension; determine the extension of time and the adjustment to the Contract Sum for unavoidable deterioration of the Works or Works Items arising from the suspension.
9.3 and 10.5	Revise any determination of extension of time previously given.	Determine the Contractor's entitlement to extensions of time, if any.
9.4.6		Notify the Employer and Contractor of the amount of programme contingency used.
9.5	Agree reductions in the contract period for omissions.	
9.6.2		Issue Certificate of Substantial Completion or reasons for not issuing same.
9.7	Issue notice of taking over of part of the Works.	Certify contract value of works to be taken over.
10.3	Request further information on Contractor's claims; direct the Contractor to maintain records.	
10.4	Request proposals on Proposed Instructions.	
10.5		<p>Respond within 20 days of receiving claim or proposals in respect of a proposed instruction.</p> <p>In respect of claims or proposed instructions</p> <p>(1) Direct the Contractor to provide additional information or revised proposals (1 shot only at this) or (2) Notify the Employer and Contractor that the proposals are agreed or (3) Determine the adjustment to the Contract Sum and the extent of any delay or extension of time or (4) Notify the Contractor that the proposed instruction will not be given.</p>
10.6	Direct that additional work be valued on a time and materials basis	
10.7		Determine which rate for delay shall be used where a number of rates are provided.



Clause	Powers	Duties
10.9		Give notice of Employer's Claims. Determine Employer's claims.
11.1	Value unfixed Work Items for interim certificates	Issue payment certificates
11.3	Agree date for provision of retention bond by the Contractor.	
11.5		Issue penultimate payment certificate within 3 months of receipt of the Contractors statement. Issue final payment certificate within 3 months after Defects Certificate
12.2	Direct the Contractor to assign benefit of any sub-contract.	Determine termination value in the event of default termination; Issue certificate setting out the termination amount
12.6.4		Determine amount due to Contractor within 10 working days

9.5 Price Variation Clause

The Contracts are intended to be Fixed Price Lump Sum over a 36 month period from the Designated Date (or Recovery Date if slippage due to the Contractors' delay in signing up to the Contract activates a Recovery Date) This is the essential position, so that for practical purposes the detail of the Price Variation Clauses may well not arise. Note however that it governs both increase and decrease in the Contract Sum under the circumstances outlined in Optional Clause PVI and PV2.

There are two approaches, selectable at the discretion of the Employer in the Schedule Part I, viz:

- (a) The Proven Cost Method (PVI), and
- (b) The Formula Fluctuations Method (PV2)

PVI The Proven Cost Method

This is an invoice-based system whereby the Contractor establishes his entitlement after the Fixed Price period, by invoices which are checked by the Employer as outlined in the Guidance Note. Note that the definition of Base Date under PVI is the first day of the 31st month after the Contract Date, so that this approach guarantees the Employer his 30 months fixed price, even if there should be delay in setting the Contract Date. Recovery of labour



increases relate to general round percentage increases under Social Partnership Agreements applied to the appropriate REA rates at the Base Date.

PV2 The Formula Fluctuation Method

The Formula Fluctuations Method (PV2) is based on the use of CSO Indices for different categories of Materials, Fuels, CPI, as published mainly in the Wholesale Price Indices. The weightings for each of Material, Fuel, Labour, non-reusable temporary works and non recoverable overheads are established by the Employer (or Contractor in DB) and the proportions of different fuels and materials are also defined for use with these indices, and these proportions are provided in the ITT.

All of the formulae used in PV2 have a common basic structure, i.e.

The sum subject to indexation	x	Indexation factor	-	Element at Contractors Risk	=	Amount Payable
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The Guidance Note has several examples of how PV2 applies to Materials, Labour, Fuel, and Non Reusable Temporary Works after the Base Date, and it also includes examples of calculation of the Hyperinflation provision.

It is perhaps sufficient to explore the formula in relation to just one element, Materials, in order to establish the common approach in the other cases.

The formula for use with PV2 in relation to Materials is:

$$\left\{ W \times Y \times Z \times P \times \frac{(A1 - B1)}{B1} \right\} - (10\% \times W \times Y \times Z \times P) = K$$

K is the amount which is recoverable, under the particular material heading to which the indices A1 and B1 apply via the CSO Wholesale Price Indices in Table 3A of their publication.

If, within the Contract Sum (less VAT and deductible amounts), **Z**, the fraction of Materials is **Y%**, within which Ready Mix accounts for **W%**, of which in turn **P%** is the value in the current Interim Valuation, then **WYZP** is the value of Ready Mix subject to indexation in this Valuation. The foregoing formula may also be expressed as:

$$\left\{ \left(\frac{A1 - B1}{B1} \right) - 0.1 \right\} * (W * Y * Z * P) = K$$

In this form it is perhaps more easily interpreted. The term (A1-B1)/B1 is recognisable as the proportionate uplift in the index, at the later Interim Valuation date, compared to its value at the Base Date, and the **0.1** is the threshold up to which the Contractor still carries the risk. Note that this means he only recovers the amount *in excess of* 10% of WYZP, and this is *not* equivalent to saying "He bears the risk of the first 10% of the increase"; it is more exacting than that.



The term WYZP, as mentioned above, represents the sum which is subject to the index calculation, for this particular material, in this particular Interim Certificate.

Calculation of the amount, subject to the price variation calculation, in an interim certificate after the Base Date (except for Hyperinflation) would follow along the lines of the following example, and the proportion factors in Figure 1.

	Contract Sum (excluding VAT) and any price adjustments under this Clause	€6,285,000.00
	Less excluded amounts (say)	€285,000.00
	Z =	€6,000,000.00
W=	nominal weighting attributed to the relevant Material or Fuel Category. In this case:	
	Ready Mixed Concrete	20%
	Fabricated structural steel	28%
Y=	Nominal percentage of Materials in the Contract Sum. In this Case	35%
P=	Percentage of the amount of the relevant material Category in the relevant Interim or Final Certificate related to the total amount of that Material category in the Contract Sum In this case:	
	Ready Mixed Concrete	25%
	Fabricated structural steel	10%

Applying these together we have:

Ready Mixed Concrete -

$$W \times Y \times Z \times P = 20\% \times 35\% \times €6,000,000 \times 25\% = €105,000$$

Fabricated Structural Steel -

$$W \times Y \times Z \times P = 28\% \times 35\% \times €6,000,000 \times 10\% = €58,800$$

These are the sums, under the headings of Ready Mix Concrete and Fabricated Structural Steel, which appear in the PVC calculation in the current Interim Valuation. However, it will only be the amounts in excess of €10,500 and €5,880 respectively, ie 10% of WYZP, which will be recoverable, and then only if the index uplift generates an excess.

Clearly, it is possible that the formula at the head of this section could give a value which is negative, and this happens when the uplift from the indexation calculation is less than 10%.

The Clauses of the Contract make it clear that when this happens, the outcome is a zero recovery for the Contractor.

Hyperinflation is defined in the Contract, and it can apply at any time after the Designated Date, which means it can apply as a relief even during the "fixed price period" when normal price relief does not apply. The structure of the



Hyperinflation Formula is mathematically the same, except the 10% of WYZP factor is 50% of WYZP in that instance. There are worked examples in the Guidance Note of how the Hyperinflation Formula is to be applied.

Weightings for Materials, Fuel and Other Items

In Employer Design Contracts, the Employer will define the weighting Y, and weighting(s) W across a range of materials, by preparing two Tables, for inclusion in the appendices to the ITT. It is important that the headings in the table match those used by the CSO, so that there is unambiguously an index available for each material category. Figure 1 illustrates how these weights apply down the tree into each material category and interim certificate.

In Contractor Design, the Contractor will have to present his own weightings against the corresponding materials categories, and good practice would then require that this be taken into the account in the MEAT calculation as part of tender appraisal. This might be done by declaring that tender comparisons would be made, based on five ranked assumed materials values, with the highest five weightings (for example) applied and taken to a sum itself taken into account in the MEAT, to prevent any tendency to load a particular material category for advantage.

In the above example, the following indices are used:

AI=The Adjustment Index Figure for the relevant Material or Fuel Category

BI=The Base Index figure for the relevant Material or Fuel Category

If now the indices took the following values and we were considering a September 2008 Interim Valuation:

Designated Date: 15 January, 2005

Base Date: 1 August, 2008

CSO Indices (Material Category)	Jan-05	Aug-08	Sept-08
Ready mixed concrete	106	105.3	126.36
Fabricated structural steel	102	109	124

The fractional amount of uplift, less the amount at the Contractors risk, can be calculated as:

Ready Mixed Concrete

$$\left\{ \left(\frac{A1 - B1}{B1} \right) - 0.1 \right\} = \left\{ \left(\frac{126.36 - 105.3}{105.3} \right) - 0.1 \right\} = 0.1$$

Fabricated Structural Steel

$$\left\{ \left(\frac{A1 - B1}{B1} \right) - 0.1 \right\} = \left\{ \left(\frac{124.0 - 109.0}{109.0} \right) - 0.1 \right\} = 0.0376146$$



Having calculated the sum entering the PVC calculation, and the net uplift factor, it remains to combine the two, in the following formula.

$$(W * Y * Z * P) * \left\{ \left(\frac{A1 - B1}{B1} \right) - 0.1 \right\} = K$$

Ready Mixed Concrete

$$(W * Y * Z * P) * \left\{ \left(\frac{A1 - B1}{B1} \right) - 0.1 \right\} = K = 0.1 * €105,000 = €10,500$$

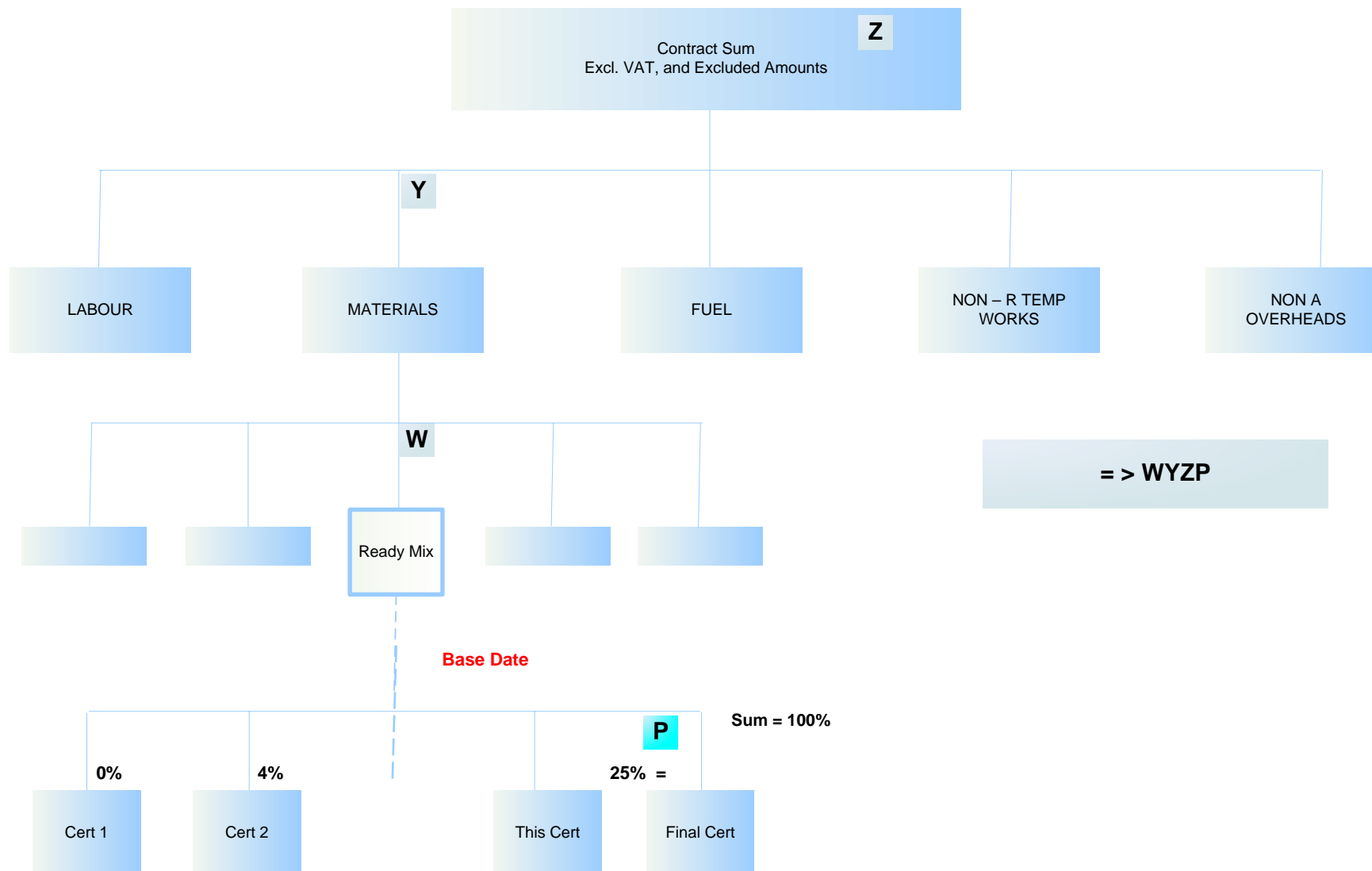
Fabricated Structural Steel

$$(W * Y * Z * P) * \left\{ \left(\frac{A1 - B1}{B1} \right) - 0.1 \right\} = K = 0.0376146 * €58,800 = €2,111$$

Total Price Variation payable **€12,711**



Figure I – The Elements of WYZP



10 The Letter of Acceptance and Agreement



10. The Letter of Acceptance and Agreement

10.1 Letter of Acceptance

The Employer must draw up and send the letter as provided for at Model Form 5 of *Guidance Note for Public Works Contract* – and must ensure it is clearly dated (note – Contract Date as defined in Sub-clause 1.1 of Conditions)

While there is nothing particularly unusual about the issue of a Letter of Acceptance sub-clause 1.1 of the Conditions states that the Contract Date is the date the Employer issued the Letter of Acceptance. In turn the Conditions (sub-clause 9.1.1) provide that the Starting Date (the date the Contractor proposes to start executing the Works) must occur within 20 working days after the Contract Date. Thus, the issue of the Letter of Acceptance is of importance in starting the entire construction project.

Example:

The Employer is otherwise ready to accept a tender to carry out certain works but has not yet obtained possession of an important part of the Site. In such case the Employer should never send out a Letter of Acceptance (as to do so would trigger the actual Starting Date under the Contract) unless he is absolutely certain that he can obtain possession before the date on which access to this part of the Site will actually have to be given pursuant to sub-clause 7.1.1 of the Conditions (or unless the Contractor's access to the Site is limited by the Works Requirements). The Employer would not want to start time running on a process that will require access by the Contractor to a part of the Site before he knows he will be able to provide that access.

While the Letter of Acceptance provides for the incorporation into the Contract of post tender clarifications, the Employer should be most careful not to break any EU public procurement requirements by the inclusion in the Contract of items not tendered.

Another point worth noting is that it is intended that the Form of Tender will be a document executed by the tenderers under seal so that when the Employer accepts the Tender the resulting contract will be under seal.

10.2 Agreement

The Employer should ensure that the Agreement as provided in the Contract Documents is completed fully and correctly:

date of Agreement;

names of contracting parties;

initial Contract Sum;

any post tender clarifications intended to be included as contract documents.



He should ensure the Agreement is executed fully and properly by both parties, note sealing requirements for companies:

if joint venture – executed by all members

if partnership – executed by all

While there is nothing particularly new in the Agreement it does state much more clearly than in the old forms of agreement that the Contractor has fully satisfied itself of all the risks involved in carrying out the Works and has priced for them and included these in the initial Contract Sum.

It also sets out clearly the documents forming the Contract and, as has been mentioned above, provides that the Contract takes effect from the Contract Date.

Example:

In a contract in which the Letter of Acceptance was issued on the 10th January 2007 and the Agreement is being executed on the 25th January 2007 the date to be inserted into the Agreement will be the 25th January 2007 i.e. the date of the Agreement. This will not affect the date from which the Contract takes effect i.e. the Contract Date...

When inserting post-tender clarifications or other documents intended to be included as Contract Documents the Employer will need to consider carefully whether or not the format of the clarifications or document is such that the document as a whole may be included as a Contract Document or whether only that portion of it intended to become contractually binding should be included.

This is something that will need to be considered very carefully by the Employer and legal advice might well be required if there was doubt on the matter. It is likely that this issue will in any event be addressed by the Letter of Acceptance. In addition in this regard, attention must be paid to the EU public procurement requirements.

It would be most appropriate where post tender clarifications or portions of other documents are to be included in the Contract to have these distilled down into the required operative provisions for inclusion rather than including entire minutes or other documents.

The Employer will need to consider whether or not he intends to execute the document under seal. In general contracts for substantial public works will be executed by the Employer under seal and in accordance with the standing orders of the entity in question. If not to be executed under seal then the Employer will need to consider who is the proper person to execute and what are the rules governing the execution under hand of a binding contract for the amount in question so as to ensure that appropriate standing orders are followed.

Although the Contract will already have been formed by the issue of the Letter of Acceptance, the Employer should, in order to avoid any confusion or dispute on the matter at a later date, also consider in advance who on behalf of the Contractor is to execute the document and to ensure that he is satisfied the document is being executed in accordance with the regulatory requirements governing that entity.



For instance, if the Contractor is an Irish company it will generally be sufficient if the Agreement is executed under seal by the Director and the Company Secretary but it may be that at the last minute, only certain Directors are available to execute the document. In that case Employer will need to satisfy himself that they are empowered to do so and they should be able to satisfy him in this regard. for example, by way of a resolution by the board of directors.

If the Contractor is not a company incorporated in Ireland, it should be executed in accordance with the law of the relevant jurisdiction (where it is incorporated). A legal opinion as to due execution and enforcement might usefully be required. As the Contract is in place before the Agreement is executed the provisions of sub-clause 2.7.1 would appear to apply in these circumstances.

Again in accordance with the footnote at the end of the Agreement the Employer must ensure that if the Contractor is made up of various entities, each must execute.

11 Completing the Schedule Part I



11. Completing the Schedule Part I

11.1 Introduction

The Schedule is an important innovation in these forms of contract. While other forms of contract used in Ireland do have appendices e.g. GDLA, IEI and FIDIC etc. none of those appendices have the level of detail set out in Schedule to the new forms. The Schedule gives all of the necessary practical information to the parties but in addition sets out clearly matters such as for instance, the amount that will be withheld from the Contractor if he fails to provide Collateral Warranties. It also sets out a comprehensive list of Delay and Compensation Events and gives the Employer an opportunity to allocate risk in certain very important areas to the Contractor or to himself. In the older forms the allocation of such risk was not always clear and could result in acrimony and dispute between the Contractor and Employer. In the New Forms it is clearly known from day 1 who bears the risk and there should be little room for dispute.

The Employer should ensure all risk assessments, investigations and decisions have been carried out in advance of Schedule completion.

11.2 Section A

The Employer must ensure that all addresses, fax numbers and e-mail addresses are entered and are correct

Example:

See Case Study Nr 1 – The Schedule

The Employer will need to consider to what address notices under clauses 12 and 13 relating to termination and dispute resolution respectively, are to be sent. This would for example be important if the Employer was resident in different locations or had a number of offices. There should be no room for confusion in relation to where such important notices are to be sent.

Similarly, the address of the Employer's Representative to which notices pursuant to clauses 9 and 10 relating to claims for extensions of time and/or adjustments to the Contract Sum must be sent should be accurately set out so that no confusion exists in relation to whether these notices have been served in time.

Insert any/all limitations on powers of Employer's Representative (note – if none entered, none will be considered to apply)

In relation to the potential limitations on the ER's powers it will be important for the Employer to consider carefully the limitations that should apply in each given case. This because it is not necessarily a good thing to require an ER to revert to the Employer every time he wishes to issue an instruction or a Change Order. In addition, it should be borne in mind by the Employer that it will be necessary for him to respond promptly to the ER in relation to any request for instructions in order to avoid causing any delay to the Contractor.



See Case Study Nr I – Completing the Schedule Part I

Example:

In the completed case study the maximum adjustment to the Contract Sum as inserted is €5,000 unless approved by the Employer. It would be essential for the Employer to consider in advance and in the light of the size of the Contract in question whether or not such a permitted adjustment is appropriate or whether it should be larger or smaller.

It should be noted however, that it is not intended for any alterations to the Schedule itself to be made.

It might also be noted that if the ER were to exceed his authority under the Contract, any instruction given by him will nevertheless have effect as if it were within his authority and the Contractor is not under a duty to inquire as to whether the Employer has actually authorised it.

11.3

Section B

All relevant design details (in the Traditional contract) or Employer's requirements must be available when Part I of the Schedule is being completed.

Insert details of Works Requirements and the Pricing Document.

Historically in Irish Public Works Contracts (of the Traditional type) the design detail provided to the Contractor varied from the very basic to the very advanced. The New Forms seek to give full meaning and effect to the term "fixed price lump sum contract" and in this context it is absolutely essential that the design is fully developed before the Contractor is asked to price. If it is not, this will give rise to the necessity for Change Orders and claims for adjustment to the Contract Sum by the Contractor.

See Section 13 below in relation to Works Requirements.

11.4

Section C

The decision as to whether the Employer requires the copyright in all Contractor's Documents must be made in advance of completion of Part I of the Schedule

The Employer must state in the Schedule if property rights in documents is required (note – if not stated, the rights do not transfer (*save possibly due to the general law*)).

This part of the Schedule in conjunction with sub-clause 6.4 of the Conditions allows the Employer the option of obtaining intellectual property rights in the Contractor's Documents and Works Items. It would be very important for the Employer to decide if he requires such rights. In a Design and Build Contract it would obviously be of far greater significance than in a traditional type of contract. In a traditional type contract this would of course carry through from the Conditions of Engagement where it would be of even greater relevance. Thus there would probably be little point in having copyright in Contractor's



Documents if the Employer did not ensure that he had copyright in the Consultants' design documents.

Example:

If the Works were a flagship building that the Employer wished should remain unique then he might seek to obtain copyright in the design and other relevant documents. Then he would be in a position to prevent the design and construction of the same building thus preserving its uniqueness.

Alternatively, if the Works the subject of the Contract were the first in a series of such structures to be erected around the country (e.g. schools, railway stations etc.) then the Employer might feel that it would be important for him to have the right to copy all documents and designs going forward. However, the Contractor takes no responsibility for the use of the Contractor's Documents other than in connection with the Works. (sub-clause 6.4).

11.5 Section D

The Employer must consider carefully in relation to insurance

- the minimum levels of insurance required from the Contractor
- the maximum excess levels to be permitted
- the exclusions that may be permitted
- which party will bear risk of existing property (the default is that the Contractor bears the risk)
- any property of Employer (other than Works and Works Items) to be included in insurances
- if terrorism insurance is required – the level of cover
- if sectional completion, whether insurance cover is to be extended until the entire Works are certified as complete
- whether professional indemnity insurance cover is required and if so, the cover required, the level of excess and the period of cover
- Insert all relevant details into Schedule

The insurance and indemnity provisions are not greatly different from those which would normally be provided for.

In addition there is a clear entitlement under the Contract and as set out in the Schedule for the Employer to require that Professional Indemnity insurance be taken out by the Contractor. While this would be perfectly normal in a Contractor's Design Contract it would be less usual in traditional forms.

However, it is often the case that such insurance is or should be required.



Example:

If the Works involve any substantial degree of design on the part of the Contractor or on the part of any Specialist then unless the Employer can be fully satisfied (which is highly unlikely) that the Contractor and/or Specialist would be of sufficient stature to stand over any design by them (and satisfy any loss arising from defects arising) or that the issue is covered by the design team on the project (and their P.I. insurance) the Employer should require that Professional Indemnity insurance is obtained.

This is because the Contractor is fully responsible for all design by itself or by Specialists to the extent that they are fit for their intended purpose in the Works. If the Contract is for Design and Build the Contractor is fully responsible for the fitness for purpose of the overall design.

11.6 Section E

The Employer must state whether or not a Bond is required (note- default is that a Bond is required). The Employer must provide for the amount of the Bond as a percentage of the initial Contract Sum up to Substantial Completion and thereafter (note – the level of the Bond depends on the size of the Contract. It ranges from 25% to 12.5% (see Guidance Note section 2.3). There is provision for the Bond to reduce by one half upon Substantial Completion of the Works.

11.7 Section F

The Employer must state if collateral warranties are required from certain Specialists and by what date.

Example:

Almost by definition it is likely that a Specialist will be carrying out a design function and in many cases the Specialist company will be as substantial, if not more so, than the Contractor. For instance, some of the larger mechanical and electrical contractors are substantially larger than many of the contractors for whom they work as specialist sub-contractors. Accordingly, unless the Employer feels that a separate warranty from the Specialist need not be provided because of the likely stature of the Contractor (who he will not of course know when completing the Schedule) and/or the fact that the type of work to be carried out by a Specialist is unlikely to fail, it would be most unusual not to require such a warranty.

Example:

The Employer is entitled to withhold from payments to the Contractor, the amount set out in the table in the Schedule (part I F) in the event that the Contractor fails to provide a collateral warranty within the time he is obliged to do so (sub-clauses 5.5 and 11.4.1). The Employer will need to consider the amount to be withheld on the Contractor and must insert it in the Schedule. The money will be paid to the Contractor when he provides the required warranty. However, if he has not done so by the date of issue of the Defects Certificate, the withheld amount is deducted from the Contract Sum (sub-clause 11.4.5).



11.8 Section G

Unless the Contractor is required to insert the Date for Substantial Completion in part 2 of the Schedule the Employer will need to consider the date.

This will obviously be considered in conjunction with the Employer's consultants and by reference to the size of the job and the time frame within which the Works are required. It may perhaps be that certain parts of the Works will be required separately and in that context sectional completion might be envisaged with separate Dates for Substantial Completion in each case.

If the Contractor is required to insert the Date for Substantial Completion the Employer should consider imposing (via the Works Requirements) a minimum period for completion in light of safety considerations (see comments on this point elsewhere).

If sectional completion is required, the Employer must insert the rate of liquidated damages for each Section and any reduction of retention moneys on Substantial Completion of a Section

Note: LADs *must* be a genuine pre-estimate of actual losses so as not to be a penalty *and therefore unenforceable*

Example:

The rate of liquidated damages per day or per week will be inserted by the Employer and in this regard the Employer should assess carefully the likely losses to be suffered by the Employer should any Section or ultimately the entire Works be delayed due to the Contractor's default. The Employer should make sure that the amount in question is a genuine pre-estimate of likely actual losses. In point of fact many Employers insert liquidated damages that do not take into account all of their likely losses and accordingly such liquidated damages are too low. Obviously, the Employer should be aware that a rate which is so high that it bears no relationship to the anticipated actual losses is likely to be unenforceable as a penalty.

There is also provision here for a reduction in retention on Substantial Completion of a Section and in this regard the Employer should consider the relationship that the Section in question bears to the overall Works.

If the Section is a very substantial part of the overall Works and represents 25% of it in monetary terms, it may be appropriate to reduce the retention by a similar percentage once that section is substantially complete. However, other factors may come into play which would result in the reduction not equating fully to the monetary relationship that the section bears to the overall works

11.9 Section H

The Employer must state whether or not the Employer's Representative is required to issue the certificate of Substantial Completion even if completion is early (*note – the default is that early certification is required*).



The Employer will have to decide whether or not he is happy that the ER should issue the Certificate of Substantial Completion if the Contractor completes either a Section or the entire Works before the relevant Date for Substantial Completion. As the default is that the ER will have to issue the Certificate the decision on the Employer's part is whether he would prefer not to take over the Works or the Section early.

It might perhaps be that the Employer will not be ready for the Works until the actual Date for Substantial Completion and will not want to take it on for that reason, and particularly may not wish to have the obligation to insure, take over and provide security for the building.

11.10 Section I

The Employer must insert the length of the initial Defects Period

Example:

The Employer might wish to consider whether either a shorter period of say 6 months or a longer period of say 18 months for carrying out the snagging etc. is appropriate. This would relate to the nature of the Works and whether the Employer feels that the Works are for example a simple but urgent job where an initial defects period of 6 months would be ample to have it fully completed.

11.11 Section J

The Employer should state whether random checks for employment records may be made under sub-clauses 5.3 (*note – default is that the sub-clause providing for such checks is part of the Contract*). *Note also that Government policy is that, subject to certain parameters, such checks are to be carried out (see below).*

Example:

The Employer will need to decide whether he intends to allow for random checks to be made under sub-clause 5.3. The default position is that such checks can be made but the Employer may decide that in certain circumstances there is unlikely to be any necessity for them. One would envisage that it might be appropriate to leave in the entitlement even if it is not utilised by the Employer.

However, it is important to note that any such checks may only be used for the particular purpose of checking on proper payment of work persons and cannot be used for any other purpose. (sub-clause 5.3.5) For instance, the Employer could not use the checks to seek evidence in relation to Contractor's Claims.

Government policy is that if a Contract value is greater than €30 million and its duration is over 18 months – such checks will be required.

11.12 Section K

The Employer should consider carefully in light of investigations made and of information available to the Employer and possibly to be made available to the



Contractor, whether items 17 to 21 (outlined briefly below) (18 and 21 only in the case of Design and Build Contracts) are to be Compensation Events.

- 17 errors in quantities and or descriptions in Bill of Quantities in excess of €500
- 18 finds of unforeseeable archaeological interest on the Site
- 19 unforeseeable ground conditions or man-made obstructions in the ground (not utilities)
- 20 unforeseeable utilities in the ground on Site
- 21 delays by utilities owners to relocate or disconnect utilities despite compliance by the Contractor with their procedures

The Employer has to carefully consider whether it is necessary that any additional criteria be applied to an event for it to qualify as a Weather Event as defined in the Contract and which may give rise to an extension of time for completion of the Works. The standard criteria listed in the definition of "weather event" in the Schedule part 1K are rainfall, air temperature and wind speed.

The Schedule provides for a 10 year Return Period as the level of risk to be allocated to the Contractor in this respect. This has a precise hydrological meaning, as the event which, in a long record, is likely to be exceeded once in 10 years. It is not equivalent to an event which occurred within the last decade for example. In a project lasting perhaps 24 – 36 months at construction stage, there is a significant probability of the 10 year event occurring, be that rainfall, or wind, or temperature. Furthermore, it is not impossible (although the probability is low) that a 10 year Return Period event could occur twice within a construction period. The Contractor carries that risk.

The Employer must insert in the Schedule, in the table provided, any additional criteria decided upon as appropriate to the Works and the relevant weather station at which those criteria will be measured.

It would seem appropriate that Met Éireann may have to be consulted on the appropriate weather station to be entered in the Schedule by the Employer, as the Climatological Station most representative of conditions at the Site of the Works.

The Employer must insert the two thresholds for the Contractor's Programme Contingency pursuant to sub-clause 9.4 (note – these thresholds should be the result of careful consideration by the Employer as to what is reasonable in all the circumstances of the Contract).

The Employer must state whether the Contractor is to be paid his daily delay costs (to be inserted by the Contractor in the Schedule part 2E at tender stage) or his actual expenses unavoidably incurred (exclusive of profit).



The Employer must insert any additional categories of workmen to come within the definition of craftsperson as set out in Part 2E of the Schedule (defined there as persons described as craftsmen or electricians in employment agreements registered under the Industrial Relations Acts).

The Employer must state whether the Contractor is to provide in his tender for a single delay cost rate or for separate rates for particular periods or portions of the Works. See Case Studies IA and IB.

11.13 Section L

The Employer must insert the required details in relation to interim payment

- the period for payment

- the minimum amount for payment

- the value of unfixed Works Items that may be included in interim payment

- (note – default is 90% of Contract value)

- the percentage to be withheld as retention (note - default is 10%)

The Employer must consider what the period for payment on interim certificates should be. This will obviously depend on the nature of the Works, the urgency for payment on the part of whatever contractor is carrying out the Works and of course the Employer's cash flow. The normal period is monthly and this is the default as set out in the Contract. The Employer might however in certain circumstances opt for six weekly payments to fit in with his cash flow but this would have a corresponding effect on the Contractor's cash flow.

The Employer will wish to consider the minimum amount to be paid out on an interim payment (other than retention released) and this will again depend on the size of the level of administration involved in processing interim payments. The default is that there is no minimum.

The Employer will have to decide upon the value of unfixed Works Items that may be included in an interim payment. The default is 90%. The Employer may feel that this is too high and that a smaller percentage would be appropriate in view of the fact that these items are not yet included in the Works. Although the Contract significantly reduces the risk of loss due to anything that prevents Works Items being incorporated in the Works or delivered to the Site (where not yet delivered) there is always the possibility that in the event of an insolvency their incorporation (or if not on Site, their delivery) could be delayed despite the fact that up to 90% of their value may have been discharged. (sub-clause 11.2) In the event of serious issues arising the Employer may well be entitled to call on the bond to be provided by the Contractor.

11.14 Section M

The Employer must state which of the two price variation options is to apply pursuant to sub-clause 10.8 (note – if none specified, PVI will apply, therefore it



is very important that the Employer addresses this issue carefully at this stage in order to avoid possible conflict at a later stage)

11.15 Section N

The Employer must insert the name of the body that is to appoint the conciliator for the purpose of sub-clause 13.1.2 in the event of a dispute arising

The Employer must insert the name of the body that is to appoint the arbitrator for the purpose of sub-clause 13.2 in the event of a dispute arising that is not resolved by conciliation.

The Employer will wish to consider what appointing body to nominate for the appointment of the conciliator and the arbitrator pursuant to clause 13.

The approved professional bodies are:

- Bar Council of Ireland
- Chartered Institute of Arbitrators – Irish Branch
- Engineers Ireland
- Law Society of Ireland
- Royal Institute of the Architects of Ireland
- Society of Chartered Surveyors

In this regard the Employer might wish to consider whether or not in the context of a building contract the conciliator or arbitrator should definitely be an Architect in which case he might feel it appropriate to utilise the RIAI as the appointing body. This would result in the appointment of an Architect as the conciliator or arbitrator. Alternatively, if the view is in a civil engineering project that the conciliator should be an Engineer, then Engineers Ireland should perhaps be the appointing body.

Alternatively, the Chartered Institute of Arbitrators – Irish Branch or one of the other bodies listed might be the preferred option if neither of the above area of expertise was required. For instance, if the dispute were purely a quantity surveying issue then the Society of Chartered Surveyors might be more appropriate.

12 Completing the Schedule Part 2



12. Completing The Schedule Part 2

The Contractor completes the Schedule part 2.

12.1 Section A

This section contains the addresses for sending notices and other communications to the Contractor and is as important here as it is in part I of the Schedule.

12.2 Section B

The Contractor states here if he intends to provide a parent company guarantee for tender purposes.

12.3 Section C

This section contains the Contractor's Works proposals
See notes in relation to the Works Proposals.

12.4 Section D

This section contains the Dates for Substantial Completion and will be completed by the Contractor only if the Employer has not set out the relevant date(s) in part I. However, the Contractor is not permitted to insert any dates for Sectional completion.

12.5 Section E

This section is where the Contractor sets out his tendered hourly rates for labour and related costs – e.g. PRSI, tool money, travelling time and country money etc. in respect of Craftspersons, General Operatives and Apprentices.

He also sets out here:

- His tendered percentage addition for materials
- His tendered percentage addition or deduction for costs of plant
- his tendered rate of delay costs per Site Working Day (for the entire Works or portions of the Works) – *(Note – if the tendered delay costs are left blank by the Contractor or are stated as a negative, they are to be read as zero).*

13 Works Requirements, Works Proposals and Pricing Document



13. Works Requirements, Works Proposals and Pricing Document

13.1 Works Requirements

These contain the Employer's requirements for the Works

It is also important that the Contractor is provided with all relevant information so as to enable him to price the risks being imposed on him. The Employer should possibly furnish:

- site surveys subject to such caveats as may be appropriate (eg, that interpretation is the responsibility of the Contractor)
- archaeological surveys
- utility details

It is essential therefore that the Employer does not proceed to tender prematurely (ie, before fully detailed Works Requirements are prepared) despite any pressures on him to do so.

In the case of a Design and Build Contract the Works Requirements will contain a robust output specification or specimen design so that the Contractor can fully understand and price what is required of him and so that the Employer will get what he requires.

Archaeological Surveys can range from a desk study level of detail, to a field investigation with geophysics and investigation trenches, depending on the known history of the site and the area. Fieldwork associated with archaeology requires permissions from the NMS of the DoELG, and can involve a significant lead-in time. It is clearly important, when the risk associated with archaeological artefacts is being transferred to the Contractor, that the level of prior investigation is selected to manage that risk transfer effectively, so that it is appropriate to transfer it, and that such transfer represents value for money.

Utility details would be approached initially by researching the as-constructed records of the Utilities in question and from local knowledge. This might be followed by cable detection surveys, and trial trenches to confirm the positions of buried services.

Again these approaches represent a continuum of prior effort by the Employer to manage risk to a level where it can be effectively transferred to the Contractor.

13.2 Works Requirements Documents

The documents containing the Works Requirements provided by the Employer are identified in Part One of the Schedule.

The Works Requirements should include, inter alia, the following items



Traditional Contracts	Design & Build Contracts
Preliminary Particulars <ul style="list-style-type: none">a. The name, nature and location of the Works;b. A general description of the Worksc. The names and addresses of the Employer and Consultants Consents <ul style="list-style-type: none">a. Planning and other consents obtained by the Employer. Refer to <i>Guidance Note For Public Works Contracts – Appendix</i> The Site <ul style="list-style-type: none">a. Site boundariesb. Means of accessc. Restrictions on accessd. Position of the Workse. Information on adjacent/abutting structuresf. Limitations on use of (if any)g. Work to be carried on the site by the Employer's Personnel or others concurrently with the Worksh. Facilities of the Employer to be operated and maintained by the Contractori. Specific site rules and regulations Sections <ul style="list-style-type: none">a. Definition of sections into which the Works are divided for purposes of sectional completion Drawings, Specifications, Schedules and Reports <ul style="list-style-type: none">a. General arrangement, working and construction drawings.b. Materials and Workmanship specificationsc. Performance specifications applicable to contractor designed or specialist designed elements of the works. Specialists <ul style="list-style-type: none">a. Designs to be prepared and/or works to be undertaken by Specialistsb. Novated specialists including details of the original appointment and form of novation agreement	Preliminary Particulars <ul style="list-style-type: none">a. The name, nature and location of the Works;b. General description of the Worksc. The names and addresses of the Employer and Consultants Consents <ul style="list-style-type: none">a. Planning and other consents obtained by the Employer. Refer to <i>Guidance Note For Public Works Contracts – Appendix</i> The Site <ul style="list-style-type: none">a. Site boundariesb. Means of accessc. Restrictions on accessd. Position of the Workse. Information on adjacent/abutting structuresf. Limitations on use of (if any)g. Work to be carried on the site by the Employer's Personnel or others concurrently with the Worksh. Facilities of the Employer to be operated and maintained by the Contractori. Specific site rules and regulations Sections <p>Definition of sections into which the Works are divided for purposes of sectional completion</p> Drawings, Specifications, Schedules and Reports <p>Note that for Design and Build Contracts, such information can consist of an output specification setting out the functional requirements that the facility should accommodate together with the expected functional life, maintenance requirements, etc. or it can contain a full specimen design.</p> <p>A number of options exist:</p> <ul style="list-style-type: none">a. Pure Output specificationb. Output specification and specimen designc. Output specification and specimen design which cannot be changedd. More developed design Specialists <ul style="list-style-type: none">a. Designs to be prepared and/or works to be undertaken by Specialistsb. Novated specialists including details of the original appointment and form of novation agreement



Traditional Contracts	Design & Build Contracts
Restrictions and Obligations <ul style="list-style-type: none">a. Limitations on working hoursb. Hoardings, fences, screens, temporary roofs, advertising rightsc. Maintenance and protection of existing services on, under or over the sited. Execution of work in a specific ordere. Road closure restrictions, alternative route restrictions.f. Maintenance of specific temperature or humidity levelsg. Temporary accommodation and facilities for the use of the Employer including heating, lighting, furnishing and attendanceh. Installation of telephones and facsimile machines for the use of the Employeri. Any other obligation or restriction.	Restrictions and Obligations <ul style="list-style-type: none">a. Limitations on working hoursb. Hoardings, fences, screens, temporary roofs, advertising rightsc. Maintenance and protection of existing services on, under or over the sited. Execution of work in a specific ordere. Road closure restrictions, alternative route restrictions.f. Maintenance of specific temperature or humidity levelsg. Temporary accommodation and facilities for the use of the Employer including heating, lighting, furnishing and attendanceh. Installation of telephones and facsimile machines for the use of the Employeri. Any other obligation or restriction.
Health & Safety <ul style="list-style-type: none">a. Appointment of PSCS	Health & Safety <ul style="list-style-type: none">a. Appointment of PSDPb. Appointment of PSCS
Contract <p>Form of Contract</p> <p>Model forms as appropriate</p> <ul style="list-style-type: none">a. Form of performance bondb. Form of parent company guaranteec. Form of novation and guarantee deedd. Form of appointment of project supervisor for construction stage onlye. Form of appointment of project supervisor for construction stage and design processf. Form of appointment of project supervisor for design process onlyg. Form of professional indemnity certificateh. Form of collateral warrantyi. Form of novationj. Form of rates and conditions of employment certificatek. Form of bond – Unfixed works itemsl. Form of retention bondm. Form of conciliator's agreementn. Form of bond – Conciliator's recommendations <p>Owner controlled insurances (if required)</p> <p>Arbitration rules to apply</p>	Contract <p>Form of Contract</p> <p>Model forms as appropriate</p> <ul style="list-style-type: none">a. Form of performance bondb. Form of parent company guaranteec. Form of novation and guarantee deedd. Form of appointment of project supervisor for construction stage onlye. Form of appointment of project supervisor for construction stage and design processf. Form of appointment of project supervisor for design process onlyg. Form of professional indemnity certificateh. Form of collateral warrantyi. Form of novationj. Form of rates and conditions of employment certificatek. Form of bond – Unfixed works itemsl. Form of retention bondm. Form of conciliator's agreementn. Form of bond – Conciliator's recommendations <p>Owner controlled insurances (if required)</p> <p>Arbitration rules to apply</p>
Contractor's Documents <ul style="list-style-type: none">a. Documents to be providedb. Submittal proceduresc. Provision of data to facilitate the Employer and/or other contractors and its timingd. Procedures which the Contractor is to follow in carrying out his design.	Contractor's Documents <ul style="list-style-type: none">a. Documents to be providedb. Submittal proceduresc. Provision of data to facilitate the Employer and/or other contractors and its timingd. Procedures which the Contractor is to follow in carrying out his design.



Traditional Contracts	Design & Build Contracts
Reports a. Special reporting requirements. Eg: planning software to be used.	Reports a. Special reporting requirements. Eg: planning software to be used.
Confidential Matters	Confidential Matters
Quality Assurance and Testing (Where not contained in the Specifications) a. Quality assurance procedures b. Inspections c. Items which are to be inspected or tested before delivery to the Site including details of the inspection or test d. Tests, description of the tests to be carried out by the Contractor, the Employer's Representative and others including those which must be passed before Substantial Completion.	Quality Assurance and Testing (Where not contained in the Specifications) a. Quality assurance procedures b. Inspections c. Items which are to be inspected or tested before delivery to the Site including details of the inspection or test d. Tests, description of the tests to be carried out by the Contractor, the Employer's Representative and others including those which must be passed before Substantial Completion.
Title a. Statement of any materials from excavation and demolition to which the Employer will retain title.	Title a. Statement of any materials from excavation and demolition to which the Employer will retain title.

Notes: Refer to Standard Template Public Works Tender Document.

Contracting authorities should consider the risks of including site surveys, site investigation reports, archaeology reports, etc. in Works Requirements. An alternative would be to provide such information with tender documentation as relevant background information; notwithstanding this, such documents should be accurate and proportionate to the nature and scale of the proposed Works.

13.3 Works Proposals

These will include method statements, Contractor's design and any other information required by the Employer in relation to the carrying out of the Works

Example:

Works proposals from the Contractor will vary depending on whether the Contract is Traditional or Design and Build.

With Traditional, the Contractor would be likely to prepare his intended sequence of work, his programme, his resource allocation and his method statements as an integrated package of information, in response to the Contract Documents, including whatever constraints are stipulated by the Employer therein.

In a civil engineering project, for example, he would indicate how he proposed to deploy available working space around structures, showing locations where he might safely stockpile excavated material, or locate concrete batching plant and aggregate stockpiles materials, or



the like. Alternatively, he would outline other arrangements he may have made to obtain additional lands, licences and permits in order to free up working space on a particularly congested site. His sequences would address the question of re-use of materials, and disposal of C&D wastes. If he considers that Road Closures are required to perform the works, he would outline their sequence, duration, alternative routes to be used, and the like.

His proposed working methodologies would be described, including any measures for environmental or HSW protection.

With Design and Build, the Works Proposals will include information similar to the foregoing, but also the Contractor's Design itself, including drawings of temporary and permanent Works, finishes schedules, calculations and all necessary information to enable the ER to technically assess the proposal in Tender Appraisal.

13.4 The Pricing Document

The Pricing Document can be a bill of quantities (traditional contracts only), contract sum analysis or pricing schedule.

Its format and content should facilitate the following:

- Evaluation of tenders;
- Interim payment;
- Valuation of change orders;
- Calculation of price variation entitlements;
- Recording and classification of costs in accordance with the CWMF.

Subject to the foregoing, bills of quantities (if used) should be prepared in accordance with the standard methods of measurement approved by the GCCC and should incorporate any GCCC amendments. Refer to Guidance Note.

Where bills of quantities are not provided by the Employer, such as for design and build contracts, the Pricing Document will, subject to the foregoing, be broken down to an acceptable level such as milestones. This detail however is unlikely to be sufficient for the valuation of change orders and the Contract Sum should be further broken down into parcels of work of similar character.

The following would be an example of such a trade breakdown for design and build building contract. It is unlikely that all the headings given will be required for a every project and in some cases the complexity of the work may require additional parcels or sub-division of those listed. The breakdown should be given separately for each building or discrete section of work.



<p>Preliminaries</p> <ul style="list-style-type: none">- Management, supervision and site administration- Plant, tools and vehicles- Temporary works- Health and safety- Transport- Temporary accommodation- Waste management- Insurances- Consents- Form and Conditions of Contract- Programme contingency- Special obligations and restrictions- Bonds- Other matters <p>Demolition</p> <ul style="list-style-type: none">- Each building separately <p>Alterations</p> <ul style="list-style-type: none">- Each item of alteration work separately on a 'room by room' basis. <p>Excavation and Earthwork</p> <ul style="list-style-type: none">- Site clearance, all excavation, supports, surface treatment and disposal- Filling – separately for each material- Underpinning <p>Piling</p> <ul style="list-style-type: none">- Each type separately <p>Concrete</p> <ul style="list-style-type: none">- All unreinforced concrete- All reinforced concrete- Formwork- Reinforcement- Precast units cast separately- Composite, hollow block or other special construction each separately <p>Brickwork, Blockwork and Stonework</p> <ul style="list-style-type: none">- All work separately for each kind of brick, block or stone including all labours, etc.- Damp proof courses and sundries not included above	<p>Roofing and Cladding and Waterproofing</p> <ul style="list-style-type: none">- Each covering material separately including all fittings, labours, etc. and in the case of slate and tile including battens and underfelt- Metal flashings and gutters (but may be included with coverings if not of significant value)- Damp proofing and tanking- Paving including skirtings, etc- Roofing including skirtings, gutters, etc <p>Woodwork – separately for softwood and hardwood</p> <ul style="list-style-type: none">- Carcassing to floors, partitions, etc.- Prefabricated trusses- Floor and wall boarding, battens, framing and fillets- Unframed second fixings- Doors, door frames and linings- Windows and frames- Stairs and balustrades- Fittings- Insulation- Ironmongery <p>Structural Steelwork</p> <ul style="list-style-type: none">- Unfabricated steelwork- Fabricated steelwork- Built-up members- Corrosion protection and other coatings <p>Metalwork – separately for each material</p> <ul style="list-style-type: none">- Windows and frames- Doors and frames- Stairs- Balustrades- Other composite items- Covers, gratings, plates, bars, etc- Sheetmetal coverings <p>Plumbing and mechanical engineering – separately for each system (e.g. rainwater, sanitary, cold water, hot water, heating, air conditioning)</p> <ul style="list-style-type: none">- Pipework- Ductwork- Equipment and fittings- Insulation- Controls
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<p>Electrical installation – separately for each system</p> <ul style="list-style-type: none">- Equipment, control gear and fittings- Conduit, trunking and cables <p>Finishes – separately for each material</p> <ul style="list-style-type: none">- Walls and ceilings- Floors- Suspended Ceilings- Dry linings and partitions <p>Glazing</p> <ul style="list-style-type: none">- Glazing generally- Special glazing <p>Painting and Decorating</p> <ul style="list-style-type: none">- New work internally- New work externally- Redecoration internally- Redecoration externally	<p>Drainage and Site Services</p> <ul style="list-style-type: none">- Pipe trenches and beds- Pipes – separately for each type- Manholes & Chambers <p>Surface Pavings, Fencing and Landscaping</p> <ul style="list-style-type: none">- Pavings by type, edgings,- Fencing- Grassing and landscaping <p>Fittings Equipment and Furniture</p> <ul style="list-style-type: none">- By type <p>Design Fees</p> <ul style="list-style-type: none">- Each service listed
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Note: Specialists should be included under the appropriate subdivision.

Where the breakdown is to be in accordance with a standard table of elements, consideration should be given to allocation on a "trades within elements" basis.

14 Commentary on the Conditions



14. Commentary on the Conditions

14.1 Definitions

Reference sub-clause 1.1

"Contractors Documents"

Means drawings, specifications and other written (including electronic) material the Contractor prepares or uses relating to the Works, gives or is to give to the Employer or other person

- Under the Works Requirements
- Under any Legal Requirements
- To obtain any consent

In connection with a value engineering proposal (sub-clause 4.8).

"Contractor Things"

Means things the Contractor or Contractor's Personnel use (on or adjacent to the Site) to execute the Works but excludes Works Items.

"Contractor's Personnel"

The term is very widely defined.

It means the Contractor's Representative, his supervisor and all sub-contractors, and other persons including all employees (of the Contractor and sub-contractors) and other persons assisting the Contractor to carry out the Works and working on or adjacent to the Site.

"Site"

Means any place the Works are to be carried out, or provided by the Employer for the Works, where the Contractor is to operate Employer's Facilities, or

Any places that is identified as part of the Site by the Works Requirements.

"Specialist"

Means

- A Subcontractor or supplier of a Works Item named in the Contract
- Contractor's Personnel who do or are to do design
- Contractor's Personnel specifically stated to be Specialists in the Works Requirements



"Site Working Day"

Means a day on which the Contractor is to carry out the Works.

"Substantial Completion"

This term is very widely defined.

The Works are complete and can be taken over and used for their purpose when:

There are no defects save

- ones accepted by the Employer (sub-clause 8.5.4)
- minor defects
 - that do not prevent use of Works for their purpose
 - the Employer's Representative agrees the Contractor has reasonable grounds for not promptly fixing them
- those whose fixing will not prejudice safe and convenient use of the Works (or part)

All tests have been passed (that must be passed before Substantial Completion)

Documents required before Substantial Completion have been furnished

Collateral warranties have been provided in relation to the Works or relevant part

See commentary on Substantial Completion below.

"Interpretation"

Reference sub-clause 1.2

Any reference to a "working day" is to a day that is not a weekend day, a public holiday under the Organisation of Working Time Act 1997 or Good Friday.

"Inconsistencies"

Reference sub-clause 1.3

The order of precedence of the Contract documents is

- 1 The Agreement
- 2 The Letter of Acceptance
- 3 The Schedule
- 4 The Conditions
- 5 The Works Requirements
- 6 The Pricing Document



7 The Works Proposals

8 Any other Contract documents

14.2 Health and Safety

Reference sub-clauses 1.1 and 2.5

In the Traditional Form, the Contractor is obliged to ensure the Works are constructed so as to be safe and without risk to safety and health and so as to comply fully in all respects with the relevant statutory provisions

The Contractor also warrants that he is a competent person within the meaning of that term in the Safety, Health and Welfare at Work Act 2005 for the purpose of ensuring that the Works are safely constructed and comply with the relevant statutory provisions.

In the Design and Build Form the Contractor is obliged to ensure the Works are designed and capable of being constructed so as to be safe and without risk to safety and health; that they can be maintained safely and without risk to health during subsequent use; that they comply with the relevant statutory provisions.

In both Forms the Contractor warrants that he is competent to carry out the Works and will allocate sufficient resources so as to comply with the relevant statutory provisions.

The terms used in the clause including the "competent" and "relevant statutory provisions" are to be construed pursuant to section 2 of the Safety, Health and Welfare at Work Act, 2005.

The provisions in the Contracts in this regard are quite short and simple but as the laws applicable to health and safety are now so strict in this jurisdiction, that is all that is required.

14.3 Loss, Damage and Injury

Employer's Risks – Loss and Damage to the Works and Contractor's Care of the Works

Reference sub-clauses 3.1 and 3.2

The Employer bears certain risks in relation to loss of or damage to the Works. These include the usual uninsurable risks relating to war, invasion, pressure waves caused by aircraft, and contamination relating to explosive nuclear weapons etc. The risk of terrorism is included as an Employer's risk but only if this is a permitted exclusion from the Contractor's insurances relating to the Works.

The Employer also bears the risk of damage to the Works from the use or occupation of the Works by the Employer or the Employer's Personnel (other than as provided for in the Contract) but excluding loss or damage caused by



the negligence of the Contractor or those for whom the Contractor is responsible or which is caused by the Contractor's breach of contract.

If Sub-clause 3.8 applies (only if so stated in the Schedule part ID) the Employer will bear responsibility for damage to existing facilities due to the usual property risks of fire, flood, storm, pipes bursting etc.

The Employer also bears the risk of his design of the Works unless the design is covered by professional indemnity insurance taken out by the Contractor. Sub-clause 3.1(6)

Example:

If the Works are damaged because of any of the causes referred to in sub-clause 3.1 the Employer will bear the risk and will have to pay to have the Works reinstated subject to an entitlement to terminate the Contractor's responsibility to complete the Works.

The Contractor has otherwise got full responsibility for the care of the Works and bears the risk of loss and damage to the Works including Works Items, Contractors, Things, Works Requirements, Works Proposals, and Contractor's Documents together with anything the Employer provides to the Contractor for the Works. These items are defined in the Contract as "Risk Items".

The Contractor's obligation runs from (and includes) the Starting Date up until the issue of the Certificate of Substantial Completion of the Works (or if completed in sections – the relevant Section). If part of the Works is taken over before Substantial Completion the obligation ends for that part when the Employer takes it over.

The Contractor still has some responsibility for damage to the Works after the date of Substantial Completion. These include damage arising from defects or from matters that occurred before Substantial Completion. In addition if any damage to the Works is caused after Substantial Completion by activities of the Contractor or those for whom he is responsible this is at the Contractor's risk.

The Contractor is obliged to repair any loss or damage to any of the Risk Items (this is irrespective of responsibility) and must do so at his own expense if the insurance proceeds are insufficient for the purpose. The Contractor must in any event repair any damage to the Works occurring before the issue of the Defects Certificate if the Employer instructs him to do so (subject to payment for the Works in the event that the risk is not one for which the Contractor is responsible).

Insurance of the Works

Reference sub-clause 3.3, Schedule (part ID)

The Contractor must insure the Works and the other Risk Items, against loss or damage and must procure that the Contractor, Employer, and other persons nominated by the Employer are named as co-insured under the policy of insurance. The insurance is to be kept in place until the date of the Certificate



of Substantial Completion. Where there are Sections the insurance must remain in place until the Substantial Completion of the Section in question.

The Employer may require in the Schedule (part ID) that the insurance for any Section or part of the Works which has reached Substantial Completion is to be extended until Substantial Completion of the entire of the Works.

The Contractor must maintain the insurance of the Works between Substantial Completion and the issue of the Defects Certificate in respect of damage for which he is responsible.

The insurance level must include as a minimum for the full reinstatement cost of the property, demolition and debris removal, delivery, professional fees, inflation during the construction and reinstatement periods and profit. The Employer is entitled to insert in the Schedule (part ID) any other property belonging to the Employer that is to be included in the insurance of the Works and the indemnity limit for such additional insurance.

In the event of a claim against the insurance the insurance proceeds (excluding the insured sum for professional fees to be paid by the Employer) are to be paid into a bank account in joint names of the Employer and Contractor and are to be paid out to the Contractor on the basis of interim certificates by the ER relating to the rectification of the loss or damage. The Employer is entitled to be paid out of the account for costs incurred by it in this regard and is also entitled to the balance remaining in the account after rectification work.

Example:

If the Works are fully insured in accordance with the provisions of sub-clause 3.3. and if a fire that arises on Site damages a substantial portion of the Works, then the Contractor would typically be instructed to repair the damaged Works which includes demolition of the damaged part, removal of the debris from the Site, and reinstatement. Additional professional fees would be incurred in dealing with design. The Contractor would submit interim statements in accordance with the provisions of the Contract and the ER would certify payment on foot of these.

The Insurer of the Works would pay out the insurance proceeds which (other than professional fees in the circumstances of a traditional contract) would be paid into a joint bank account set up by the Employer in the joint names of the Employer and the Contractor. These monies would be paid out on foot of interim certificates by the ER as stated above. In relation to professional fees, assuming this was a traditional form of contract; the Employer would discharge the additional consultant's fees and would be paid out of the bank account. Subject to any entitlement which the insurer might have, the Employer would be paid the balance remaining in the bank account after payment for the reinstatement of the Works.

Indemnity and Liability

Reference sub-clauses 3.4, 3.5, 3.6, 3.7, Schedule (part ID)

The Contractor provides a full indemnity to the Employer and the Employer's employees against all liability and loss of or damage to the Employer's property including the Site arising from the performance of the Contract. If the Employer states in the Schedule (part ID) that sub-clause 3.8 will apply, then the Employer



bears the risk of existing facilities and their contents where owned by the Employer and caused by the usual perils of:

- Fire, storm, tempest, flood
- Bursting or overflowing of water tanks, apparatus or pipes
- Explosion, impact, aircraft
- Riot, civil commotion or malicious damage

The indemnity specifically excludes any liabilities of the Employer to the Contractor under the Contract and also anything covered by the Employer's indemnities under sub-clauses 3.5 or 6.2

The Employer in turn indemnifies the Contractor pursuant to sub-clause 3.5 against liability arising from the Employer's negligence or property damage unavoidably arising from the execution of the Works (in accordance with the Works Requirements).

Note that this indemnity does not cover liability for death, injury or illness of Contractors Personnel (i.e. those covered by the Contractor's Employer's Liability insurance cover).

The Contractor is obliged to provide Public Liability insurance with the Employer and the Contractor as co-insured parties from the Starting Date until the issue of the Defects Certificate (sub-clause 3.6.1).

The Contractor must take out Employer's Liability insurance for his own personnel and in relation to Sub-Contractors he must either ensure that the Sub-Contractors maintain the insurance or otherwise cover the risk himself (sub-clause 3.6.2).

The Employer provides for the indemnity limits in respect of the Contractor's Public Liability and Employer's Liability insurances in the Schedule (part 1D).

The only noteworthy point here is that the Public Liability policy is taken out with the Employer and the Contractor as co-insured whereas in the past in building contracts it would have been in the sole name of the Contractor with an indemnity to the Employer as principal and in the engineering form it would have been joint insurance.

The Contractor is required to ensure that the Public Liability and Employer's Liability insurances are in place in the event of his return to the site (in connection with the Works) even after the Defects Certificate is issued (sub-clause 3.6.4).

The Employer is entitled to provide in the Schedule (part 1D) that the Contractor should put in place Professional Indemnity insurance cover. The minimum indemnity limit will be inserted in the Schedule (sub-clause 3.7).

The Contractor if required to do so, must put in place Professional Indemnity Insurance from the Starting date until the sixth anniversary of the Certificate of Substantial Completion (unless another period is provided for in the Schedule).



The insurance must cover (retroactively if necessary) any design by the Contractor of the Works and Works items.

The Employer would be likely to require Professional Indemnity insurance in most if not all instances where the Contract is one with Contractor's Design. Professional Indemnity insurance covers errors or omissions in design work and in other professional duties. The Employer should require that the Contractor puts in place Professional Indemnity insurance in most cases where there is an element of design being carried out by the Contractor or Specialists. It would be normal to require that such insurances are kept in place for at least six years after Substantial Completion. This is because the statute of limitations in respect of Professional Liability will run for at least this period. It is also likely that such defects will come to light within such a period.

The Employer should take care to monitor the Contractor's insurances either through the ER or directly through his own insurance advisors or by himself particularly so as to make sure that the Contractor's Professional Indemnity insurance is renewed each year unless (which would be most unusual – one insurance policy is actually taken out to cover a six year period).

This is particularly important in the case of Professional Indemnity insurance because such insurance operates on a "claims made" basis. That is to say, any claim is covered by the insurance that is in place during the year in which the claim is made.

Thus if the Contractor discontinues his Professional Indemnity insurance after 2 years and a claim is made in year 3 there will be no cover. The Employer in completing the Schedule will also wish to consider the minimum indemnity limit. This should be a reasonable sum by reference to the value of the Works, the importance of the design work being carried out and the effect that a failure of such design work would have. One would expect that Professional Indemnity cover nowadays would be at the very least €6.5 million and possibly €10 million in the aggregate.

The Employer is also entitled to stipulate that the professional indemnity insurance will cover each and every event. In such a case the full insured sum would be available for every claim raised by the Employer (within a particular year of cover). However, the normal Professional Indemnity insurance by Contractors is an aggregate sum for each year. That is to say a sum insured of €10 million will cover all claims made against the Contractor during the year in question. The risk with this type of cover is that the entire insured amount could be used up by one single claim and in the event of other claims arising there would be no insurance cover left to meet them.

It is provided in the Schedule that the sum indemnified may include defence costs. The Employer should be careful if prosecuting a claim against an Insured where such costs are included in the cover, to take cognisance of this fact as, if a substantial legal defence was mounted to any claim the legal costs incurred by the defendant would eat away at the limit of indemnity leaving a diminishing "pool" for the Employer to claim against.



The Contractor must place his insurance with insurers approved by the Employer and may only exclude from cover the exclusions listed in the schedule (part ID).

Any liability insurance where the Employer and Contractor are co-insured must include various provisions so that the Insurer cannot claim against either of the insured persons themselves and that they are each treated as if they were separately insured.

The Contractor is obliged contractually to comply with all the terms of the insurance policies.

The Contractor must provide evidence to the Employer that the insurances are in effect and must provide copies of policies and receipts for premiums in this regard. An Insurance Broker's Certificate (or one from an underwriter) may be provided in the case of Professional Indemnity insurance.

This is particularly important in the context of firstly checking on the Contractor's insurances in advance of his coming on site and secondly keeping a check on the Contractor's insurance during the course of the Works.

The Contractor must notify the Employer promptly of any cancellation, renewal, non-renewal or material reduction of the terms of any policy.

While this clause imposes a contractual obligation on the Contractor to notify of these events it is imperative that the Employer or the E.R. keep an ongoing check on Contractor's insurances as it is possible that a Contractor who is in a position whereby some of his insurances are being cancelled would not inform the Employer or the E.R. of this fact readily.

The Employer is of course entitled to take out insurance should the Contractor fail to maintain them. However, it would not be possible for the Employer to take out Professional Indemnity insurance in respect of Contractor or at least not to do so without great difficulty.

The Works Requirements may make provision for an owner controlled insurance programme and in such a case the provisions of clause 3 are to be amended accordingly (sub-clause 3.9.9).

Example:

If the Works involve very substantial and complex work over many adjoining areas with numerous Specialists it might be deemed appropriate by the Employer to control the insurance programme rather than running the risk of any insurance failures. However, careful investigation would need to be done by the Employer in this regard particularly in relation to the cost of taking out such a programme as it is unlikely to be as economic for an Employer to take out such insurance as it would be for a Contractor to do so.



14.4 Management

Co-operation

Reference sub-clause 4.1

The Contract provides for co-operation between both parties but very importantly states that such co-operation does not alter the rights or duties of the parties or imply any admission of responsibility.

Examples of co-operation are given such as:

- Negotiation of agreements provided for in the Contract;
- Value Engineering;
- Use of most effective and compatible electronic and other methods of communicating and recording;
- Efficient order and timing of information provided for in the Contract;
- Minimising the effects of suspension;
- Efforts by the Contractor to minimise delay and Compensation Events and their effects; and
- Contractor's effective management.

This provision permits either the Employer or the Contractor to request consultations, clarifications, workshops etc. even though not provided for elsewhere in the Contract.

The parties can (if circumstances otherwise permit) also enter into without prejudice communications which would enable them to speak freely without fear of any admission being used against them – (sub-clause 4.1.4).

Contractor's Representative and Supervisor

Reference sub-clause 4.2

The Contractor must appoint the Contractor's representative before the Starting Date with full authority to act on his behalf (sub-clause 4.2).

He must also appoint a full-time supervisor on site with full authority to receive instructions. This can be the same person as the Contractor's Representative (sub-clause 4.2).

The ER may require removal of the representative or supervisor due to misconduct, negligence or incompetence (sub-clause 4.2.3).

Employer's Representative

Reference sub-clause 4.3



Appointment of Employer's Representative

The Employer appoints the Employer's Representative (ER) to administer the Contract (note – likely to be his consulting engineer or architect but not necessarily so under the Contract).

Example:

The Employer may wish to consider what profession is best suited to administer the Contract taking into account the type of contract that it is and the best method of having it administered. The Employer might consider that an Architect would be the best administrator in the context of building works while an Engineer would be the best person to administer the carrying out of a road or waterworks contract. However, under particular circumstances the Employer might consider that a person with pure project management experience and qualifications might be best suited to administer some very large scale projects crossing over the divide between pure building and civil engineering with a view to coordinating a large number of consultants.

The Employer should name the ER in the Schedule (part IA).

Otherwise – the Employer must appoint the ER promptly after the Contract Date and must notify the Contractor of his identity (sub-clause 4.3.1).

Any limits on the authority of the ER must be stated in the Schedule (Part IA).

See the reference to this above in relation to the Schedule Part IA where such limitations are set out.

The Employer must give approvals in relation to any matters on which the authority of ER is limited.

Example:

If the authority of the ER is limited in relation to say adjustments to the Contract Sum for a single instruction then the Employer must be prepared to provide approvals when required by the ER to do so in this context. The Employer must be aware that approvals will often be required at relatively short notice and that unless they are approved promptly by him this may hold up the provision of instructions to the Contractor with potential resultant delays to the Works.

Replacement of ER

Reference sub-clause 4.3.5

Where relevant – the Employer can replace the ER (presumably he would in such a case dismiss the ER pursuant to the terms of his conditions of engagement) (sub-clause 4.3.5)



Example:

In a situation where the Employer's Representative is not performing as he is obliged to do so pursuant to his own Conditions of Engagement then it may be necessary for the Employer to terminate his appointment. However, the Employer should ensure that a replacement is appointed as quickly as possible as the Employer will be obliged to carry out the ER's functions in the interim. The carrying out of the ER's functions will place an additional burden on the Employer to ensure that these functions are carried out properly and professionally in order to avoid any disputes at a later stage

ER's Communications

Reference sub-clause 4.4

The various types of ER's communications are set out at sub-clause 4.4 of the Contract. They may consist of:

- Directions;
- Change Orders;
- Objections under sub-clause 4.7;
- Opinions, assessments determinations and certificates;
- Other communications in accordance with the Contract.

ER's Instructions

Reference sub-clause 4.5

The Contractor must comply with any instruction of the ER (sub-clause 4.5.1).

The Contractor is entitled to give notice under clause 10.3 if he feels that an instruction which the ER has issued as a direction is in fact, a Change Order. The matter will then be resolved by the procedure set out in sub-clauses 10.3/10.5.

The Contract explicitly says that the ER may not give a Change Order after Substantial Completion (except in relation to Defects or work carried out after Substantial Completion) (sub-clause 4.5.3).

If the ER is of the view that it is physically impossible or illegal to carry out the Works in accordance with the Works Requirements or if it is necessary in his opinion, for the completion of the Works, he must give a Change Order and must do so within the time allowed in sub-clause 4.11 (sub-clause 4.5.4).

ER's instructions must in the normal way, be given in writing although this will not be necessary in cases of emergency, provided the instructions are confirmed in writing as soon as practicable.



Works Proposals

Reference sub-clause 4.6.1

It is the responsibility of the Contractor to make sure that the Works Proposals submitted by him comply with the Works Requirements.

In respect of any Works Proposals that do not comply with the Contract, the Works Requirements or Legal Requirements or that are impossible to comply with, the Contractor must propose a change to the Works Proposals. The Change is submitted to the ER (sub-clauses 4.6.1 and 4.6.2).

Submissions by Contractor to ER

Reference sub-clause 4.7

A detailed procedure for the making of any submissions required under the Contract by the Contractor to the Employer is set out in the Contract (sub-clause 4.7).

In the case of any document to be submitted to the ER:

- The Contractor must give it together with all supporting documentation; and
- If requested, further additional information
- Sufficient to enable the ER to review the matter.

The Contractor is not entitled to implement any submission until the period for objection is ended and if the ER objects the Contractor must make a new submission within the relevant period (sub-clauses 4.7.7 and 4.7.8).

Objecting to Submissions by Contractor

Reference sub-clause 4.7.2

The ER may object to submissions made by the Contractor. Such an objection must be made within 10 working days of the receipt by him of sufficient information to enable him to review the matter (sub-clauses 4.7.2 and 4.7.4).

The Contractor may be required to provide documents for the consideration by the Employer's Representative. The Employer should ensure that he is given all copies of such submissions by the ER so that he will be in a position to make any objection that he deems appropriate to such submissions. Obviously, the Employer would only make such objections in accordance with the Contract (see below).

This is an important point in that there is no longer any approval by the ER and therefore there will be no opportunity for a Contractor to allege that the Employer has "assumed ownership of" a proposal by the Contractor, giving credence for a claim for compensation in circumstances where say, the proposal resulted in additional cost to the Contractor.



The grounds for objection by the ER to a submission by the Contractor are clearly set out at sub-clause 4.7.10 as follows:

To proceed on foot of the submission:

- Would not comply with the Contract
- Would have an adverse effect on the Employer or the public interest
- Would impose an obligation on the Employer that the Contract does not require him to bear
- Would be contrary to a Legal Requirement
- Would have an adverse effect on the Contractor's ability to comply with the Contract
- Any other stated ground in the Contract

Consideration of Value Engineering Proposals

Reference sub-clause 4.8

The Contractor is entitled to submit value engineering proposals to the ER if they would reduce the Contract Sum, accelerate the time for execution of the Works or provide some other benefit to the Employer but with no additional cost. In point of fact, as, the Contractor is not to be paid any extra for doing so, it is highly unlikely that he would make any such proposal unless it represented a significant benefit to him in terms of time or money.

The Employer may agree to, or reject value engineering proposals from the Contractor and any such rejection is conclusive.

The Employer should again ensure that he is in receipt of all such proposals in a timely fashion so that he can make a considered decision in relation to the proposal and agree to it or reject it. (sub-clause 4.7)

It is noteworthy that if there are any design changes to the Works arising out of or as part of the value engineering proposals, the Contractor must undertake this design and be responsible for it (sub-clause 4.8.4).

Programme

Reference sub-clause 4.9

The Contractor must submit a detailed programme to the ER before the Starting Date unless he has already done so with the Works Proposals updated as necessary to show actual programme dates.

The requirements for the content of the programme are set out at sub-clause 4.9.1 at items (1) to (9) and are very comprehensive indeed. There is provision for the ER to relax these requirements. Nevertheless, the ER should give careful thought to any such relaxation.



There are two provisions in the programming requirements of the Engineering Works forms which are not in the Building Works forms and they relate to the order and times for carrying out "trial operation" of Works Items and the method by which the Contractor proposes to carry out the Works and any temporary works.

It will be most important for the Employer in conjunction with the ER to ensure that the Contractor's programme is of an adequate quality so that it can be used as a tool to monitor the Contractor's Works and properly assess progress etc. In this regard it is noteworthy that there are sophisticated computer programmes available for the purpose of assessing programmes to ascertain their validity. It would be particularly important for the Employer that the Contractor's programme does (as it is required to do under sub-clause 4.9.2) provide adequate periods of time for the Employer to comply with his obligations.

The Contractor must when directed by the Employer's Representative submit a revised programme where actual progress does not equate to the initial programme. The revised programme must show any delay.

All programmes should show items 1-9 as set out in Clause 4.9.1 of the Contract (subject to any relaxation of the requirements by the ER) (sub-clause 4.9.4).

If the Contractor fails to submit a revised programme within 15 working days of a request from ER the Employer may withhold 15% of any payment due until it is submitted.

Progress Reports

Reference sub-clause 4.10

Progress reports must be provided by the Contractor to the ER monthly from the Starting Date to the completion of all work still outstanding at Substantial Completion. Thus progress reports are required during the Defects Period in respect of remedial work.

Progress Reports are extremely important and it will be essential for the Employer to receive copies of them from the ER so that the Employer is kept fully up to date on progress and can query the issues that he may wish to, when attending at meetings with the ER and if necessary Site meetings. In particular, and as referred to above it will be important for the Employer to monitor with the ER details of when any Works Items or other things to be provided by the Employer will be required and any that the Contractor says are outstanding. It would also be vital where the Contractor has provided details of anything that might have an adverse affect on the execution of the Works and where the Contractor proposes that the Employer or the Employer's Personnel take steps to reduce those risks.

The Contractor must furnish progress reports within 7 days after the end of each relevant month.

Progress Reports must include items 1-12 in sub-clause 4.10.2 unless this requirement is relaxed by the ER or by the Works Requirements.



The form of the progress reports must be agreed with the ER.

Notice and Time for Employer's Obligations

Reference sub-clause 4.11

The Contractor is required by the Contract to give at least 10 working days notice of the date by which he requires instructions, Works Items or other things from the ER or the Employer

The date by which the ER or the Employer must provide any required instruction, Works Item or other thing to the Contractor is the latest of:

- Any date shown in the Contract
- Any date shown in the Contractor's programme;
- Any date for which the Contractor first notifies the ER that it is required
- The date the Contractor actually needs it by reference to his progress. (sub-clause 4.11.2)

Example:

In a case where the Employer is required to give the Contractor any required Works Items or other thing then it would be most important that the Employer is aware of all relevant dates by which such items will be required well in advance from the ER so that he is in a position to provide the items in a timely manner. If the item is going to require a long lead-in time from the Employer's point of view it may be appropriate that the date is stated in the Works Requirements so that the Employer can work to it in order to avoid any question of late provision of information and any resultant delays.

Example:

The Contractor may require additional information which the ER is not able to give and which only the Employer can provide and in such case it will be incumbent on the Employer to provide the information/Works Items by the requisite dates. If it were the case that there was no date in the Contract or the Programme or that the Works Item was not available by either of those dates and it was clear that the Contractor's actual progress meant he was not nearly ready to receive the Works Item despite notifying that it was required then the Employer would, through the ER point out to the Contractor that he was not entitled to Works Items/instruction etc. until the item was actually required. It might also be the case that the Programme provided is out of date, in which case until it is updated and provided by the Contractor it would be his actual progress that would apply. However, the Employer should bear in mind that such circumstances could give rise to a dispute as the Contractor may well say that he is in fact ready for the information or the Works Item.

Documents

Reference sub-clause 4.12

The Contractor must keep all relevant documents on Site including contract documents.



The documents to be kept on Site include:

- Instructions from the ER
- Contractor's Documents
- Details of all instructions and Contractor's Documents showing the dates of issue etc.
- Where requested by the ER all publications named in the Contract and the Contractor's Documents.

Example:

If a situation arose where the Employer became concerned that he was not being made aware by the ER of all instructions being issued to the Contractor (although this would be unlikely to arise in practice) he could insist that the ER authorise him to inspect the Contractor's documents being kept on Site where, assuming the Contractor was in compliance with the requirements of sub-clause 4.11 he could assess all instructions provided by the ER and all Contractor's Documents (sub-clause 4.12) together with a log of instructions showing the dates of issue and subsequent revisions.

Contractor's Management

Reference sub-clause 4.13

The Contractor must include details of his management arrangements in the Works Proposals (sub-clause 4.13.2).

The Contractor is obliged to implement the arrangements and change them where necessary for efficiency (sub-clause 4.13).

The Contractor is obliged to keep the ER fully informed about its arrangements in advance and about their implementation. The Contractor is obliged to furnish the ER with all information necessary to enable the ER to perform his powers and duties (sub-clauses 4.13.5 and 4.13.6).

The Employer should ensure that the ER keeps the Employer in turn fully informed about all of the Contractor's arrangements so that he is in a position to comment to the ER in relation to these where relevant.

Communications

Reference sub-clause 4.14

All communications are to be interpreted purposefully.

This means that in interpreting the clauses, the spirit of the Contract and its purpose and the purpose of the relevant sub-clause are to be used. This is to get the parties and their representatives (including legal advisors) away from the old ways of interpreting provisions by simply parsing and analysing the words (sub-clause 4.14.1).



It is also noteworthy that communications by email are recognised as well as the other more usual forms such as fax and post (sub-clause 4.14.3).

Meetings

Reference sub-clause 4.15

The Contractor's Representative must attend meetings as scheduled by the ER. He must arrange for any Contractor's Personnel to attend if requested by the ER.

The Employer could if he felt it was relevant and appropriate, have the ER invite him to certain site meetings particularly if issues of relevance to him were likely to be discussed. This would of course depend upon the Employer's relationship with the ER and the information that the Employer is in receipt of from the ER. Of course, the Employer would only attend such a meeting for information purposes and should not seek to give any instructions to the Contractor.

The Contractor is obliged also to notify the ER of any objection he has to the minutes issued by the ER within 5 working days of receiving them (sub-clause 4.15.2).

Confidentiality

Reference sub-clause 4.16

The Employer must keep the Contractor's rates and prices and other records specified as confidential by the Contractor, confidential (sub-clause 4.16.2).

Note – the obligation ceases when the information is no longer commercially sensitive and in any event within 5 years from when the information was given.

14.5 Contractor's Personnel

Contractor's Personnel

Reference sub-clause 5

The Contractor is made specifically liable for all acts and omissions of Contractor's Personnel, including all Specialists and including their design work. (Sub-clause 5.1). This is an important provision in that it removes one of the problematic issues concerning nominated sub-contractors whereby a main contractor was not liable for the design carried out by the sub-contractor. Now the Contractor is fully liable as if the Specialist was a "domestic" sub-contractor. (sub-clause 5.1)

Payment and Conditions of Employment

Reference sub-clauses 5.3, 11.4, Schedule (Part I J)

Copies of this very important sub-clause 5.3 must be prominently exhibited at the Site.



The Contractor must ensure that rates of pay and conditions of employment comply with law and with any registered employment agreements (sub-clause 5.3.2).

The Contractor himself must comply with and must ensure that the employers of all other work persons (i.e. subcontractors) comply with all of the obligations in clause 5.3.3(1) to (8). This involves:

- payment of all wages and other money due to work persons
- making sure wages are paid in accordance with the Payment of Wages Act 1991 and are never more than a month in arrears
- payment of all pension contributions and other amounts due to be paid on behalf of the relevant person
- making all deductions from payments to work persons required by law and passing such deductions on as required by law
- keeping proper records and producing them for inspection by the Employer whenever required
- the production of any other records re. rates of pay, pension and other contributions for the Employer whenever required
- respecting the legal right of work persons to be members of trade unions
- observing all relevant safety law in relation to work persons on site and also Industrial Relations Act, National Minimum Wages Act etc (sub-clause 5.3.3).

The Contract may state that the Employer is entitled to make random checks. This will depend upon whether the Employer says in the Schedule part 1J that sub-clause 5.3.3A (2) is to be included in the Contract (sub-clause 5.3.3A (2)).

The Employer may request and if he does so, the Contractor must provide to him within 5 working days, a statement showing the wages and other payments due in respect of each work person working for the Contractor and, in respect of work persons not directly employed by the Contractor, ensure that the relevant employer does the same.

If the Contractor does not comply, the Employer is entitled to estimate the amount due to work persons and to deduct it from payments due to the Contractor until satisfied that the persons have been paid. (sub-clause 5.3.6)

The Contractor must give a certificate together with each interim statement stating that the requirements of payment to personnel etc. have been complied with in relation to the Works the subject of the interim certificate. Failure to do so, or to comply with the provisions of sub-clause 5.3 will render the Contractor liable to the Employer for any investigation costs incurred. In addition, no payment will be made to the Contractor for the work in question until the certificate is furnished (sub-clause 5.3.7 and 11.4.4).

See comments on this issue at 11.11 above.



Example:

If the Employer becomes suspicious at any stage that the Contractor is not in compliance with his obligations in relation to payment and conditions of work persons he should request pursuant to sub-clause 5.3.3, the production of full wage records in relation to work persons as he is entitled to do pursuant to the contract. The Employer may, if he is entitled to do so, make a random check requiring production of records but even if he is not he is entitled to full wage records of work persons as referred to above and is also entitled to a statement showing the amount of wages or other payments due in respect of each work person and if it is somebody employed by a Specialist or sub-contractor, the Contractor is obliged to ensure that that the Specialist or sub-contractor does the same.

If the information is not forthcoming then the Employer should estimate the amount that should have been paid to the work persons in question together with contributions to their pension etc, deduct the estimated amount and hold it until satisfied that the proper amounts have been paid.

Sub-Contractors and Specialists

Reference sub-clauses 1.1 and 5.4

The Contractor is not entitled to sub-contract all of the Works.

In civil engineering contracts, the Contractor must submit details to the ER of any Sub-Contractors (ie, including any Specialists) that it proposes to use for any part of the Works (unless provided in the Contract or unless the Contract provides for other procedures).

The term "Specialist" is defined in the Contract as:

- A Sub-Contractor or supplier of a Works Item named in the Contract
- Contractor's personnel who do or are to do design
- Contractor's personnel stated in the Works Requirements to be Specialists

Where Specialists or other Contractor's personnel are specifically named in the Contract, the Contractor is obliged to ensure that they are engaged for the work in question. (They would be named by the Contractor in the Works Proposal or, by the Employer in advance, in the Works Requirements.)

It may be that the Specialist named in the Works Requirement is already in a contractual relationship with the Employer and in that case the Employer will novate that Specialist Contract to the Contractor. In such a case, the Works Requirements must include a copy of the Contract between the Employer and the Specialist. The Contractor must then accept the novation (transfer) and the Employer and the Contractor execute the Novation Agreement at the same time as the Contract Agreement (see Model Form 9).

Unless a Specialist is named in the Contract, the ER cannot instruct the Contractor to enter into a contract with that Specialist.

The Contractor is not entitled to allow to be terminated or to accept a repudiation of his contract with a Specialist without first giving details to the ER.



An exception to this obligation is when the Specialist becomes insolvent or has committed a serious breach of health and safety law or has failed to put in place or to maintain the required insurances.

If the Contractor does terminate his Contract with a Specialist, he must replace the Specialist, having first submitted details of the proposed replacement to the ER. There is an entitlement on the part of the ER to object to the proposed replacement if, in his view, the proposed replacement does not have at least the experience, qualifications, competence, technical capacity and financial standing of the person he is replacing.

Where a collateral warranty is required from a Specialist, that should be specified in the Schedule (Part IF) with a certain date by which the Contractor must provide the warranty (see Model Form IO).

The concept of the Specialist is new. Nominated sub-contractors are now replaced by Specialists for whom the Contractor is fully responsible. Specialists and the Specialist Works are to be set out in the Works Requirements or in the Works Proposals. The most likely and indeed the "default" scenario will be that the Contractor will provide his own Specialists in relation to specific Works Items and will be suitably assessed with those Specialists and will then include for them fully in the Contract Sum.

The engagement of a Specialist by the Employer in advance of the Contractor's engagement is unlikely to be the norm. In the event of a novation, the Contractor will have provided in the Contract Sum for all work to be carried out by the Specialist for him.

Example:

The Contractor, in pre-qualifying for a building or engineering project, includes for the carrying out of certain work by Specialists (say mechanical and/or electrical work) Subsequent to pre-qualification, the Contractor will include that Specialist in his Works Proposals and the full price for those Specialist works is included in the Contract Sum. The administration of that Specialist is then entirely the responsibility of the Contractor so far as the Employer is concerned.

Alternatively, the Employer might decide, because of the long lead-in period for the Specialist works, to enter into a contract with the Specialist in advance of contracting with the Main Contractor. The name of the Specialist and all documentation relating to the Specialist must be inserted into the Works Requirements for pricing by the Contractor. The Contractor must then accept the transfer of that contract to him and the Contractor accepts all liability for the work carried out by that Specialist.

The Employer should be especially careful to ensure that all work which may have to be carried out by Specialists is considered carefully in advance of the Contract and the preparation of the procurement documentation as the ER is not entitled to instruct the Contractor to engage a particular specialist where he is not named in the Contract. In the event that the Contractor terminates his contract with a Specialist having first submitted details to the ER (or in circumstances where he is not required to furnish such details) the Contractor will replace the Specialist but must first submit details of the replacement to the ER.



In the above circumstances the ER may object to the replacement for the reasons set out above (Sub-clause 5.4.6), in which case the Contractor may not go ahead with the appointment. If the circumstances warranted it, at a future date the ER would arguably be within his rights (in consultation with the Employer) to direct the Contractor to remove the replacement from site if he was incompetent or if the ER was of the bona fide view that his presence on site was not conducive to safety, health or good order (sub-clause 5.6). If this course of action was to be seriously considered the ER would have to give the Contractor an opportunity to allow the Specialist to perform and observe him so as to ascertain whether or not such circumstances (warranting his removal from the Site) existed. To do otherwise would arguably lead to a serious dispute with the Contractor. The entitlement of the ER would arise from the fact that the term "Contractor's Personnel" includes Sub-Contractors and the term "Sub-Contractor" includes a Specialist.

14.6 Property Rights

Infringement of Property Rights

Reference Sub-Clause 6.2

The Contractor indemnifies the Employer against any breach of property rights including intellectual property rights by him arising from

- the Contractor's performance or non-performance of the Contract (unless covered by the Employer's indemnity to the Contractor)
- any use of Works Items, Contractor's Things, temporary works by the Contractor, the Contractor's Documents, by the Contractor or the Contractor's Personnel (or by or on behalf of the Employer on termination of the Contractor's obligation to complete the Works
- any use by the Employer of the Works, Works Items or Contractor's Documents (for the purpose they were provided) (sub-clause 6.2.1)

The Employer indemnifies the Contractor in respect of liability from infringement of property rights because of the unavoidable use by the Contractor of the Works Requirements, Works Items or other items provided by Employer or the use or occupation of the Site for the Works which is the unavoidable result of carrying out the Works (sub-clause 6.2.2).

Property and Rights in Contractor's Documents

Reference – sub-clause 6.4

As has been stated above [see the notes re Schedule part IC at 11.4 above] the decision as to whether the Employer requires the copyright in all Contractor's Documents will be made in advance of the completion of Part I of the Schedule

The Employer states in the Schedule if property rights in documents is required (note – if not stated, the rights do not transfer).

Part IC of the Schedule in conjunction with sub-clause 6.4 of the Conditions allows the Employer the option of obtaining intellectual property rights in the



Contractor's Documents and Works Items. It would be very important for the Employer to decide if he requires such a provision. In a Design and Construct Contract it would obviously be of far greater significance than in a traditional type of contract.

Example:

If it was the case that the Works the subject of the Contract were unique and if the Employer wished to protect that uniqueness or if they were the first in a series of such structures to be erected around the country (e.g. schools, railway stations etc.) then the Employer might well feel that it would be important for him to have the copyright in all documents and designs going forward. However, the Contractor takes no responsibility for the use of the Contractor's Documents other than in connection with the Works. (sub-clause 6.4)

14.7 The Site

Lands Made Available for the Works

Reference – clause 7

The Employer gives the Contractor a right to occupy the Site or relevant parts as provided for in Works Requirements on or before the latest of dates set out in sub-clause 7.1.1.

These are:

- the Starting Date
- the day after the Contractor has provided all the things he is obliged to provide before the Starting Date
- any date stated in the Works Requirements
- the day after the Contractor submits his programme under sub-clause 4.8
- the date stated for start of work on any part of the Site in the current programme
- the date the part of the Site is actually required.

The Contractor's right to occupy the Site is not absolute and is subject to whatever limits are inserted into the Works Requirements (sub-clause 7.1.2).

The Contractor is not entitled to exclusive possession of the Site and must facilitate the Employer and others as named in the Works Requirements (sub-clause 7.1.3).

The Contractor – once given occupation of the Site, is fully responsible for its security (including in relation to protestors and trespassers) and the safety of all persons entitled to be on it (sub-clauses 7.2 and 7.5).

The Contractor must ensure that the Works do not unnecessarily cause any nuisance or interfere with the use of adjacent lands (sub-clause 7.5.1).



The Employer for its part must ensure Employer's Personnel on site comply with the reasonable safety rules of the Contractor as notified to them by him (sub-clause 7.5.2).

Where the Employer states it in the Works Requirements he may have work carried out on Site by Employer's personnel and the Contractor must co-operate with them and co-ordinate their activities with his own (sub-clause 7.6).

The Contractor is responsible for setting out including rectification of errors that arise. He must make all reasonable efforts to check information on setting out in the Works Requirements before himself setting out the Works (sub-clause 7.7).

If the Contractor finds fossils or archaeological artefacts or items of value or geological interest etc. on or adjacent to the Site he must not disturb them but must preserve them and notify the Employer (sub-clause 7.8).

The Contractor is responsible for all access routes to the Site and within it and for their maintenance. He must take all reasonable steps to ensure that construction traffic does not damage roads, bridges or other property. He must also provide all water and power on the Site (sub-clause 7.9).

On completion of the Works the Contractor must leave the Site in a proper condition (sub-clause 7.10).

The permitted working times for the Contractor are set out in the Works Requirements and he is confined to them except in cases of emergency or as may otherwise be agreed with the ER (sub-clause 7.11).

In civil engineering contracts the Contractor must pay charges for Site occupation (or occupation of any other place) or in relation to any Employer's facilities where provided for in the Works Requirements. The Employer is entitled to deduct such charges from the Contractor's payments. There is no such provision in the Building Works forms. (sub-clause 7.12).

14.8 Quality Control

Standard of Workmanship

Reference – clause 8

In the traditional Contract the Contractor is obliged to ensure that the Works are executed and completed:

- In accordance with the Contract (and as may be reasonably inferred from it); and
- In a proper and workmanlike manner using good practice (sub-clause 8.1(1));
- He is also obliged to ensure that all Works Items comply with the Contract and with the Legal Requirements, are of good quality and (unless otherwise



required under the Contract) new (it might be that the Contractor is to use recycled materials e.g. old slates or bricks) (sub-clause 8.1(2));

- He is obliged to ensure that all materials and goods that are Works Items are fit for the purpose for which they would normally be used and that any Works Items selected or designed by the Contractor (including Specialists) are fit for their intended purpose in the Works (sub-clauses 8.1(3) and (4));

In the Design and Build Form the Contractor is obliged to ensure that the Works are designed, executed and completed:

- In accordance with the Contract (and as may be reasonably inferred from it); and
- In a proper and workmanlike manner using good practice.
- He is also obliged to ensure that all Works Items comply with the Contract and with the Legal Requirements and are new and of good quality (unless otherwise required under the Contract).
- He is obliged to ensure that all materials and Works Items are fit for their intended purpose and that the completed Works are fit for their intended purpose as stated in or to be inferred from the Works Requirements (sub-clause 8.1).

The subtle difference in the wording as between the traditional Contract and the Design and Build Contract reflects the fact that where the Contractor is not carrying out the overall design he should not have the obligation of fitness for purpose of the overall Works.

These provisions are onerous obligations and the Employer should be familiar with them so as to be aware of what the Contractor is obliged to comply with. The provision is as stated above, subtly worded and means that in the Traditional Contract (unlike the Design and Build Contract) while the overall Works are not the Contractor's responsibility from a design standpoint, any Works items selected by him are in the context of how they fit into the overall Works

The Contractor is obliged to establish a quality control system such as is required by the Works Requirements (sub-clause 8.2).

In this regard it is important for the Employer to ensure that such quality assurance procedures are inserted into the Works Requirements.

The ER is entitled to monitor, spot check and audit the Contractor's procedures in this regard (sub-clause 8.2).

The ER is entitled by virtue of Sub-Clause 8.3 to inspect by himself or anyone authorised by him the Works, or any place where Works Items are produced or stored for quality control purposes.

The Contractor is obliged to give any details requested by the ER in relation to the manufacture and supply of Works Items including any Test Certificates required. He is also obliged to tell the ER before any Works Item is being covered up or where it is going to be made difficult or impossible to inspect and



to give the ER or his representative a reasonable opportunity to inspect (sub-clause 8.3).

The tests are to be set out in the Contract (in the Works Requirements or in the case of Contractor's Design, in the Works Proposals) and the Contractor is obliged to carry them out, agreeing the time and place with the ER and giving him an opportunity to attend.

In any event, the Contractor has to provide a certified copy of the test results (sub-clause 8.4).

Where any test fails, the Contractor may be required to repeat it or may elect to do so. The Contractor is obliged to pay the Employer for any costs incurred as a result of retesting. Once a defect has been rectified, any test on the relevant Works Item must be repeated if the ER requires that this be done (sub-clause 8.4).

Although a provision in relation to testing would not have been set out in the old forms, it would in all likelihood have been contained in the Preliminaries section of the BOQ or in the Specification.

Provision is made at sub-clause 8.5 for the detection and remedying of defects in the Works. The ER may instruct the Contractor to search for defects or suspected defects including uncovering of any work etc.

If no defect is found, the cost of searching and any delay caused, will entitle the Contractor to an extension of time and to compensation. (sub-clause 8.5 and Schedule part 1K at item 2)

If a defect is made known to the ER because of investigations or otherwise he may tell the Contractor to:

- Remove the Works Item with the defect from the site;
- Demolish the defective Works Item if incorporated in the Works;
- Reconstruct, replace, or correct the Works Item in question;
- Not to deliver the defective Works Item to the site if relevant.

Or the ER may do any combination of the above. (sub-clause 8.5.2)

As would be the case under the older forms of contract should the Contractor fail to comply with a direction by the ER under sub-clause 8.5 within a reasonable time, the Employer is entitled to have the work done by others and the Contractor is obliged to pay for the costs of this. (sub-clause 8.5.3).

Should a defect be serious enough to deprive the Employer of the benefit of the entire Works or any particular Section or other material part of the Works, the ER may on behalf of the Employer reject the Works or the relevant Section and in that case the Contractor must repay to the Employer any amounts that the Employer has paid to the Contractor in respect of the Works (in the case of the entire) or relevant part together with all relevant associated costs (sub-clause 8.5.5).



This provision, while available under forms such as FIDIC, is a new one and in the rare cases where it might be used, could provide an important remedy, but subject to the ability of the Contractor to pay.

The ER may only give such a direction or rejection under sub-clause 8.5 before the Defects Certificate is issued (sub-clause 8.5.6).

There is further provision that a contractor is not entitled to any adjustment to the Contract Sum or to any extension of time because of a direction given to deal with any defect or breach of contract (sub-clause 8.5.6).

This would be perfectly normal in any of the previous forms of contract.

The Contractor must complete all outstanding works and remedy any Defects as are directed by the ER during the Defects Period. He must do this as soon as practicable after Substantial Completion of the Works or of any Section (sub-clause 8.6.1).

The Contract provides that in the event of works remaining outstanding or repair work not having been carried out by the end of the Defects Period, the ER may extend the Defects Period for whatever length of time he regards as appropriate in the circumstances. Similar considerations apply where the Contractor has carried out outstanding work or rectified defects during the Defects Period so that the Employer will have a full (or at least, extended) Defects Period in respect of the work in question (sub-clause 8.6.2).

Sub-clause 8.7 provides for the ER to issue the Defects Certificate to the Contractor and the Employer within 20 working days after the end of the Defects Period. However, the issue of the Defects Certificate does not relieve the Contractor of any responsibility for defects (unless they have been accepted by agreement under sub-clause 8.5.4).

14.9 Time and Completion

Contract Date

Reference - The Agreement – Article 6, sub-clauses 1.1 and 9.1.1

The Contract Date is the Date of issue of the Letter of Acceptance (note – therefore issue of LOA is important as it starts time running for the purpose of the Contract) (sub-clause 1.1).

Start of the Works on Site

Reference – Letter of Appointment, Agreement – Article 6, the Schedule, sub-clauses 1.1, 9.1. and 12.1.1 – item (5).

The Starting Date is the date the Contractor intends to start the Works.

The Contractor must give at least 15 working days notice (unless a different period is stated in the Works Requirements or a shorter period is agreed with the ER) of the Starting Date (sub-clause 9.1).



The actual Starting Date must occur no later than 20 working days after the Contract Date unless otherwise stated in the Works Requirements (sub-clause 9.1.1).

Example:

If the Letter of Acceptance issues in respect of the Contract on Friday 1 June 2007 that is the Contract Date (sub-clause 1.1 and Agreement – Article 6). Unless otherwise stated in the Works Requirement.

The Contractor must give notice of the Starting Date by Friday 7 June (in order to give at least 15 working days notice)

The Starting Date must be by Friday 29 June (assuming no public holidays between 1st and 29th June)

Note: If the starting date does not occur, the Employer may terminate the Contractor's obligation to complete the Works (sub-clause 12.1.1)

The Contractor must hand over all required documents before the Starting Date (sub-clauses 9.1.2 and 4.9).

- Agreement
- Bond (if required)
- parent company guarantee (if required)
- appointment as PS(CS) (if Contractor or his nominee is PS(CS) plus developed health and safety plan (as per Construction Regulations)
- evidence of insurance
- collateral warranties (unless a later date is agreed for their provision)
- programme

The documents must all be executed where execution is relevant.

The Employer, along with the ER should make sure that all are properly executed and in an acceptable form.

This is not necessarily as straight forward as it might first appear. As all these documents are required to be handed in by the Contractor before the Starting Date it is likely that in many situations they will be handed in either all at once or in circumstances which render the checking of them hurried and possibly difficult. It is very easy to miss something that can later be crucial. It will therefore be important that all documents are checked thoroughly.

Performance Bond (if required) – care should be taken to ensure that the Bond is in the correct form (Model Form 6). If it is in the correct form then the Employer must ensure that it has been properly executed and if it is a bond from a foreign entity that a letter from a qualified lawyer practicing in that jurisdiction is obtained in relation to its due execution and enforceability (in accordance with sub-clause 2.7). [The surety should be authorised to transact guarantee business in Ireland. This can be checked with the Financial Regulator].



Parent Company Guarantee (if required) – similar considerations relate to Parent Company Guarantees. For instances, the Employer should be made aware in advance as to who the Parent Company is and should satisfy itself that that is in fact the parent company and should then satisfy itself that the guarantee being furnished is from that entity. It should be in the correct form (Model Form 7) and the comments above in relation to due execution and enforceability apply.

With regard to the executed Appointment as PS (DP) or PS(CS) (Model Forms 9-11) if applicable – the comments in relation to appointment set out above apply. Presumably if the Contractor has already executed the Agreement any considerations relating to execution on its part will have been raised at that stage and the Employer should take them into account. It may be appropriate that the Employer should have the developed health and safety plan checked out by its own health and safety advisers to ensure that it is in compliance.

Evidence of insurance – it is absolutely vital that the Contractor has all of the insurances required by clause 3. It will be essential for the Employer to satisfy himself whether by his own insurance advisers or otherwise that the policies are in place and that they are to cover the requisite liability. For instance, that the Public Liability and Contractor's All Risks policies name the Employer and Contractor as co-insured, that the minimum indemnity limits are those contained in the Schedule part 1D, and that only the exclusions and the maximum excesses permitted in the Schedule (Part 1D) apply.

Collateral Warranties (where relevant) – it will be important for the Employer to check that the Collateral Warranties are provided (unless a later date has been agreed) that they are in the correct forms, that they are properly executed. In this regard it will be necessary to insist that where foreign companies are executing warranties that a legal opinion in accordance with sub-clause 2.7 is provided and that where the warranty is provided by an Irish entity that they are properly executed.

The Contractor is also obliged to appoint the Contractor's Representative and fulltime Site supervisor.

On the Starting Date – the Contractor is obliged to start work on site and proceed with the Works in accordance with Contract

Substantial Completion

Reference - Agreement, Schedule part 1D, part 1E, part 1G, part 1H, part 1I, part 1K, part 2D

sub-clauses 1.1, 3.3, 4.5.3, 4.8.3, 4.9, 4.17, 8.6.1, 9.1, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 10.3, 10.4, 10.5, 10.7, 11.1, 11.3, 11.5.

The Date for Substantial Completion is to be inserted by the Employer in the Schedule part 1G or (if required to be inserted by the Contractor) -in part 2D.



In order to insert the appropriate date in the Schedule the Employer will need to consider the Date for Substantial Completion of the Works (and each Section of the Works if there is to be sectional completion).

In this regard the Employer will doubtless consider the date by which the project is required, the practical issues associated with its (design and) construction, for instance, whether it is subject to matters such as tides (in relation to projects such as outfalls) or seasonal issues (perhaps work in mountainous or boggy areas).

As there can be no compromise in relation to questions of Health and Safety it would be important where the Contractor is himself asked to insert the Date for Substantial Completion that the Employer consider any Health and Safety impact of this. For instance it might be appropriate for the Employer to insert in the Works Requirements, a minimum period for completion based upon his estimate of what this should be in order to avoid any risks in respect of Health and Safety.

The Contractor must complete the Works (or Section) by the relevant Date for Substantial Completion.

The Date for Substantial Completion may be delayed as a result of Delay Events as set out in the Schedule (part 1K) subject to the provisions of the Contract. Where an extension of time is granted in accordance with the Contract, a new Date for Substantial Completion applies. (sub-clause 9.3.2) Such an extension of time will apply to the Works and to any Section (if there is sectional completion) affected by the delay.

The term "Substantial Completion" is very comprehensively defined in sub-clause 1.1

The Works are complete and can be taken over and used for their purpose. There are no defects save:

- Ones accepted by Employer (sub-clause 8.5.4)
- Minor defects
 - that do not prevent the use of the Works for their purpose
 - The ER agrees that the Contractor has reasonable grounds for not promptly fixing them
- Those whose fixing will not prejudice safe and convenient use of the Works (or part)
- All tests have been passed (that must be passed before Substantial Completion)
- Documents required before Substantial Completion have been furnished
- Collateral warranties have been provided in relation to the Works or relevant part

While the Contractor's basic obligation to complete the works by the Date for Substantial Completion is no different to that in the old forms of contract, the



actual requirements that have to be fulfilled before Substantial Completion are perhaps set out more clearly than in the previously utilised forms.

In relation to Substantial Completion it would be necessary for the ER to satisfy himself fully that the Works are in fact substantially complete. In this context it will be necessary for the Employer to decide in conjunction with the ER whether he will accept any defect with a proportional reduction in the Contract Sum.

The Contractor applies for a Certificate of Substantial Completion and the ER must respond within 20 working days with:

- a certificate of Substantial Completion; or
- a list of reasons for not issuing the certificate

If it is so stated in the Schedule part IH – the ER does not have to certify Substantial Completion before the actual Date for Substantial Completion in Contract (sub-clause 9.6)

The Certificate may list outstanding work

Right of Employer to Suspend Works

Reference sub-clause 9.2

The Employer has a right to suspend the Works – through an instruction of the ER

The Contractor must suspend and protect the Works

Upon the ER's direction to resume, the Contractor and ER inspect the Works and affected Works Items

Where the Contractor is entitled to an adjustment in the Contract Sum or to an extension of time because of the suspension – any cost of repairing Works Items unavoidably damaged and any delay in doing the repair is included

If a suspension is not due to the Contractor's default and is for more than 3 months – the Contractor may ask for permission to proceed

If no permission is forthcoming within 28 days Contractor may give notice to the ER as follows:

- if part only of Works affected – to treat the suspension instruction as a Change Order omitting the part
- if the entire Works is suspended the notice may provide that the Contractor's obligation to complete the Works is terminated

The suspension of the Works by direction of the ER is both a Delay Event and Compensation Event. (sub-clause 9.2 and Schedule part IK)



Example:

The Employer may encounter a situation where it is necessary to stop the Works proceeding pending a re-assessment of the Works Requirements because of some extraneous event, for instance, another project that is to link up with the Works and which may cause a substantial redesign of part of the Works.

In such a case the Employer could utilise sub-clause 9.2 and require the ER to issue a direction to the Contractor to suspend all or part of the Works. The Employer should liaise closely with the ER and should ensure that the relevant dates are noted, for instance, when the period of three months from the ER's instruction will expire, when the Contractor may ask for permission to proceed and particularly when the period of 28 days will expire subsequent to any such request for permission.

This is to avoid a situation where the Employer's default in responding to a request for such permission results in the Contractor's obligation to complete the Works being terminated or the relevant part of the Works being treated as omitted.

Partial Takeover by Employer

Reference sub-clause 9.7

There is provision in the Contract for partial takeover of the works before substantial completion on 5 days notice to the Contractor. The Contractor has no liability for delay in completing the relevant part once it is taken over.

Example:

The Employer may require part of the Works as a matter of urgency before the part has achieved Substantial Completion. In such a case the Employer might wish to consider partial take-over. It is not a decision that should be taken lightly as it can cause difficulties particularly in relation to health and safety and in relation to insurances. It would be necessary to ensure in conjunction with the ER and the Contractor that the part of the Works in question can be adequately defined so that there is no doubt as to which part is in fact being taken over. For preference one would wish that the part to be taken over can be delineated precisely by means of a barrier or otherwise. There is also the possibility that because the Contractor will no longer be liable for delay in completing the part, he may have no great desire to come back to finish it and this should be borne in mind when making the initial decision. In addition, insurers should be notified so that no confusion is caused by the take-over.

Liquidated Damages

Reference Schedule (part IG) sub-clause 9.8.

See note re. Schedule (part IG at 11.8 above).

There is provision in the Contract for the deduction of liquidated damages either in respect of the entire Works or any Section (or both) in the event that Substantial Completion is not achieved by the required date for Substantial Completion (sub-clause 9.8).



Example:

The rate of liquidated damages per day or per week will be inserted by the Employer in the Schedule part I G and in this regard the Employer should assess carefully the likely losses to be suffered by him should either a Section or ultimately the entire Works be delayed due to the Contractor's default. In this regard the Employer should make sure that the amount in question is a genuine pre-estimate of actual losses in order to avoid the possibility that the damages may be unenforceable by reason of being a penalty.

In point of fact, many Employers insert liquidated damages that do not take into account all of their likely losses and accordingly such liquidated damages are too low. In the case of Public Works contracts, while it may be difficult to accurately assess the precise damages that will be suffered, nevertheless an attempt should be made taking all possible areas of damage into account such as interest on money borrowed. Obviously, the Employer should be aware of the risk of inserting a rate that is so high that it is a penalty.

There is also provision here for reduction in retention on substantial completion of a Section and in this regard the Employer should consider the relationship that the Section in question bears to the overall works, for instance if the Section is a very substantial part of the Works and represents 25% of it in monetary terms then it may be appropriate to reduce the retention by a similar percentage once that Section is substantially complete. However, other factors may come into play which would result in the reduction not being of similar proportions.

Delays and Extensions of Time

Reference - Schedule (part IK) sub-clauses 9.3 and 10.3.

The Contractor must give notice to the ER as soon as practicable of delay or likely delay to the Works.

The notice must specify:

- the delay
- the cause

In addition

The Contractor must as soon as practicable after the First notice and in any event within 40 working days after becoming aware of the delay, give the ER:

- full details of the delay; and
- its effect on progress

and

The Contractor must give further information to the ER as requested.

The contract provides, that if the Contractor has already given notice and details under sub-clause 10.3 as he is obliged to do in any event, he does not have to give further notice or details under sub-clause 9.3 (sub-clause 9.3).

The Contractor is entitled to an extension of time in the event of delay in Substantial Completion due to a Delay Event where



- the delay is not due to Contractor's default (or that of Contractor's Personnel)
- the Contractor cannot avoid the delay
- he has taken all reasonable efforts to minimise the delay
- no provision in the Contract says that he has no entitlement

Only Site Working Days are taken into account.

Both the Contractor and ER must follow the procedures in clause 10 and the entitlement to an extension of time is subject to the provisions of clause 10 (sub-clause 9.3.2).

The ER can revise an extension of time but can only bring the date(s) for Substantial Completion of the Works (or any Section) forward when work is omitted (and agreed with the Contractor).

It is important to note that there is scope in sub-clause 10.5.2 for the ER to grant an extension of time under clause 9 even if the Contractor has not done so.

Example:

See Case Study Nr 3 – Delay and Compensation Events

The notice requirements in relation to delays and the granting of extensions of time are clearly set out in the Contract and the Delay Events which give rise to an extension of time are clearly set out in the Schedule. The ER will be required to assess whether the Notice Requirements have been satisfied and whether the requisite information is being furnished by the Contractor before granting any extension to the Date for Substantial Completion.

The ER will have to assess whether

- there was a Delay Event
- the Contractor has fulfilled his notice requirements
- the Contractor is otherwise entitled to an extension of time in accordance with sub-clause 9.3.2 and that the procedures in clause 10 have been followed

The ER will also have to consider very carefully whether, in the light of particular circumstances, he might wish to grant an extension of time despite the fact that no such extension has been sought by the Contractor (sub-clause 10.5.2).

The Programme Contingency

Reference – Schedule (part IK) sub-clause 9.4

The Programme contingency is provided for in the Schedule (part IK).

The Employer provides in the Schedule for two (*sequential*) thresholds for delay in Substantial Completion due to certain Compensation Events. The Contractor



prices these items and includes them in the initial Contract Sum and also in his programme.

If a delay is caused to the Date for Substantial Completion of the Works due to relevant Compensation Events but that delay remains below the first threshold – the Contractor has no entitlement to an extension of time.

If the delay due to relevant Compensation Events exceeds the first threshold then the ER deducts from that delay

- (i) the number of days stated in the first threshold,
- (ii) half the number of days delay in excess of the first threshold.

But the total number of days to be deducted at (ii) above cannot exceed the number of days in the second threshold.

Example:

Thus if the Employer had inserted 20 days for first threshold and 30 days for second threshold – in respect of a 60 day delay (due to relevant Compensation Events) the Contractor would be entitled to a 20 day extension of time i.e.

60 days less 20 days (first threshold period) = 40 days ÷ 2 (to get half of the excess over the second threshold) = 20 days

As 20 days is less than the second threshold the figure of 20 days is also deducted

Therefore 60 days – (20 days + 20 days) = 20 days extension of time

On each assessment of extensions of time by the ER he must tell the Contractor how much of the Programme Contingency has been used up.

Example:

In a situation where there was a delay of 100 site working days and assuming the first threshold was 20 days and the second threshold was 30 days the calculation of any extension of time would be as follows:

100 days less 20 days (first threshold) = 80 days ÷ 2 (to get half of excess over first threshold) = 40 days

As 40 days is greater than the second threshold, the second threshold of 30 days is used

Therefore 100 days – (20 days + 30 days) = 50 days extension of time

And see the examples in sub-clause 9.4.4

14.10

Claims and Adjustments to Contract Sum

Contractor's Claims

Reference sub-clause 10

The Contractor must give notice to the ER.

The notice must state that it is given pursuant to sub-clause 10.3 of the Contract and must comply with the provisions of sub-clause 4.14.



Within a further 20 working days further details must be given as follows:

- all relevant facts
- a detailed calculation of the proposed adjustment to the Contract Sum
- the amount of any other entitlement claimed
- if an extension of time is relevant, the information required under sub-clause 9.3 and a proposal regarding the extension and any use of the Programme Contingency

The Contractor must provide any additional information required by the ER.

Failure to give notice under this sub-clause will mean the Contractor has no entitlement to the extension of time or adjustment sought (sub-clause 10.3.2 and see sub-clause 10.5.2).

The requirements in relation to strict notice do not apply where the Contractor has complied with a request for a proposal pursuant to sub-clause 10.4.

Where there is a continuing delay/cost the Contractor must update the information on a monthly basis as follows:

- setting out the extension of time and adjustment to the Contract Sum sought
- proposing a final adjustment to the Contract Sum and Date for Substantial Completion
- providing any other reasonably required information (sub-clause 10.3.3)

The Contractor must keep detailed records of the event giving rise to the delay and adjustment to the Contract Sum. These must include any records required by the ER.

The Contractor must give the records to the ER if directed to do so (sub-clause 10.3.4).

Proposed Instructions

Reference sub-clause 10.4

The ER can require the Contractor to furnish proposals in relation to any proposed instruction. The Contractor must respond with 20 working days after being required to do so. The response must include:

- details of any adjustment to the Contract Sum likely to result
- information on any likely delay as required under clause 10
- a proposal for using the Programme Contingency or for an extension of time
- if there is a proposal to omit work a revised programme and if appropriate, a proposal re an earlier date for Substantial Completion



- any Contractor's Documents needed in relation to the proposed instruction or a timeline for their production

Employer's Representative Determination

Reference sub-clause 10.5

The ER has 20 working days within which to respond to any Contractor's claim or proposal under sub-clauses 10.3 or 10.4.

The ER must:

- direct the provision of additional information (the Contractor has 10 working days and the ER another 10 working days after that [subject to the ER not requiring any more information or proposals] to respond)
- notify the Contractor that his proposals are agreed (and make any required adjustment to the Contract Sum, grant an extension of time or use the programme contingency)
- assess any adjustments to the Contract Sum, the use of the programme contingency or extension of time and notify the Contractor
- if a proposal has been made by the Contractor under clause 10.4 notify him that the instruction in question will not be given

The Contract also provides that the ER may make his own determination on any extension of time, use of the programme contingency or adjustment to the Contract Sum despite the Contractor not having made any claim or proposals under sub-clauses 10.3 or 10.4. This is a very important potential relaxation of the otherwise exacting provisions of the Contract in relation to notice of claims. It will arguably impose an added responsibility on the ER to decide in each case where he feels an extension of time or adjustment to the Contract Sum is appropriate, whether or not to grant it where the Contractor would otherwise have lost his entitlement because of a failure to give notice.

Where a proposal is sought by the ER under clause 10.4 the Contractor is not entitled to implement such an instruction until confirmed by the ER.



See Case Study Nr 3 – Delay and Compensation Events

As with extensions of time, the notice requirements in relation to Contractor's claims and adjustments to the Contract Sum are exacting but once again are clearly set out in clause 10, which also provides for notice requirements in relation to extensions of time (see sub-clause 10.3.1). The ER upon receipt of such notice will be obliged to deal with it in a very systematic, efficient and transparent manner. It would be incumbent upon the ER in conjunction with the Employer to set up a system for dealing with such claims so that they can be responded to promptly and fully. As with notices of delay the ER will have to assess whether or not the Contractor is prime facie entitled to an adjustment to the extension of time/Contract Sum or any other entitlement claimed, and to assess whether or not he has provided all details required under the Contract and within the relevant periods. In this regard the ER will be well aware that the notice requirements under clause 10 are conditions precedent to the Contractor's entitlement.

Thus, if the Contractor fails to give notice in accordance with the sub-clause he will have no entitlement to the extension of time or adjustment unless the ER uses his discretion under sub-clause 10.5.2. It is possible that the Contractor may have fulfilled the requirements by means of a proposal in relation to a proposed instruction pursuant to clause 10.4 and the ER will have to be mindful of this.

The ER will need to keep careful sight of all details of continuing delay and cost received from the Contractor, should have a firm and reasoned opinion on them and must be mindful of the fact that he himself is subject to a 20 working day period within which to respond to Contractor's claims under sub-clause 10.3 or proposals under sub-clause 10.4. The ER will also have to keep in focus in relation to delay claims the use of the programme contingency so that it can be used where appropriate and the Contractor can be notified of the fact of its use and of the remaining amount of the contingency.

Where a Compensation Event delays the carrying out of the Works so as to push the Contract into a consecutive period of 7 or more non-working days that would not otherwise have occurred the Contractor is entitled to compensation in respect of his expenses exclusive of profit or loss of profit. This is to be included in addition to the Contract Sum for the delay cost. However, the ER in assessing the amount should note that the amount to be paid in respect of the non-working days is not to exceed the sum arrived at by multiplying the Contractor's tendered rate of delay cost by the non-working days being compensated for.

It should be noted that a non-working day is defined as "a day that, for good reason, is not a Site Working Day [such as a trade holiday.]"

In a case where the Contractor is required to and does provide in the Schedule Part 2 in respect of delay costs for parts of the Works then of course the rate quoted for the portion of the Works when the delay occurred is to be used as assessed by the ER.

Assessment of Adjustments to the Contract Sum

Reference – Schedule (part 1K) and (Part 2E) sub-clause 10.6

Adjustments to the Contract Sum due to Compensation Events are made in accordance with the provisions of sub-clause 10.6 as follows. Where there is additional, substituted or omitted work

- the rates in the Pricing Documents are to be used where the work is similar and executed under similar conditions to those priced



- the rates in the Pricing Documents are to be used as a basis of assessment where the work is not similar to that priced or is not carried out under similar conditions
- a fair valuation is to be made by the ER where the above do not apply

Alternatively, the ER may direct that any additional or substituted work is valued by reference to the actual cost of performing the work as follows:

- the hours worked by each work person as identified by the Schedule (parts 1K and 2E) multiplied by the rate for that category of work person as per the Schedule (part 2E)
- the cost of materials used plus the percentage adjustment of that cost as tendered and set out in the Schedule (part 2E)
- the cost of plant used at rates in the document set out in the Schedule (part 1K) – if no rate in the Schedule – market rental can be used - adjusted per the adjustment provided for in the Schedule (part 2E)

The Schedule Part I plays a role in assessing adjustments to the Contract Sum by identifying Compensation Events. The Pricing Document has an even more crucial role in providing the rates pursuant to which varied work will be paid for. The Pricing Document is to be used where it contains rates applicable to the additional, substituted or omitted work. If the nature of the work carried out is different to that in the Pricing Document the ER will use those rates as the basis for his evaluation. Otherwise he is to make a fair valuation which presumably would be based upon rates for similar work in the locality carried out under similar conditions.

The ER is also entitled to direct that such additional or substituted work is assessed on a cost plus basis (time and materials) by reference to the rates provided for by the Contractor in the Schedule part 2E).

The Contractor is obliged to provide a rate for crafts persons, general operatives and apprentices in the Schedule (part 2E) which will include for PRSI, benefits, tool money, travelling time and country money. This is the rate that may be used by the ER in calculating payment for additional or substituted work pursuant to sub-clause 10.6.4. In addition the Contractor is to provide in the Schedule (part 2E) his tendered percentage addition in respect of the cost of materials and his tendered percentage addition (or deduction) for the costs of plant inclusive of on-costs, overheads and profit exclusive of V.A.T.

The ER may use the cost of relevant materials together with the percentage in the Schedule part 2E in valuing materials.

It should be noted that if the Contractor leaves his tendered percentage additions/deductions blank or states them as a zero then these are read as zero.



Assessment of Delay Cost

Reference – Schedule part IK and 2E and sub-clause 10.7

Where delay to the Date for Substantial Completion arises from a Compensation Event, delay cost as inserted by the Contractor in the Schedule (part 2E) is added to the Contract Sum.

Alternatively, depending on whether or not the Employer has selected this option when completing the Schedule part I K, the Contractor's actual expenses unavoidably incurred are to be used.

If the delay cost option is chosen by the Employer, the Contractor's tendered rate of delay costs is to be provided by him at tender stage (in the Schedule part 2E) in accordance with the instruction contained in the Schedule part IK.

An important point of note is that for periods of concurrent delay – there will be no increase in the Contract Sum if one of the causes of a delay is not a Compensation Event (sub-clause 10.7.2).

The subject of liability for concurrent delays in construction has been the subject of much debate in the past. The provision in the Contract makes it clear that concurrent delays (i.e. periods of delay for which there are more than one cause) will not be compensated unless all are Compensation Events. This can be argued for on the basis that there is in fact no net delay for which the Employer has agreed to adjust the Contract Sum. While it is unlikely that a contractor would seek an extension of time due to a cause that was not a Compensation Event where such delay was concurrent with a "compensatable delay", the ER ensure that extensions are granted for such causes, using the discretion under sub-clause 10.5.2 if necessary.

Example:

For instance, if the same period of delay is due to a combination of the failure by the Employer to give the Contractor a Works Item or other thing required by the Contractor after the Contractor has asked for it (sub-clause 4.10) [both a Delay Event and a Compensation Event] and say, a weather event as defined in the Schedule Part IK [a Delay Event but not a Compensation Event] then the Contractor would not be entitled to any increase in the Contract Sum for that period of concurrent delay.

In the event that a Compensation Event results in a holiday period of 7 or more consecutive working days being included in the extended Contract period the Contractor's expenses (excluding profit and loss of profit) unavoidably incurred are included in the assessment of the Contract Sum adjustment subject to the following:

- the amount added to the Contract Sum must not exceed the amount calculated by multiplying the Contractor's tendered rate of delay cost by the additional non-working days (sub-clause 10.7.3)

The provisions in sub-clause 10.7 are exhaustive of the Contractor's rights of recovery in respect of loss or expense from delay or disruption, loss of productivity etc (sub-clause 10.7.4).

No delay costs are payable in respect of extension of time for completion of Sections.



The Schedule at part 1K requires the Contractor to tender in part 2E either a single rate for delay costs or, if required to do so, a separate rate for delay costs for various portions of the Works. The Contractor sets out the tendered delay costs in the Schedule at part 2E. These are rates per Site Working Day but excluding VAT.

When the ER is calculating the adjustment to the Contract Sum in respect of the delay caused by the Compensation Event, he uses the Contractor's tendered rate of delay costs to calculate the compensation in question.

As can be readily appreciated, the insertion by the Contractor of a delay rate in the Schedule and its use by the Employer in compensating for relevant delays that may occur, greatly simplifies the entire process of payment for delays to a contract. When taken in conjunction with the provision in sub-clause 10.7.4 to the effect that the Contractor has no other entitlement for delays, it should act so as to avoid global and other claims for prolongation of contracts that have dogged the industry over the years.

Employer's Claims

Reference sub-clauses 10.9 and 11.4

The Contract now expressly provides for the making of claims by the Employer against the Contractor.

Where the Employer or ER considers the Contract Sum ought be adjusted in favour of the Employer or that a sum is due by the Employer to the Contractor

- the Employer or ER must give notice of the event to the Contractor (and the other)

The notice must include:

- the details and facts giving rise to the claim
- a calculation of the amounts in question and a proposal of the adjustment to the Contract Sum

The Contractor has 20 working days to respond.

Within a further 20 working days (or if no response is received from the Contractor, within 20 working days from the expiry of the initial 20 day period) the ER determines the matter.

The Employer is entitled to deduct from any money due to the Contractor

- any amount determined by the ER as due to him by the Contractor or likely to become due under the Contract
- any sum due to him from the Contractor under any contract (sub-clause 10.9.3)



If the Employer becomes aware of a claim that he may have against the Contractor it will be important for him to liaise with the ER in this regard. Likewise if the ER considers that the Employer is entitled to claim monies from the Contractor it would be incumbent upon him to discuss the matter with the Employer and to assess whether or not such a claim is to be made. For instance, if the Contractor has not provided a Collateral Warranty on time then the amount referred to in sub-clause 11.4.1 and set out in the Schedule (Part IF) is due from the Contractor to the Employer pursuant to sub-clause 11.4 and this will be referred to in the notice. The notice should also include a clear calculation and the proposed adjustment to the Contract Sum.

Once the Contractor has responded within the 20 working days time limit available to him under sub-clause 10.9.2 the ER makes his determination and once that determination has been made, the Employer is entitled to deduct the amount determined (if any).

If the Contractor was for instance carrying out another contract for the Employer elsewhere and substantial amounts are due to the Employer under that Contract then the Employer is also entitled to deduct such an amount pursuant to sub-clause 10.9.3.

The ER will have to ensure that in making any determination of sums due or likely to become due by the Contractor to the Employer, he is careful that no injustice is done to either party.

14.11 Payment

Interim Payment

Reference – Schedule part IL and sub-clause 11

Interim payments arise:

- at the periods for interim payments in the Schedule (part IL) (provided the minimum payment amount in the Schedule is reached)
- on the issue of the Certificate of Substantial Completion for the Works or a Section (sub-clause 11.1.1)

On these occasions the Contractor must provide a statement to the ER showing

- the progress of the Works
- the payment he says is due
- a detailed breakdown of the sum
- any supporting evidence the ER requires
- a certificate pursuant to clause 5.3.7 (that the Contractor has complied with clause 5.3 in relation to the work, the subject matter of the certificate)
- on Substantial Completion – all amounts due on the Works or Section (see sub-clause 11.5.1 in this regard)



The Contractor is entitled to be paid

- the Contract value of Works properly executed
- any amount due for unfixed Works Items
- any amounts due for Compensation Events
- any amounts due for PVI or PV2 (whichever is part of the Contract) (sub-clause 11.1.2)

The ER must provide a payment certificate within 10 working days (with copy to Employer) stating the amount the ER says is due including Employer's claims and liquidated damages with calculations and reasons for the amount in the certificate.

The Contractor must furnish an invoice to the Employer who must pay within 15 days from receipt of the invoice by him.

Example:

Assuming the period for interim payment is confirmed as being monthly and assuming that the minimum amount for interim payments has been reached the Contractor submits his interim account to the ER in the normal way.

The ER calculates the amount to which the Contractor is entitled noting that the works must be properly executed and calculating the value based on the Pricing Document. In addition the ER will add in any amount the Contractor is entitled to be paid for Unfixed Works Items up to the percentage stated in the Schedule part IL. If there are any adjustments to be made to the Contract Sum for Compensation Events (i.e. for additional or substituted work under sub-clause 10.6 and/or delay costs under sub-clause 10.7) then these will be added together with any amount in respect of price variations.

The Employer will then receive a copy of the Payments Certificate which has been issued to the Contractor (within 10 working days of the Contractor's statement) and an invoice based on the amount of that Payment Certificate. The Employer will have 15 days within which to pay the amount due falling which the Employer will become liable to interest at the rate provided in the European Communities (Late Payment in Commercial Transactions) Regulations, 2002.

Retention may also be deducted by the Employer from the payments to be made – see notes on retention below (sub-clause 11.3).

It may be seen from the above that the timeframe for certification and payment is very tight. This will require clear lines of communication between all relevant parties so as to ensure there are no problems with payment to Contractors.

Unfixed Work Items

Reference sub-clause 11.2

The ER has a discretion to include in Interim Payments amounts in respect of unfixed Works Items up to a maximum percentage of their value as set out in the Schedule (Part IL) (the default is 90%).



Payment for unfixed Works Items is subject to certain qualifications:

- They are complete and substantially ready for incorporation in the Works
- Title has been vested in the Employer
- They are stored on the Site
- They have not been brought onto the Site prematurely

If the Works Items have not been delivered to the Site following qualifications apply:

- They are complete and substantially ready for incorporation
- Title has been vested in the Employer
- They have been properly stored, set aside and clearly marked to show they are destined for Site and are the property of the Employer
- They must be clearly identified and a list provided to the ER with documentary evidence that title is vested in the Employer
- They must be insured as required under the Contract (including insurance in transit)

A bond must be provided to the Employer in the form in the Works Requirements or in an approved form in respect of the amount to be paid.

It is essential that the ER is rigorous in ensuring that any unfixed Works Items, which he is considering including in an interim payment comply with all of the provisions of sub-clause 11.2 as the Employer may be incurring risk needlessly if the provisions are not complied with. For instance, the risk that the supplier becomes insolvent and the goods are not released or that there is an argument in relation to their ownership, or risk of damage being caused either when stored or in transit, which is not adequately insured.

Retention

Reference Sub-clause 11.3

The percentage for retention by the Employer is set out in the Schedule (part IL).

The Employer is entitled to deduct the retention percentage from Interim Payments.

At Substantial Completion the Contractor is entitled to invoice for and to be paid half of the retention and the remaining half is paid upon the issue of the Defects Certificate.

However, the Contractor may provide a retention bond (in the form contained in the Model Forms – Form 17 or in an approved form) and where he does so within 10 working days of Substantial Completion he is entitled to invoice for and be paid the balance of the retention money.

Similar considerations for repayment of retention apply in the case of Sections of the Works.



Where a retention bond is being provided similar considerations are applicable to the provision of a performance bond. This means that the employer should ensure that the bond is in the appropriate form (see Model Forms – Form 17 (which should be contained in the Works Requirements and if not contained in the Works Requirements, the Employer will need to vet the form to ensure that it is a satisfactory form. In this regard it might be appropriate to either have it approved by the Employer's legal advisers or at the very least to compare it with the form in the Model Forms.

Status of Payments to Contractor

Reference sub-clause 11.4

Payments are stated to be for compliance in full with Contractor's obligations to the date of payment

If the Contractor has not complied in full with his various obligations – there is no obligation on the Employer to pay in full. The Contract provides for the deduction or withholding of money from the Contractor under a number of headings.

- if collateral warranties are not provided in time (i.e. by the date set out in the Schedule for their provision) – the Employer may deduct the amount shown in the Schedule and hold it until the warranty is furnished
- if a programme or progress report under sub-clauses 4.9 and/or 4.10 is not provided in time – the Employer may deduct 15% of any payments due until it is furnished
- if the Contractor has not complied with the requirements of sub-clause 5.3 re proper payments to work persons – the Employer may estimate the amount due to such work persons and deduct it until satisfied with the situation
- if the Contractor does not provide a certificate as required with his interim statement that all work persons have been properly paid in respect of the relevant work – the Employer may withhold payment for the (estimated labour element of the) relevant work until receipt of the certificate The Contractor is obliged to give the Employer any necessary information for the estimation of the labour element (sub-clause 11.4)

Any deductions made as above are deducted from the Contract Sum if there has been no compliance by the date of issue of the Defects Certificate

When the Employer is making payment to the Contractor he should have from the ER a clear record of whether or not the Contractor is in compliance with his obligations to provide Collateral Warranties, the programme and progress reports. The Employer should also make sure that the ER is informing him as to whether the Contractor has provided the Certificate required with sub-clause 5.3.7 (relating to proper payment of work persons) with his interim statement. With regard to the provisions of clause 5.3 it is intended that the Contractor himself will police the payment of all relevant work persons and the certification under sub-clause 5.3.7 is part of this process. However, the Contract provides at sub-clause 5.3.3(A)(2) when included by means of the Schedule (part 1J) for



random checks by the Employer and it is the policy of the Government that such checks are to be made.

Example:

If a payment has been certified in a certain amount and the Employer is aware that the Contractor has not provided a collateral warranty by the date stated in the Schedule (part 1F) then the Employer may deduct the amount due pursuant to the Schedule (part 1F) until that warranty has been provided. Similarly, in respect of the other items which the Contractor is required to give and in respect of which the Employer is entitled to deduct monies.

It is noteworthy that in relation to the Certificate to be provided by the Contractor pursuant to sub-clause 5.3.7 to the effect that work persons have been properly paid, unless the Contractor provides the Certificate the Employer may deduct the entire payment in respect of the Work Item in question and may ultimately permanently withhold the labour portion of the amount in question.

The Employer will then receive a copy of the Payments Certificate which has been issued to the Contractor (within 10 working days of the Contractor's statement) and an invoice based on the amount of that Payment Certificate. The Employer will have 15 days within which to pay the amount due falling which the Employer will become liable to interest at the rate provided in the European Communities (Late Payment in Commercial Transactions) Regulations 2002.

While the certification provisions envisage that sums due from the Contractor to the Employer are taken into account in the interim Payment Certificates (although the wording of sub-clause 11.1.2 might lead one to believe otherwise) it does appear from sub-clause 11.4 that even if they were not, the Employer may deduct the relevant sums under sub-clause 11.4.

Final Payment to Contractor

Reference sub-clause 11.5

The Contractor must submit a final statement within 2 months of Substantial Completion of the Works.

The final statement must include all sums the Contractor says are due under or in connection with the Contract (sub-clause 11.5.1).

The Employer has no liability for matters not set out in the final statement except for:

- matters arising under the indemnity provisions in the Contract (such as insurance claims), or
- Compensation Events that occur after Substantial Completion

The ER must within three months of receipt of the final statement issue a penultimate payment certificate indicating the amount due from the Employer to the Contractor (or vice versa) less final retention.

The ER must then issue a final payment certificate as soon as practical and no later than three months after the Defects Certificate issues stating the amount finally due from the Employer to the Contractor (or vice versa).



The final payment certificate amount will be the same as the penultimate certificate amount except that it will include:

- The final retention payment
- Any adjustments to the Contract Sum arising from Compensation Events occurring after Substantial Completion
- Amounts owed by the Contractor to the Employer not already included in penultimate payment certificate (e.g. for defects not remedied)
- Any deductions from the Contract Sum arising from Contractor's default (failure to provide documents etc)

The Contractor issues an invoice in respect of any sums due on foot of the penultimate or final payment certificates and the Employer must pay within 15 days after receiving the invoice.

Note: The payment of certificates whether interim, penultimate or final do not relieve the Contractor of its obligations under the Contract or provide evidence that the work has been executed properly.

The final payment process is a relatively straightforward one. For example, the Employer will receive in the first instance the penultimate payment certificate from the ER which will set out the amount due by the Employer to the Contractor (assuming that there is money due). The Employer will then receive an invoice from the Contractor in respect of the amount due on the invoice and is obliged to pay it within 15 working days. Alternatively if the penultimate payment certificate indicates that the Contractor owes money to the Employer then the Employer should make a demand upon the Contractor in respect of the amount whereupon the Contractor is obliged to pay within 10 working days of receipt of that demand.

The Employer will expect to receive from the E.R a final payment certificate showing the final amount due to the Contractor (or vice versa) within 3 months after the issue of the Defects Certificate. This certificate will constitute the final payment to be made by the Employer to the Contractor

The Employer must pay the amount due on foot of the final payment certificate within 15 working days of receiving an invoice in this respect from the Contractor failing which he will become liable to pay interest at the rate provided in the European Communities (Late Payment in Commercial Transactions) Regulations 2002.

Time for Payment

Reference sub-clause 11.6

Unless a specific time is stated any amount due is to be paid within 30 (*calendar*) days of receipt of the relevant demand.

Practically all payments to be made under the Contract appear to be provided for with a specific time being stated – i.e. 15 days or 10 days



Interests pursuant to the Communities (Late Payment in Commercial Transactions) Regulations 2002 applies to late payment.

14.12 Termination

Termination on Contractor Default

Reference clause 12

The Contract provides for termination of the Contractor's obligation to complete the Works for default and for termination without any default on the part of the Contractor (sub-clauses 12.1.1 and 12.5)

Reasons for termination for default are:

- Failure by Contractor to comply with contractual obligations (in the case of defaults that can be corrected, failure to do so within 14 days from receipt of direction in this regard)
- Abandonment or suspension (unless permitted by the Contract) of the Works
- Failure to proceed regularly and diligently with the Works
- Failure to provide or maintain insurances or Bond
- Failure to commence work within 6 weeks of the date required under the Contract or failure to initiate a Starting Date
- Contractor's warranties (any of them) are not true
- A serious breach of Legal Requirements (including labour law) concerning the Works
- Breach of safety law or codes of practice concerning the Works
- Failures relating to payment of work persons either persistently or within 14 days after notice from the Employer to rectify the matter
- Sub-Contracting in breach of Contract
- Insolvency as set out in the Contract
- Incapacity (in the case of an individual)
(sub-clause 12.1)

Where the Contractor consists of more than one entity or person and an insolvency event occurs in relation to one of them the Employer may:

- Terminate the Contractor's obligation to complete the Works or
- Only terminate the obligation of the person concerned leaving the others liable for performance of the Contract (including that of the defaulting Contractor)



The Employer may also terminate if there is a failure on the part of the Contractor to provide a replacement Guarantor and guarantee where the initial Guarantor becomes insolvent or the guarantee becomes unenforceable

- The replacement Guarantee or Guarantor must be provided within 10 working days of the event giving rise to the replacement.

Example:

If the Contractor is in default of its obligations under the Contract e.g. failing to proceed with the execution of the Works and failing to repair defective workmanship or otherwise failing to comply with obligations under the Contract, the Employer should be kept informed of such matters by ER. It would be necessary for the Employer and ER possibly subject to receipt of legal advice to assess precisely which of the provisions of sub-clause 12.1.1 that the Contractor is failing to comply with. It is likely that if the question of termination is being contemplated at all, that the matter has been going on for quite some time.

If however the Employer is indeed seriously contemplating termination then he should discuss the matter in depth with the E.R and possibly with his legal adviser so that the correct approach is taken. For instance, if the matter is one which can be rectified then it would be essential for the ER to issue a formal direction to the Contractor to put the matter right and in this regard it would be useful to formally state that if the matter is not rectified within 14 days, the Employer intends to exercise his right to terminate the Contractor's obligation to complete the Works. The Contractor should then be given the 14 days within which to put the matter right and only if he has not done so within that period should the Employer serve notice on the Contractor pursuant to sub-clause 12.1 terminating his obligation to complete the Works. Legal advice should be sought upon the format of the notice but in essence it must be clear and unequivocal and preferably should state precisely what it is and the fact that it is a notice pursuant to sub-clause 12.1 of the Contract. The notice should be sent in strict accordance with the provisions of sub-clause 4.14 and to the person named in the Schedule part 2A.

It would also be important for the Employer and the ER to consider the position under the Bond or Bonds that have been provided by the Contractor and whether notification of the bondsman is appropriate (which is likely).

If the Contractor persistently fails to honour his obligations to pay work persons properly then the Employer is entitled to serve notice of termination without the 14 day notice. Similarly, if an Insolvency Event as defined in sub-clause 12.1.1 occurs then the Employer may serve a notice of termination without any further notice.

Consequences of Termination for Default

Reference sub-clause 12.2

The consequences of termination for default are set out in clause 12.2 and include:

- The Contractor must leave the Site and not remove any Works Items or Contractor's Things unless directed to do so
- Payments are postponed
- The ER makes an assessment (as soon as practical) of the amount due in respect of work done and not yet paid (the "termination value")



- The Employer engages other contractors to use the Works Items and Contractor's Things on the Site to complete the Works
- The Contractor must assign sub-contracts and supply contracts etc. to the Employer where directed to do so
- The Employer has discretion to pay sub-contractors or suppliers amounts already paid to the Contractor and the Contractor must re-pay those amounts
- The Contractor must hand over all Works Requirements and Contractor's Documents to the Employer

Once the Works have been completed the ER certifies the "termination amount" which includes:

- The additional cost of completing the Works
- The loss and damage suffered by the Employer
- The amounts due to the Employer by the Contractor

The certificate showing the termination value must in the case where the Employer does not start completion of the Works within 6 months after termination, issue as soon as practicable after the end of the 6 month period.

If (as would be normal) the termination amount is more than the termination value the Contractor must pay the Employer the difference within 10 working days of receiving the Employer's demand. If the termination amount is less than the termination value then the Employer pays the Contractor the difference on receipt of an invoice.

As with all termination situations one of the crucial things that the Employer would have to address immediately is securing the Site and this he should do, by if necessary employing a security firm to see that the Contractor leaves the site as he is required to do pursuant to sub-clause 12.2.1 in an orderly manner.

No further payments should be made by the Employer to the Contractor until the certificate certifying the termination amount is issued by the ER.

In securing the Site the Employer should note that the Contractor is not entitled to remove Works Items or Contractor's Things from the Site unless required to do so by the Employer. However, the Employer will need to make a practical assessment on this and the most important thing will be to ensure that all Works Items necessary for completion of the Works are kept on Site.

It will obviously be necessary to complete the Works and the Employer should liaise with the ER so as to assess what Specialist contracts or supply contracts should be assigned to the Employer.

The Employer will also be engaging another contractor to complete the Works and will also be making a call on the Performance Bond provided by the Contractor.



In making an assignment of any sub-contractor's or supplier's contracts the Employer may have to arrange with them for payment by the Employer of amounts that the Employer has already paid to the Contractor. This will be the subject of a claim by the Employer against the Contractor.

After Substantial Completion the Employer will receive from the ER a certificate indicating what if any amount is due by the Employer to the Contractor or by the Contractor to the Employer. If, as is likely, an amount is due by the Contractor to the Employer then the Employer should draft up and furnish a demand for payment from the Contractor. Should there be an amount due to the Contractor this will be payable by the Employer within 15 working days after receiving an invoice from the Contractor furnished on foot of the ER's certification.

Non Payment by the Employer

Reference sub-clause 12.3

Failure by the Employer to pay any amounts due to the Contractor entitles the Contractor to suspend the Works if no payment is made within 15 working days after receipt by the Employer of a demand from the Contractor.

Termination at Employer's Election

Reference sub-clause 12.5

The Employer is entitled by the Contract to terminate the Contractor's obligation to complete the Works at its election upon giving 20 working days notice to the contractor.

One important limitation on this power is that the Employer may not terminate under it for the purpose of obtaining another Contractor to execute/complete the works.

When the Employer terminates at his own election the consequences are set out in sub-clause 12.6 of the Contract and include:

- The Contractor leaves the Site removing any Contractor's Things
- The Contractor must give the Employer all Works Requirements and all Contractor's Documents
- The Contractor provides the ER with a statement showing:
 - The unpaid value of the Works completed
 - The Contractor's demobilisation costs
 - Any other amounts that the Contractor is entitled to under the Contract excluding any damages

The sum of the above is known as the "termination sum".

The ER must issue a certificate to the Contractor within 10 working days of receiving the statement of the termination sum. The certificate is to show the amount due from the Employer to the Contractor or vice versa.



The Contractor's Obligations under the Contract (excluding the obligation to complete) survive termination.

Example:

The Employer might become aware during the course of the project that the Works will no longer be needed because of another larger project that is ongoing and that will effectively take away the necessity for the Works (for instance a relief road that will not be needed because another larger road scheme will cater for the traffic in question).

In such a case the Employer might wish to terminate the Contractor's obligation to complete the Works even though the Contractor is not in default. Where this arises the Employer should serve notice on the Contractor terminating the Contractor's obligation to complete and stating that he is utilising the provisions of sub-clause 12.5 of the Contract. The notice should provide that it will take effect 20 working days after it has been delivered to the Contractor. As with all such notices the Employer should make absolutely sure that the notice is delivered properly to the correct address for service of such notices in accordance with sub-clause 4.14. The Employer should also obtain the original of the Performance Bond provided by the Contractor and return this to the Contractor at the expiration of the 20 days notice.

Once again the Employer should ensure that the Site is adequately secured, that the Contractor leaves the Site in an orderly manner and removes all of the Contractor's Things. The Employer should ensure that the ER obtains from the Contractor all Works Requirements and Contractor's Documents. Once the Contractor has provided a statement of the amounts making up the termination sum to the ER the ER will provide (within 10 working days of receiving the statement) a certificate to both the Employer and the Contractor showing the amount due from the Employer to the Contractor (or vice versa). The Employer will then receive an invoice from the Contractor (or if the amount is due from the Contractor to the Employer the Employer should make a demand for payment of the sum) and the Employer is obliged to pay within 15 days of receipt of the invoice (the Contractor must pay any sum due by him within 10 days of the demand).

In a case of termination the Employer may need to consider whether the Contractor should be kept on as Project Supervisor or otherwise, the urgent appointment of a replacement Project Supervisor for the Construction Stage in relation to the final "mothballing" of the Works. Alternatively if there is any part of the Works to be demolished then this would be a separate project requiring a new Project Supervisor.

Payment as an Exhaustive Remedy

Reference sub-clause 12.6

The payment by the Employer to the Contractor of the sums provided for in clause 12 together with any other amounts due under the Contract before termination are stated to be the Employer's total liability to the Contractor. (sub-clause 12.6)

Conciliation Relating to Termination

Reference sub-clauses 12.9 and 13.1

Where the Employer is of the view that an entitlement has arisen on his part to terminate the Contractor's obligation to complete the Works, the Employer has a discretion to refer the issue of his entitlement to conciliation. (sub-clause 12.9.1)



The appointed conciliator must give his recommendation within 21 days after his appointment.

In the event that the Conciliator recommends that the Employer is entitled to terminate the Contractor's obligation to complete the Works for default and if the Employer does so within 60 days after the recommendation it may be found in subsequent arbitration proceedings that the Employer was not entitled to do so. In such an event:

- The termination nevertheless stands as if it were a termination at the Employer's election
- The Contractor is compensated as if the termination had been at the Employer's election i.e. the Contractor's compensation is limited to the unpaid value of completed Works, his demobilisation costs and any other amounts to which he is entitled under the Contract
- However, the Employer is entitled to engage another contractor to carry out or complete the Works

The Contractor has no other rights under the Contract or otherwise at law for the termination

Example:

In certain circumstances where the Employer is of the view that he has become entitled to terminate the Contractor's obligation to complete the works pursuant to sub-clause 12.1 he may, in view of the circumstances and the likelihood that the Contractor would challenge the termination, wish to refer the question of his entitlement to terminate to conciliation. In arriving at such a decision the Employer would in conjunction with the ER look at the facts giving rise to the potential termination and consider whether they are absolutely clear-cut. In the event that they are clear-cut then the Employer might not feel it was incumbent on him to conciliate on the matter but if there was any doubt it might be safer for him to do so.

If the Employer decides to conciliate upon the matter then he will serve notice of the conciliation on the Contractor pursuant to sub-clause 13.1 of the Contract.

If the Conciliator recommends that the Employer is entitled to terminate then the Employer should do so within 60 days after the receipt of the Conciliator's recommendation. The aim of this procedure is, that by following it, the Employer should hopefully safeguard his position and if the Contractor refers the entire matter to arbitration and it is ultimately held that the Employer was not entitled to terminate then the provisions of sub-clause 12.9.3 will apply and the termination will stand as if it was a termination at the Employer's election.

In such a case the Employer will be entitled to engage another Contractor to complete the Works although obviously those works will be substantially delayed.

In looking at the circumstances surrounding a decision to terminate, the Employer would obviously look at any delays for which he (the Employer) is responsible. In this regard attention would have to be paid to whether notice has been given by the Contractor in respect of any such delays within the time constraints set out in sub-clause 10.3 of the Contract. Failure by the Contractor to comply with these notice provisions could (subject to the ER's discretionary power under sub-clause 10.5.2) could disentitle him in respect of his delay and/or compensation claim. In the event that the Contractor is entitled then it would be appropriate for the Employer to address this situation prior to any conciliation concerning the Employer's right to terminate.



14.13 Dispute Resolution

Conciliation

Reference sub-clause 13.1

The Contract provides that disputes arising in connection with, out of the Contract or Works are to be referred to conciliation and ultimately to arbitration if conciliation does not resolve the dispute.

Either party can request conciliation by a notice in writing specified to be a notice under sub-clause 13.1 of the Contract.

The parties must appoint the conciliator within 10 working days of the referral and in default the appointing body as set out in the Schedule (Part 1N) appoints.

The parties must make all information and documents available to the conciliator that he requires.

The conciliator may

- meet the parties separately or together
- consider documents provided by one party and not shown to the other
- carry out investigations without the parties
- use specialist knowledge
- get legal or technical advice
- set out the procedures to be followed

The conciliator's appointment may be set out in the Works Requirements or otherwise as agreed.

The Conciliator must give his recommendation if the dispute is not resolved within 42 days after his appointment (sub-clause 13.1.8).

Each party has 45 days in which to give notice of dissatisfaction to the other party in writing (and specified to have been given under sub-clause 13.1). Such a notice may issue in the event that no recommendation is given within 45 days of the appointment (sub-clause 13.1.9).

Once notice of dissatisfaction has been given, either party may serve notice of arbitration on the other (sub-clause 13.1.9).

If no notice of dissatisfaction is given within 45 days from receipt of the recommendation – the recommendation becomes binding on both parties and they can enforce it by reference to arbitration (sub-clause 13.1.10).

If a payment of money is recommended (even if notice of dissatisfaction is given) the money must be paid once a bond is furnished as security by the party



receiving payment (the form of bond may be provided in the Works Requirements Model Form 17) (sub-clause 13.1.11) .

The conciliation is confidential.

The conciliation process is relatively straightforward. One thing that is new in the forms of Contract is the provision at sub-clause 13.1.11 to the effect that if a payment of money is recommended by the Conciliator the money is to be paid over upon the provision of a bond as security. There is also provision for the repayment where applicable of money paid over on foot of a conciliator's recommendation or interest earned on such moneys where an arbitrator's award is for a lesser amount than the sum originally paid over. (sub-clause 13.1.1).

Example:

If the Employer has discharged the monies due on foot of the conciliator's recommendation and has received a bond from the Contractor

Firstly, when considering the form of bond to be furnished by the Contractor in exchange for payment on foot of the recommendation it may be appropriate to consider carefully the proposed expiry date of the bond. This is because the Employer may be confronted with an arbitration which may drag on for a considerable period and a bond which will be due to expire within a set period of time.

If payment has been made and a bond pursuant to Model Form 19 has been provided the Employer should consider carefully his approach to the arbitration. It may be that because the Contractor has received payment he does not want to pursue the arbitration or does not wish to be the Claimant in the arbitration. However, it would be essential that the Contractor is the Claimant in the arbitration (unless circumstances dictate that he should not be) as otherwise it would become evident to the Arbitrator that payment has been made on a Conciliator's recommendation. It would therefore be essential that this be agreed (preferably before payment over of the recommended amount) and that the Contractor agrees to prosecute the arbitration promptly and efficiently.

Arbitration

Reference sub-clause 13.2

The final dispute resolution mechanism available to the parties is that of arbitration.

The relevant arbitration rules are as set out in the Works Requirements.

The appointing body in respect of the arbitrator's appointment in default of agreement by the parties is that set out in the Schedule (Part IN).

Disputes under the Contract are subject to the jurisdiction of the Irish courts and to the Public Works Arbitration Rules 2007.

The Contractor is obliged to appoint an agent for service of proceedings in the Schedule (part 2).



14.14

Comparison of Traditional and Design & Build Forms for Building Works

The following table tabulates the differences between the forms for Building Works designed by the Employer and Building Works designed by the Contractor.

	Building Works Designed by Employer	Building Works Designed by Contractor
Agreement		
Article 1	The Contractor shall execute and complete the Works subject to and in accordance with the Contract, and shall comply with its other obligations in the Contract.	The Contractor shall <u>design</u> , execute and complete the Works subject to and in accordance with the Contract, and shall comply with its other obligations in the Contract.
Article 4	The Contractor has satisfied itself before entering into the Contract of all the circumstances that may affect the cost of executing and completing the Works and of the correctness and sufficiency of the Contract Sum to cover the costs of performing the Contract. The Contractor has included in the initial Contract Sum allowances for all risks, customs, policies, practices, and other circumstances that may affect its performance of the Contract, whether they could or could not have been foreseen, except for events for which the Contract provides for adjustment of the initial Contract Sum.	The Contractor has satisfied itself before entering into the Contract of all the circumstances that may affect the cost of <u>designing</u> , executing and completing the Works and of the correctness and sufficiency of the Contract Sum to cover the costs of performing the Contract. The Contractor has included in the initial Contract Sum allowances for all risks, customs, policies, practices, and other circumstances that may affect its performance of the Contract, whether they could or could not have been foreseen, except for events for which the Contract provides for adjustment of the initial Contract Sum.
Agreement		
Article 5	<p>The Contract consists of the following documents:</p> <ul style="list-style-type: none"> • this Agreement • the Letter of Acceptance and post- tender clarifications listed in it • the attached Conditions and completed Schedule • the Works Requirements, completed Pricing Document, and Works Proposals identified in the attached Schedule 	<p>The Contract consists of the following documents:</p> <ul style="list-style-type: none"> • this Agreement • the Letter of Acceptance and post-tender clarifications listed in it • the attached Conditions and completed Schedule • the Works Requirements, completed Pricing Document, and Works Proposals identified in the attached Schedule [<u>including any Novated Design Documents</u>].



	Building Works Designed by Employer	Building Works Designed by Contractor
Conditions		
Definitions	Change Order means an instruction of the Employer's Representative to change [including add to or omit from] the Works or to change [including impose or remove] constraints in the Contract on how the Works are to be executed.	Change Order means an instruction of the Employer's Representative to change [including add to or omit from] the Works or to change [including impose or remove] constraints in the Contract on how the Works are to be <u>designed or</u> executed
Definitions	Consent means planning permission, order, approval, certificate, fire certificate, license, permit, environmental impact statement, or other consent required by Law for the execution or completion of the Works, or identified as a Consent in the Works Requirements.	Consent means planning permission, order, approval, certificate, fire certificate, license, permit, environmental impact statement, or other consent required by Law for the <u>design</u> , execution or completion of the Works, or identified as a Consent in the Works Requirements.
Definitions	<u>Definition not in this contract</u>	Novated Design Documents means specifications, drawings and other documents identified as Novated Design Documents in the Schedule, part I B, that have been made by a designer whose contract is or is to be novated to the Contractor.
Definitions	Starting Date means the day the Contractor proposes to start <u>executing the Works</u> , as notified by the Contractor to the Employer's Representative under sub-clause 9.1.	Starting Date means the day the Contractor proposes to start <u>work under the Contract</u> , as notified by the Contractor to the Employer's Representative under sub-clause 9.1.
Definitions	Subcontractor means a person to whom the execution of part of the Works is subcontracted [by the Contractor or another Subcontractor].	Subcontractor means a person to whom the <u>design or</u> execution of part of the Works is subcontracted [by the Contractor or another Subcontractor].



	Building Works Designed by Employer	Building Works Designed by Contractor
1.3.5	Clause not in this Contract	The Employer's Representative may issue a direction to resolve any inconsistency within the Works Requirements, or between the Works Requirements and other parts of the Contract, and the direction shall be conclusive.
1.7	Clause not in this Contract	<p>1.7 Works Requirements</p> <p>1.7.1. The Contractor has satisfied itself before entering the Contract of the adequacy of the Works Requirements.</p> <p>1.7.2. The Contractor is fully responsible for the adequacy of the Works Requirements, but is not liable to the Employer for either of the following:</p> <ul style="list-style-type: none"> (1) statements of intended purpose of the Works or parts of them (2) criteria for testing or performance of the completed Works or part of them <p>1.7.3 The Employer is not liable to the Contractor for the Works Requirements.</p>
2.4.1	If the Works Requirements say that the Contractor is to be appointed project supervisor for the construction stage in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2006 (the Construction Regulations) for the Works, or a project including the Works, the Contractor shall accept the appointment by entering into the appointment in the form in the Works Requirements. If the Works Requirements say that an individual or body corporate named in the Works Proposals is to be appointed project supervisor for the construction stage in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2006 (the Construction	If the Works Requirements say that the Contractor is to be appointed project supervisor for the construction stage <u>or the design process or both</u> in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2006 (the Construction Regulations) for the Works, or a project including the Works, the Contractor shall accept the appointment by entering into the appointment in the form in the Works Requirements. If the Works Requirements say that an individual or body corporate named in the Works Proposals is to be appointed project supervisor for the construction stage <u>or the design process or both</u> in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2006



	Building Works Designed by Employer	Building Works Designed by Contractor
	<p>Regulations) for the Works, or a project including the Works, the Contractor shall ensure that the individual or body corporate named in the Works Proposals accepts the appointment by entering into the appointment in the form in the Works Requirements.</p> <p>The Contractor shall, if appointed as project supervisor, comply with its obligations under the Construction Regulations in connection with that appointment. If the Employer terminates the appointment of the Contractor or other person named in the Works Proposals as project supervisor for the construction stage as a result of that project supervisor's failure to comply with its obligations, the Contractor shall pay to the Employer all the Employer's cost resulting from the termination [including the cost of appointing and fees and expenses paid to a replacement project supervisor, or, if the Employer acts as project supervisor itself, the Employer's cost of doing so].</p>	<p>(the Construction Regulations) for the Works, or a project including the Works, the Contractor shall ensure that the individual or body corporate named in the Works Proposals accepts the appointment by entering into the appointment in the form in the Works Requirements.</p> <p>The Contractor shall, if appointed as project supervisor, comply with its obligations under the Construction Regulations in connection with that appointment. If the Employer terminates the appointment of the Contractor or other person named in the Works Proposals as project supervisor for the construction stage <u>or the design process or both</u> as a result of that project supervisor's failure to comply with its obligations, the Contractor shall pay to the Employer all the Employer's cost resulting from the termination [including the cost of appointing and fees and expenses paid to a replacement project supervisor, or, if the Employer acts as project supervisor itself, the Employer's cost of doing so].</p>
2.4.2	<p>If the Contractor or a person named in the Works Proposals is to be appointed as project supervisor for the construction stage, the Contractor represents and warrants to the Employer that the Contractor or person named in the Works Proposals is competent and will allocate adequate resources to enable itself to perform its duties under the Construction Regulations.</p>	<p>If the Contractor or a person named in the Works Proposals is to be appointed as project supervisor for the construction stage <u>or the design process or both</u>, the Contractor represents and warrants to the Employer that the Contractor or person named in the Works Proposals is competent and will allocate adequate resources to enable itself to perform its duties under the Construction Regulations.</p>



	Building Works Designed by Employer	Building Works Designed by Contractor
2.4.3	If the Contractor or a person named in the Works Proposals is appointed as project supervisor for the construction stage the Contractor shall ensure that the project supervisor has the insurances required of the project supervisor under its appointment.	If the Contractor or a person named in the Works Proposals is appointed as project supervisor for the construction stage <u>or the design process or both</u> the Contractor shall ensure that the project supervisor has the insurances required of the project supervisor under its appointment
2.4.5	Clause not in this Contract	<u>The Contractor shall, before Substantial Completion of the Works or any Section, give the Employer the documents required for the safety file (as defined in the Construction Regulations).</u>
2.5.1	The Contractor shall [without limiting other obligations] ensure, so far as is practicable, that the Works are constructed to be safe and without risk to health, and that the Works comply in all respects, as appropriate, with the relevant statutory provisions.	The Contractor shall [without limiting other obligations] ensure, so far as is practicable that the Works: <ol style="list-style-type: none"> (1) <u>are designed and are capable of being constructed to be safe and without risk to health and</u> (2) are constructed to be safe and without risk to health and (3) <u>can be maintained safely and without risk to health during use and</u> (4) comply in all respects, as appropriate, with the relevant statutory provisions.
2.5.2	The Contractor represents and warrants to the Employer that the Contractor is, and will, while performing the Contract, be a competent person for the purpose of ensuring, so far as is reasonably practicable, that the Works are constructed to be safe and without risk to health and that they comply in all respects, as appropriate, with the relevant statutory provisions.	The Contractor represents and warrants to the Employer that the Contractor is, and will, while performing the Contract, be a competent person for the purpose of ensuring, so far as is reasonably practicable, that the Works: <ol style="list-style-type: none"> (1) <u>are designed and are capable of being constructed to be safe and without risk to health and</u> (2) are constructed to be safe and without risk to health and (3) <u>can be maintained safely and without risk to health during use and</u> (4) comply in all respects, as appropriate, with the relevant statutory provisions.



	Building Works Designed by Employer	Building Works Designed by Contractor
3.1	(6) design of the Works by the Employer or by others for whom the Employer is responsible, but not if the design is covered by insurance required under clause 3.7.	Clause not in this Contract
4.5.4	The Employer's Representative shall give an instruction that is, in the Employer's Representative's opinion, necessary for the completion of the Works. If, in the Employer's Representative's opinion, it is physically impossible or contrary to Legal Requirements to complete the Works in accordance with the Works Requirements, the Employer's Representative shall give a Change Order.	Clause not in this Contract
	The Employer's Representative shall give an instruction required under this sub-clause 4.5.4 within the time required by sub-clause 4.11.	
4.6	4.6. Works Proposals	4.6. <u>Works Requirements, Works Proposals and Novated Design Documents</u>
4.6.2	If any Works Proposals do not comply with the Contract or the <u>initial Works Requirements</u> or Legal Requirements or are physically impossible to comply with, the Contractor shall propose a change to the Works Proposals as necessary. [There shall be no extension of time or adjustment to the Contract Sum for this.] <u>If the Works Proposals need to be changed because of a change to the Works Requirements, the Contractor shall propose a change. The Contractor shall submit any change to the Works Proposals to the Employer's Representative.</u>	If any <u>Works Requirements or Works Proposals</u> do not comply with the Contract or Legal Requirements or are physically impossible to comply with, <u>or if any Works Proposals do not comply with the initial Works Requirements</u> , the Contractor shall propose a change to the Works Requirements as necessary. <u>The change shall not take effect until it has been agreed by the Employer's Representative. The Contractor shall submit any change to the Works Proposals to the Employer's Representative.</u> [There shall be no extension of time, <u>use of programme contingency under sub-clause 9.4</u> , or adjustment to the Contract Sum <u>for changes or actions under this sub-clause 4.6 or their consequences.</u>]



	Building Works Designed by Employer	Building Works Designed by Contractor
4.6.3	Clause not in this Contract	The Contractor adopts the Novated Design Documents as Works Proposals, and is fully responsible for them. [The Contractor shall submit any changes to the Novated Design Documents to the Employer's Representative.]
4.8.1	<p>The Contractor may give to the Employer's Representative a written value engineering proposal that will, if adopted, either:</p> <ul style="list-style-type: none"> (1) reduce the Contract Sum or (2) accelerate the execution of the Works, or otherwise be of benefit to the Employer, with no increase to the Contract Sum. 	<p>The Contractor may give to the Employer's Representative a written value engineering proposal that will, if adopted, either:</p> <ul style="list-style-type: none"> (1) reduce the Contract Sum or (2) accelerate the <u>design or</u> execution of the Works, or otherwise be of benefit to the Employer, with no increase to the Contract Sum.
4.11.2	<p>The latest date for the <u>Employer's Representative to give required instructions, or</u> the Employer to give the Contractor any required Works Item or other thing, shall be the latest of the following:</p>	<p>The latest date for the Employer to give the Contractor any required Works Item or other thing, shall be the latest of the following:</p>
	<ul style="list-style-type: none"> (1) the date stated in the Contract, if any (2) the date shown in the Contractor's current programme (3) the date for which the Contractor first notifies the Employer's Representative under this sub-clause that it is required (4) the date the Contractor requires the instruction, Works Item or other thing in accordance with its actual progress. 	<ul style="list-style-type: none"> (1) the date stated in the Contract, if any (2) the date shown in the Contractor's current programme (3) the date for which the Contractor first notifies the Employer's Representative under this sub-clause that it is required (4) the date the Contractor requires the instruction, Works Item or other thing in accordance with its actual progress.



	Building Works Designed by Employer	Building Works Designed by Contractor
4.16.3	<p>This sub-clause 4.16 shall not prevent disclosure of information, to the extent permitted by Law:</p> <p>(1) to the Contractor's Personnel, the Employer's Personnel or other professional advisors to the Contractor or Employer, who have first entered an undertaking in the terms of this sub-clause 4.16, to the extent necessary for the execution of the Works or to enforce the Contract or</p>	<p>This sub-clause 4.16 shall not prevent disclosure of information, to the extent permitted by Law:</p> <p>(1) to the Contractor's Personnel, the Employer's Personnel or other professional advisors to the Contractor or Employer, who have first entered an undertaking in the terms of this sub-clause 4.16, to the extent necessary for the <u>design or</u> execution of the Works or to enforce the Contract or</p>
7.1.1	Clause not in this Contract	(6) <u>10 working days (or another period stated in the Works Requirements) after the Contractor has informed the Employer's Representative that it is ready to start executing the Works on the Site</u>
7.1.1	Clause not in this Contract	(8) <u>10 working days after the Contractor has obtained all the Consents it needs to start executing the Works on the Site and given copies to the Employer's Representative.</u>
7.5.1	From and including the <u>Starting Date</u> until the Employer's Representative certifies the Works or the relevant Section as Substantially Complete, or the Employer takes over the relevant part of the Works under sub-clause 9.7, the Contractor shall do all of the following [without limiting other obligations]:	From and including <u>the date the Employer allows the Contractor to occupy and use the Site</u> until the Employer's Representative certifies the Works or the relevant Section as Substantially Complete, or the Employer takes over the relevant part of the Works under sub-clause 9.7, the Contractor shall do all of the following [without limiting other obligations]:
7.6	Where so stated in the Works Requirements, the Employer may arrange for work to be executed on the Site by Employer's Personnel. The Contractor shall co-operate with such Employer's Personnel and shall as far as practicable co-ordinate their activities with the execution of the Works.	Where so stated in the Works Requirements, the Employer may arrange for work to be executed on the Site by Employer's Personnel. The Contractor shall co-operate with such Employer's Personnel and shall as far as practicable co-ordinate their activities with the <u>design and</u> execution of the Works.



	Building Works Designed by Employer	Building Works Designed by Contractor
7.7	<u>The Contractor shall set out the Works by reference to the points, lines and levels of reference in the Works Requirements.</u> The Contractor shall be responsible for the correct positioning of all parts of the Works and shall rectify any errors in the positions, levels, dimensions or alignment of the Works. <u>Before setting out the Works the Contractor shall make all reasonable efforts to verify the accuracy of the setting out information in the Works Requirements.</u>	The Contractor shall be responsible for the correct positioning of all parts of the Works and shall rectify any errors in the positions, levels, dimensions or alignment of the Works.
8.1	The Contractor shall ensure all of the following: (1) that the Works are executed and completed (i) in accordance with all the requirements in, and reasonably inferred from, the Contract [including, where so required by the Contract, in accordance with Contractor's Documents that have been submitted to the Employer's Representative] and (ii) in a proper and workmanlike manner and using good practice	The Contractor shall ensure all of the following: (1) that the Works are <u>designed</u> , executed and completed (i) in accordance with all the requirements in, and reasonably inferred from, the Contract [including, where so required by the Contract, in accordance with Contractor's Documents that have been submitted to the Employer's Representative] and (ii) in a proper and workmanlike manner and using good practice
8.1	(3) that all materials and goods that are Works Items <u>[whether or not the Contractor is required to select them]</u> are fit for the purpose for which they are normally used	(3) that all materials and goods that are Works Items are fit for their intended purpose in the Works
8.1	(4) <u>that all Works Items selected or designed by the Contractor [including by any Specialist] are fit for their intended purpose in the Works.</u>	(4) <u>that the completed Works are fit for their intended purpose as stated in or to be inferred from the Works Requirements.</u>



	Building Works Designed by Employer	Building Works Designed by Contractor
8.3.1	The Contractor shall ensure that the Employer's Representative, and anyone authorised by the Employer's Representative, is able at all reasonable times to have access to all places where the Works are being executed [whether or not at the Site] and any place where any Works Items are produced, stored, extracted or prepared, or any other obligation of the Contractor under the Contract is being performed, and are able there to inspect, test, observe and examine all such items and activities.	The Contractor shall ensure that the Employer's Representative, and anyone authorised by the Employer's Representative, is able at all reasonable times to have access to all places where the Works are being <u>designed or</u> executed [whether or not at the Site] and any place where any Works Items are produced, stored, extracted or prepared, or any other obligation of the Contractor under the Contract is being performed, and are able there to inspect, test, observe and examine all such items and activities.
9.1.2	<p>Before the Starting Date [unless already given by the Contractor before the Contract Date, for example in response to a letter of intent] the Contractor shall give the Employer all of the following, all executed, as relevant, by the relevant persons:</p> <ul style="list-style-type: none"> (1) the Agreement (2) a performance bond, if required by the Contract (3) a parent company guarantee, if required by the Contract (4) if the Works Requirements state that the Contractor or the Contractor's nominee is to be appointed as project supervisor for the construction stage, the required appointment, and the developed safety and health plan required by the Construction Regulations 	<p>Before the Starting Date [unless already given by the Contractor before the Contract Date, for example in response to a letter of intent] the Contractor shall give the Employer all of the following, all executed, as relevant, by the relevant persons:</p> <ul style="list-style-type: none"> (1) the Agreement (2) a performance bond, if required by the Contract (3) a parent company guarantee, if required by the Contract (4) if the Works Requirements state that the Contractor or the Contractor's nominee is to be appointed as project supervisor for the construction stage <u>or the design process or both</u>, the required appointment, and the developed safety and health plan required by the Construction Regulations
9.1.3	On the Starting Date, the Contractor shall start <u>to execute the Works on the Site</u> . The Contractor shall, unless the Employer's Representative directs otherwise, proceed regularly and diligently in order to achieve Substantial Completion of the Works and each Section by its Date for Substantial Completion.	On the Starting Date, the Contractor shall start <u>work under the Contract</u> . The Contractor shall, unless the Employer's Representative directs otherwise, proceed regularly and diligently in order to achieve Substantial Completion of the Works and each Section by its Date for Substantial Completion.



	Building Works Designed by Employer	Building Works Designed by Contractor
10.6.4	Clause not in this Contract	(4) <u>the cost of design, at the tendered rates in the Pricing Document.</u>
11.1.2	<p>11.1.2 The installment of the Contract Sum that the Contractor shall be entitled to be paid on an interim basis shall be:</p> <p>(1) the Contract value of the Works properly executed by the Contractor [according to the Pricing Document] and</p>	<p>11.1.2 The installment of the Contract Sum that the Contractor shall be entitled to be paid on an interim basis shall be:</p> <p>(1) the Contract value of the Works properly <u>designed and</u> executed by the Contractor [according to the Pricing Document] and</p>
12.1.1	(2) the Contractor abandons or, except where required or permitted by the Contract, suspends the execution of the Works	(2) the Contractor abandons or, except where required or permitted by the Contract, suspends the design or execution of the Works
12.1.1	(3) the Contractor fails to proceed regularly and diligently with the execution of the Works	(3) the Contractor fails to proceed regularly and diligently with the <u>design and</u> execution of the Works
12.1.1	(5) the Starting Date has not occurred or the Contractor has not <u>started to execute the Works on the Site</u> within 6 weeks of the date the Contract requires	(5) the Starting Date has not occurred or the Contractor has not <u>started work under the Contract</u> within 6 weeks of the date the Contract requires
12.3	If the Employer fails to pay any amount due under a certificate issued by the Employer's Representative under the Contract, the Contractor may make of the Employer a written demand for payment, and if the payment has not been made within 15 working days of the receipt of the demand, the Contractor may, on giving notice to the Employer, suspend execution of the Works until the amount has been paid. On receiving the payment, the Contractor shall resume execution of the Works.	If the Employer fails to pay any amount due under a certificate issued by the Employer's Representative under the Contract, the Contractor may make of the Employer a written demand for payment, and if the payment has not been made within 15 working days of the receipt of the demand, the Contractor may, on giving notice to the Employer, suspend <u>design and</u> execution of the Works until the amount has been paid. On receiving the payment, the Contractor shall resume <u>design and</u> execution of the Works.



	Building Works Designed by Employer	Building Works Designed by Contractor
12.4	<p>The Contractor shall be entitled to terminate the Contractor's obligation to complete the Works by notice to the Employer if any of the following occur:</p> <p>(1) the Contractor has suspended the execution of the Works for 15 working days in accordance with clause 12.3, and the Employer has still not paid</p>	<p>The Contractor shall be entitled to terminate the Contractor's obligation to complete the Works by notice to the Employer if any of the following occur:</p> <p>(1) the Contractor has suspended the <u>design and</u> execution of the Works for 15 working days in accordance with clause 12.3, and the Employer has still not paid</p>
12.5.2	<p>The Employer may not terminate the Contractor's obligation to complete the Works under this sub-clause 12.5 for the purpose of retaining another contractor to execute the Works.</p>	<p>The Employer may not terminate the Contractor's obligation to complete the Works under this sub-clause 12.5 for the purpose of retaining another contractor to <u>design and</u> execute the Works.</p>
Schedule Part I		
B	<p>The Works Requirements are ...</p> <p>The Pricing Documents is ...</p>	<p>The Works Requirements are: ...</p> <p>The Novated Design Documents are: ...</p> <p>The Pricing Documents is: ...</p>
K 5	<p>There is a factual error in information about the Site or setting out information in the Works Requirements. [This does not include an error of interpretation.]</p>	<p>Schedule item not in this Contract</p>
K 7	<p>The Employer's Representative does not give the Contractor an instruction required under sub-clause 4.5.4 within the time required under sub-clause 4.11.2 when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1</p>	<p>Schedule item not in this Contract</p>
K 17	<p>A difference between the Contract value of the Works according to the quantities and descriptions in the Bill of Quantities [taking into account the method of measurement identified below when it applies] and the Contract value of the Works described in the Works Requirements, because the Bill of Quantities, when compared with the Works Requirements:</p>	<p>Schedule item not in this Contract</p>



	Building Works Designed by Employer	Building Works Designed by Contractor
	<ul style="list-style-type: none"> includes an incorrect quantity or includes an item that should not have been included or excludes an item that should have been included or gives an incorrect item description <p>and the difference for an item in, or that should have been in, the Bill of Quantities is more than €500.</p>	
K 19	The Contractor encounters on the Site unforeseeable ground conditions or man-made obstructions in the ground, other than Utilities	Schedule item not in this Contract
K 20	The Contractor encounters unforeseeable Utilities in the ground on the Site	Schedule item not in this Contract
	A condition, circumstance or occurrence is unforeseeable if an experienced contractor tendering for the Works could not have reasonably foreseen it on the Designated Date, having inspected the Site and its surroundings and having satisfied itself, <u>insofar as practicable and taking into account any information in connection with the Site provided by the Employer</u> , as to all matters concerning the Site, including its form and nature and <u>its geotechnical, hydrological and climatic conditions</u> .	A condition, circumstance or occurrence is unforeseeable if an experienced contractor tendering for the Works could not have reasonably foreseen it on the Designated Date, having inspected the Site and its surroundings and having satisfied itself as to all matters concerning the Site.
Schedule Part 2		
B	<u>Note: In open procedures, tenderers must name a guarantor if parent company is identified for purposes of satisfying tender requirements. In restricted procedures, tenderers must name a guarantor if parent company has been identified for purposes of pre-qualification.</u>	<u>Note: Tenderers must name a guarantor if parent company has been identified for purposes of pre-qualification.</u>



14.15

Comparison of Traditional and Design & Build Forms for Civil Engineering Works

The following table summarises the differences between the forms for civil engineering works designed by the employer and civil engineering works designed by the contractor."

	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
Agreement		
Article 1	The Contractor shall execute and complete the Works subject to and in accordance with the Contract, and shall comply with its other obligations in the Contract.	The Contractor shall <u>design</u> , execute and complete the Works subject to and in accordance with the Contract, and shall comply with its other obligations in the Contract.
Article 4	The Contractor has satisfied itself before entering into the Contract of all the circumstances that may affect the cost of executing and completing the Works and of the correctness and sufficiency of the Contract Sum to cover the costs of performing the Contract. The Contractor has included in the initial Contract Sum allowances for all risks, customs, policies, practices, and other circumstances that may affect its performance of the Contract, whether they could or could not have been foreseen, except for events for which the Contract provides for adjustment of the initial Contract Sum.	The Contractor has satisfied itself before entering into the Contract of all the circumstances that may affect the cost of <u>designing</u> , executing and completing the Works and of the correctness and sufficiency of the Contract Sum to cover the costs of performing the Contract. The Contractor has included in the initial Contract Sum allowances for all risks, customs, policies, practices, and other circumstances that may affect its performance of the Contract, whether they could or could not have been foreseen, except for events for which the Contract provides for adjustment of the initial Contract Sum.
Article 5	<p>The Contract consists of the following documents:</p> <ul style="list-style-type: none"> • this Agreement • the Letter of Acceptance and post-tender clarifications listed in it • the attached Conditions and completed Schedule <p>the Works Requirements, completed Pricing Document, and Works Proposals identified in the attached Schedule</p>	<p>The Contract consists of the following documents:</p> <ul style="list-style-type: none"> • this Agreement • the Letter of Acceptance and post-tender clarifications listed in it • the attached Conditions and completed Schedule • the Works Requirements, completed Pricing Document, and Works Proposals identified in the attached Schedule [<u>including any Novated Design Documents</u>].



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
Conditions		
Definitions	Change Order means an instruction of the Employer's Representative to change [including add to or omit from] the Works or to change [including impose or remove] constraints in the Contract on how the Works are to be executed.	Change Order means an instruction of the Employer's Representative to change [including add to or omit from] the Works or to change [including impose or remove] constraints in the Contract on how the Works are to be <u>designed or</u> executed.
Definitions	Consent means planning permission, order, approval, certificate, fire certificate, licence, permit, environmental impact statement, or other consent required by Law for the execution or completion of the Works, or identified as a Consent in the Works Requirements.	Consent means planning permission, order, approval, certificate, fire certificate, licence, permit, environmental impact statement, or other consent required by Law for the <u>design</u> , execution or completion of the Works, or identified as a Consent in the Works Requirements.
Definitions	<u>Definition not in this contract</u>	Novated Design Documents means specifications, drawings and other documents identified as Novated Design Documents in the Schedule, part I B, that have been made by a designer whose contract is or is to be novated to the Contractor.
Definitions	Starting Date means the day the Contractor proposes to start <u>executing the Works</u> , as notified by the Contractor to the Employer's Representative under sub-clause 9.1.	Starting Date means the day the Contractor proposes to start <u>work under the Contract</u> , as notified by the Contractor to the Employer's Representative under sub-clause 9.1.
Definitions	Subcontractor means a person to whom the execution of part of the Works is subcontracted [by the Contractor or another Subcontractor].	Subcontractor means a person to whom the <u>design or</u> execution of part of the Works is subcontracted [by the Contractor or another Subcontractor].
1.3.5	Clause not in this Contract	The Employer's Representative may issue a direction to resolve any inconsistency within the Works Requirements, or between the Works Requirements and other parts of the Contract, and the direction shall be conclusive.



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
1.7	Clause not in this Contract	<p>1.7 Works Requirements</p> <p>1.7.1 The Contractor has satisfied itself before entering the Contract of the adequacy of the Works Requirements.</p> <p>1.7.2 The Contractor is fully responsible for the adequacy of the Works Requirements, but is not liable to the Employer for either of the following:</p> <ul style="list-style-type: none"> (1) statements of intended purpose of the Works or parts of them (2) criteria for testing or performance of the completed Works or part of them 1.7.3. <p>1.7.3 The Employer is not liable to the Contractor for the Works Requirements.</p>
2.4.1	<p>If the Works Requirements say that the Contractor is to be appointed project supervisor for the construction stage in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2006 (the Construction Regulations) for the Works, or a project including the Works, the Contractor shall accept the appointment by entering into the appointment in the form in the Works Requirements. If the Works Requirements say that an individual or body corporate named in the Works Proposals is to be appointed project supervisor for the construction stage in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2006 (the Construction Regulations) for the Works, or a project including the Works, the Contractor shall ensure that the individual or body corporate named in the Works Proposals accepts the appointment by entering into the appointment in the form in the Works Requirements. The Contractor shall, if appointed as project supervisor, comply with its obligations under the Construction Regulations in</p>	<p>If the Works Requirements say that the Contractor is to be appointed project supervisor for the construction stage <u>or the design process or both</u> in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2006 (the Construction Regulations) for the Works, or a project including the Works, the Contractor shall accept the appointment by entering into the appointment in the form in the Works Requirements. If the Works Requirements say that an individual or body corporate named in the Works Proposals is to be appointed project supervisor for the construction stage <u>or the design process or both</u> in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2006 (the Construction Regulations) for the Works, or a project including the Works, the Contractor shall ensure that the individual or body corporate named in the Works Proposals accepts the appointment by entering into the appointment in the</p>



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
	connection with that appointment. If the Employer terminates the appointment of the Contractor or other person named in the Works Proposals as project supervisor for the construction stage as a result of that project supervisor's failure to comply with its obligations, the Contractor shall pay to the Employer all the Employer's cost resulting from the termination [including the cost of appointing and fees and expenses paid to a replacement project supervisor, or, if the Employer acts as project supervisor itself, the Employer's cost of doing so].	form in the Works Requirements. The Contractor shall, if appointed as project supervisor, comply with its obligations under the Construction Regulations in connection with that appointment. If the Employer terminates the appointment of the Contractor or other person named in the Works Proposals as project supervisor for the construction stage <u>or the design process or both</u> as a result of that project supervisor's failure to comply with its obligations, the Contractor shall pay to the Employer all the Employer's cost resulting from the termination [including the cost of appointing and fees and expenses paid to a replacement project supervisor, or, if the Employer acts as project supervisor itself, the Employer's cost of doing so].
2.4.2	If the Contractor or a person named in the Works Proposals is to be appointed as project supervisor for the construction stage, the Contractor represents and warrants to the Employer that the Contractor or person named in the Works Proposals is competent and will allocate adequate resources to enable itself to perform its duties under the Construction Regulations.	If the Contractor or a person named in the Works Proposals is to be appointed as project supervisor for the construction stage <u>or the design process or both</u> , the Contractor represents and warrants to the Employer that the Contractor or person named in the Works Proposals is competent and will allocate adequate resources to enable itself to perform its duties under the Construction Regulations.
2.4.3	If the Contractor or a person named in the Works Proposals is appointed as project supervisor for the construction stage the Contractor shall ensure that the project supervisor has the insurances required of the project supervisor under its appointment.	If the Contractor or a person named in the Works Proposals is appointed as project supervisor for the construction stage <u>or the design process or both</u> the Contractor shall ensure that the project supervisor has the insurances required of the project supervisor under its appointment.
2.4.5	Clause not in this Contract	<u>The Contractor shall, before Substantial Completion of the Works or any Section, give the Employer the documents required for the safety file (as defined in the Construction Regulations).</u>



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
2.5.1	The Contractor shall [without limiting other obligations] ensure, so far as is practicable, that the Works are constructed to be safe and without risk to health, and that the Works comply in all respects, as appropriate, with the relevant statutory provisions.	<p>The Contractor shall [without limiting other obligations] ensure, so far as is practicable that the Works:</p> <ul style="list-style-type: none"> (1) <u>are designed and are capable of being constructed to be safe and without risk to health and</u> (2) are constructed to be safe and without risk to health and (3) <u>can be maintained safely and without risk to health during use and</u> (4) comply in all respects, as appropriate, with the relevant statutory provisions.
2.5.2	The Contractor represents and warrants to the Employer that the Contractor is, and will, while performing the Contract, be a competent person for the purpose of ensuring, so far as is reasonably practicable, that the Works are constructed to be safe and without risk to health and that they comply in all respects, as appropriate, with the relevant statutory provisions.	<p>The Contractor represents and warrants to the Employer that the Contractor is, and will, while performing the Contract, be a competent person for the purpose of ensuring, so far as is reasonably practicable, that the Works:</p> <ul style="list-style-type: none"> (1) <u>are designed and are capable of being constructed to be safe and without risk to health and</u> (2) are constructed to be safe and without risk to health and (3) <u>can be maintained safely and without risk to health during use and</u> (4) comply in all respects, as appropriate, with the relevant statutory provisions.
3.1	(6) design of the Works by the Employer or by others for whom the Employer is responsible, but not if the design is covered by insurance required under clause 3.7.	Clause not in this Contract
4.5.4	The Employer's Representative shall give an instruction that is, in the Employer's Representative's opinion, necessary for the completion of the Works. If, in the Employer's Representative's opinion, it is physically impossible or contrary to Legal Requirements to complete the Works in accordance with the Works	Clause not in this Contract



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
	Requirements, the Employer's Representative shall give a Change Order. The Employer's Representative shall give an instruction required under this sub-clause 4.5.4 within the time required by sub-clause 4.11.	
4.6	4.6 Works Proposals	4.6 <u>Works Requirements, Works Proposals and Novated Design Documents</u>
4.6.2	If any Works Proposals do not comply with the Contract <u>or the initial Works Requirements</u> or Legal Requirements or are physically impossible to comply with, the Contractor shall propose a change to the Works Proposals as necessary. [There shall be no extension of time or adjustment to the Contract Sum for this.] <u>If the Works Proposals need to be changed because of a change to the Works Requirements, the Contractor shall propose a change. The Contractor shall submit any change to the Works Proposals to the Employer's Representative.</u>	If any <u>Works Requirements or Works Proposals</u> do not comply with the Contract or Legal Requirements or are physically impossible to comply with, <u>or if any Works Proposals do not comply with the initial Works Requirements</u> , the Contractor shall propose a change to the Works Requirements as necessary. <u>The change shall not take effect until it has been agreed by the Employer's Representative. The Contractor shall submit any change to the Works Proposals to the Employer's Representative.</u> [There shall be no extension of time, <u>use of programme contingency under sub-clause 9.4</u> , or adjustment to the Contract Sum for <u>changes or actions under this sub-clause 4.6 or their consequences.</u>]
4.6.3	Clause not in this Contract	The Contractor adopts the Novated Design Documents as Works Proposals, and is fully responsible for them. [The Contractor shall submit any changes to the Novated Design Documents to the Employer's Representative.]
4.8.1	The Contractor may give to the Employer's Representative a written value engineering proposal that will, if adopted, either: (1) reduce the Contract Sum or (2) accelerate the execution of the Works, or otherwise be of benefit to the Employer, with no increase to the Contract Sum.	The Contractor may give to the Employer's Representative a written value engineering proposal that will, if adopted, either: (1) reduce the Contract Sum or (2) accelerate the <u>design or execution</u> of the Works, or otherwise be of benefit to the Employer, with no increase to the Contract Sum.



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
4.11.2	<p>The latest date for the <u>Employer's Representative to give required instructions</u>, or the Employer to give the Contractor any required Works Item or other thing, shall be the latest of the following:</p> <ol style="list-style-type: none"> (1) the date stated in the Contract, if any (2) the date shown in the Contractor's current programme (3) the date for which the Contractor first notifies the Employer's Representative under this sub-clause that it is required (4) the date the Contractor requires the instruction, Works Item or other thing in accordance with its actual progress. 	<p>The latest date for the Employer to give the Contractor any required Works Item or other thing, shall be the latest of the following:</p> <ol style="list-style-type: none"> (1) the date stated in the Contract, if any (2) the date shown in the Contractor's current programme (3) the date for which the Contractor first notifies the Employer's Representative under this sub-clause that it is required (4) the date the Contractor requires the instruction, Works Item or other thing in accordance with its actual progress.
4.16.3	<p>This sub-clause 4.16 shall not prevent disclosure of information, to the extent permitted by Law:</p> <ol style="list-style-type: none"> (1) to the Contractor's Personnel, the Employer's Personnel or other professional advisors to the Contractor or Employer, who have first entered an undertaking in the terms of this sub-clause 4.16, to the extent necessary for the execution of the Works or to enforce the Contract or 	<p>This sub-clause 4.16 shall not prevent disclosure of information, to the extent permitted by Law:</p> <ol style="list-style-type: none"> (1) to the Contractor's Personnel, the Employer's Personnel or other professional advisors to the Contractor or Employer, who have first entered an undertaking in the terms of this sub-clause 4.16, to the extent necessary for the design or execution of the Works or to enforce the Contract or
7.1.1	Clause not in this Contract	<p>(6) <u>10 working days (or another period stated in the Works Requirements) after the Contractor has informed the Employer's Representative that it is ready to start executing the Works on the Site</u></p>
7.1.1	Clause not in this Contract	<p>(8) <u>10 working days after the Contractor has obtained all the Consents it needs to start executing the Works on the Site and given copies to the Employer's Representative.</u></p>



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
7.5.1	From and including the Starting Date until the Employer's Representative certifies the Works or the relevant Section as Substantially Complete, or the Employer takes over the relevant part of the Works under sub-clause 9.7, the Contractor shall do all of the following [without limiting other obligations]:	From and including the date the <u>Employer allows the Contractor to occupy and use the Site</u> until the Employer's Representative certifies the Works or the relevant Section as Substantially Complete, or the Employer takes over the relevant part of the Works under sub-clause 9.7, the Contractor shall do all of the following [without limiting other obligations]:
7.6	Where so stated in the Works Requirements, the Employer may arrange for work to be executed on the Site by Employer's Personnel. The Contractor shall co-operate with such Employer's Personnel and shall as far as practicable co-ordinate their activities with the execution of the Works.	Where so stated in the Works Requirements, the Employer may arrange for work to be executed on the Site by Employer's Personnel. The Contractor shall co-operate with such Employer's Personnel and shall as far as practicable co-ordinate their activities with the <u>design and</u> execution of the Works.
7.7	<u>The Contractor shall set out the Works by reference to the points, lines and levels of reference in the Works Requirements.</u> The Contractor shall be responsible for the correct positioning of all parts of the Works and shall rectify any errors in the positions, levels, dimensions or alignment of the Works. <u>Before setting out the Works the Contractor shall make all reasonable efforts to verify the accuracy of the setting out information in the Works Requirements.</u>	The Contractor shall be responsible for the correct positioning of all parts of the Works and shall rectify any errors in the positions, levels, dimensions or alignment of the Works.
8.1	The Contractor shall ensure all of the following: (1) that the Works are executed and completed (i) in accordance with all the requirements in, and reasonably inferred from, the Contract [including, where so required by the Contract, in accordance with Contractor's Documents that have been submitted to the Employer's Representative] and (ii) in a proper and workmanlike manner and using good practice	The Contractor shall ensure all of the following: (1) that the Works are <u>designed</u> , executed and completed (i) in accordance with all the requirements in, and reasonably inferred from, the Contract [including, where so required by the Contract, in accordance with Contractor's Documents that have been submitted to the Employer's Representative] and (ii) in a proper and workmanlike manner and using good practice



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
8.1	(3) that all materials and goods that are Works Items <u>[whether or not the Contractor is required to select them]</u> are fit for the purpose for which they are normally used	(3) that all materials and goods that are Works Items are fit for their intended purpose in the Works
8.1	(4) <u>that all Works Items selected or designed by the Contractor [including by any Specialist]</u> are fit for their intended purpose in the Works.	(4) <u>that the completed Works</u> are fit for their intended purpose <u>as stated in or to be inferred from the Works Requirements.</u>
8.3.1	The Contractor shall ensure that the Employer's Representative, and anyone authorised by the Employer's Representative, is able at all reasonable times to have access to all places where the Works are being executed [whether or not at the Site] and any place where any Works Items are produced, stored, extracted or prepared, or any other obligation of the Contractor under the Contract is being performed, and are able there to inspect, test, observe and examine all such items and activities.	The Contractor shall ensure that the Employer's Representative, and anyone authorised by the Employer's Representative, is able at all reasonable times to have access to all places where the Works are being <u>designed or</u> executed [whether or not at the Site] and any place where any Works Items are produced, stored, extracted or prepared, or any other obligation of the Contractor under the Contract is being performed, and are able there to inspect, test, observe and examine all such items and activities.
9.1.2	Before the Starting Date [unless already given by the Contractor before the Contract Date, for example in response to a letter of intent] the Contractor shall give the Employer all of the following, all executed, as relevant, by the relevant persons: (1) the Agreement (2) a performance bond, if required by the Contract (3) a parent company guarantee, if required by the Contract (4) if the Works Requirements state that the Contractor or the Contractor's nominee is to be appointed as project supervisor for the construction stage, the required appointment, and the developed safety and health plan required by the Construction Regulations	Before the Starting Date [unless already given by the Contractor before the Contract Date, for example in response to a letter of intent] the Contractor shall give the Employer all of the following, all executed, as relevant, by the relevant persons: (1) the Agreement (2) a performance bond, if required by the Contract (3) a parent company guarantee, if required by the Contract (4) if the Works Requirements state that the Contractor or the Contractor's nominee is to be appointed as project supervisor for the construction stage or the design process or both, the required appointment, and the developed safety and health plan required by the Construction Regulations



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
9.1.3	On the Starting Date, the Contractor shall start <u>to execute the Works on the Site</u> . The Contractor shall, unless the Employer's Representative directs otherwise, proceed regularly and diligently in order to achieve Substantial Completion of the Works and each Section by its Date for Substantial Completion.	On the Starting Date, the Contractor shall start <u>work under the Contract</u> . The Contractor shall, unless the Employer's Representative directs otherwise, proceed regularly and diligently in order to achieve Substantial Completion of the Works and each Section by its Date for Substantial Completion.
10.6.4	Clause not in this Contract	(4) <u>the cost of design, at the tendered rates in the Pricing Document</u> .
11.1.2	The installment of the Contract Sum that the Contractor shall be entitled to be paid on an interim basis shall be: (1) the Contract value of the Works properly executed by the Contractor [according to the Pricing Document] and	The installment of the Contract Sum that the Contractor shall be entitled to be paid on an interim basis shall be: (1) the Contract value of the Works properly <u>designed and</u> executed by the Contractor [according to the Pricing Document] and
12.1.1	(2) the Contractor abandons or, except where required or permitted by the Contract, suspends the execution of the Works	(2) the Contractor abandons or, except where required or permitted by the Contract, suspends the <u>design or</u> execution of the Works
12.1.1	(3) the Contractor fails to proceed regularly and diligently with the execution of the Works	(3) the Contractor fails to proceed regularly and diligently with the <u>design and</u> execution of the Works
12.1.1	(5) the Starting Date has not occurred or the Contractor has not started <u>to execute the Works on the Site</u> within 6 weeks of the date the Contract requires	(5) the Starting Date has not occurred or the Contractor has not started <u>work under the Contract</u> within 6 weeks of the date the Contract requires
12.3	If the Employer fails to pay any amount due under a certificate issued by the Employer's Representative under the Contract, the Contractor may make of the Employer a written demand for payment, and if the payment has not been made within 15 working days of the receipt of the demand, the Contractor may, on giving notice to the Employer, suspend execution of the Works until the amount has been paid. On receiving the payment, the Contractor shall resume execution of the Works.	If the Employer fails to pay any amount due under a certificate issued by the Employer's Representative under the Contract, the Contractor may make of the Employer a written demand for payment, and if the payment has not been made within 15 working days of the receipt of the demand, the Contractor may, on giving notice to the Employer, suspend <u>design and</u> execution of the Works until the amount has been paid. On receiving the payment, the Contractor shall resume <u>design and</u> execution of the Works.



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
12.4	<p>The Contractor shall be entitled to terminate the Contractor's obligation to complete the Works by notice to the Employer if any of the following occur:</p> <p>(1) the Contractor has suspended the execution of the Works for 15 working days in accordance with clause 12.3, and the Employer has still not paid</p>	<p>The Contractor shall be entitled to terminate the Contractor's obligation to complete the Works by notice to the Employer if any of the following occur:</p> <p>(1) the Contractor has suspended the <u>design and</u> execution of the Works for 15 working days in accordance with clause 12.3, and the Employer has still not paid</p>
12.5.2	<p>The Employer may not terminate the Contractor's obligation to complete the Works under this sub-clause 12.5 for the purpose of retaining another contractor to execute the Works.</p>	<p>The Employer may not terminate the Contractor's obligation to complete the Works under this sub-clause 12.5 for the purpose of retaining another contractor to <u>design and</u> execute the Works.</p>
Schedule Part I		
B	<p>The Works Requirements are ...</p> <p>The Pricing Documents is ...</p>	<p>The Works Requirements are: ...</p> <p>The Novated Design Documents are: ...</p> <p>The Pricing Documents is: ...</p>
K 5	<p>There is a factual error in information about the Site or setting out information in the Works Requirements. [This does not include an error of interpretation.]</p>	<p>Schedule item not in this Contract</p>
K 7	<p>The Employer's Representative does not give the Contractor an instruction required under sub-clause 4.5.4 within the time required under sub-clause 4.11.2 when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1</p>	<p>Schedule item not in this Contract</p>
K 17	<p>A difference between the Contract value of the Works according to the quantities and descriptions in the Bill of Quantities [taking into account the method of measurement identified below when it applies] and the Contract value of the Works described in the Works Requirements, because the Bill of Quantities, when compared with the Works Requirements:</p>	<p>Schedule item not in this Contract</p>



	Civil Engineering Works Designed by Employer	Civil Engineering Works Designed by Contractor
	<ul style="list-style-type: none"> includes an incorrect quantity or includes an item that should not have been included or excludes an item that should have been included or gives an incorrect item description <p>and the difference for an item in, or that should have been in, the Bill of Quantities is more than €500.</p>	
K 19	The Contractor encounters on the Site unforeseeable ground conditions or man-made obstructions in the ground, other than Utilities	Schedule item not in this Contract
K 20	The Contractor encounters unforeseeable Utilities in the ground on the Site	Schedule item not in this Contract
	A condition, circumstance or occurrence is unforeseeable if an experienced contractor tendering for the Works could not have reasonably foreseen it on the Designated Date, having inspected the Site and its surroundings and having satisfied itself, <u>insofar as practicable and taking into account any information in connection with the Site provided by the Employer,</u> as to all matters concerning the Site, <u>including its form and nature and its geotechnical, hydrological and climatic conditions.</u>	A condition, circumstance or occurrence is unforeseeable if an experienced contractor tendering for the Works could not have reasonably foreseen it on the Designated Date, having inspected the Site and its surroundings and having satisfied itself as to all matters concerning the Site.
Schedule Part 2		
B	Note: In open procedures, tenderers must name a guarantor if parent company is identified for purposes of satisfying tender requirements. In restricted procedures, tenderers must name a guarantor if parent company has been identified for purposes of pre-qualification.	Note: Tenderers must name a guarantor if parent company has been identified for purposes of pre-qualification.



14.16 Minor Works Form

The Minor Works Contract for the provision of Building and Civil Engineering

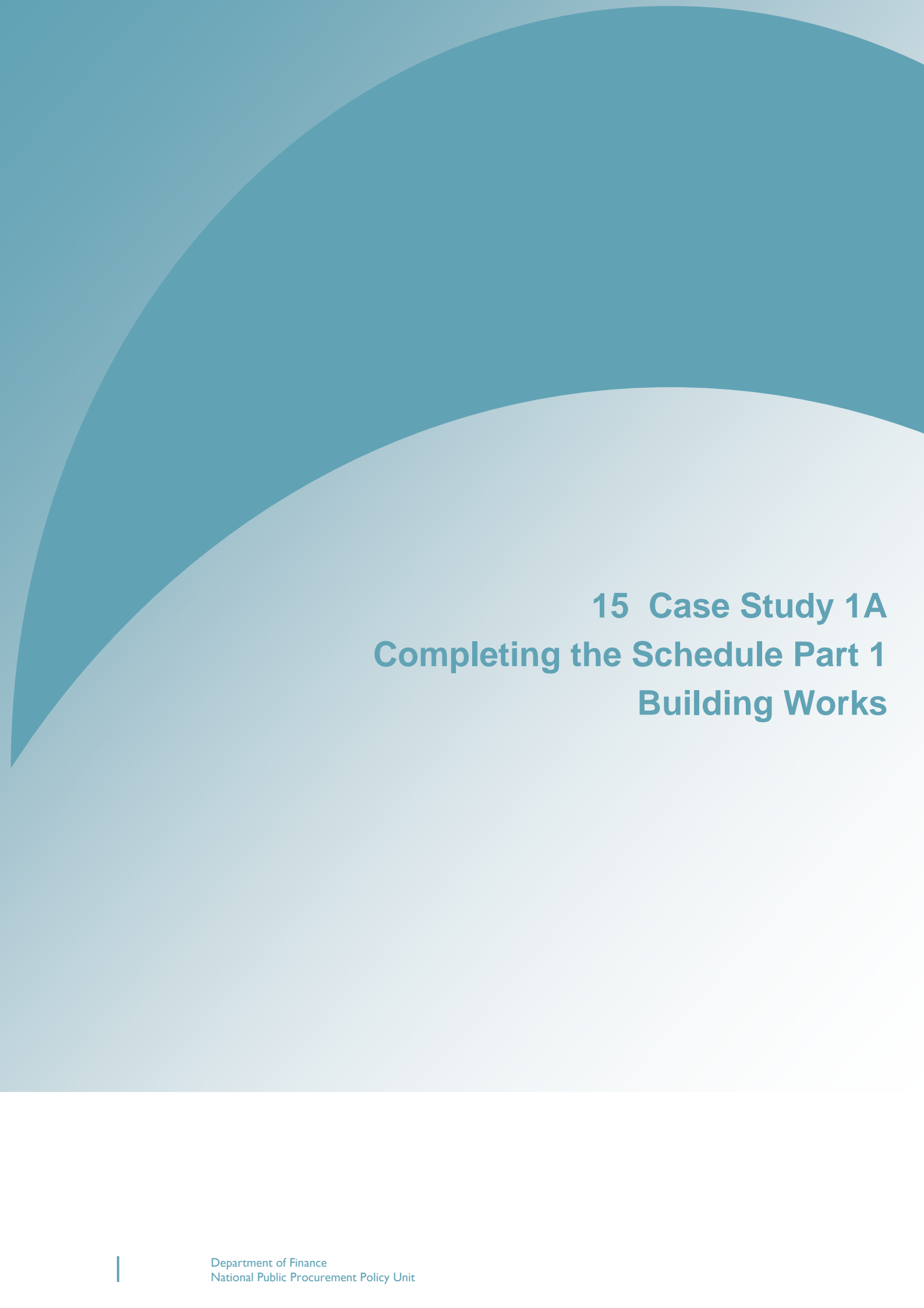
Works designed by the Employer (the minor works contract) is in the same form as the Public Works Contract for the Provision of Building Works and Civil Engineering Works designed by the Employer (the Employer Designed or traditional contracts).

The table below highlights the differences between the two forms of the above mentioned contracts. Clause references in this comparison, unless stated otherwise, relate to clauses in the traditional contracts.

Clause Ref	Clause	Minor Works Contract
1.6	Parent Company Guarantee	There is no requirement on the Contractor to provide the parent company guarantee by the starting date.
2.7	Legal Opinion	There is no clause requiring the provision of a legal opinion relating to a Contractor who is not an individual or company incorporated in Ireland.
3.3.1	Insurance of Employer's Property	Unlike the traditional contracts, Part ID of the Schedule in the minor works contract does not provide for a list of additional Employer's property which the Contractor must insure.
3.9.3	Extensions and Additional Requirements in the Schedule	Part ID of the Schedule does not provide scope for the Employer to specify extensions and additional requirements in relation to insurances.
3.9.9	Owner Controlled Insurance Programme	The minor works contract does not provide for the insurance programme to be owner controlled.
4.2.1(2)	Supervisor	The Contractor must appoint a supervisor to the site, but unlike the traditional contracts the supervisor does not need to be appointed on a full time basis
4.8	Value Engineering	The minor works contract does not include a procedure for value engineering.
4.9	Programme	The content requirements for the programme are not as detailed in the Minor Works Form. However, greater details may be requested via the Works Requirements.
4.10	Progress Reports	The content requirements of progress reports in the minor works contract are not as detailed as those in the traditional contracts.



Clause Ref	Clause	Minor Works Contract
5.4	Sub-contractors and Specialists	Under the minor works contract if the Contractor intends to sub-contract part of the works, other than in accordance with the contract, the Contractor should obtain the consent of the Employer's Representative (ER).
7.9	Access	The minor works contract does not contain the traffic obligations, set out in the traditional contracts, relating to the transport of large loads.
7.11	Working Times	There is no clause in the minor works contract relating to the site working times of the Contractor's personnel.
8.5	Rejection of Defects	The minor works contract does not contain a mechanism allowing the ER to reject the works if a defect deprives the Employer of substantially the whole benefit of the works.
9.4	Programme Contingency	<p>The programme contingency regime in the minor works contract differs from the traditional contracts. In the minor works contract there is only one threshold in relation to the number of site working days' delay.</p> <p>If the total number of site working days' delay is less than the number of site working days stated in the Schedule there shall be no extension to the date for substantial completion.</p> <p>If the total number of site working days' delay exceeds the threshold stated in the Schedule only the days in excess of the threshold may be added to the Date of Substantial Completion.</p> <p>As in the traditional contracts, this clause does not apply to extensions of time resulting from delay events which are not compensation events</p>
9.7	Taking Over Part of the Works	The minor works contract does not contain a provision relating to the taking over of part of the works before substantial completion by the Employer.
10.7.3	Delay Costs	<p>The traditional contracts contain a clause relating to the scenario where, as a result of a compensation event the date for substantial completion has been extended, so that there is a period of 7 or more consecutive non-working days in the time between the starting date and the date for</p> <p>substantial completion, which would not have occurred were it not for the occurrence of the compensation event. In such instances the calculation of the adjustment to the contract sum should account for the period of non-working days. There is no equivalent clause in the minor works contract.</p>



15 Case Study 1A

Completing the Schedule Part 1

Building Works



CASE STUDY 1A – Completing the Schedule Part 1

Building Works

Introduction

The contract is for the construction of a new civic office building for a local authority Employer (LA County Council) on the site of its old fire station just outside of the town centre. The LA CC has appointed consultants to design the building and the form of contract to be used is the Public Works Contract for Building Works Designed by the Employer.

The various parties and consultants are:

The Employer:	LA County Council The Courthouse LA Town County LA
The Architect:	Santiago Balaclava & Asociados SA Paseo D Felipe VI 08028 Barcelona España
The Structural Engineer:	Telford, Brunel & Eiffel 35 The Heights LA Town County LA
The Mechanical & Electrical Consultant:	Stephenson, Edison & Babbage 46 The Heights LA Town County LA
The Quantity Surveyor:	Willis Sealy Partnership 50 The Heights LA Town County LA

The Architect was appointed to the project following an architectural competition.

The 11,000sq m building is intended to be a flagship piece of architecture for the county and to contribute to urban regeneration within the county town. It is to be a steel framed structure with reinforced concrete basement for car parking to maximise site utilisation.

The cost plan indicates an estimated construction cost of €40,000,000, including furniture and fittings and VAT but excluding professional fees. The existing stores [which has a fibrous cement roof] was build in the 1950s and is to be demolished as part of the construction contract and monies are allowed in the cost plan for this.

The budget for the project is consistent with this cost plan and is extremely tight and the County Manager has stipulated that cost certainty is of the utmost importance and the project must be delivered within the cost plan.



LA CC is currently residing at a number of addresses and its annual rental bill is €500,000 per annum. The existing Council Chamber and offices for elected representatives is located in a building which is rented at a rent of €30,000 per annum (this is included in the total rental figure mentioned above).

Specifications and drawings have been drawn up for the Project by the Architect and the Design Team. A Bill of Quantities has been prepared by the consultant Chartered Quantity Surveyor.

The programme for the Project indicates that construction will commence on 29 November 2007 and be completed by 30 October 2009. It is intended that the Council Chamber and accommodation for the elected representatives be completed by 31 August 2009 as the existing premises have to be vacated by this date, otherwise damages of €5,000 per week are payable to the landlord.

It is envisaged that a number of Specialists be engaged by the Contractor on the Works and these include:

1. Archaeologist;
2. Asbestos removal;
3. Piling;
4. Curtain walling and glazing;
5. Lifts;
6. Mechanical and electrical installations;
7. Artwork;
8. Workstations and furniture.

A fairly detailed archaeological report on the proposed site has been prepared and indicates some possible buried archaeological remains may exist from mid 1700s which are not considered to be significant, however the planning conditions stipulate that they should be fully recorded prior to their destruction or removal.

The site investigation carried out to date indicates nothing worrying from a construction viewpoint. Surveys indicate that there are no utilities on the site.

The LA CC in the last substantial construction project carried out for it encountered lengthy delays, including some three months due to exceptionally inclement weather conditions. The conditions involved very heavy rainfall, coupled with high winds which prevented progress.

The Task

Delegates are requested to complete the Schedule Part 1 contained overleaf.



CASE STUDY 1A – Completing the Schedule

Blank Schedule

SCHEDULE

PART 1

(Completed by the Employer before Tender)

A Employer's Representative and Communications

Sub-clause 4.3 and 4.14

Details for sending notices under clauses 12 and 13 to the Employer are:

For the attention of:

Address

.....

.....

.....

Details for sending other notices to the Employer are:

For the attention of:

Address

.....

.....

.....

fax
email

The Employer's Representative is:

Details for sending notices to the Employer's Representative are:

For the attention of:

Address

.....

.....

.....

Fax
Email



Limitations on the Employer's Representative's authority to perform his functions and powers under the Contract:

- Maximum adjustment to the Contract Sum for a single Change Order: €....., unless approved by the Employer
- Maximum cumulative value of adjustments to the Contract Sum for Change Orders in any three month period €....., unless approved by the Employer
- The Employer's Representative shall not make a Change Order causing or contributing to a reduction in safety, scope, quality or usefulness of the Works without the Employer's approval
- The Employer will decide whether to accept or reject a value engineering proposal
- The Employer's Representative is to consult with the Employer in relation to any adjustment to the Contract Sum before determining the adjustment
- Where the Employer has appointed a quantity surveyor, the Employer's Representative is to consult with the quantity surveyor in relation to any adjustments to the Contract Sum before determining the adjustment

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-

B Documents

The **Works Requirements** are:

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The **Pricing Document** is:

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If there is a Bill of Quantities, the **method of measurement** according to which it was prepared and measurements are to be made is

.....

.....

.....

.....



except when any statement or general or detailed description of the work in the Contract shows to the contrary.

C Property in Contractor's Documents

Sub-clause 6.4

Ownership in Contractor's Documents and Works Items described in sub-clause 6.4.2 **does/does not** transfer to the Employer in accordance with sub-clause 6.4. (If neither deleted, read as 'does not')

D Insurance

Clause 3

Insurance of the Works: minimum amount insured for professional fees% of reinstatement cost (if none stated, 12.5%)

Minimum indemnity limits for public liability and employers' liability Insurance:

- public liability insurance: € for any one event, but this limit may be on an annual aggregate basis for products liability, collapse, vibration, subsidence, removal and weakening of supports and sudden and accidental pollution. (If not stated, €6,500,000.)
- employers' liability insurance: € for any one event. (If not stated, €13,000,000)

Maximum excess for Insurance:

- insurance of Works and other Risk Items: € (If not stated, €10,000)
- public liability: € in respect of property damage only (If not stated, €10,000). There shall be no excess for death, injury or illness.
- employers' liability: no excess

Permitted exclusions from the Insurances:

- permitted exclusions from all Insurances
 - war, invasion, act of foreign enemies, hostilities (whether war is declared or not), civil war, rebellion, revolution, insurrection or military or usurped power or martial law
 - pressure waves caused by aircraft or other airborne objects travelling at sonic or supersonic speeds
 - contamination by radioactivity or radioactive, toxic, explosive or other hazardous properties of any explosive nuclear assembly or its components, in each case not caused by the Contractor or the Contractor's Personnel
 - **terrorism** (delete if terrorism insurance is required)
 - **asbestos** (delete if asbestos insurance is required)



- permitted exclusions from insurance of the Works and other Risk Items:
 - use or occupation of the Works by the Employer except in connection with the Works
 - unless otherwise specified in the Works Requirements, cost of making good defects in the Works but not damage caused by such defects to other sound parts of the Works
 - wear, tear, normal upkeep or normal repair or gradual deterioration
 - inventory losses
 - loss of use or any consequential loss of any nature including penalties for delay, non-completion or non-compliance
 - failure of information technology
 - mechanical or electrical breakdown but not resulting damage
 - cessation of the Works for more than three months
 -
 -
- permitted exclusions from public liability insurance
 - persons under a contract of service or apprenticeship with the insured
 - property of the insured or in the insured's custody or control other than existing premises and their contents temporarily occupied for the purposes of the Works
 - defective workmanship or materials but not resulting damage
 - mechanically propelled vehicles within the meaning of the Road Traffic Acts
 - loss or damage due to design
 - gradual pollution or contamination
 - territorial limits
 - unless otherwise specified in the Works Requirements, aircraft and waterborne craft
 - fines, penalties, liquidated damages
 -
- permitted exclusions from employer's liability insurance
 - offshore work
 - liability compulsorily insurable under the Road Traffic Acts
- permitted exclusions from professional indemnity insurance
 - persons under a contract of service or apprenticeship with the insured



- ownership, use, occupation or leasing of mobile or immobile property
- effecting or maintenance of insurance of or in connection with the provision of finance or advice on financial matters
- dishonest, malicious, criminal or deliberate illegal acts
- libel and slander
- insolvency
- fines, penalties, liquidated damages or any penal, punitive, exemplary, non-compensatory or aggravated damages
- failure of information technology
- contractual liability that would not apply in the absence of the contract
-
-

Optional insurance provisions:

The Employer **shall/shall not** have the risk of loss of and damage to its existing facilities and parts of the Works it uses or occupies, in accordance with sub-clause 3.8. (*Delete as applicable.* If none deleted, the Employer shall not have this risk and sub-clause 3.8 shall not apply.)

Insurance of the Works and other Risk Items shall include the following property of the Employer, other than the Works and Works Items:

..... and the minimum sum for which this property is to be insured shall be €.....

If Insurance of the Works and other Risk Items is to include terrorism cover, the minimum sum insured shall be €.....

The Contractor **shall/is not required to** (*delete one*) extend the insurance of the Works and other Risk Items for a Section that has reached Substantial Completion until the Employer's Representative issues the certificate of Substantial Completion for the whole Works.

Required Extensions to Insurance:

Professional indemnity insurance **is/is not** (*delete one*) required. (If neither deleted, professional indemnity insurance is not required.) If required, the professional indemnity insurance is to be kept in place for years after Substantial Completion of the Works is certified by the Employer's Representative. If required, the minimum indemnity limit for professional indemnity insurance shall be €..... **for each and every claim or series of claims arising from the same originating cause/annual aggregate limit** (*delete one*). The maximum excess shall be €..... (if none stated, €50,000).

E Performance Bond

Sub-clause 1.5

A performance bond **is/is not** required. (*Delete one.* If none deleted, bond is required.)

The amount of the performance bond shall be% of the initial Contract Sum up to certification of Substantial Completion of the Works, and% of the initial Contract



Sum for the period stated in the form of bond in the Works Requirements. (If not stated, 25% up to Substantial Completion, and 12.5% for 15 months after that.)

F Collateral Warranties

Sub-clause 5.5

Collateral warranties are required from the following categories of Specialists, by the following dates; and the amount withheld from payments under sub-clause 11.4.1 are as follows:

Category of Specialist	Date for warranty	Amount withheld

G Dates for Substantial Completion, Sections, Liquidated Damages, Retention

[Employer to complete names of sections]	Date for Substantial Completion <i>(unless to be completed by Contractor in part 2)</i> <i>(Last day of period starting on the Contract Date <u>or</u> date)</i>	Rate of Liquidated Damages	Reduction in retention on Substantial Completion of Section %
The Works		€ per	
Section:		€ per	
Section:		€ per	
Section:		€ per	
Section:		€ per	

H Early Completion

Sub-clause 9.6

The Employer's Representative **is/is not** required to issue the certificate of Substantial Completion if the Works or a Section reaches Substantial Completion before its Date for Completion. (If neither deleted, read as 'is required')

**I Defects Period**

The initial Defects Period is from the date of Substantial Completion of the Works

J Random Checks for Employment Records

Sub-clause 5.3.3A(2) shall be/shall not be part of the Contract.

Delete as applicable. If neither is deleted, read as "shall be".

K Delay Events, Compensation Events, Programme Contingency, Delay Costs, Adjustments

(Sub-clauses 9.3, 9.4, 10.1, 10.7)

Delay Events and Compensation Events are as follows:
(Employer to complete the shaded boxes "Yes" or "No")

Event	Delay Event	Compensation Event
1. The Employer's Representative gives the Contractor a Change Order	Yes	Yes
2. The Employer's Representative directs the Contractor to search for Defects or their cause and no Defect is found, and the search was not required because of a failure of the Contractor to comply with the Contract	Yes	Yes
3. The Employer's Representative directs the Contractor to suspend work under sub-clause 9.2	Yes	Yes
4. The Contractor suspends work in accordance with sub-clause 12.3	Yes	Yes
5. There is a factual error in information about the Site or setting out information in the Works Requirements. [This does not include an error of interpretation]	Yes	Yes
6. The Employer takes over part of the Works before Substantial Completion of the Works and any relevant Section	Yes	Yes
7. The Employer's Representative does not give the Contractor an instruction required under sub-clause 4.5.4 within the time required under sub-clause 4.11.2 when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1	Yes	Yes
8. The Employer does not allow the Contractor access to and use of a part of the Site in accordance with sub-clause 7.1	Yes	Yes
9. The Employer does not give the Contractor a Works Item or other thing as required by the Contract when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1	Yes	Yes
10. Employer's Personnel interfere with the execution of the Works on the Site, and the interference is unforeseeable and not in accordance with the Contract	Yes	Yes
11. The Employer instructs the Contractor under sub-clause 3.2.3 to rectify loss of or damage to Risk Items for which the Contractor is not responsible	Yes	Yes
12. Loss of or damage to the Works that is at the Contractor's risk in accordance with clause 3.2	Yes	No



Event	Delay Event	Compensation Event
13. A weather event as described below	Yes	No
14. A strike or lockout affecting the construction industry generally or a significant part of it, and not confined to employees of the Contractor or any Contractor's Personnel	Yes	No
15. Delay to the Works caused by the order or other act of a court or other public authority exercising authority under Law, that did not arise as a result of or in relation to an act, omission or breach of Legal Requirements of the Contractor or the Contractor's Personnel or a breach of the Contract by the Contractor	Yes	Yes
16. A breach by the Employer of the Contract delaying the Works that is not listed elsewhere in this table.	Yes	Yes
17. A difference between the Contract value of the Works according to the quantities and descriptions in the Bill of Quantities [taking into account the method of measurement identified below when it applies] and the Contract value of the Works described in the Works Requirements, because the Bill of Quantities, when compared with the Works Requirements: <ul style="list-style-type: none"> • includes an incorrect quantity or • includes an item that should not have been included or • excludes an item that should have been included or • gives an incorrect item description and the difference for an item in, or that should have been in, the Bill of Quantities is more than €500	Yes	
18. An item of value or archaeological or geological interest or human remains is found on the Site, and it was unforeseeable	Yes	
19. The Contractor encounters on the Site unforeseeable ground conditions or man-made obstructions in the ground, other than Utilities	Yes	
20. The Contractor encounters unforeseeable Utilities in the ground on the site	Yes	
21. Owners of Utilities on the Site do not relocate or disconnect Utilities as stated in with the Works Requirements, when the Contractor has complied with their procedures and the procedures in the Contract, and the failure is unforeseeable	Yes	

In the above table:

Utilities means conducting media or apparatus for water, sewage, electricity, gas, oil, telecommunications, data, steam, air, or other services, and associated apparatus or structures.

A condition, circumstance or occurrence is **unforeseeable** if an experienced contractor tendering for the Works could not have reasonably foreseen it on the Designated Date, having inspected the Site and its surroundings and having satisfied itself, insofar as practicable, and taking into account any information in connection with the Site provided by the Employer as to all matters concerning the Site, including its form and nature and its geotechnical, hydrological and climatic conditions.

A **weather event** is when for any month between the Contract Date and the Date for Substantial Completion of the Works, the value for any of the weather listed below, as measured at weather station, is higher than the highest value occurring at least once every 10 years in the corresponding month of the year, on average according to historical data from the same station:



- cumulative rainfall for the month
- number of days in the month with rainfall exceeding 20mm
- number of days with minimum air temperature less than 0° Celsius
- number of days with maximum mean 10 minute wind speed exceeding 20 metres per second
-

If no weather station is named above, the weather station nearest the Site shall be used. If the weather station named above, or the nearest one, does not measure or record data for any of the above weather, the nearest station to the Site that measures and records that data shall be used for that weather.

In sub-clause 10.6.4(3), the rates to be used to determine the cost of plant are the rates in
and any rates in the Pricing Document.

In sub-clause 9.4:

- the **first threshold** is Site Working Days of delay caused by Compensation Events
- the **second threshold** is Site Working Days of delay caused by Compensation Events

In sub-clause 10.7, the amount to be added for delay cost is (whichever is marked "yes"):

.....	the daily rate tendered by the Contractor in the Schedule, Part 2E (clause 10.7.1(1))
.....	the expenses unavoidably incurred as a result of the delay (clause 10.7.1(2))

The definition of craftsmen in part 2E includes the following additional categories:

.....
.....

For purposes of clause 10.7, the Contractor is to tender (in part 2E):

- a single rate for delay costs
- separate rates for delay costs for each of the following periods/portions of the Works:
 -
 -
 -

If the above are blank, Contractor is to tender a single rate

L Payment Particulars

Clause 11

Period for interim payment is (If none stated, monthly.)

Minimum amount for interim payments, except release of retention, €..... (If none stated, there is no minimum.)

When permitted by the Pricing Documents, up to% of the Contract value of unfixed Works Items may be included in an interim payment. (If none stated, 90%).

The retention percentage is%. (If none stated, 10%.)



M Price Variation

Sub-clause 10.8

Clause PV1/Clause PV2 attached to this Schedule is part of the Contract. (Delete as applicable. If none deleted, Clause PV1 shall apply).

N Conciliation and Arbitration

Sub-clause 13.1.2

Failing agreement, the conciliator will be appointed by

Sub-clause 13.2

The arbitration rules are the Public Works Arbitration Rules, 2007.

The person or body to appoint the arbitrator (if not agreed by the parties) is
.....



CASE STUDY 1A – Completing the Schedule

Worked Example

SCHEDULE

PART 1

(Completed by the Employer before Tender)

A Employer's Representative and Communications

Sub-clause 4.3 and 4.14

Details for sending notices under clauses 12 and 13 to the Employer are:

For the attention of: **Director of Services**

Address

LA County Council
Four Courts
LA Town
County LA

Details for sending other notices to the Employer are:

For the attention of: **Mr A Jones**

Address

LA County Council
Four Courts
LA Town
County LA

fax

email

The Employer's Representative is: **Santiago Balaclava & Asociados SA**

Details for sending notices to the Employer's Representative are:

For the attention of: **Peter Wood-Steele**

Address

50 The Heights
LA Town
County LA

Fax **021 8559000**

Email **mailbox@sba.ie**



Limitations on the Employer's Representative's authority to perform his functions and powers under the Contract:

- Maximum adjustment to the Contract Sum for a single Change Order: €5,000, unless approved by the Employer
- Maximum cumulative value of adjustments to the Contract Sum for Change Orders in any three month period €30,000, unless approved by the Employer
- The Employer's Representative shall not make a Change Order causing or contributing to a reduction in safety, scope, quality or usefulness of the Works without the Employer's approval
- The Employer will decide whether to accept or reject a value engineering proposal
- The Employer's Representative is to consult with the Employer in relation to any adjustment to the Contract Sum before determining the adjustment
- Where the Employer has appointed a quantity surveyor, the Employer's Representative is to consult with the quantity surveyor in relation to any adjustments to the Contract Sum before determining the adjustment

-
-

B Documents

The **Works Requirements** are:

12345-WR-001

The **Pricing Document** is:

12345-BQ-001

If there is a Bill of Quantities, the **method of measurement** according to which it was prepared and measurements are to be made is **ARM3, 2003** except when any statement or general or detailed description of the work in the Contract shows to the contrary.

C Property in Contractor's Documents

Sub-clause 6.4

Ownership in Contractor's Documents and Works Items described in sub-clause 6.4.2 **does/does not** transfer to the Employer in accordance with sub-clause 6.4. (If neither deleted, read as 'does not')

D Insurance

Clause 3

Insurance of the Works: minimum amount insured for professional fees **12.5%** of reinstatement cost (if none stated, 12.5%)

Minimum indemnity limits for public liability and employers' liability Insurance:

- public liability insurance: **€13,000,000** for any one event, but this limit may be on an annual aggregate basis for products liability, collapse, vibration, subsidence, removal and weakening of supports and sudden and accidental pollution. (If not stated, €6,500,000.)



- employers' liability insurance: €13,000,000 for any one event. (If not stated, €13,000,000)

Maximum excess for Insurance:

- insurance of Works and other Risk Items: €10,000,000 (If not stated, €10,000)
- public liability: €10,000,000 in respect of property damage only (If not stated, €10,000). There shall be no excess for death, injury or illness.
- employers' liability: no excess

Permitted exclusions from the Insurances:

- permitted exclusions from all Insurances
 - war, invasion, act of foreign enemies, hostilities (whether war is declared or not), civil war, rebellion, revolution, insurrection or military or usurped power or martial law
 - pressure waves caused by aircraft or other airborne objects travelling at sonic or supersonic speeds
 - contamination by radioactivity or radioactive, toxic, explosive or other hazardous properties of any explosive nuclear assembly or its components, in each case not caused by the Contractor or the Contractor's Personnel
 - terrorism (delete if terrorism insurance is required)
 - asbestos (delete if asbestos insurance is required)
 -
- permitted exclusions from insurance of the Works and other Risk Items:
 - use or occupation of the Works by the Employer except in connection with the Works
 - unless otherwise specified in the Works Requirements, cost of making good defects in the Works but not damage caused by such defects to other sound parts of the Works
 - wear, tear, normal upkeep or normal repair or gradual deterioration
 - inventory losses
 - loss of use or any consequential loss of any nature including penalties for delay, non-completion or non-compliance
 - failure of information technology
 - mechanical or electrical breakdown but not resulting damage
 - cessation of the Works for more than three months
- permitted exclusions from public liability insurance
 - persons under a contract of service or apprenticeship with the insured



- property of the insured or in the insured's custody or control other than existing premises and their contents temporarily occupied for the purposes of the Works
- defective workmanship or materials but not resulting damage
- mechanically propelled vehicles within the meaning of the Road Traffic Acts
- loss or damage due to design
- gradual pollution or contamination
- territorial limits
- unless otherwise specified in the Works Requirements, aircraft and waterborne craft
- fines, penalties, liquidated damages
-
-
- permitted exclusions from employer's liability insurance
 - offshore work
 - liability compulsorily insurable under the Road Traffic Acts
- permitted exclusions from professional indemnity insurance
 - persons under a contract of service or apprenticeship with the insured
 - ownership, use, occupation or leasing of mobile or immobile property
 - effecting or maintenance of insurance of or in connection with the provision of finance or advice on financial matters
 - dishonest, malicious, criminal or deliberate illegal acts
 - libel and slander
 - insolvency
 - fines, penalties, liquidated damages or any penal, punitive, exemplary, non-compensatory or aggravated damages
 - failure of information technology
 - contractual liability that would not apply in the absence of the contract
 -
 -



Optional insurance provisions:

The Employer ~~shall~~/shall not have the risk of loss of and damage to its existing facilities and parts of the Works it uses or occupies, in accordance with sub-clause 3.8. (*Delete as applicable.* If none deleted, the Employer shall not have this risk and sub-clause 3.8 shall not apply.)

Insurance of the Works and other Risk Items shall include the following property of the Employer, other than the Works and Works Items:

Artworks and the minimum sum for which this property is to be insured shall be **€100,000**

If Insurance of the Works and other Risk Items is to include terrorism cover, the minimum sum insured shall be €.....

The Contractor ~~shall/is not required to~~ (*delete one*) extend the insurance of the Works and other Risk Items for a Section that has reached Substantial Completion until the Employer's Representative issues the certificate of Substantial Completion for the whole Works.

Required Extensions to Insurance:

Professional indemnity insurance ~~is/is not~~ (*delete one*) required. (If neither deleted, professional indemnity insurance is not required.) If required, the professional indemnity insurance is to be kept in place for years after Substantial Completion of the Works is certified by the Employer's Representative. If required, the minimum indemnity limit for professional indemnity insurance shall be €..... for each and every claim or series of claims arising from the same originating cause/annual aggregate limit (*delete one*). The maximum excess shall be €..... (if none stated, €50,000).

E Performance Bond

Sub-clause 1.5

A performance bond ~~is/is not~~ required. (*Delete one.* If none deleted, bond is required.)

The amount of the performance bond shall be **12.5%** of the initial Contract Sum up to certification of Substantial Completion of the Works, and **6.25%** of the initial Contract Sum for the period stated in the form of bond in the Works Requirements. (If not stated, 25% up to Substantial Completion, and 12.5% for 15 months after.)

F Collateral Warranties

Sub-clause 5.5

Collateral warranties are required from the following categories of Specialists, by the following dates; and the amount withheld from payments under sub-clause 11.4.1 are as follows:

Category of Specialist	Date for warranty	Amount withheld
Archaeologist	1 December 2007	€1,000
Asbestos removal	2 February 2008	€10,000
Piling	2 March 2008	€50,000
Curtain walling and glazing	6 January 2009	€10,000
Lifts	1 April 2009	€3,000
Mechanical and electrical installations	1 November 2008	€30,000
Artwork	July 2009	€1,000
Workstations and furniture	1 July 2009	€10,000

**G Dates for Substantial Completion, Sections, Liquidated Damages, Retention**

[Employer to complete names of sections]	Date for Substantial Completion (<i>unless to be completed by Contractor in part 2</i>) (<i>Last day of period starting on the Contract Date <u>or</u> date</i>)	Rate of Liquidated Damages	Reduction in retention on Substantial Completion of Section %
The Works	1 November 2009	€2,800 per day	
Section: Council Chamber and accommodation for elected members	30 June 2009	€850 per day	50%

H Early Completion*Sub-clause 9.6*

The Employer's Representative ~~is/is not~~ required to issue the certificate of Substantial Completion if the Works or a Section reaches Substantial Completion before its Date for Completion. (If neither deleted, read as 'is required')

I Defects Period

The initial Defects Period is 12 months from the date of Substantial Completion of the Works

J Random Checks for Employment Records

Sub-clause 5.3.3A(2) ~~shall be/shall not be~~ part of the Contract.

Delete as applicable. If neither is deleted, read as "shall be".

K Delay Events, Compensation Events, Programme Contingency, Delay Costs, Adjustments

(*Sub-clauses 9.3, 9.4, 10.1, 10.7*)

Delay Events and Compensation Events are as follows:
(*Employer to complete the shaded boxes "Yes" or "No"*)

Event	Delay Event	Compensation Event
1. The Employer's Representative gives the Contractor a Change Order	Yes	Yes
2. The Employer's Representative directs the Contractor to search for Defects or their cause and no Defect is found, and the search was not required because of a failure of the Contractor to comply with the Contract	Yes	Yes
3. The Employer's Representative directs the Contractor to suspend work under sub-clause 9.2	Yes	Yes
4. The Contractor suspends work in accordance with sub-clause 12.3	Yes	Yes



Event	Delay Event	Compensation Event
5. There is a factual error in information about the Site or setting out information in the Works Requirements. [This does not include an error of interpretation]	Yes	Yes
6. The Employer takes over part of the Works before Substantial Completion of the Works and any relevant Section	Yes	Yes
7. The Employer's Representative does not give the Contractor an instruction required under sub-clause 4.5.4 within the time required under sub-clause 4.11.2 when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1	Yes	Yes
8. The Employer does not allow the Contractor access to and use of a part of the Site in accordance with sub-clause 7.1	Yes	Yes
9. The Employer does not give the Contractor a Works Item or other thing as required by the Contract when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1	Yes	Yes
10. Employer's Personnel interfere with the execution of the Works on the Site, and the interference is unforeseeable and not in accordance with the Contract	Yes	Yes
11. The Employer instructs the Contractor under sub-clause 3.2.3 to rectify loss of or damage to Risk Items for which the Contractor is not responsible	Yes	Yes
12. Loss of or damage to the Works that is at the Contractor's risk in accordance with clause 3.2	Yes	No
13. A weather event as described below	Yes	No
14. A strike or lockout affecting the construction industry generally or a significant part of it, and not confined to employees of the Contractor or any Contractor's Personnel	Yes	No
15. Delay to the Works caused by the order or other act of a court or other public authority exercising authority under Law, that did not arise as a result of or in relation to an act, omission or breach of Legal Requirements of the Contractor or the Contractor's Personnel or a breach of the Contract by the Contractor	Yes	No
16. A breach by the Employer of the Contract delaying the Works that is not listed elsewhere in this table.	Yes	Yes
17. A difference between the Contract value of the Works according to the quantities and descriptions in the Bill of Quantities [taking into account the method of measurement identified below when it applies] and the Contract value of the Works described in the Works Requirements, because the Bill of Quantities, when compared with the Works Requirements: <ul style="list-style-type: none"> includes an incorrect quantity or includes an item that should not have been included or excludes an item that should have been included or gives an incorrect item description and the difference for an item in, or that should have been in, the Bill of Quantities is more than €500	No	No
18. An item of value or archaeological interest or human remains is found on the Site, and it was unforeseeable	Yes	Yes



Event	Delay Event	Compensation Event
19. The Contractor encounters on the Site unforeseeable ground conditions or man-made obstructions in the ground, other than Utilities	Yes	No
20. The Contractor encounters unforeseeable Utilities in the ground on the site	Yes	No
21. Owners of Utilities on the Site do not relocate or disconnect Utilities as stated in with the Works Requirements, when the Contractor has complied with their procedures and the procedures in the Contract, and the failure is unforeseeable	Yes	No

In the above table:

Utilities means conducting media or apparatus for water, sewage, electricity, gas, oil, telecommunications, data, steam, air, or other services, and associated apparatus or structures.

A condition, circumstance or occurrence is **unforeseeable** if an experienced contractor tendering for the Works could not have reasonably foreseen it on the Designated Date, having inspected the Site and its surroundings and having satisfied itself, insofar as practicable, and taking into account any information in connection with the Site provided by the Employer as to all matters concerning the Site, including its form and nature and its geotechnical, hydrological and climatic conditions.

A **weather event** is when for any month between the Contract Date and the Date for Substantial Completion of the Works, the value for any of the weather listed below, as measured at weather station, is higher than the highest value occurring at least once every 10 years in the corresponding month of the year, on average according to historical data from the same station:

- cumulative rainfall for the month
- number of days in the month with rainfall exceeding 20mm
- number of days with minimum air temperature less than 0° Celsius
- number of days with maximum mean 10 minute wind speed exceeding 20 metres per second
-

If no weather station is named above, the weather station nearest the Site shall be used. If the weather station named above, or the nearest one, does not measure or record data for any of the above weather, the nearest station to the Site that measures and records that data shall be used for that weather.

In sub-clause 10.6.4(3), the rates to be used to determine the cost of plant are the rates in UK Civil Engineering Contractors Association Schedules of Dayworks carried out incidental to contract work August 2003 reprint. (Note: Only Schedule 4 will apply). (Rates will be considered to be in euro) and any rates in the Pricing Document.

In sub-clause 9.4:

- the **first threshold** is **21** Site Working Days of delay caused by Compensation Events
- the **second threshold** is **20** Site Working Days of delay caused by Compensation Events

In sub-clause 10.7, the amount to be added for delay cost is (whichever is marked "yes"):

YES	the daily rate tendered by the Contractor in the Schedule, Part 2E (clause 10.7.1(1))
	the expenses unavoidably incurred as a result of the delay (clause 10.7.1(2))



The definition of craftspersons in part 2E includes the following additional categories:

For purposes of clause 10.7, the Contractor is to tender (in part 2E):

- a single rate for delay costs
- separate rates for delay costs for each of the following periods/portions of the Works:
 - | |
|--|
| |
| |
| |
 - | |
|--|
| |
| |
| |
 - | |
|--|
| |
| |
| |

If the above are blank, Contractor is to tender a single rate

L Payment Particulars

Clause 11

Period for interim payment is **monthly** (If none stated, monthly.)

Minimum amount for interim payments, except release of retention, **€50,000**. (If none stated, there is no minimum.)

When permitted by the Pricing Documents, up to **75%** of the Contract value of unfixed Works Items may be included in an interim payment. (If none stated, 90%).

The retention percentage is **3%**. (If none stated, 10%.)

M Price Variation

Sub-clause 10.8

Clause PV1/Clause—PV2 attached to this Schedule is part of the Contract. (Delete as applicable. If none deleted, Clause PV1 shall apply).

N Conciliation and Arbitration

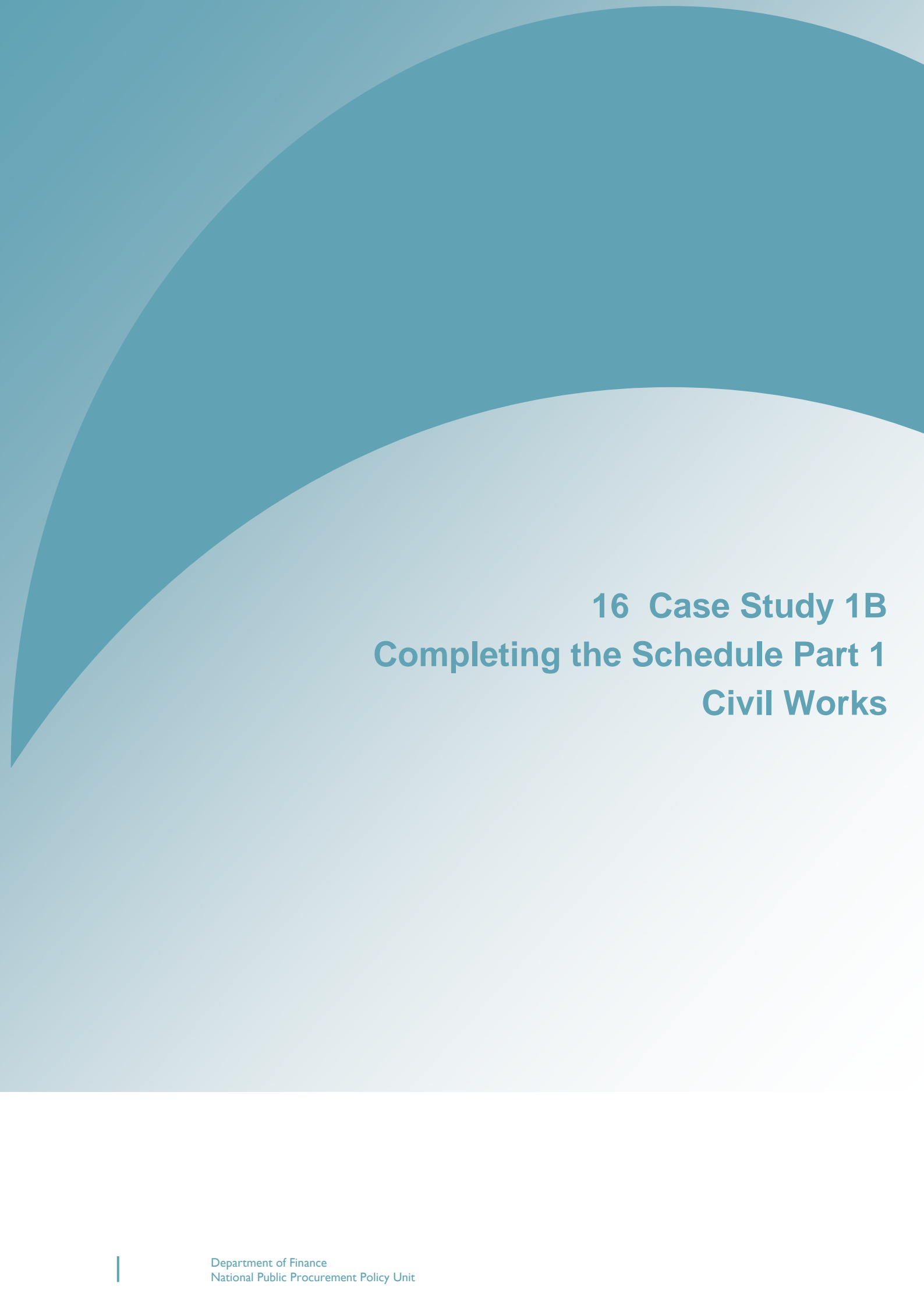
Sub-clause 13.1.2

Failing agreement, the conciliator will be appointed by the **President of the Royal Institute of the Architects of Ireland**.

Sub-clause 13.2

The arbitration rules are the Public Works Arbitration Rules, 2007.

The person or body to appoint the arbitrator (if not agreed by the parties) is **President of the Royal Institute of the Architects of Ireland**.



16 Case Study 1B

Completing the Schedule Part 1

Civil Works



CASE STUDY 1B – Completing the Schedule Part 1

Civil Engineering Works

Case Study on a Design-Build Project in the Roads Sector

This Project concerns the construction by a Design-Build, or Contractor-Design, Contract of a single carriageway road of 17km in extent, with a number of junctions and one bridge at a river crossing. The estimated cost of the Project is €38.5m. Specimen Designs for the Bridge and for the Carriageway have been prepared as part of preliminary work and these are made available to tenderers on a non-contractual basis as an appendix to the Works Requirements.

It is necessary to complete Schedule 1 for the Project.

Section A includes the expected contact and correspondence details for the parties and is similar to other forms.

The Employer has separately conducted a procurement competition for appointment of Materials Quality Assurance services. Irish Pavement Materials Quality Assurance Ltd are the successful service providers, a contract has been drawn up and the Employer intends to novate that contract to the successful DB Contractor. This information is also entered in Section **A** and the contract is appended to the Works Requirements in **Section B**.

The limit on authority of the ER to order any one variation has been set at €50,000 and the limit on the number of instructions changing the works requirement is set at 100. The Employer's approval is required to exceed either limit.

There has been no Bill of Quantities produced, but the Employer requires in Section A that any Bill submitted by tenderers in support of their tender price should be measured in accordance with the Method of Measurement for Roadworks of the NRA.

In **Section C**, the Employer opts not to seek any copyright in the contract documents.

In **Section D**, insurance limits have been selected at €13,000,000 for both EL and PL insurance. PI insurance is selected at a level of €6,200,000 any one event and an excess of €25,000 is deemed tolerable by the Employer in each case. PI insurance will be kept in place for six (6) years from the date of Substantial Completion and it needs to be in place from the earliest date that design work takes place on the Project. These limits should be set with advice from Insurance Specialists.

The Employer in this case has opted to have the Contractor extend insurance for the Section which is to be completed early, until the Substantial Completion of the whole of the Works.

In **Section E**, a performance bond is selected at 15% of the Contract Sum, reducing to 10% at the Date of Substantial Completion and this bond will be in place until a date 12 months after the date of Substantial Completion.

Collateral Warranties are to be sought from a number of Specialists in **Section F**, including the Culvert Design, the Bridge Design and the Landscaping Design, with the dates for the warranties and the withheld amounts in the event of late delivery set out.



In **Section G**, the Employer has required that the section of carriageway from Ch .0m to Ch. 6330m, including the junctions at both ends, must be available to take traffic at an earlier Substantial Completion date for that section and liquidated damages have separately been calculated for this element and for the whole of the Works as shown.

In **Section H**, the Employer has opted not to take on himself an obligation to issue a Certificate of Substantial Completion if either the Works, or the nominated Section, are completed before the scheduled dates.

The Defects Period is nominated at 12 months from the Date of Substantial Completion in **Section I**.

The **Section J** Delay and Compensation events listing is different for the Contractor-designed form of contract, as one might expect. The Employer has opted to pay delay costs associated with archaeological finds, in the light of preparatory investigative work, however he requires the Contractor to carry the risk associated with Utilities relocation delay.

The First Threshold, for the purposes of sub-clause 9.4, has been set at 40 Site Working Days and the Second Threshold has also been selected as 40 Site Working Days. The Employer has opted to pay the tendered amount in the Schedule Section 2E as the preferred way of handling costs of delay due to Compensation Events.

As regards the weather event data entries in Schedule J, the Guidance Notes discuss a 10 Year Return Period as the appropriate level of risk to transfer to the Contractor in this respect. This has a precise hydrological meaning, as the event which, in a long record, is likely to be exceeded once in 10 years. It is not equivalent to the worst event which occurred within the past decade, for example. In a project lasting perhaps 24-36 months at construction stage, there is a significant probability of the 10 year event occurring, be that rainfall or wind or temperature. Furthermore, it is not impossible (although the probability is low) that a 10 Year Return Period event could occur twice within a construction period. The Contractor carries that risk.

Note that the Schedule requires data for calendar months to be inserted. The Contractor also carries the risk associated with exceptional weather events (of 10 Year Return Period or greater) which straddle two calendar months, without actually producing 10 Year Return Period totals in either calendar month.

Met Éireann should be consulted on the statistics to be entered in the Schedule by the Employer, drawn from the Climatological Station most representative of the conditions at the site of the Works.

As regards sub-clause 10.6.3, the rates to be used to assess the cost of plant are those used in the UK Civil Engineering Contractors Association "*Schedule of Dayworks carried out incidental to Contract Works*" where the Sterling rates are deemed to be converted to euro by multiplying by a factor of 1.27.

In **Section K**, interim payments are intended to be monthly on a project of this size and the minimum amount for an interim payment has been set at €150,000. Retention has been set at 10%.

The President of Engineers Ireland has been nominated in Schedule Section L as the person who will appoint a Conciliator, should one be required.



CASE STUDY 1B – Completing the Schedule Part 1

Blank Schedule

SCHEDULE

PART 1

(Completed by the Employer before Tender)

A Employer's Representative and Communications

Sub-clause 4.3 and 4.14

Details for sending notices under clauses 12 and 13 to the Employer are:

For the attention of:

Address

.....

.....

.....

Details for sending other notices to the Employer are:

For the attention of:

Address

.....

.....

.....

fax
email

The Employer's Representative is:

Details for sending notices to the Employer's Representative are:

For the attention of:

Address

.....

.....

.....

Fax
Email



Limitations on the Employer's Representative's authority to perform his functions and powers under the Contract:

- Maximum adjustment to the Contract Sum for a single Change Order: €....., unless approved by the Employer
- Maximum cumulative value of adjustments to the Contract Sum for Change Orders in any three month period €....., unless approved by the Employer
- The Employer's Representative shall not make a Change Order causing or contributing to a reduction in safety, scope, quality or usefulness of the Works without the Employer's approval
- The Employer will decide whether to accept or reject a value engineering proposal
- The Employer's Representative is to consult with the Employer in relation to any adjustment to the Contract Sum before determining the adjustment
- Where the Employer has appointed a quantity surveyor, the Employer's Representative is to consult with the quantity surveyor in relation to any adjustments to the Contract Sum before determining the adjustment

-
-

B Documents

The **Works Requirements** are:

.....

.....

.....

.....

.....

The **Novated Design Documents** are:

.....

.....

.....

.....

The **Pricing Document** is:

.....

.....

.....

.....



If there is a Bill of Quantities, the **method of measurement** according to which it was prepared and measurements are to be made is

.....

.....

.....

.....

except when any statement or general or detailed description of the work in the Contract shows to the contrary.

C Property in Contractor's Documents

Sub-clause 6.4

Ownership in Contractor's Documents and Works Items described in sub-clause 6.4.2 **does/does not** transfer to the Employer in accordance with sub-clause 6.4. (If neither deleted, read as 'does not')

D Insurance

Clause 3

Insurance of the Works: minimum amount insured for professional fees% of reinstatement cost (if none stated, 12.5%)

Minimum indemnity limits for public liability and employers' liability Insurance:

- public liability insurance: € for any one event, but this limit may be on an annual aggregate basis for products liability, collapse, vibration, subsidence, removal and weakening of supports and sudden and accidental pollution. (If not stated, €6,500,000.)
- employers' liability insurance: € for any one event. (If not stated, €13,000,000)

Maximum excess for Insurance:

- insurance of Works and other Risk Items: € (If not stated, €10,000)
- public liability: € in respect of property damage only (If not stated, €10,000). There shall be no excess for death, injury or illness.
- employers' liability: no excess

Permitted exclusions from the Insurances:

- permitted exclusions from all Insurances
 - war, invasion, act of foreign enemies, hostilities (whether war is declared or not), civil war, rebellion, revolution, insurrection or military or usurped power or martial law
 - pressure waves caused by aircraft or other airborne objects travelling at sonic or supersonic speeds



- contamination by radioactivity or radioactive, toxic, explosive or other hazardous properties of any explosive nuclear assembly or its components, in each case not caused by the Contractor or the Contractor's Personnel
- **terrorism** *(delete if terrorism insurance is required)*
- **asbestos** *(delete if asbestos insurance is required)*
-
- permitted exclusions from insurance of the Works and other Risk Items:
 - use or occupation of the Works by the Employer except in connection with the Works
 - unless otherwise specified in the Works Requirements, cost of making good defects in the Works but not damage caused by such defects to other sound parts of the Works
 - wear, tear, normal upkeep or normal repair or gradual deterioration
 - inventory losses
 - loss of use or any consequential loss of any nature including penalties for delay, non-completion or non-compliance
 - failure of information technology
 - mechanical or electrical breakdown but not resulting damage
 - cessation of the Works for more than three months
 -
 -
- permitted exclusions from public liability insurance
 - persons under a contract of service or apprenticeship with the insured
 - property of the insured or in the insured's custody or control other than existing premises and their contents temporarily occupied for the purposes of the Works
 - defective workmanship or materials but not resulting damage
 - mechanically propelled vehicles within the meaning of the Road Traffic Acts
 - loss or damage due to design
 - gradual pollution or contamination
 - territorial limits
 - unless otherwise specified in the Works Requirements, aircraft and waterborne craft
 - fines, penalties, liquidated damages
 -



- permitted exclusions from employer's liability insurance
 - offshore work
 - liability compulsorily insurable under the Road Traffic Acts
- permitted exclusions from professional indemnity insurance
 - persons under a contract of service or apprenticeship with the insured
 - ownership, use, occupation or leasing of mobile or immobile property
 - effecting or maintenance of insurance of or in connection with the provision of finance or advice on financial matters
 - dishonest, malicious, criminal or deliberate illegal acts
 - libel and slander
 - insolvency
 - fines, penalties, liquidated damages or any penal, punitive, exemplary, non-compensatory or aggravated damages
 - failure of information technology
 - contractual liability that would not apply in the absence of the contract
 -
 -

Optional insurance provisions:

The Employer shall/shall not have the risk of loss of and damage to its existing facilities and parts of the Works it uses or occupies, in accordance with sub-clause 3.8. (*Delete as applicable.* If none deleted, the Employer shall not have this risk and sub-clause 3.8 shall not apply.)

Insurance of the Works and other Risk Items shall include the following property of the Employer, other than the Works and Works Items:

..... and the minimum sum for which this property is to be insured shall be €.....

If Insurance of the Works and other Risk Items is to include terrorism cover, the minimum sum insured shall be €.....

The Contractor shall/is not required to (*delete one*) extend the insurance of the Works and other Risk Items for a Section that has reached Substantial Completion until the Employer's Representative issues the certificate of Substantial Completion for the whole Works.

Required Extensions to Insurance:

Professional indemnity insurance is/is not (*delete one*) required. (If neither deleted, professional indemnity insurance is not required.) If required, the professional indemnity insurance is to be kept in place for years after Substantial Completion of the Works is certified by the Employer's Representative. If required, the minimum indemnity limit for professional indemnity insurance shall be €..... for each and every claim or series of claims arising from the same originating cause/annual aggregate limit (*delete one*). The maximum excess shall be €..... (if none stated, €50,000).

E Performance Bond

Sub-clause 1.5

A performance bond **is/is not** required. (*Delete one.* If none deleted, bond is required.)

The amount of the performance bond shall be% of the initial Contract Sum up to certification of Substantial Completion of the Works, and% of the initial Contract Sum for the period stated in the form of bond in the Works Requirements. (If not stated, 25% up to Substantial Completion, and 12.5% for 15 months after that.)

F Collateral Warranties

Sub-clause 5.5

Collateral warranties are required from the following categories of Specialists, by the following dates; and the amount withheld from payments under sub-clause 11.4.1 are as follows:

Category of Specialist	Date for warranty	Amount withheld

G Dates for Substantial Completion, Sections, Liquidated Damages, Retention

[Employer to complete names of sections]	Date for Substantial Completion <i>(unless to be completed by Contractor in part 2)</i> <i>(Last day of period starting on the Contract Date <u>or</u> date)</i>	Rate of Liquidated Damages	Reduction in retention on Substantial Completion of Section %
The Works		€ per	
Section:		€ per	
Section:		€ per	
Section:		€ per	
Section:		€ per	

**H Early Completion**
Sub-clause 9.6

The Employer's Representative **is/is not** required to issue the certificate of Substantial Completion if the Works or a Section reaches Substantial Completion before its Date for Completion. (If neither deleted, read as 'is required')

I Defects Period

The initial Defects Period is from the date of Substantial Completion of the Works

J Random Checks for Employment Records

Sub-clause 5.3.3A(2) **shall be /shall not be** part of the Contract.

Delete as applicable. If neither is deleted, read as "shall be".

K Delay Events, Compensation Events, Programme Contingency, Delay Costs, Adjustments
(Sub-clauses 9.3, 9.4, 10.1, 10.7)

Delay Events and Compensation Events are as follows:
(Employer to complete the shaded boxes "Yes" or "No")

Event	Delay Event	Compensation Event
1. The Employer's Representative gives the Contractor a Change Order	Yes	Yes
2. The Employer's Representative directs the Contractor to search for Defects or their cause and no Defect is found, and the search was not required because of a failure of the Contractor to comply with the Contract	Yes	Yes
3. The Employer's Representative directs the Contractor to suspend work under sub-clause 9.2	Yes	Yes
4. The Contractor suspends work in accordance with sub-clause 12.3	Yes	Yes
5. Not used		
6. The Employer takes over part of the Works before Substantial Completion of the Works and any relevant Section	Yes	Yes
7. Not used		
8. The Employer does not allow the Contractor access to and use of a part of the Site in accordance with sub-clause 7.1	Yes	Yes
9. The Employer does not give the Contractor a Works Item or other thing as required by the Contract when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1	Yes	Yes
10. Employer's Personnel interfere with the execution of the Works on the Site, and the interference is unforeseeable and not in accordance with the Contract	Yes	Yes
11. The Employer instructs the Contractor under sub-clause 3.2.3 to rectify loss of or damage to Risk Items for which the Contractor is not responsible	Yes	Yes



Event	Delay Event	Compensation Event
12. Loss of or damage to the Works that is at the Contractor's risk in accordance with clause 3.2	Yes	No
13. A weather event as described below	Yes	No
14. A strike or lockout affecting the construction industry generally or a significant part of it, and not confined to employees of the Contractor or any Contractor's Personnel	Yes	No
15. Delay to the Works caused by the order or other act of a court or other public authority exercising authority under Law, that did not arise as a result of or in relation to an act, omission or breach of Legal Requirements of the Contractor or the Contractor's Personnel or a breach of the Contract by the Contractor	Yes	Yes
16. A breach by the Employer of the Contract delaying the Works that is not listed elsewhere in this table.	Yes	Yes
17. Not used		
18. An item of value or archaeological or geological interest or human remains is found on the Site, and it was unforeseeable	Yes	
19. Not used		
20. Not used		
21. Owners of Utilities on the Site do not relocate or disconnect Utilities as stated in with the Works Requirements, when the Contractor has complied with their procedures and the procedures in the Contract, and the failure is unforeseeable	Yes	

In the above table:

Utilities means conducting media or apparatus for water, sewage, electricity, gas, oil, telecommunications, data, steam, air, or other services, and associated apparatus or structures.

A condition, circumstance or occurrence is **unforeseeable** if an experienced contractor tendering for the Works could not have reasonably foreseen it on the Designated Date, having inspected the Site and its surroundings and having satisfied itself, insofar as practicable, and taking into account any information in connection with the Site provided by the Employer as to all matters concerning the Site, including its form and nature and its geotechnical, hydrological and climatic conditions.

A **weather event** is when for any month between the Contract Date and the Date for Substantial Completion of the Works, the value for any of the weather listed below, as measured at weather station, is higher than the highest value occurring at least once every 10 years in the corresponding month of the year, on average according to historical data from the same station:

- cumulative rainfall for the month
- number of days in the month with rainfall exceeding 20mm
- number of days with minimum air temperature less than 0° Celsius
- number of days with maximum mean 10 minute wind speed exceeding 20 metres per second
-

If no weather station is named above, the weather station nearest the Site shall be used. If the weather station named above, or the nearest one, does not measure or record data for any of the above weather, the nearest station to the Site that measures and records that data shall be used for that weather.

In sub-clause 10.6.4(3), the rates to be used to determine the cost of plant are the rates in and any rates in the Pricing Document.



In sub-clause 9.4:

- the **first threshold** is Site Working Days of delay caused by Compensation Events
- the **second threshold** is Site Working Days of delay caused by Compensation Events

In sub-clause 10.7, the amount to be added for delay cost is (whichever is marked "yes"):

	the daily rate tendered by the Contractor in the Schedule, Part 2E (clause 10.7.1(1))
	the expenses unavoidably incurred as a result of the delay (clause 10.7.1(2))

The definition of craftspersons in part 2E includes the following additional categories:

For purposes of clause 10.7, the Contractor is to tender (in part 2E):

- a single rate for delay costs
- separate rates for delay costs for each of the following periods/portions of the Works:
 -
 -
 -

If the above are blank, Contractor is to tender a single daily rate

L Payment Particulars

Clause 11

Period for interim payment is (If none stated, monthly.)

Minimum amount for interim payments, except release of retention, €..... (If none stated, there is no minimum.)

When permitted by the Pricing Documents, up to% of the Contract value of unfixed Works Items may be included in an interim payment. (If none stated, 90%).

The retention percentage is%. (If none stated, 10%).

M Price Variation

Sub-clause 10.8

Clause PV1/Clause PV2 attached to this Schedule is part of the Contract. (Delete as applicable. If none deleted, Clause PV1 shall apply).

N Conciliation and Arbitration

Sub-clause 13.1.2

Failing agreement, the conciliator will be appointed by

Sub-clause 13.2

The arbitration rules are the Public Works Arbitration Rules, 2007.

The person or body to appoint the arbitrator (if not agreed by the parties) is



CASE STUDY 1B – Completing the Schedule Part 1

Worked Example

SCHEDULE

PART 1

(Completed by the Employer before Tender)

A Communications and Employer's Representative

Sub-clause 4.3 and 4.14

Details for sending notices under clauses 12 and 13 to the Employer are:

For the attention of: **Mr A Kelly, Contracting Authority Project Manager**

Address

**County Buildings
Casement Street**

Details for sending other notices to the Employer are:

For the attention of: **The County Secretary**

Address

**County Buildings
Casement Street
County of Oldtown**

Fax **00 353 601 93454**

Email **cosec@oldtowncc.ie**

The Employer's Representative is: **Justin Wright Ltd Consulting Engineers**

Details for sending notices to the Employer's Representative are:

For the attention of: **Mr John Wright**

Address

**100 Block 9 Uptown Business Park
Oldtown**

Fax **00 353 601 84344**

Email **jwright@justinwright.ie**



Limitations on the Employer's Representative's authority to perform his functions and powers under the Contract:

- Maximum adjustment to the Contract Sum for a single Change Order: €5,000, unless approved by the Employer
- Maximum cumulative value of adjustments to the Contract Sum for Change Orders in any three month period: €75,000.
- The Employer's Representative shall not make a Change Order causing or contributing to a reduction in safety, scope, quality or usefulness of the Works without the Employer's approval
- The Employer will decide whether to accept or reject a value engineering proposal
- The Employer's Representative is to consult with the Employer in relation to any adjustment to the Contract Sum before determining the adjustment
- Where the Employer has appointed a quantity surveyor, the Employer's Representative is to consult with the quantity surveyor in relation to any adjustments to the Contract Sum before determining the adjustment

-
-

B Documents

The **Works Requirements** are:

- (1) The Employer's Requirements
- (2) The published EIS
- (3) Contract Drawings (Land Take, Centrelines, Fence Lines)
- (4) The National Contract Requirements of Irish Pavement Materials Quality Assurance Ltd

The **Pricing Document** is:

12345-PD-001

If there is a Bill of Quantities, the **method of measurement** according to which it was prepared and measurements are to be made is

No Bill of Quantities provided

except when any statement or general or detailed description of the work in the Contract shows to the contrary.

Any BoQ submitted should be measured in accordance with the Method of Measurement for Roadworks by the NRA.

C Property in Contractor's Documents

Sub-clause 6.4

Ownership in Contractor's Documents and Works Items described in sub-clause 6.4.2 ~~does/does not~~ transfer to the Employer in accordance with sub-clause 6.4. (If neither deleted, read as 'does not')



D Insurance

Clause 3

Insurance of the Works: minimum amount insured for professional fees 7% of reinstatement cost (if none stated, 12.5%)

Minimum indemnity limits for public liability and employers' liability Insurance:

- public liability insurance: €13,000,000 for any one event, but this limit may be on an annual aggregate basis for products liability, collapse, vibration, subsidence, removal and weakening of supports and sudden and accidental pollution. (If not stated, €6,500,000.)
- employers' liability insurance: €13,000,000 for any one event. (If not stated, €13,000,000)

Maximum excess for Insurance:

- insurance of Works and other Risk Items: €25,000 (If not stated, €10,000)
- public liability: €25,000 in respect of property damage only (If not stated, €10,000). There shall be no excess for death, injury or illness.
- employers' liability: no excess

Permitted exclusions from the Insurances:

- permitted exclusions from all Insurances
 - war, invasion, act of foreign enemies, hostilities (whether war is declared or not), civil war, rebellion, revolution, insurrection or military or usurped power or martial law
 - pressure waves caused by aircraft or other airborne objects travelling at sonic or supersonic speeds
 - contamination by radioactivity or radioactive, toxic, explosive or other hazardous properties of any explosive nuclear assembly or its components, in each case not caused by the Contractor or the Contractor's Personnel
 - terrorism (delete if terrorism insurance is required)
 - asbestos (delete if asbestos insurance is required)
 -
- permitted exclusions from insurance of the Works and other Risk Items:
 - use or occupation of the Works by the Employer except in connection with the Works
 - unless otherwise specified in the Works Requirements, cost of making good defects in the Works but not damage caused by such defects to other sound parts of the Works
 - wear, tear, normal upkeep or normal repair or gradual deterioration
 - inventory losses



- loss of use or any consequential loss of any nature including penalties for delay, non-completion or non-compliance
 - failure of information technology
 - mechanical or electrical breakdown but not resulting damage
 - cessation of the Works for more than three months
 -
 -
- permitted exclusions from public liability insurance
 - persons under a contract of service or apprenticeship with the insured
 - property of the insured or in the insured's custody or control other than existing premises and their contents temporarily occupied for the purposes of the Works
 - defective workmanship or materials but not resulting damage
 - mechanically propelled vehicles within the meaning of the Road Traffic Acts
 - loss or damage due to design
 - gradual pollution or contamination
 - territorial limits
 - unless otherwise specified in the Works Requirements, aircraft and waterborne craft
 - fines, penalties, liquidated damages
 -
- permitted exclusions from employer's liability insurance
 - offshore work
 - liability compulsorily insurable under the Road Traffic Acts
- permitted exclusions from professional indemnity insurance
 - persons under a contract of service or apprenticeship with the insured
 - ownership, use, occupation or leasing of mobile or immobile property
 - effecting or maintenance of insurance of or in connection with the provision of finance or advice on financial matters
 - dishonest, malicious, criminal or deliberate illegal acts
 - libel and slander
 - insolvency



- fines, penalties, liquidated damages or any penal, punitive, exemplary, non-compensatory or aggravated damages
- failure of information technology
- contractual liability that would not apply in the absence of the contract
-
-

Optional insurance provisions:

The Employer ~~shall/shall not~~ have the risk of loss of and damage to its existing facilities and parts of the Works it uses or occupies, in accordance with sub-clause 3.8. (*Delete as applicable.* If none deleted, the Employer shall not have this risk and sub-clause 3.8 shall not apply.)

Insurance of the Works and other Risk Items shall include the following property of the Employer, other than the Works and Works Items:

Artworks and the minimum sum for which this property is to be insured shall be **€100,000**

If Insurance of the Works and other Risk Items is to include terrorism cover, the minimum sum insured shall be €.....

The Contractor ~~shall/is not required to~~ (*delete one*) extend the insurance of the Works and other Risk Items for a Section that has reached Substantial Completion until the Employer's Representative issues the certificate of Substantial Completion for the whole Works.

Required Extensions to Insurance:

Professional indemnity insurance ~~is/is not~~ (*delete one*) required. (If neither deleted, professional indemnity insurance is not required.) If required, the professional indemnity insurance is to be kept in place for **6 years** after Substantial Completion of the Works is certified by the Employer's Representative. If required, the minimum indemnity limit for professional indemnity insurance shall be **€6,200,000** for each and every claim or series of claims arising from the same originating cause/annual aggregate limit (*delete one*). The maximum excess shall be **€25,000** (if none stated, €50,000).

E Performance Bond

Sub-clause 1.5

A performance bond ~~is/is not~~ required. (*Delete one.* If none deleted, bond is required.)

The amount of the performance bond shall be **15%** of the initial Contract Sum up to certification of Substantial Completion of the Works, and **10%** of the initial Contract Sum for the period stated in the form of bond in the Works Requirements. (If not stated, 25% up to Substantial Completion, and 12.5% for 15 months after.)

F Collateral Warranties

Sub-clause 5.5

Collateral warranties are required from the following categories of Specialists, by the following dates; and the amount withheld from payments under sub-clause 11.4.1 are as follows:



Category of Specialist	Date for warranty	Amount withheld
Landscaping Design	14 February 2010	€50,000
Culvert Design	3 June 2008	€100,000
Bridge Design	3 June 2008	€150,000

G Dates for Substantial Completion, Sections, Liquidated Damages, Retention

[Employer to complete names of sections]	Date for Substantial Completion <i>(unless to be completed by Contractor in part 2)</i> <i>(Last day of period starting on the Contract Date <u>or</u> date)</i>	Rate of Liquidated Damages	Reduction in retention on Substantial Completion of Section
The Works	16 August 2010	€50,000 per week	From 10% of Contract Value to 5%
Section:	8 December 2008	€50,000 per week	€100 per day

H Early Completion

Sub-clause 9.6

The Employer's Representative **is/is not** required to issue the certificate of Substantial Completion if the Works or a Section reaches Substantial Completion before its Date for Completion. (If neither deleted, read as 'is required')

I Defects Period

The initial Defects Period is **12 months** from the date of Substantial Completion of the Works

J Random Checks for Employment Records

Sub-clause 5.3.3A(2) **shall be/shall not be** part of the Contract.

Delete as applicable. If neither is deleted, read as "shall be".

**K Delay Events, Compensation Events, Programme Contingency, Delay Costs, Adjustments***(Sub-clauses 9.3, 9.4, 10.1, 10.7)*

Delay Events and Compensation Events are as follows:
(Employer to complete the shaded boxes "Yes" or "No")

Event	Delay Event	Compensation Event
1. The Employer's Representative gives the Contractor a Change Order	Yes	Yes
2. The Employer's Representative directs the Contractor to search for Defects or their cause and no Defect is found, and the search was not required because of a failure of the Contractor to comply with the Contract	Yes	Yes
3. The Employer's Representative directs the Contractor to suspend work under sub-clause 9.2	Yes	Yes
4. The Contractor suspends work in accordance with sub-clause 12.3	Yes	Yes
5. There is a factual error in information about the Site or setting out information in the Works Requirements. [This does not include an error of interpretation]	Yes	Yes
6. The Employer takes over part of the Works before Substantial Completion of the Works and any relevant Section	Yes	Yes
7. The Employer's Representative does not give the Contractor an instruction required under sub-clause 4.5.4 within the time required under sub-clause 4.11.2 when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1	Yes	Yes
8. The Employer does not allow the Contractor access to and use of a part of the Site in accordance with sub-clause 7.1	Yes	Yes
9. The Employer does not give the Contractor a Works Item or other thing as required by the Contract when the Contractor has asked for the instruction in accordance with sub-clause 4.11.1	Yes	Yes
10. Employer's Personnel interfere with the execution of the Works on the Site, and the interference is unforeseeable and not in accordance with the Contract	Yes	Yes
11. The Employer instructs the Contractor under sub-clause 3.2.3 to rectify loss of or damage to Risk Items for which the Contractor is not responsible	Yes	Yes
12. Loss of or damage to the Works that is at the Contractor's risk in accordance with clause 3.2	Yes	No
13. A weather event as described below	Yes	No
14. A strike or lockout affecting the construction industry generally or a significant part of it, and not confined to employees of the Contractor or any Contractor's Personnel	Yes	No
15. Delay to the Works caused by the order or other act of a court or other public authority exercising authority under Law, that did not arise as a result of or in relation to an act, omission or breach of Legal Requirements of the Contractor or the Contractor's Personnel or a breach of the Contract by the Contractor	Yes	Yes



Event	Delay Event	Compensation Event
16. A breach by the Employer of the Contract delaying the Works that is not listed elsewhere in this table.	Yes	Yes
17. Not used		
18. An item of value or archaeological or geological interest or human remains is found on the Site, and it was unforeseeable	Yes	Yes
19. Not used		
20. Not used		
21. Owners of Utilities on the Site do not relocate or disconnect Utilities as stated in with the Works Requirements, when the Contractor has complied with their procedures and the procedures in the Contract, and the failure is unforeseeable	Yes	No

In the above table:

Utilities means conducting media or apparatus for water, sewage, electricity, gas, oil, telecommunications, data, steam, air, or other services, and associated apparatus or structures.

A condition, circumstance or occurrence is **unforeseeable** if an experienced contractor tendering for the Works could not have reasonably foreseen it on the Designated Date, having inspected the Site and its surroundings and having satisfied itself, insofar as practicable, and taking into account any information in connection with the Site provided by the Employer as to all matters concerning the Site, including its form and nature and its geotechnical, hydrological and climatic conditions.

A **weather event** is when for any month between the Contract Date and the Date for Substantial Completion of the Works, the value for any of the weather listed below, as measured at weather station, is higher than the highest value occurring at least once every 10 years in the corresponding month of the year, on average according to historical data from the same station:

- cumulative rainfall for the month
- number of days in the month with rainfall exceeding 20mm
- number of days with minimum air temperature less than 0° Celsius
- number of days with maximum mean 10 minute wind speed exceeding 20 metres per second
-

If no weather station is named above, the weather station nearest the Site shall be used. If the weather station named above, or the nearest one, does not measure or record data for any of the above weather, the nearest station to the Site that measures and records that data shall be used for that weather.

In sub-clause 10.6.4(3), the rates to be used to determine the cost of plant are the rates in UK Civil Engineering Contractors Association Schedules of Dayworks Carried Out Incidental to Contract Work August 2003 reprint (Note: Only Schedule 4 will apply) (Rates will be considered to be in Euro) and any rates in the Pricing Document.

In sub-clause 9.4:

- the **first threshold** is 40 Site Working Days of delay caused by Compensation Events
- the **second threshold** is 40 Site Working Days of delay caused by Compensation Events



In sub-clause 10.7, the amount to be added for delay cost is (whichever is marked "yes"):

YES	the amount stated in Part 2E of this Schedule as the Contractor's daily rate of delay cost
	the expenses (excluding profit and loss or profit) unavoidably incurred by the Contractor

The definition of craftspersons in part 2E includes the following additional categories:

For purposes of clause 10.7, the Contractor is to tender (in part 2E):

- a single rate for delay costs
- separate rates for delay costs for each of the following periods/portions of the Works:
 - | |
|--|
| |
|--|
 - | |
|--|
| |
|--|
 - | |
|--|
| |
|--|

If the above are blank, Contractor is to tender a single rate

L Payment Particulars

Clause 11

Period for interim payment is **monthly** (If none stated, monthly.)

Minimum amount for interim payments, except release of retention, **€150,000**. (If none stated, there is no minimum.)

When permitted by the Pricing Documents, up to **90%** of the Contract value of unfixed Works Items may be included in an interim payment. (If none stated, 90%).

The retention percentage is **10%**. (If none stated, 10%).

M Price Variation

Sub-clause 10.8

Clause PV1/Clause PV2 attached to this Schedule is part of the Contract. (Delete as applicable. If none deleted, Clause PV2 shall apply).

N Conciliation and Arbitration

Sub-clause 13.1.2

Failing agreement, the conciliator will be appointed by the **President of Engineers Ireland**.

Sub-clause 13.2

The arbitration rules are the Public Works Arbitration Rules, 2007.

The person or body to appoint the arbitrator (if not agreed by the parties) is

.....

17 Case Study 2 Tender Evaluation



CASE STUDY 2

Tender Evaluation

Introduction

Tenders have been invited from tenderers under the Restricted Procedure for the construction of the new local authority headquarters building for LA County Council.

The criterion for evaluation of tenders is MEAT.

Tenders have been received from five Contractors Nr 1, Nr 2, Nr 3, Nr 4 and NR 5, as follows:

Tenderer	Amount (Incl VAT)
Tenderer Nr 3	€39,054,750
Tenderer Nr 1	€39,206,800
Tenderer Nr 4	€39,207,550
Tenderer Nr 2	€39,236,250
Tenderer Nr 5	€40,100,361

The following values were inserted in Section 12.5 of the Instructions to Tenderers for determining the comparative costs of tenderers:

5,000 hours of craftspersons time
3,000 hours of general operative time
1,000 hours of apprentice time
€150,000 of materials cost
€75,000 of plant cost
50 site work days of delay

The pages hereafter contain the following:

- (a) Blank Schedule Part 2;
- (b) Blank Summary of the Pricing Document;
- (c) The Schedules Part 2 submitted by tenderers, together with completed summaries of the pricing document; and
- (d) A pro forma summary tender evaluation tender

The Task

Delegates are requested to complete the pro forma commercial tender evaluation sheet.



SCHEDULE PART 2

TENDERER NR 1

(Completed by the Contractor and provided with Tender)

A Communications

Sub-clause 4.14

The details for sending notices under clause 12 or 13 to the Contractor are:

For the attention of: **Mr Peter Rock**

Address

**Build Ex Ltd
1 The Heights
LA Town
Co LA**

The details for sending other notices to the Contractor are:

For the attention of: **Mr John Doyle**

Address

**Build Ex Ltd
1 The Heights
LA Town
Co LA**

Fax **012 567835**

Email **john.doyle@buildex.com**

The Contractor's agent in the Republic of Ireland for service of legal process is:

For the attention of:

Address

.....
.....
.....

Note: An agent in the State must be named if the Contractor's registered office (or other principal place of business) is outside the State).



B Parent Company Guarantee

Sub-clause 1.6

The Contractor shall provide a parent company guarantee in the form in the Works Requirements from:

.....
(name and address of parent company, registered address and place where incorporated or organised).
If none named, no parent company guarantee required.

(NOTE: In open procedures, tenderers must name a guarantor if parent company is identified for purposes of satisfying tender requirements. In restricted procedures, tenderers must name a guarantor if parent company has been identified for purposes of pre-qualification..)

C Works Proposals

The **Works Proposals** are the following

As contained in Document 1853-WP-001

D Dates for Substantial Completion

	Date for Substantial Completion Number of Working Days after the Contract Date (to be completed by Contractor in Tender ONLY if not completed by Employer in Part 1)
The Works	
Section: (Employer to complete)	
Section: (Employer to complete)	
Section: (Employer to complete)	
Section: (Employer to complete)	

E Adjustments to the Contract Sum

Sub-clauses 10.7 and 10.8

The Contractor's tendered daily rates for labour and related costs (including PRSI, benefits, tool money, travelling time and country money):

- Craftspersons €28 per hour
- General Operatives €26 per hour
- Apprentices €20 per hour

Craftspersons means those categories of work persons described as "craftsmen" or "electricians" in employment agreements registered under the Industrial Relations Acts 1946 to 2004, and, any additional categories listed in Part 1K

General Operatives means all direct labour other than craftspersons

Apprentices means categories of work persons under a contract of apprenticeship for trades whose practitioners fall within the above definition of Craftspersons

The Contractor's tendered percentage addition for costs of materials **5%**

The Contractor's tendered percentage addition/deduction for costs of plant **5%**



All of the above shall include on-costs, overheads and profit, and exclude VAT.
(If either of the above is left blank, read as zero.)

The Contractor's tendered rate of delay costs is: €5,000 excluding VAT per Site Working Day. (If blank, read as zero.)

If part 1K states that separate rates for to be tendered for separate periods/portions of the Works, the Contractor's tendered rates are as follows:

<u>Period/portion of the Works (part 1K)</u>	<u>Tendered Rate</u>
○	€ per Site Working Day
○	€ per Site Working Day
○	€ per Site Working Day



Summary of Pricing Document – Tenderer Nr 1

		€	c
Bill Nr 1	Preliminaries & Insurances (06) (07)	3,950,000	00
Bill Nr 2	Substructure (1-)	1,400,000	00
Bill Nr 3	Structure (2-)	8,960,000	00
Bill Nr 4	Structure Completions (3-)	3,710,000	00
Bill Nr 5	Finishes (4-)	2,550,000	00
Bill Nr 6	Services (Mainly piped and ducted) (5-)	3,960,000	00
Bill Nr 7	Services (Mainly electrical) (6-)	2,970,000	00
Bill Nr 8	Fittings and Furniture (7-)	960,000	00
Bill Nr 9	Site Generally (-0)	6,020,000	00
	Sub-total	€ 34,480,000	00
	Value added tax @ 13½%	4,525,200	00
	Value added tax @ 21%	201,600	00
	Total Amount of Tender to Form of Tender	€ 39,206,800	00



SCHEDULE PART 2

TENDERER NR 2

(Completed by the Contractor and provided with Tender)

A Communications

Sub-clause 4.14

The details for sending notices under clause 12 or 13 to the Contractor are:

For the attention of: **Managing Director**

Address

**Build IT Ltd
20 The Heights
LA Town
Co LA**

The details for sending other notices to the Contractor are:

For the attention of: **Mr Peter Rock**

Address

**Build IT Ltd
20 The Heights
LA Town
Co LA**

Fax **04 6753896**

Email **peter.rock@buildit.com**

The Contractor's agent in the Republic of Ireland for service of legal process is:

For the attention of:

Address

.....
.....
.....

Note: An agent in the State must be named if the Contractor's registered office (or other principal place of business) is outside the State).



B Parent Company Guarantee

Sub-clause 1.6

The Contractor shall provide a parent company guarantee in the form in the Works Requirements from:

.....
(name and address of parent company, registered address and place where incorporated or organised).
If none named, no parent company guarantee required.

(NOTE: In open procedures, tenderers must name a guarantor if parent company is identified for purposes of satisfying tender requirements. In restricted procedures, tenderers must name a guarantor if parent company has been identified for purposes of pre-qualification..)

C Works Proposals

The **Works Proposals** are the following

As contained in Document 24936/WP/001

D Dates for Substantial Completion

	Date for Substantial Completion Number of Working Days after the Contract Date (to be completed by Contractor in Tender ONLY if not completed by Employer in Part 1)
The Works	
Section: (Employer to complete)	
Section: (Employer to complete)	
Section: (Employer to complete)	
Section: (Employer to complete)	

E Adjustments to the Contract Sum

Sub-clauses 10.7 and 10.8

The Contractor's tendered daily rates for labour and related costs (including PRSI, benefits, tool money, travelling time and country money):

- Craftspersons €28 per hour
- General Operatives €26 per hour
- Apprentices €22 per hour

Craftspersons means those categories of work persons described as "craftsmen" or "electricians" in employment agreements registered under the Industrial Relations Acts 1946 to 2004, and, any additional categories listed in Part 1K

General Operatives means all direct labour other than craftspersons

Apprentices means categories of work persons under a contract of apprenticeship for trades whose practitioners fall within the above definition of Craftspersons

The Contractor's tendered percentage addition for costs of materials **2%**

The Contractor's tendered percentage addition/deduction for costs of plant **2%**



All of the above shall include on-costs, overheads and profit, and exclude VAT.
(If both of the above is left blank, read as zero.)

The Contractor's tendered rate of delay costs is: €3,500 excluding VAT per Site Working Day. (If blank, read as zero.)

If part 1K states that separate rates for to be tendered for separate periods/portions of the Works, the Contractor's tendered rates are as follows:

<u>Period/portion of the Works (part 1K)</u>	<u>Tendered Rate</u>
○	€ per Site Working Day
○	€ per Site Working Day
○	€ per Site Working Day



Summary of Pricing Document – Tenderer Nr 2

		€	c
Bill Nr 1	Preliminaries & Insurances (06) (07)	3,600,000	00
Bill Nr 2	Substructure (1-)	1,500,000	00
Bill Nr 3	Structure (2-)	9,050,000	00
Bill Nr 4	Structure Completions (3-)	3,600,000	00
Bill Nr 5	Finishes (4-)	2,700,000	00
Bill Nr 6	Services (Mainly piped and ducted) (5-)	4,050,000	00
Bill Nr 7	Services (Mainly electrical) (6-)	2,990,000	00
Bill Nr 8	Fittings and Furniture (7-)	1,050,000	00
Bill Nr 9	Site Generally (-0)	5,960,000	00
	Sub-total	€ 34,500,000	00
	Value added tax @ 13½%	4,515,750	00
	Value added tax @ 21%	220,500	00
	Total Amount of Tender to Form of Tender	€ 39,236,250	00



SCHEDULE PART 2

TENDERER NR 3

(Completed by the Contractor and provided with Tender)

A Communications

Sub-clause 4.14

The details for sending notices under clause 12 or 13 to the Contractor are:

For the attention of: **Managing Director**

Address

**Build All Ltd
157 The Heights
LA Town
Co LA**

The details for sending other notices to the Contractor are:

For the attention of: **Mr John O'Brien**

Address

**Build All Ltd
157 The Heights
LA Town
Co LA**

Fax

Email

The Contractor's agent in the Republic of Ireland for service of legal process is:

For the attention of:

Address

.....
.....
.....

Note: An agent in the State must be named if the Contractor's registered office (or other principal place of business) is outside the State).



B Parent Company Guarantee

Sub-clause 1.6

The Contractor shall provide a parent company guarantee in the form in the Works Requirements from:

.....
(name and address of parent company, registered address and place where incorporated or organised).
If none named, no parent company guarantee required.

(NOTE: In open procedures, tenderers must name a guarantor if parent company is identified for purposes of satisfying tender requirements. In restricted procedures, tenderers must name a guarantor if parent company has been identified for purposes of pre-qualification..)

C Works Proposals

The **Works Proposals** are the following

As contained in Document 5893-WP-002

D Dates for Substantial Completion

	Date for Substantial Completion Number of Working Days after the Contract Date (to be completed by Contractor in Tender ONLY if not completed by Employer in Part 1)
The Works	
Section: (Employer to complete)	
Section: (Employer to complete)	
Section: (Employer to complete)	
Section: (Employer to complete)	

E Adjustments to the Contract Sum

Sub-clauses 10.7 and 10.8

The Contractor's tendered daily rates for labour and related costs (including PRSI, benefits, tool money, travelling time and country money):

- Craftspersons €39 per hour
- General Operatives €30 per hour
- Apprentices €24 per hour

Craftspersons means those categories of work persons described as "craftsmen" or "electricians" in employment agreements registered under the Industrial Relations Acts 1946 to 2004, and, any additional categories listed in Part 1K

General Operatives means all direct labour other than craftspersons

Apprentices means categories of work persons under a contract of apprenticeship for trades whose practitioners fall within the above definition of Craftspersons

The Contractor's tendered percentage addition for costs of materials **25%**

The Contractor's tendered percentage addition/deduction for costs of plant **10%**



All of the above shall include on-costs, overheads and profit, and exclude VAT.
(If both of the above is left blank, read as zero.)

The Contractor's tendered rate of delay costs is: €6,000 excluding VAT per Site Working Day. (If blank, read as zero.)

If part 1K states that separate rates for to be tendered for separate periods/portions of the Works, the Contractor's tendered rates are as follows:

<u>Period/portion of the Works (part 1K)</u>	<u>Tendered Rate</u>
○	€ per Site Working Day
○	€ per Site Working Day
○	€ per Site Working Day



Summary of Pricing Document – Tenderer Nr 3

		€	c
Bill Nr 1	Preliminaries & Insurances (06) (07)	3,930,000	00
Bill Nr 2	Substructure (1-)	1,370,000	00
Bill Nr 3	Structure (2-)	8,950,000	00
Bill Nr 4	Structure Completions (3-)	3,650,000	00
Bill Nr 5	Finishes (4-)	2,500,000	00
Bill Nr 6	Services (Mainly piped and ducted) (5-)	4,100,000	00
Bill Nr 7	Services (Mainly electrical) (6-)	2,950,000	00
Bill Nr 8	Fittings and Furniture (7-)	900,000	00
Bill Nr 9	Site Generally (-0)	6,000,000	00
Sub-total		€ 34,350,000	00
	Value added tax @ 13½%	4,515,750	00
	Value added tax @ 21%	189,000	00
Total Amount of Tender to Form of Tender		€ 39,054,750	00



SCHEDULE PART 2

TENDERER NR 4

(Completed by the Contractor and provided with Tender)

A Communications

Sub-clause 4.14

The details for sending notices under clause 12 or 13 to the Contractor are:

For the attention of: **Managing Director**

Address

**Build Now Ltd
20 The Heights
LA Town
Co LA**

The details for sending other notices to the Contractor are:

For the attention of: **Ms Kate O'Shea**

Address

**Build Now Ltd
20 The Heights
LA Town
Co LA**

Fax **06 583345**

Email **kos@buildnow.com**

The Contractor's agent in the Republic of Ireland for service of legal process is:

For the attention of:

Address

.....
.....
.....

Note: An agent in the State must be named if the Contractor's registered office (or other principal place of business) is outside the State).



B Parent Company Guarantee

Sub-clause 1.6

The Contractor shall provide a parent company guarantee in the form in the Works Requirements from:

.....
(name and address of parent company, registered address and place where incorporated or organised).
If none named, no parent company guarantee required.

(NOTE: In open procedures, tenderers must name a guarantor if parent company is identified for purposes of satisfying tender requirements. In restricted procedures, tenderers must name a guarantor if parent company has been identified for purposes of pre-qualification..)

C Works Proposals

The **Works Proposals** are the following

As contained in Document 467-WP-001

D Dates for Substantial Completion

	Date for Substantial Completion Number of Working Days after the Contract Date (to be completed by Contractor in Tender ONLY if not completed by Employer in Part 1)
The Works	
Section: (Employer to complete)	
Section: (Employer to complete)	
Section: (Employer to complete)	
Section: (Employer to complete)	

E Adjustments to the Contract Sum

Sub-clauses 10.7 and 10.8

The Contractor's tendered daily rates for labour and related costs (including PRSI, benefits, tool money, travelling time and country money):

- Craftspersons €30 per hour
- General Operatives €27 per hour
- Apprentices €25 per hour

Craftspersons means those categories of work persons described as "craftsmen" or "electricians" in employment agreements registered under the Industrial Relations Acts 1946 to 2004, and, any additional categories listed in Part 1K

General Operatives means all direct labour other than craftspersons

Apprentices means categories of work persons under a contract of apprenticeship for trades whose practitioners fall within the above definition of Craftspersons

The Contractor's tendered percentage addition for costs of materials **5%**

The Contractor's tendered percentage addition/deduction for costs of plant **5%**



All of the above shall include on-costs, overheads and profit, and exclude VAT.
(If both of the above is left blank, read as zero.)

The Contractor's tendered rate of delay costs is: €4,600 excluding VAT per Site Working Day. (If blank, read as zero.)

If part 1K states that separate rates for to be tendered for separate periods/portions of the Works, the Contractor's tendered rates are as follows:

<u>Period/portion of the Works (part 1K)</u>	<u>Tendered Rate</u>
○	€ per Site Working Day
○	€ per Site Working Day
○	€ per Site Working Day



Summary of Pricing Document – Tenderer Nr 4

		€	c
Bill Nr 1	Preliminaries & Insurances (06) (07)	3,800,000	00
Bill Nr 2	Substructure (1-)	1,450,000	00
Bill Nr 3	Structure (2-)	9,100,000	00
Bill Nr 4	Structure Completions (3-)	3,540,000	00
Bill Nr 5	Finishes (4-)	2,700,000	00
Bill Nr 6	Services (Mainly piped and ducted) (5-)	3,900,000	00
Bill Nr 7	Services (Mainly electrical) (6-)	2,980,000	00
Bill Nr 8	Fittings and Furniture (7-)	970,000	00
Bill Nr 9	Site Generally (-0)	5,950,000	00
	Sub-total	€ 34,480,000	00
	Value added tax @ 13½%	4,523,850	00
	Value added tax @ 21%	203,700	00
	Total Amount of Tender to Form of Tender	€ 39,207,550	00



Case Study 2 – Tender Evaluation

Attachment Nr 3 – TO BE COMPLETED BY DELEGATES

		Tender Nr 3	Tender Nr 1	Tender Nr 4	Tender Nr 2				
		€	€	€	€				
Bill Nr 1	Preliminaries & Insurances (06) (07)	3,930,000	3,950,000	3,800,000	3,600,000				
Bill Nr 2	Substructure (1-)	1,370,000	1,400,000	1,450,000	1,500,000				
Bill Nr 3	Structure (2-)	8,950,000	8,960,000	9,100,000	9,050,000				
Bill Nr 4	Structure Completions (3-)	3,650,000	3,710,000	3,540,000	3,600,000				
Bill Nr 5	Finishes (4-)	2,500,000	2,550,000	2,700,000	2,700,000				
Bill Nr 6	Services (Mainly piped and ducted) (5-)	4,100,000	3,960,000	3,990,000	4,050,000				
Bill Nr 7	Services (Mainly electrical) (6-)	2,950,000	2,970,000	2,980,000	2,990,000				
Bill Nr 8	Fittings and Furniture (7-)	900,000	960,000	970,000	1,050,000				
Bill Nr 9	Site Generally (-0)	6,000,000	6,020,000	5,950,000	5,960,000				
	Sub-total	34,350,000	34,480,000	34,480,000	34,500,000				
	Value added tax @ 13½%	4,515,750	4,525,200	4,523,850	4,515,750				
	Value added tax @ 21%	189,000	201,600	203,700	220,500				
	Total Amount of Tender as Forms of Tender €	39,054,750	39,206,800	39,207,550	39,236,250				
QUANTITY	<u>Labour</u>	TENDERED	EXTENSION	TENDERED	EXTENSION	TENDERED	EXTENSION	TENDERED	EXTENSION
	5,000	VALUE		VALUE		VALUE		VALUE	
	3,000								
	1,000								
	<u>Materials</u>								
€150,000	Percentage addition to this for materials								
	<u>Plant</u>								
€75,000	Percentage addition to this for plant								
	<u>Delays</u>								
50	Days delay @ delay cost per day								
	<u>VAT @ 13½%</u>								
	CALCULATION OF SUBMITTED TENDER €								

Note: Tender Nr 5 was found to be non-compliant.



Case Study 2 – Tender Evaluation
Attachment Nr 4 – Worked Solution

		Tender Nr 3		Tender Nr 1		Tender Nr 4		Tender Nr 2	
		€		€		€		€	
Bill Nr 1	Preliminaries & Insurances (06) (07)	3,930,000		3,950,000		3,800,000		3,600,000	
Bill Nr 2	Substructure (1-)	1,370,000		1,400,000		1,450,000		1,500,000	
Bill Nr 3	Structure (2-)	8,950,000		8,960,000		9,100,000		9,050,000	
Bill Nr 4	Structure Completions (3-)	3,650,000		3,710,000		3,540,000		3,600,000	
Bill Nr 5	Finishes (4-)	2,500,000		2,550,000		2,700,000		2,700,000	
Bill Nr 6	Services (Mainly piped and ducted) (5-)	4,100,000		3,960,000		3,990,000		4,050,000	
Bill Nr 7	Services (Mainly electrical) (6-)	2,950,000		2,970,000		2,980,000		2,990,000	
Bill Nr 8	Fittings and Furniture (7-)	900,000		960,000		970,000		1,050,000	
Bill Nr 9	Site Generally (-0)	6,000,000		6,020,000		5,950,000		5,960,000	
Sub-total		34,350,000		34,480,000		34,480,000		34,500,000	
Value added tax @ 13½%		4,515,750		4,525,200		4,523,850		4,515,750	
Value added tax @ 21%		189,000		201,600		203,700		220,500	
Total Amount of Tender as Forms of Tender €		39,054,750		39,206,800		39,207,550		39,236,250	
QUANTITY	<u>Labour</u>	TENDERED VALUE	EXTENSION	TENDERED VALUE	EXTENSION	TENDERED VALUE	EXTENSION	TENDERED VALUE	EXTENSION
	5,000 Hours Craftspersons	39	195,000	28	140,000	30	150,000	28	140,000
	3,000 Hours General Operatives	30	90,000	26	78,000	27	81,000	26	78,000
	1,000 Hours Apprentices	24	24,000	20	20,000	25	25,000	22	22,000
	<u>Materials</u>								
	€150,000 Percentage addition to this for materials	25%	37,500	5%	7,500	5%	7,500	2%	3,000
	<u>Plant</u>								
	€75,000 Percentage addition to this for plant	10%	7,500	5%	3,750	5%	3,750	2%	1,500
	<u>Delays</u>								
	50 Days delay @ delay cost per day	€6,000	300,000	€5,000	250,000	€4,600	230,000	€3,500	175,000
VAT @ 13½%		88,290		67,399		67,129		56,633	
COMPARATIVE COST OF TENDERS €		39,797,040		39,773,449		39,771,929		39,712,383	

Note: Tender Nr 5 was found to be non-compliant.



18 Case Study 3

Some Contract Administration Issues



CASE STUDY 3 – Some Contract Administration Issues

Delay and Compensation Events

This case study refers to the project covered by Case Studies 1 and 2, the LA County Council Civic Offices.

Three letters have been sent from the Contractor to the Employer's Representative as follows:

Letter Nr 1	Letter Nr 1 dated 15 January 2008	Items of archaeological interest
Letter Nr 2	Letter Nr 2 dated 30 January 2008	Unforeseen ground conditions
Letter Nr 3	Letter Nr 3 dated 30 September 2008	Proposed Instruction

Accompanying each letter is a set of facts as determined by the Employer's Representative.

Delegates are requested to draft a response to each letter.

Supplementaries

In the case of Letter Nr 1	What would the position have been if the Archaeologist had been directly engaged by the Employer?
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LETTER NR 1

ITEMS OF ARCHAEOLOGICAL INTEREST

BUILD IT LTD
20 The Heights
LA Town
Co LA

15 January 2008

Santiago Balaclava & Asociados SA
50 The Heights
LA Town
County LA

Dear Sirs

Building Contract for LA County Council Civic Offices Building Notice Pursuant to Clause 10.3 of the Contract

I refer to the above Project and now provide substantiation in respect of the delay and compensation event notified to you in our letter dated 6 December 2007.

1.0 The Facts

The Works Requirements indicate that the novated Specialist archaeological sub-contractor would carry out its archaeological excavations during the period mid November to mid December 2007 and we had programmed for this period and for the attendance required. The archaeological activities will now not be completed until mid January 2008, a whole month of delay because:

1. progress is significantly slower than had been anticipated due to the level of detailed recording required no doubt reflecting the archaeological interest of the buried ruins;
2. the week long exceptionally poor weather with very heavy snow during the period 28 November to 4 December 2007 which meant that the archaeologists could not get on to site, with the blanket of snow the ground could not be seen, the site was unsafe and moreover the ground was too hard to excavate because of ground frost and subsequently the effect of the melting snow was that the excavations had to be pumped out to enable the archaeologists work and the photographic record be generated. None of this was anticipated.

2.0 The Effects

This delay has caused a one month or 21 site working days to the Date for Substantial Completion date as follows:

Delay Event (Weather Event)	5 working days delay
Compensation Event (Items of Archaeological Interest)	21 working days delay (to be drawn down from programme contingency)



Hire and Operation of Pumping Equipment/Earthwork Support	€
Pump – 4 days @ 24 hours @ €7.00/hr	672.00
Labour Attendance – 32 hours @ €26/hr	832.00
40 hours (T&1/2) @ €36.00/hr	1,400.00
Earthwork Support Trench sheeting per hirer's invoice	2,700.00
Additional Cost (Excluding VAT)	€5,604.00

We consider that the facts of this matter have been well aired at recent site meetings and during your site visits and that no further information should be necessary to enable us to demonstrate our entitlement, or for you to make a decision. If however you require further information, please do not hesitate to contact me.

Yours faithfully

Peter Rock
Contracts Manager
BUILD IT LTD

The facts as determined by the Employer's Representative

1. The Archaeology Specialist had previously indicated he would have four archaeologists working on the Project in the event he only had two;
2. The Contractor was genuinely delayed by the Archaeology Specialist;
3. There was snow (50mm deep) and air temperatures below 0° Celsius during the period 28 November to 4 December 2007 and during this period the Archaeology Specialist could not carry out any work;
4. The Employer's Representative has determined that the bad weather is not a weather event;
5. After the snow melted, the Contractor had to pump out the excavations and provide some additional earthwork support to enable the Archaeology Specialist continue working safely and make up for the lost time.



LETTER NR 2

UNFORESEEN GROUND CONDITIONS

BUILD IT LTD
20 The Heights
LA Town
Co LA

30 January 2008

Santiago Balaclava & Asociados SA
50 The Heights
LA Town
County LA

Dear Sirs

Building Contract for LA County Council Civic Offices Building Notice Pursuant to Clause 10.3 of the Contract

I refer to the above Project and now provide substantiation in respect of the delay and compensation event notified to you in our letter dated 17 January 2008.

1.0 The Facts

All of the borehole logs in the site investigation reports indicate that rock is to be encountered some 4-6m below existing ground level and below the formation level of the proposed basement car park. In the event, significant outcrops of hard granite rock have been encountered at 1.5m below the existing ground level and the estimated quantity of rock to be removed is some 2,000cu m. This quantity has been measured and agreed between Employer's Quantity Surveyor and our Quantity Surveyor. These outcrops are scattered throughout the site and it is unrealistic to consider advancing parts of the works until these have been excavated.

2.0 The Effects

This delay has caused a 51 working day delay to progress on site and the entitlement for our extension of time is calculated as follows:

Delay caused by rock	51 working days
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Less

Delay to first threshold	21 working days
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Delay to second threshold	20 working days
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Extension of time required	<u>10 working days</u>
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3.0 Proposed Adjustment to Contract Sum

The proposed adjustment to the contract sum is as follows:

Additional preliminaries for 10 site working days delay @ €3,500	€35,000
Extra cost of excavating in rock 2,000cu m @ €40/cu m	€80,000
Sub-total	€115,000
VAT @ 13.5%	€15,525
Total	€130,525

We consider that the facts of this matter have been well aired at recent site meetings, during your site visits and in discussions on site so no further information should be necessary to enable us to demonstrate our entitlement, or for you to make a decision. If however you require further information, please do not hesitate to contact me.

Yours faithfully

Peter Rock
Contracts Manager
BUILD IT LTD

The facts as determined by the Employer's Representative

1. The Contractor has indeed encountered hard granite rock on the site and the quantity is in the region of 2,000cu m;
2. There was no indication of this rock in any of the site investigation reports and the site investigation reports are found to be factually correct for the boreholes and trial pits that were sunk;
3. The Contractor's estimate of the delay period of 51 working days has been examined by the ER and is considered reasonable;
4. The Contractor is doing everything possible to mitigate the effects of the delay.



LETTER NR 3

PROPOSED INSTRUCTION

BUILD IT LTD
20 The Heights
LA Town
Co LA

15 September 2008

Santiago Balaclava & Asociados SA
50 The Heights
LA Town
County LA

Dear Sirs

Building Contract for LA County Council Civic Offices Building Proposed Instruction for an Additional Floor

I refer to the above Project and now provide substantiation in respect of the delay and compensation event notified to you in our letter dated 1 August 2008.

1.0 The Facts

The building has been designed to support an additional 2nd floor and as a result of a policy decision to relocate some staff from a government agency to the building 1 additional floor will now be built. Planning and fire safety cert approval in respect of this change have now been secured.

2.0 Proposed Adjustment to Contract Sum

The proposed adjustment to the contract sum is as follows:

Estimated delay costs for 150 working days delay @ €3,500	€525,000
Measured work value	€3,500,000
Preliminaries	€420,000
Sub-total	€4,445,000
VAT @ 13.5%	€660,075
Total	€5,045,075



3.0 The Effects

We estimate that delay will delay progress by some 150 days and as this is caused by a compensation event and the programme contingency has been fully used up we request that the Date for Substantial Completion be further extended to reflect this. We also wish to put on record the point that we have raised at our recent meetings that 150 days can only be our estimate of the delay at this stage – we will revert when the exact delay is known.

If you require further information, please do not hesitate to contact me.

Yours faithfully

Peter Rock
Contracts Manager
BUILD IT LTD

The facts as determined by the Employer's Representative

1. The Employer has requested this additional change;
2. The Quantity Surveyor has agreed the quantities associated with the change;
3. The measured work has been priced at the rates in the Pricing Document and this has been agreed to by the Quantity Surveyor;
4. The programme has been reviewed and the 150 days is considered reasonable, however the original scope is still to be completed by the original date;
5. The Employer's Representative considers that it should be possible to complete the original scope by the contract date for Substantial Completion;
6. The programme contingency has been used by earlier compensation events.

19 Frequently Asked Questions



19. Frequently Asked Questions

QUESTIONS ON RISK

- 19.1** What of risks other than those listed in Schedule Part I, Section K? If they are to be the Contractors', what is the mechanism of allocation in the Contract Documents?

Part K of the Schedule Part I allocates certain risks to the Contractor, either by the prescribed allocation, or by election of the Employer where this discretion is permitted. Any other risks are deemed to be the Contractors' risks, except those giving rise to a change in the Works Requirements. The identification and evaluation of risks would be part of the Risk Assessment and Management process in the development of the Works Requirements.

Risks which materialise and require change in the Works Requirements are at the Employers' risk, accordingly robustness of risk assessment and evaluation, and effective description and transfer in the Works Requirements are important in the protection of the fixed price lump sum tender.

- 19.2** Is it intended that there will be individual items for risk in a Bill of Quantities?

There should be separate items in the BoQ to allow for pricing of the risks listed in Section K of Schedule Part I which are allocated to the Contractor as the Method of Measurement may require.

Those other risks (other than those in Section K) are allocated by the appropriate clauses of the Works Requirements, and the cost of providing for them is included generally in the rates in the BoQ.

- 19.3** Does a project budget get revised as decisions are made on risk transfer?

Risks that are not transferred to the Contractor, are retained by the Employer. Accordingly decisions which transfer an appropriate risk into the contract scope, essentially move that provision into the contract, across from the Employers' budget for non contract items. These transfers represent movements of value within an overall budget for contract- and non-contract items, which budget should not change when the overall scope of work and timeframe do not change. Where the risk transfer is well defined, well prepared and appropriate, this transfer is a good value for money decision, that reduces the cost of a project, compared to one where risks are not appropriately allocated. Guidance on this issue can be found in the Guidance Note on Budget Development in the Capital Works Management Framework.



19.4 Does the Contractor get paid the value of the risk item if the risk does not arise?

Where work is proceeded with, and a risk associated with that work has been transferred and priced, but the risk does not materialise, the Contractor is entitled to be paid the cost of his provision for that risk, on the basis that, had the risk occurred, that would have been his only entitlement for it, apart from any reliefs specified under Schedule I Section K. Where an element of work is not being proceeded with, then the contract sum would be reduced accordingly, and risk associated with that element, and priced in the rates for it would be credited out automatically in that calculated reduction.

19.5 Are methodologies put forward for the assessment of approach to the allocation of risk?

The Training Manual includes a section on Risk Management. Risks are first identified and evaluated, and the best way of treating risks is identified before they are allocated to the party best able to manage them. Risks may need to be further evaluated, by means of investigatory work, before they can be allocated.

Methodologies include the use of risk workshops, where, under the chairmanship of an experienced facilitator, risks are identified and their expected likelihood and impact are defined under the broad headings of Safety, Planning, Finance, Design, Construction, and Operation. Once the risks are identified, the method of treating these risks must then be aligned with the drafting of the Works Requirements, and with the selections made, in Schedule Part I particularly.

QUESTIONS ON PROCUREMENT & TENDER ASSESSMENT

19.6 Is there guidance on the relative merits of using the Open or Restricted procedures?

The relative merits of these procedures are discussed in the Guidance Note on the Works Contracts. The Open Procedure has advantages, particularly programming, but it has the risk that a bidder may prepare a tender and not pass the prequalification phase. As with all procedures, it is necessary to ensure that you do not mix selection and award criteria.

19.7 If the Tender Sum exceeds the Budget, is a Bill of Reductions exclusively a post contract issue?

Yes, but you must be aware of making a "material change" in cutting back the scope of work on which the contract is procured, potentially to the disadvantage of the other tenderers. Also, unless the procurement process is definitively complete, this process could involve an element of post tender negotiation, which is prohibited.



- 19.8** The values selected for the contingent items in the MEAT example may well result in loading of the bid rates in the Tender, especially where, because of the choice of notional items below the Tender Sum, there is little impact on the MEAT Comparative Cost?

These values are selected by the client and should be the expected value of the item in question, having regard to professional judgement of the client or his consultant and previous experience on similar projects. The expected value is not so low as to encourage loading of rates and is not so high as to pack the MEAT with contingent items.

- 19.9** If you start on an assumed Budget of less than €5m, working on the Minor Works Form of Contract, and you drift over the limit as tenders are received, do you have to change the form of contract to be used?

Good budgeting should not leave you in this position, but you would have to stay with the procurement choice originally made and run with the tendered contract.

- 19.10** If you take tenders on one Form and found you had to use another, could this be negotiated?

No form of negotiation on fundamental matters, particularly price, may take place in the open or restricted procedure.

- 19.11** If the estimate is just under €5m can you opt to use the Main Form?

Yes, this option is available where it is appropriate to do so. One should probably opt for the main contract form in the case stated.

- 19.12** If the second option is chosen on delay, i.e. where no rate has been tendered, no delay element in the MEAT calculation ensues?

Where daily rates are not tendered, the Employer pays only for the cost of delay actually incurred. This is not therefore an issue for assessment in the MEAT calculation.

- 19.13** Will the Employer have to create a rule for rebalancing items in the BOQ to ensure arithmetic errors are corrected to maintain the lump sum bottom line as fixed? Are the potential number of variables not very large, when the bottom line is being held? Should there not be a commonality of approach because precedent will apply across the board anywhere these contracts are used?

The approach on correction of tenders is set out in the Guidance Note in Section 2.7.3. The example given in the GN related to correction of errors in



calculating VAT is also relevant. The fixed price lump sum tender total remains unchanged in any correction of arithmetic error in the BoQ.

19.14 Can the Contracting Authority reject an abnormally low tender?

Yes, nothing has changed with respect to this aspect of procurement procedure, and an abnormally low tender may be rejected, provided that due process under the EU Directives has been followed in arriving at the conclusion that the tender is abnormally low.

19.15 If the Tender wasn't signed, or the Tender Sum wasn't transferred, from the BoQ to the Tender Form correctly, is the tender disqualified?

It depends on the stated position on this point in the Instructions to Tenderers. In the absence of a clear rule requiring disqualification, the Contracting Authority has discretion. Is it a proportionate response to reject a tender for such an oversight? It should be drafted so that no hair-trigger rejection responses arise on matters which can easily be clarified without risk to transparency or equal treatment.

19.16 In a Contractor Designed contract, why introduce craftsmen rates or the like in the MEAT calculation, or in valuing change orders. There is no facility for monitoring these things in Design-Build?

Even where this is no BoQ, there is still a need to have a means to value Change Orders, and these rates are likely to be required for this purpose.

19.17 What of variants where the workload of assessment of the tenders or the criteria for award conflicts with the variant offered? For example, a high density development option in parallel with an Employer-preferred low density main design?

Tender appraisal workload isn't hugely different than is normal with variants at present and is accepted as covered in the services. Variants rules need to be prescribed in the Instructions to Tenderers to prevent variants at odds with the Contracting Authority's fundamental or core objectives emerging. Additional costs arising from accommodating a variant, or consequential costs in building/civil engineering, need to be planned for through risk assessment, then addressed and locked into the fixed price.

19.18 Why not accept an offer of a "free" parent company guarantee in lieu of the Bond?

Such an approach is contrary to good practice as described in the Guidance Note. It should be remembered that problems with a contractor often have their roots in a problem with the Parent Company itself, so that the Parent Company Guarantee is not a robust guarantee in such circumstances. Refer to the Guidance Note at Section 2.3.2.



- 19.19** If there's an expiry date on a Bond, can you not have a position where you threaten calling in Bond in order to get a Bond extended?

It is safer to have a Bond whose expiry date is predicated upon an event such as Substantial Completion (say, 15 months after its issue) in which case the situation outlined is unlikely to arise. The difficulty in threatening to call in a bond such as the Performance Bond to be provided by the Contractor under the contract is that a call is only permitted where the Contractor is in breach or has its obligation to complete terminated.

QUESTIONS ON CONTRACT FORMALITIES, PROFESSIONAL INDEMNITY INSURANCE AND FITNESS-FOR-PURPOSE STANDARD

- 19.20** On signing of contract documents, are there protocols on signing every page, or on signing a particular number of copies?

There are no protocols and there is no need to sign every page. However, if there are a large number of documents involved, it may be appropriate to have the parties sign or initial each bound document for identification purposes. The potential necessity for initialling or signing individual pages only becomes relevant if there are loose pages that ought to be identified separately.

- 19.21** What if the Contractor is tardy or reluctant to seal the contract?

The Contractor is required to execute its tender under seal and the acceptance of the tender will create a contract under seal.

The Bid Bond is a mechanism which can be used if there is a concern that a tenderer might not honour its tender or where a particular contract is absolutely essential to a larger project and any withdrawal by the successful tenderer would cause substantial losses etc. [see Guidance Note at Section 2.3.1.].

- 19.22** What if there is a design problem with the Works after six years and before twelve years and the Contract has been executed under seal?

Where a contract has been executed under seal the time within which the Employer may sue for any breach is independent of the date of the contract execution but is referable to the date of the breach of contract itself. Thus in the case outlined, the Employer could sue the relevant party for breach of contract, within twelve years from the date of the breach itself. This is likely to be the date that the actual defective design work was carried out although the final date can sometimes be different, for instance, the date by which the defective design could have been rectified by the guilty party.

Consultants will need ongoing annual renewal of PI but that's really as far as practicalities permit. There's little point in pursuing a consultant for failing to



maintain annual cover out in year ten. If it's not there, its not there, and the fact of that is that he may not be worth pursuing in the absence of PI cover.

One should also keep sight of the fact that we are only speaking here of actions for breach of contract. An Employer who has suffered loss as a result of defective design could also proceed under the tort of negligence and would have six years from when the damage actually occurred (not when it was discovered) within which to sue.

19.23 If the Contracting Authority issues a Letter of Acceptance, is there not an attraction for the (now) Contractor to decline to execute a contract under seal?

This can be avoided by requiring that the Tenderer seal the Form of Tender. If he doesn't seal it, it can be sent it back for sealing, and if the tenderer refuses, this might be considered grounds to reject the bid. The Model Form requires the tender to be sealed.

19.24 Is it appropriate for a "Letter of Intent" to a Consortium to require that they put in place the Joint Venture legal entity so that you can send a "Letter of Acceptance" to the "Contractor" as it seems to be worded?

It may be that the Contractor will be an unincorporated group, i.e. it may not form any separate legal entity. The Contractor will then be all of the members having joint and several responsibility. Thus, each of the members of the consortium will be individually responsible for the carrying out of the entire of the Works.

19.25 How important is it that the €1 exchanges hands in the collateral warranty?

It is executed under seal in any case and so it is not necessary. Even it were not executed under seal it would not be vital.

19.26 Is the Performance Bond required on date of issue of Letter of Acceptance?

Evidence for the imminent availability of the Bond is perhaps as best you can get. An updated letter from the Bonding company, to the effect that they are endorsing a prior letter provided at the time of tender, and stating that there is no impediment to issue of the Bond, might fulfil this requirement. Clause 9.1.2 lists what is needed and the Start Date runs from Letter of Acceptance.

19.27 Occupancy Vs Possession of the Site; what are the implications, generally or on insurances?

Contractor should experience no great difference. Contracts have been referred to Insurance sector for consultation and this was not an issue of



importance. The fundamental issue is that the Contractor is not entitled to exclusive occupancy of the Site. There is an entitlement of Employer to have his own contractors on site if he wishes to do.

19.28 Can assignment take place by Employer onto other parties?

There is no specific provision for Employer to assign. However, as a matter of law, he would be entitled to assign the benefit of the contract without the consent of the Contractor.

19.29 Form of Retention Bond – is it included in the Tender Documents?
Will its cost not exceed the interest value of the Retention Money?
Almost by definition, if he needs this money badly, will the cost of the Retention Bond not be very high?

It is a matter for the Contractor to consider the value to him of release of the Retention money, in exchange for provision of a Retention Bond.

19.30 Form of Tender says he (can't/won't) withdraw. What if he makes a mistake and there is a Bid Bond in place?

In the quasi-contract that exists as a matter of agreeing to consider a tender, you could relax that position, but it would have to be an agreed relaxation. A Bid Bond is rare and might be used where there is "history" of withdrawal and you see an offender coming through in Pre-Qualification but it is not intended to penalise anyone on a Bid Bond issue. Is the error so serious he risks going under in the Contract? If so, you might prefer to release him.

19.31 Can you ask one tenderer to provide a Bid Bond and not others?

No

19.32 If PI Insurance is needed from a Contractor, under the Restricted Procedure, do you not have to prequalify tenderers on ability to get "fit for purpose PI insurance"?

Insurance industry have looked at all the provisions of the contract, and it presumably recognises the issue of the fitness for purpose obligation. When one looks at the actual requirement in the contract in this regard it merely requires that the Contractor has PI cover per the limits in the Contract but does not say he must insure against a fitness for purpose obligation.

Presumably if this is not insurable in the general market it will simply be something that the Contractor does not have cover for and accordingly, something for which he bears any additional risk.

19.33 Can Contractor in a DB Contract require a collateral agreement from his Consultant in favour of the Client, so the latter has access to PI cover of the Consultant?



Although the Consultant agrees by the Conditions of Engagement that he is willing to be novated to the Contractor, neither those conditions nor the Novation Agreement itself requires him to actually enter into the collateral agreement. Thus, in a situation where such a novation is anticipated, it would be necessary for the Employer to provide a copy of the warranty to the Consultant with a requirement that it be executed at the time of novation. In addition, the requirement that the Contractor provides a warranty from the Consultant (as a Specialist) would be provided for in the Schedule to the construction contract at part IF).

19.34 When is PI Insurance required from a Contractor in a traditional Contract?

It is not necessarily appropriate to automatically seek PI cover from a Contractor in traditional contracts. However, one must recognise the fact that the Contractor may have some small design function. Even if a Specialist has PI cover and a collateral warranty is in place, it may be felt appropriate to have the additional protection of PI cover for the Contractor, particularly as the Contractor has full responsibility in any event for all design by Specialists. In theory at least, the Specialist might disappear, their PI cover might be discontinued and the Employer might be left with a worthless collateral warranty and nobody but the Contractor to pursue for a serious design defect. In such circumstances the Employer might be glad of the Contractor's PI cover.

19.35 Are the PI Insurance cover requirements effectively double counting as between the Contractor and Specialists?

The requirement of PI cover from the Contractor is an optional one and need not be availed of unless it is deemed appropriate. There may be a degree of overlap with PI in a Contractor Designed contract, where there are Specialists, but it might be necessary if the Contractor becomes insolvent, to have recourse to the warranty of the Specialist with respect to design done by him, and not done by others. [And see also the comments above in relation to PI cover.]

19.36 The design obligation of the Contractor in a Design and Build Contract is one of "fitness for purpose". If one looks at the collateral agreement, to be provided by any of the Specialists the obligation worded there however is not necessarily "fitness for purpose" but may be "reasonable skill and care".

The Employer would have to be careful so as to ensure that in seeking collateral warranties from various Specialists, he has adequate protection and that if a Specialist is providing an element for inclusion into the Works which must be fit for its specific purpose so that the rest of the Works will function, then he should require an obligation of fitness for its purpose. However, whichever obligation the Employer requires, the Contractor will, nevertheless have his obligation as referred to above.



19.37 Road Traffic Act insurance is a permitted exclusion under the contracts but is this appropriate?

The Contracts were carefully considered by distinguished insurance professionals and it was regarded as appropriate to exclude such matters, presumably because this insurance is in any event required by law and the Contractor is required to comply with all laws.

19.38 What does "fit for intended purpose" mean?

In the case of goods or a manufactured product it means fit for the purpose for which such goods or items are normally used. In the case of a design it means that the overall building or plant will be suitable for its intended function (as made known in the Employer's Requirements).

19.39 If a structure serves two purposes, must it be fit for both purposes?

This will depend upon the purpose of the structure under the Contract. It would be most unlikely for a structure that has two purposes not to be required to meet the requirement for both.

19.40 Do you need two sets of contract documentation?

There is only one contract but there can be as many originals as people require. It is usual to have one original set of Contract Documents for each party executing the Contract.

19.41 What are appropriate excess limits for PI Insurance?

Very low excess limits are hard to get in the insurance market but an excess of 80–100k looks pretty high; one around €50k seems more appropriate for larger companies, and even this is too high for smaller companies. In many cases a limit of between €10,000 and €25,000 would be appropriate, and the excess level should be reasonable having regard to the range of firm sizes quoting for the project.

19.42 Does there need to be Model Forms included with each contract?

Reference to "Model Form 8" would be unambiguous, but it might be useful if there was a pro-forma insertion checklist.

19.43 Why no separate Model Form for appointment of PSDP?

There is a Model Form 10 covering the PSDP.



- 19.44** With respect to the Form of Tender, in the quasi-contract that exists where a tender will be examined once it is validly submitted, where is the Consideration for agreement to keep open the tender?

The consideration is generally regarded as the willingness of the contracting authority to consider the tender in question.

- 19.45** PI Insurance extends for 6 years. What is the position if the Consultant is no longer in business?

The insurance will lapse (unless he has taken out run-off cover). PI tends to be year-to-year and on a "claims made" basis

- 19.46** Assignment of Collateral Warranties? If it's a PI level for required design specialists, does Employer have to increase the PI cover when assigned to a higher risk function (example:-sweetshop now becoming heavily loaded warehouse store).

You can only look for the appropriate level of PI from the outset, or else change by agreement.

QUESTIONS ON STATUS OF THE BILL OF QUANTITIES

- 19.47** What is the function of a Bill of Quantities, when remeasurement of work no longer applies?

The Bill of Quantities still serves a number of purposes, even when remeasurement no longer applies. It serves cost-effective tendering, by drawing the works items and their descriptions, which comprise the Lump Sum, into a common document for all tenderers to price on a like-for-like basis. It further assists the tender evaluation process by providing information on the balance of pricing in the tender. It is used in contract management to assist in interim certification, to predict cash flow, to assist in valuation of Change Orders and to support calculation of price variation entitlements. Finally it is used to record and classify costs in accordance with the Capital Works Management Framework.

- 19.48** Can a Bill be both a Works Requirements document and a Pricing Document?

The Bill of Quantities can be a Works Requirements document, as well as a Pricing Document. In the former role, it is normal to strike out the quantities themselves, leaving the item descriptions to stand, to be interpreted collectively with the other Works Requirements Documents in the order of priority stated in the Contract.



- 19.49** If rates have no real meaning in relation to the lump sum, then is it not open to possible abuse by Tenderers sprinkling mischievous rates all over the place in a Pricing Document, all aimed at securing later advantage at Change Orders?

It is part of tender assessment to check that rates in the BoQ reflect the value of the work item, in so far as it is possible to do this. Rebalancing of rates may be required to ensure that the scenario postulated in the question is avoided, maintaining the tender total fixed, in accordance with the Guidance Note.

QUESTIONS ON SPECIALISTS

- 19.50** In Specialist procurement, how can the following scenario be handled?
- Top of range Specialists are put forward by Tenderer
 - They are successfully prequalified
 - The Tenderer pitches his tender at a level which inherently presumes someone cheaper will later be acceptable, and he persists with applications to agree substitution until the Specialist in his presumed price range gets accepted?

The same prequalification thresholds and criteria used in the original prequalification process will apply to any later substitution.

- 19.51** In the Prequalification stage for Specialist, if the only one in a particular Specialist category fails to prequalify, the whole bid fails. Is there a contradiction between this and permitting substitution of Specialists for a successful tenderer after the award stage?

There is no contradiction when the same prequalification criteria are used to admit any substitute, the standard for acceptance of a substitute Specialist is not less than that used to prequalify Specialists at tender stage.

- 19.52** Are Specialists separately bonded?

No, they are part of the main contract, covered with respect to responsibilities by the Contractor, as if they were his own personnel, and therefore covered by his bond.

- 19.53** Can ER ask that a Specialist be removed from the Site or its contract terminated?

The Specialist has the legal status of Contractors Personnel so you have the option in accordance with the terms of the Contract. Thus at sub-clause 5.6, it is provided that the ER may request the removal of any Contractor's Personnel



from the Site for reasons of negligence, incompetence or that their presence is not conducive to safety, health or good order

19.54 Is a Designer a subcontractor?

A Designer may be a subcontractor although he need not be e.g. if he were working purely as a Consultant to the Employer. If he is doing design work for the Contractor then he is by definition, a Specialist.

19.55 Why would a Contractor propose Specialists, why not just use them as subcontractors?

If Employer nominates particular work categories as specialist areas, over which he wishes to exercise a minimum quality threshold type of control, he may designate these as Specialist areas, and the Tenderer has to make nominations.

19.56 If Contractor is responsible anyway, why have a Collateral Warranty with the Specialist?

If Specialist is considering terminating his contract with the Contractor, he has to give notice to Employer, who has "step in" rights under which he may require the Specialist to continue working directly for him under the Contract, under Clauses 5.4 and 12.1. Also, if the Contractor becomes insolvent, the Employer can pursue the Specialist under his Collateral Warranty. This may provide him with rights of recovery additional to those he would have if no contractual link was in place and he was forced to proceed in the tort of negligence only. If the Contractor becomes insolvent, and the Employer wishes to retain the Specialist, he could novate that Specialist to a new Contractor employed to finish the works.

19.57 Does something done by a Specialist have to comply with Works Requirement to be fit for purpose? If for example, there's a piece of work which fulfils its purpose, but supporting paperwork required in Works Requirements is not complete?

This would depend on the terms of the Contractor's sub-contract with the Specialist. However the terms of this document are most unlikely to be less stringent than the Contractor's Contract with the Employer and the provisions of this Contract will of course, include the Works Requirements.

19.58 Does a Specialist have to be named in the Contract?

No, but if an entity is doing design, it is a Specialist. Normally a Specialist is named in the Works Requirements, or in the Works Proposals, and in the case of substitution, then the substitute Specialist becomes part of the Works Proposals.



19.59 What form of contract would be used with a Novated Specialist?

Effectively the same form as main form (or other back to back form), but with some differences between selections in Schedule Part I. Whichever form of Contract is used by the Employer, it would go straight across to the Main Contract, unaltered.

Novation in this manner would be exceptional, rather than the norm. The Employer, in preparing his contract with the Specialist to be novated, would research the market to determine what minimum amendments to the standard form might have to be made to attract interest from the Specialist market. Having got unqualified tender responses, he then concludes his contract with the Specialist. The Main Contractor is instructed that he must accept this novation, in the Main Contract on the standard forms of contract without amendment. He must then take a view on whatever risk premium he needs to neutralise the effect to him of any special terms in the novated contract, so that he fully addresses this in his own price.

19.60 Is it possible to novate the Specialists as a mechanism to shoehorn Nominated Subcontractors into these Contracts?

Novation is a non preferred form of procuring Specialists. The Employer does not need to use this mechanism to achieve the benefits of nomination without its problems.

QUESTIONS ON COMPLETION OF THE SCHEDULES

19.61 "Date" for Substantial Completion. Does it have to be a real date?

Not necessarily. It could be either a fixed date or as is more likely, as a duration from the date of the Letter of Acceptance.

19.62 The risk described in Part K No 8 of Schedule Part I uses the term "Employers personnel". This could potentially mean Planning Officers for a Local Authority. If they "interfere" in defence of a planning permission or statutory duty, is this a compensation event?

There could conceivably be an argument that officers of a Local Authority not connected with the project in question did interfere with the Contractor. However, it is most unlikely that this would occur in such away as to give rise to a claim. The inclusion of a Planning Permission within the general scope of the term "Consent" creates an obligation on the Contractor to comply with this consent. Other legislation, that the Employer may have a duty to check compliance upon, is also included under "Law". If the Employer intervenes in his capacity as designated enforcement body in relation to a statutory obligation, he would be entitled to do so and there would be no entitlement to compensation arising from this.



19.63 The definition of unforeseeable includes the phrase "*having inspected the site and surroundings*" What if a landowner prevents access to the site at the time the tenderer wishes to examine it?

This is a risk which would emerge at the Clients' own workshop on risk, and the Client would have to consider the need to arrive at a point of closure on all his contract planning before going to tender. If the land has been acquired, the Client has legal rights to prevent such action by owners of adjacent lands etc. which he should enforce. If such inspection by tenderers is frustrated as described, then the Client should review his risk allocation selections during the tender period, and decide if, given all the information provided to tenderers, it remains value for money to allocate risk as he proposes to do.

19.64 With Subsoil Investigation contracts, the Contracting Authority often cannot guarantee the factual accuracy of the SI Report and, if it included in the Works Requirements, is there therefore relief under Schedule Part I Section K Risk 5 for "factual error in works requirements"?

Contracting Authorities should carefully review their management and supervision of subsoil investigation contracts to ensure that SI Contractors are held to their responsibilities under their contracts to ensure their reports are factually correct. If the SI Report is included in the Works Requirements, then factual error (and this must be outside the question of error of interpretation) will have implications under Risk 5. Presumably, if such an issue did arise and caused loss to the Employer, he would have an entitlement to pursue the site investigation contractor pursuant to that contract.

19.65 Does the figure entered under the second threshold on the programme contingency in Schedule Part I have to be a cumulative figure with respect to the first threshold?

No, the second threshold is not cumulative, it stands as a selection in itself without regard to the numerical value selected for the first threshold.



QUESTIONS ON ENABLING CONTRACTS AND INVESTIGATION CONTRACTS

- 19.66** If one has an archaeological report, and it has described findings in one area of the site, and it recommends, and the Employer provides, a supervising archaeologist for elsewhere, in what sense are later artefacts that may be found ever "foreseeable" or "unforeseeable"? If they are deemed "foreseeable" by the Employer, in defence of a claim, how can he resist the import of a question as to why, if they are now "foreseeable", did not the original archaeological investigation extend to unearthing them?

If an archaeological report such as the one described is made known to the Contractor when tendering it would be very difficult for him to argue that he could not have foreseen other such finds on the Site when the definition of "unforeseeable" is taken into account. It is of course always possible that in such a case the Contractor might say that the report indicated clearly that no other finds existed, but such an argument would depend on the actual circumstances prevailing at the time and the wording of the report itself.

GENERAL QUESTIONS

- 19.67** On the scope of coverage of these contracts in the Public Sector, Circular 33/06 indicates exemptions apply where the agency is not a government department, or body under its aegis, and where more than 50% of the funding comes from a source other than the exchequer. In relation to this funding rule, does it include instances where the Client makes assets available, such as land for an interchange or site?

If the land or similar asset has been provided as a quid pro quo, when it would otherwise have been paid for from the capital budget, the value should be taken into account in assessing whether the new forms of contract should apply.

- 19.68** Contractor puts forward an alternative model equivalent in safety and suitability, but its key dimensions are different and its tying-in characteristics with other services are different, how is consequential change cost following model selection to be dealt with?

In Employer Design, as part of risk assessment during detailed design, the potential constraints in building works or M&E Services, of making particular selections of major plant items, need to be examined. Cost effective design provision, by way of adequate dimensioning of rooms, sizing of ducting for connecting services etc., in order to permit a range of plant item choices to remain open, and to accommodate the most advantageous plant item choice, is encouraged. This could be accommodated under a "Shell and Fit-out" basis,



where the main services are taken to a terminal point outside a civil/building works shell, and the shell is sized to accept the range of plant items likely to be offered, and a phased handover allows the item to be installed and commissioned on its own programme. This will allow the plant item to be incorporated, without expensive consequential effects influencing other areas of the contract, and without extra cost arising through Change Orders.

- 19.69** It is noted that Standard Methods of Measurement are amended by the Department of Finance in the appendices to align them with the fixed price lump sum concept. Are the NRA rules of measurement also to be amended in the same way?

There will be changes to align the NRA Method of Measurement to the principles in the new contracts.

- 19.70** Insurance thresholds look the same in both the Minor Works and the other Forms of Contract. Is this intended by the insurance expertise advising on Conditions of Contract development?

Yes.

- 19.71** Do all of the Contract Document features apply to Minor Works?

Mostly yes, the Guidance Note has a comparison table at Appendix A. The most notable difference is the single threshold for the Programme Contingency in the Minor Works form.

- 19.72** Does the €5m limit on the Minor Works Contract include VAT?

Yes, it is VAT inclusive.

- 19.73** Is it necessary to have a Performance Bond for a small contract, for example Portacabins valued at say €600k, involving no more than three certificates over 4 months?

Yes. While the sum in a given contract may appear small, the problem of several contracts for the same Client with one contractor may aggregate the exposure to a much larger figure.

- 19.74** Do Liquidated Damages have to be related to a loss or if not, does there have to be a bonus?

Yes they are related to a loss, in that the LDs must be a pre-estimate of loss and the pre-estimate must be genuine, but there's no implied bonus. Penalties (monetary deductions greater than and unrelated to any pre-estimated loss) are unenforceable and the presence of a bonus provision will not act as a saver. If there was a bonus, it might give an indication to a court of the importance of programme to the client.



19.75 What does Risk 12 in Section K of Schedule Part I refer to, in the context of Clause 3.2?

If the Works suffer damage due to matters which are at the Contractor's risk under sub-clause 3.2 before Substantial Completion the Contractor is entitled to an extension of time for completion (subject to clauses 9 and 10) but the event is not a compensation event and he is not entitled to an adjustment of the Contract Sum.

19.76 How far out do access routes go? If vehicle is taxed and licensed, is he not entitled to use all roads?

Yes he is. However as between himself and the Employer, he is responsible for ensuring that he can gain access via all intended access routes. He is also obliged to take reasonable steps to see that the Site traffic obeys the law and does not cause nuisance.

19.77 What is the difference between "part" and "Section"

Section has a definition in terms of the contract, but a part can be any part of the works.

19.78 Can contracts with seasonal constraints be procured out of season and novated into main contract?

You have to signal this intent in the Works Requirements.

QUESTIONS ON CLAUSES OF THE CONTRACT

19.79 Contract refers to relevant statutory provisions in Clause 2.5. With respect to possible law changes, is a "catch all" not required?

Refer to "Legal requirement" definition [Clause 2.2] and to the interpretation provision at sub-clause 1.2.2 (6) where it is stated that references to any Law includes any amendments and replacements. It covers the matter of the question.

19.80 Clause 3.3.1 What is meant by "profit". Why would reinstatement value for building include "profit"?

The Contractor may have to re-build the Works if for instance they are burned down due to no fault of his, simply because he has responsibility for the Works and for their ultimate completion. It is regarded as reasonable that the Contractor in carrying out such re-building work should be entitled to his reasonable profit as otherwise he would effectively be carrying out what could be a complete reconstruction for nothing.



19.81 Is it necessary to have all the reporting requirements and programming requirements in Clause 4 on the Minor Works Form?

The reporting requirements as contained in the full contract forms are not contained in the Minor Works form, which has a far simpler provision in this regard. In the full contract forms the provisions may be relaxed by the Works Requirements or by the ER. It is in any event not a bad thing to have clear evidence that the contract is being managed properly, regardless of its size.

19.82 With respect to Article 4 of the Agreement; Is there any significance to be read into the phrase "initial Contract Sum", and the use of "initial" as a possible qualifying adjective? Could the use of a different phrase earlier in the paragraph be construed as referring to two different sums?

The word "initial" is merely explanatory and is intended to indicate the Contract Sum before it becomes subject to any adjustment in accordance with contract.

19.83 Is there a potential in a Claim for a Contractor to invoke Clause 4.1 on co-operation? Can a Contractor seek ER's records in support of his claim, perhaps arguing for these in an effort to minimise delay?.

He is obliged to keep his own records. Clause 4.1 can't be used to fish for information and co-operation would not extend to an obligation by the ER to compensate for the Contractors failure to supply and keep his own records.

19.84 Clause 4.3.2 – Where authority limitations are stated in Contract, these are limitations between the ER and Employer in the Conditions of Engagement contract? What is their standing in the Construction Contract Schedule 1?

Their standing is simply to make the Contractor aware of the limitations agreed between the Employer and the ER in his Conditions of Engagement. This will avoid any possible claim by the Contractor that he was entitled to assume that the ER had all of the powers normally associated with his role and without any restrictions that might result in the Employer's permission being sought for decisions.

19.85 What is the breadth of scope of "physically impossible" or "contrary to Legal Requirements", Clause 4.5.4? Is it the ER's subjective view of an H&S issue? Is this potentially exploitable under H&S issues?

This might ultimately have to be defined in Arbitration or by a Court in any particular case. "Physically impossible" doesn't just relate to where the task in question simply cannot be done in any circumstances, It may for instance be possible with unlimited money. If however, it becomes so unfeasible in that extremely large sums of money has to be thrown at it, it may be regarded as being effectively impossible. It should be noted that Clause 2.4.4 indicates that



compliance with the instruction of a PSDP or PSCS does not give rise to an increase in the cost of the contract, or an extension of time.

- 19.86** Clause 4.8.1 – Any Value Engineering proposal cannot increase the Contract Sum. Does this preclude Client from accepting a beneficial Whole Life Cost proposal, which increased the Contract Sum?
Could this be handled by Change Order?

Where the ITT permits variants, and subject to any conditions attaching to such variants being met, it is possible at Tender Stage to accept variants which have a Whole Life Cost advantage. Once the Contract is signed, it is intended that value engineering proposals ought to be confined to reductions in the contract cost, or expediting the date for Substantial Completion.

- 19.87** Under Clause 4.8.2, is it not advisable to have PSCS/PSDP certify that no problem exists as part of considering a value engineering proposal.

It would certainly be advisable to have the PSCS/PSDP involved so that he can be aware of what is proposed, and so that he can agree that the change does not compromise the position on safety, or introduce any issues outside the agreed value engineering proposal. Clause 2.4.4 is now also relevant to this issue.

- 19.88** Where is Employers right to object to a programme? It is a fait accompli on presentation?

In Clause 4.7, there is a right for the ER to object in writing to any document or proposed course of action submitted by the Contractor as a requirement of the contract. This would include a programme. If the Employer has specific requirements or restrictions, they should be included in the Works Requirements and any programme submitted should highlight compliance with them.

- 19.89** Does Clause 4.9.2 and 4.9.3 effectively permit Contractor to revise dates for Substantial Completion, or at least set up acceleration issues?

They require him to revise his programme i.e. his intended date for completing the Works when this becomes necessary because of Delay Events etc. They do no more than provide information to the ER and Employer in relation to the state of progress of the Works at any given point in time. If the Contractor seeks to use the programme to support claims he will have to formally make the claim under Clause 10 and evidence it etc.



19.90 If the Contractor is potentially going to be paid Labour PVC after the Base Date, why is there no provision to check that people are being paid as required under PVI or PV2? Clause 5.3.3.A specifically excludes checking this point under that Clause?

Model Form 15 provides that the contractor must certify he is paying according to legal obligations. He has this obligation in any case. The PVC provision says what contract relief he will get, and this is a separate issue from his obligation to pay Social Partnership rates, which he is obliged to do.

The PVC provision is a risk valuation and compensation factor, the obligation to pay under Clause 5.3.3(a) is separate and checking compliance with this latter obligation, which is all that the Clause can require.

19.91 Under Clause 5.3 is the Contractor obliged to indemnify the Employer against costs incurred by non-compliance?

Clause 5.3.8 says yes, and if the Employer demands payment, it is deductible, ultimately on the Employers Representative decision.

19.92 Is there an obligation on Client to ensure that employees are paid up members of Construction Workers Pension Scheme?. Should it be in Model Form 15?

If a Contractor from abroad is about to start, how can he provide this evidence in response to a Letter of Intent? He can't do it, therefore, you can't insist on it. Clause 5.3 does insist he does so in future under the Contract. A Certificate of Intent to do this is permissible, but seeking proof of past compliance is discriminatory. Compliance with the construction workers pension provisions in a Registered Employment Agreement is what is required during the Contract.

19.93 Specialists Clause 5.4 – Clause 5.4.6 appears to give much greater latitude to offer replacements and effectively negates Clause 5.4.5?

Clause 5.4.5 describes circumstances where a Specialist is not to be continued, and Clause 5.4.6 is intended to show how a replacement is to be managed when 5.4.5 is used.

19.94 Clause 9.1.2 Before Start Date, does the Employer need sight of Tax Clearance Cert, etc. Why is this left out of items listed in the Sub-Clause?

These can go into the Letter of Intent under the indicated "catch all" clause at the end.



19.95 Clause 9.1.2 – If within 20 days between Start Date and Letter of Acceptance, he fails to provide any of the items listed, what is the position?.

If he doesn't provide the items, he's in breach of contract. "Shall" under Clause 9.1.2 is quite strict. The Contract entitles the Employer to terminate the Contractor's obligation to complete if he does not remedy the breach within 14 days after receiving a direction to do so.

19.96 Clause 10.5 Determination by ER. If he doesn't respond within time for response, and Contractor has complied with notice provisions, is Claim accepted by default?

No – technically the Employer would be in breach of contract but it is unlikely there would be any loss. The determination would issue late although it might be the subject of further comment in any dispute resolution process if it arose.

19.97 Insurance - Does Clause 10.9 give any comfort to employer who discovers that PI has lapsed and he wishes to insure himself and recover that cost?

It might possibly although such defects are often latent and arise after the Contractor has left the Site. The question to ask is what is your real sanction in this circumstance? If he's a repeat customer of a repeat client, one might recognise that he is likely to be in business and renewing PI policy (Although any renewal is most unlikely to provide retroactive cover). Remember a PI policy is primarily to protect the insured. (This contract does have a right of offset against other contracts with the same Employer).

19.98 When would Employer submit a Claim, if he wants to recover money for work not done, does he have to use Clause 10.9?

He should certainly make the claim under Clause 10.9 and give the appropriate notice. If the omission only came to light after the Final Certificate he could still pursue the Contractor under the Contract.

19.99 Clause 10.9.3(2) – Is the Employer potentially doing the calculation related to claims here? The phrase "any contract" could also mean *this* contract, not necessarily "any other contract".

The Employer would have to do the calculation of the amount due under another contract. The phrase "under any contract" with a small "c" would not be construed as the Contract with a capital "C"



19.100 Are unforeseen services within a building, and not in the ground, compensation events in Clause 10.10.1.3? of Minor Works contract?

No they are not Compensation Events as listed in the Schedule part IK (item 20) as it refers specifically to such services being in the ground. Accordingly Clause 10.10.1.3 does not apply to them (as it only applies to Compensation Events).

19.101 Is there provision for milestone payments in the DB Form of Contract?

Not strictly at present, but Part L could reference milestones in accordance with the Pricing Document, and milestone payments can be identified in the Pricing Document. Clause 11 as drafted would appear to be capable of accommodating this.

19.102 Clause 11.1.1.2 "upon issue of Certificate of Substantial Completion of Works", does (a), (b), (c), (d), not follow from that? Should not (2)(a)(b)(c) and (d) relate to (1) also relate to Interim Payments. Note "at each of the following times".

Yes – it is clear from the wording as set out above that the statement showing the matters at (1)–(4) is required at both interim statements and at Substantial Completion. There is no time extension for issues arising in an Interim Certificate. If in doubt, they would not be paid until the following certificate.

19.103 The Payment deadline under 11.1.4, taken with the Contractors' powers of suspension under Clause 12.3 and the obligation to check that payment on any application is properly due, all potentially create a highly condensed sequence in time?

The provision of an interim statement starts a time sequence. The ER has to examine the application to comply with his own implied obligations to test it against Clause 11.4, and within 10 working days give a certificate. The Employer makes a payment within 15 working days of receipt of an invoice. It should be recalled that working days are referenced rather than calendar days.

19.104 Has "adjudicate" as used in clause 13.1.2 changed the role of the Conciliator?

No – the term "Adjudicate" here is merely used to indicate that the conciliator is to be a competent person to fill that role.



19.105 Employer Inspection of Payment records imposes very strict obligations on Contractor and Specialists.

Other agencies have contracted qualified advisers and they will instruct that service provider to inspect multiple sites on a sample basis for below threshold projects.

19.106 Will Met Éireann provide in a timely fashion the statistics needed for the weather event? Is the description of the weather event precise enough?

The 10 Year Return Period statistic can be calculated by standard hydrological means from the annual maxima provided as raw data, either by Met Éireann, or by the user.

19.107 What is the practical means of assessment of "Expenses unavoidably incurred by Contractor?"

ER would have to assess this on submission by the contractor. No forensic scrutiny of records is implied and you can't trawl using other inspection powers under the Contract. Presumably the Contractor would be happy to co-operate on such a matter.

19.108 If you request a proposal, but do not proceed with it, can you pay the Contractor to prepare the proposal?

No

19.109 Health & Safety – What happens with initial PSDP in a DB? Does each tenderer have to have a PSDP in preparing his bid?

A similar question arises for the Employer in that the Employer's experts including the ER will be assessing the tenders and indeed may have initiated the design process by an indicative design or Employer's Requirements. It might therefore be more appropriate that the Employer appoints initially and then passes on that role to the Contractor upon his appointment.

19.110 What of a train of conciliators recommendations, with a total amount of money deemed unacceptable by the Employer? The clause as phrased appears to require that the Conciliator shall not be an Arbitrator?

The provisions of the Contract would apply to each and every recommendation of the conciliator. It is intended that he not act as an arbitrator in resolving the dispute – thus, his role is to facilitate the parties in structured negotiations leading hopefully to an amicable resolution of the matters at issue. It is also intended that he should not be "the arbitrator" under this Contract.



19.111 How do you know when you are in dispute?

If either party notifies to this effect, but there are cases where occurrence of dispute is itself a matter for decision. However the problem rarely arises as parties generally know when a dispute has arisen.

19.112 If appointing body is used, will it be their rules?

Conciliation rules are in the Contract and the Dept. of Finance have developed Arbitration Rules, which apply.

19.113 Definition of "Site" very wide, so how does it affect "unfixed works items".

The definition of Site is clear enough so as to avoid confusion in most cases as to whether Works Items are in fact on or off of the Site.

19.114 The Conciliators' Award Bond, where does its cost lie if Arbitrator finds the conciliation award was in fact correct?

It is likely that it will have to be borne by the party providing the bond. However, the party has a choice as to whether he wishes to provide the bond or not. It is likely that the choice would be to provide the bond in view of the fact that he is getting payment. It might possibly be claimable in the arbitration proceedings in the event that a final award had not been made at the relevant stage.

19.115 Can you insist on having the Safety File before issuing a Certificate of Substantial Completion?

It is the PSDP who is responsible for the Safety File under the new Regulations, but if the Contractor has not handed over essential material for the PSDP to include in the Safety File, it would be a valid reason for giving reasons to withhold the Certificate. Otherwise, the Employer would be in control of an As-Constructed Asset for which he didn't have a Safety File.

19.116 Hyperinflation – Is there an entitlement for hyperinflation for subsequent months after the hyperinflation month?

No, there is no continuing relief if the index stays high.

19.117 Should there be a requirement to nominate a Temporary Works Designer as a Specialist in order to clarify role of PSDP related to these? Can this be included in the Works Requirements?

This is a matter for Contracting Authorities to decide.



19.118 Why no sectional completion in the Minor Works Form? Very many minor projects involve extensions, followed by decanting to the new area, with refurbishment of the old.

This has been taken under consideration. There is no impediment to inclusion of a programming constraint in the Works Requirements to cover this situation.

19.119 Is it necessary to include the Model Form of Parent Company Guarantee in Pre-Qual document as an indication of the guarantee which will be required prior to any Contract?

It is worthwhile including the Model form as an indication of the requirement if a Parent Company Guarantee is relied upon, and in general references to "Model forms" should be clarified as referring to the Department of Finance Model Forms.

19.120 With respect to Unfixed Work Items in Interim Payments, and Clause 11.2. Can there be a formal Vesting Certificate drafted for use by the Contractor?

This has been taken under consideration.

19.121 In relation to Asbestos, what precisely is the guidance on it?

Delete the exclusion if you suspect you may encounter it. This is so that insurance for asbestos is required. As "ordinary" contractors will normally not deal with asbestos and will not have insurance cover for it, the Contract is likely to use a Specialist who will be qualified to handle it. However as the Contract stands – the Contractor will have to provide insurance cover.

19.122 Are we looking for Contract-specific insurance now if the parties have to be co-insured?

The practical implication is that there will be a schedule of co-insured parties attaching to the Contractors insurances and changing from time to time.

19.123 There's a different Base Date for PVI than PV2, what is the explanation?

PVI.1.1(a) p76	Base Date = 31st month after Contract Date
PV2 Appendix No. 1 p82(d)	Base date = 37th calendar month after Designated date.

Under PVI if you sign up, and you take longer than 6 months to get the contract signed, no extra disadvantage occurs to the Employer. Same effect really, but some disadvantage to Employer in PV2, in that he has 36 months from the Designated Date, so that slippage in signing up eats into his fixed price period. Guidance Note Section 2.5.2 explains the position.



- 19.124** Does the definition of "Site" potentially designate the Contractors fabrication yard as part of the Site, thereby essentially neutralising the provisions governing payment for materials fabricated but not fixed in the Works?

The definition would not include the fabrication yards unless they were stated to be so in the Contract as a place where the Works are to be executed or are identified as the Site in the Works Requirements.

- 19.125** If in law you hold money that might belong to a subcontractor at some remove, is there a vulnerability to suit?

It is possible but the Employer is only likely to withhold such money from the Contractor because the Contractor has not paid it. Ultimately the Employer could end up holding money owed to another entity but presumably the intention would be to pay it over subject to satisfactory proof etc.

- 19.126** Residual Risk in a Defects Period? What if Employer puts a high value on the residual risk and is it possible the monies withheld might exceed value for remedying the defect?

If you cannot extend Defects period on an item that was repaired, and you withhold money, and you methodically set out how you calculate your exposure, it is more difficult to challenge it as a penalty. The more intangible the value elements, the less defensible that would be.

- 19.127** Collateral warranty, when the Specialist is a designer, is there a potential tension arising from the fitness for purpose obligation of the Contractor?

The obligation of reasonable skill and care is what is stated in the Conditions of Engagement and it would be unfair of Contracting Authority to attempt to impose any higher standard via collateral warranty. There is a tension, the collateral warranty highlights it. Where an Employer has engaged a Consultant, under the COE and novated him, under the COE its liability is "reasonable skill and care".

- 19.128** Could it happen that, in the Collateral Warranty, the access to the Specialist is not as comprehensive as Employer assumed, because contract between Contractor and Specialist may not cover what Employer thought it did?

The plan is that the Employer will not concern itself with the contract between the Contractor and the Specialist as the Contractor is fully liable for the Specialist's work (including design).



19.129 The limitations on the ER will be known to Contractor, if the ER exceeds them, is the Contractor protected? If the ER is replaced and Employer acts in that role, can the position be free of bias?

Contractor has protection of the Contract and does not need to look behind ER authority limits.

19.130 In absence of Framework Agreements, what would be the lowest value for use in the Minor Works?

There is no lower limit it is €5m down to zero.

