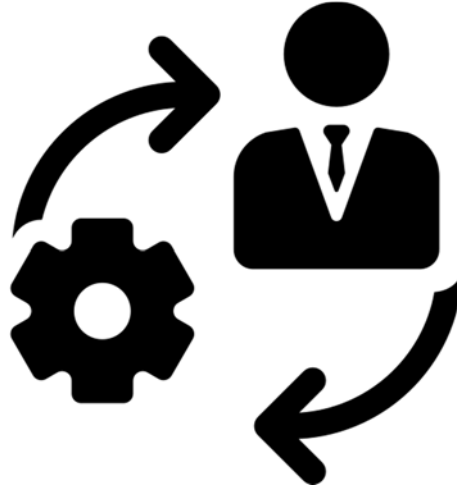


SBS5224 Engineering Management

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Contract Administration



Faculty of Science and Technology

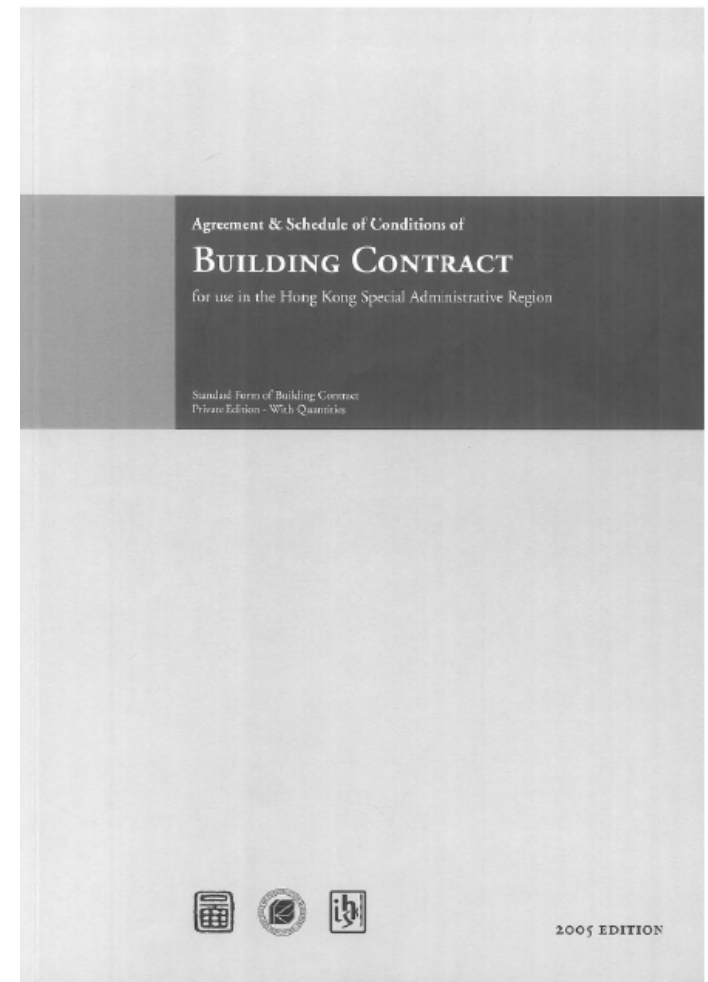
Intended Learning Outcomes



- By the end of this lecture, you will be able to...
 - Appreciate the importance of Dates for Possession and Completion
 - Describe the procedure of deducting liquidated damages
 - Explain the terminology used in an insurance contract
 - Classify building contract insurances and instructions
 - Discuss the implementation of variations
 - Characterize the various types of payment certificates.

Possession

- Date for Possession
 - According to Clause 23.1 of the Hong Kong Standard Form of Building Contract (2005), possession of the site is to be given to the main contractor on the Date for Possession stated in the appendix.
 - Failure by the employer to give the main contractor possession on the date specified is a breach of contract for which the main contractor would be entitled to claim damages.
 - The Date for Possession should be a date which allows adequate time for the delivery of tenders, examination and correct of priced bills, preparation of contract documents, and pre-contract preparation.



Completion

- Date for Completion
 - Once the main contractor has taken possession, he must regularly and diligently proceed with the execution of the works and complete on or before the Date for Completion.
 - The Date for Completion will either be agreed by both parties or alternatively decided by the architect on the employer's behalf.
 - The Date for Completion will be written in the appendix of the Standard Form and will be subject to any extension of time granted by the architect, for delays which are not the fault of the main contractor.

23 Possession, commencement and completion

Possession of Site

23.1 (1) The Employer shall give possession of the Site to the Contractor on or before the Date for Possession of the Site stated in the Appendix.

(2) Where the Contract provides for the Employer to give possession of the Site to the Contractor in two or more parts on the dates stated in the Appendix, the Employer shall give possession of the Site to the Contractor in parts on or before those dates.

Commencement and completion

23.2 The Contractor shall commence the Works on the Commencement Date stated in the Appendix or when instructed to do so by the Architect, proceed regularly and diligently with the Works and complete the Works, and, where sectional completion is provided for in the Contract, any Section on or before the Completion Date of the Works or that Section stated in the Appendix.

Postponement or suspension

23.3 The Architect may issue instructions regarding:

- (a) the postponement of the Date for Possession of the Site or a part of the Site;
- (b) the postponement of the Commencement Date of the whole or a part of the Works;
or
- (c) the postponement or suspension of the whole or a part of the Works.

Clause 23 of the Hong Kong Standard Form
of Building Contract (2005)

Completion



- Date for Completion
 - When the works are practically complete, the architect is obliged to issue a Certificate of Practical Completion.
 - This signifies that on the date shown on the certificate, practical completion of the works took place.
 - As no definition is ever given in standard forms of building contract, including the Hong Kong Standard Form, it will be for the architect to decide when the building is practically complete.
 - In the architect's opinion, when the building is fit for the employer to occupy and use for the purpose for which it is intended, the works will be considered as practically complete.



Completion

- Early completion
 - The period for completion of the contract must be stated in the tender documents.
 - This will form the period after which the main contractor will be in breach and have to pay liquidated damages to the employer.
 - The period for completion decided upon by the employer may either be too short or too long from the main contractor's viewpoint, where the latter may mean early completion.

Appendix		Clause	Clause
Time for submission of master programme (if not stated, within 42 days of acceptance of the Contractor's tender)	3.1	Liquidated and ascertained damages (HK\$ per day)	24.2
Defects Liability Period (if not stated, 12 months from Substantial Completion of the Works, a Section or a Relevant Part)	17.3	Period of Interim Certificates (if not stated, 1 calendar month)	32.1
Limit of indemnity to third party liability insurance against injury or death to any person HK\$ _____	21.2	Period for payment of certificates (if not stated, within 14 days from the date of the certificate)	32.1
Limit of indemnity to third party liability insurance against injury or damage to real or personal property HK\$ _____	21.2	Retention Percentage (if not stated, 10 per cent) _____ %	32.4
Insurance of the Works *Clause 22A/Clause 22B/ Clause 22C applies	22.1	Limit of Retention HK\$ _____ plus the Retention held in respect of Nominated Sub-Contractors and Nominated Suppliers	32.4
Percentage to cover professional fees _____ %	22.2	Period for completion of the final account (if not stated, within 12 months from Substantial Completion of the whole of the Works)	32.6
Date for Possession of the Site _____	23.1	Amount of surety bond HK\$ _____	33.1
Commencement Date _____	23.2	Fluctuations (The Contract Sum will be adjusted for fluctuations only if it is expressly stated to be so adjusted in the space below)	38
Completion Date _____	23.2		

* Delete as applicable

Appendix of the HK Standard Form (2005)

Completion

- Early completion
 - In certain cases, the employer may not wish to take early possession.
 - In such cases, the building will be practically completed and the architect must issue a Certificate of Practical Completion of the works to the main contractor, or the employer will be in breach.
 - The issue of this certificate does not mean that the main contractor can hand over the building before the agreed Date for Completion, unless with the employer's consent.

Certificate of Practical Completion

CERTIFICATE OF PRACTICAL COMPLETION	
Architect's name	Job title and no:
and address:
.....	Serial no:
To Main Contractor:	
In accordance with the <i>Agreement and Schedule of Condition of Building Contract for use in Hong Kong, Second Edition 1976 (May 1979 Revision)</i> , I/We certify that subject to the completion of any outstanding items, and/or making good of any defects, shrinkages and other faults which appear during the defects liability period,	
[delete (a) or (b) as necessary]	
(a)	the Works were in my/our opinion practically completed as described in Clause 15(1) on:

	and that the said Defects Liability Period will end on:

(b)	a part of the Works, namely:
	the approximate value of which I/we estimate for the purposes of Clause 16 (but for no other) to be:

	was taken into possession under Clause 16 on:

	and that in relation to the said part of the Works, the said Defects Liability Period will for the purpose specified in Clause 16(b) end on:

I/We declare that a certificate for one moiety of the retention moneys deducted under previous certificates in respect of the said Works or part thereof is to be issued in accordance with the Conditions of Contract.	
Signature:	Architect Date:
Original to:	Main Contractor
Copies to:	Architect's file
	Quantity Surveyor
	Clerk of works
	Consultant engineers

Completion

- Partial Possession by Employer
 - Clause 18.1 of HK Standard Form provides the possibility of the employer taking possession of some section of the works before practical completion of the whole, by an agreement made with the main contractor during progress of the works, rather than forming part of the original contract.
 - The intention is to ensure a fair and reasonable position under the contract when a part, or successive parts, of the works are taken possession of by the employer, in advance of their total completion.
 - This is achieved by treating each part as it is taken over, for the purposes of this clause, as if it were the whole works.

18 Partial possession by Employer

Partial possession

- 18.1 (1) The Employer may, with the Contractor's consent, take possession of a part of the Works or where sectional completion is provided for in the Contract a part of a Section before Substantial Completion, and that part of the Works or part of a Section shall be referred to as a Relevant Part.
- (2) If the Employer takes possession of a Relevant Part, the Architect shall issue a certificate to that effect:
- (a) identifying the Relevant Part being taken into possession;
 - (b) giving the Relevant Date when the Employer took possession of the Relevant Part; and
 - (c) stating his assessment of the estimated amount contained in the Contract Sum in respect of the Relevant Part.

Clause 18 of the HK Standard Form (2005)

Liquidated Damages

- Liquidated and Ascertained Damages
 - It is the full expression used in the HK Standard Form to describe the monetary compensation paid to the employer by the main contractor in the event of late completion.
 - “Liquidated” means that the principle to pay monetary compensation for a breach has been established.
 - “Ascertained” means that the amount to be paid has been decided.
 - It is common practice to use the abbreviated expression “liquidated damages”, or simply “L.D.”.



Liquidated Damages

- Damages for non-completion
 - It permits the employer to deduct liquidated and ascertained damages at the rate stated in the appendix from monies due to the main contractor, if the works are not completed by the Date for Completion or within any extended period of time as granted by the architect.
 - The sum is entered in the appendix as a flat rate per day, which should be a genuine pre-estimate of the loss which the employer will suffer in the event of a delay in completion of the contract.

24 Damages for non-completion

Architect to certify Contractor's failure to complete on time

24.1 (1) If the Contractor fails to complete the Works or a Section by the Completion Date, the Architect shall issue a certificate to that effect confirming that all claims for extensions of time have been addressed in accordance with clause 25 and stating the date by which the Works or Section ought to have been completed.

(2) If a new Completion Date is fixed after the issue of the certificate referred to in clause 24.1(1), the fixing of the new Completion Date shall cancel that certificate and the Architect shall, if appropriate, issue another certificate to correspond to the new Completion Date.

Liquidated and ascertained damages

24.2 (1) If the Architect issues a certificate under clause 24.1(1), the Contractor shall, if required to do so by a notice from the Employer, pay or allow to the Employer liquidated and ascertained damages at the rate per day referred to in clause 24.2(3) for the period between the Completion Date and the Date of Substantial Completion.

(2) The Employer's notice under clause 24.2(1) shall not be given either before the certificate under clause 24.1(1) is issued or after the Final Certificate is issued.

(3) The rate per day of liquidated and ascertained damages for the Works or a Section shall be as stated in the Appendix and adjusted in accordance with clause 18.4 in regard to the completion of any Relevant Part.

(4) The Employer may recover the liquidated and ascertained damages from the Contractor under clause 40 or as a debt.

Refund if Completion Date revised

24.3 If the Architect fixes a later Completion Date under clause 25.3, the Employer shall refund to the Contractor the amount of liquidated and ascertained damages paid or allowed to the Employer under clause 24.2 for the period from the original Completion Date up to the later Completion Date plus interest at 1% below the judgment debt rate prescribed from time to time by the Rules of the High Court (Chapter 4A, Laws of Hong Kong) within 28 days of the Architect fixing the later Completion Date.

Liquidated Damages

- Ascertaining the Employer's Loss
 - Under the HK Standard Form, there is no specified or suggested method of arriving at a sum of money per day that would reflect the employer's loss, in the event of the main contractor's failure to complete on time.
 - A commonly used method is to calculate the liquidated damages as the daily rentable value of the property, after taking into account likely occupancy rates.
 - When it is difficult to arrive at an actual assessment of loss, liquidated damages per day may be calculated:

$$\text{L.D. per day} = 10\% \times \frac{\text{contract sum (as stated in the articles of agreement)}}{\text{number of days originally estimated for completion}}$$

Liquidated Damages



- Ascertaining the Employer's Loss
 - The Government of Hong Kong uses a formula in order to arrive at a more accurate assessment of loss.
 - The Government's daily loss is calculated:

L.D. per day

- = the daily rate at which Government would have to amortise (pay off a debt by a sinking fund) the cost of the project over the period of its probable life at a fixed rate of interest
- + daily supervisory staff costs during the delay period
- + an assessment of the daily sum payable to the main contractor in respect of the increased cost of labour and materials used during the delay period.

Liquidated Damages



- Procedure for Deducting L.D.
 1. If the main contractor fails to complete the works by the Date for Completion or within any extended time, then if the architect is to deduct damages, he must certify in writing that, in his opinion, the works ought reasonably to have been completed, stating when completion should have occurred after taking into account any extension of time awards.
 2. Upon the issue of a Certificate of Non-Completion, payment for L.D. may be calculated by multiplying the period between the date that the architect specifies in the certificate as the date on which the building ought to have been completed and the date of the issue of the Certificate of Practical Completion, by the appropriate rate of L.D. as specified in the appendix.

Liquidated Damages

- Procedure for Deducting L.D.
- 3. Payment for L.D. can be made either progressively in each interim valuation or by a final adjustment of the amount due under the Final Certificate.

If any L.D. due to the employer are not paid, or otherwise allowed by the main contractor prior to the issue of the Final Certificate, the employer's right to recover such amount from the main contractor is terminated by the issue of the Final Certificate.

Final Certificate

FINAL CERTIFICATE	
Architect's name	Serial No.:
and address:	Issue date:
.....
Employer's name	Job reference:
and address:
.....
Main Contractor's name
and address:
.....
In accordance with Clause 30(6) of the Agreement and Schedule of Conditions of Building Contract for use in Hong Kong, Second Edition, 1976 (May 1979 Revision), *I/We certify under the Contract	
dated:	
for the Works:	
situated at:	
that 1.	The Contract Sum adjusted as necessary in accordance with the terms of the above mentioned Conditions is:
	\$.....
and 2.	The sum of the amount paid to the Main Contractor under Interim Certificates and of any payments not included in that amount made in respect of the amount named as the Limit of Retention Fund is: / *The sum of the amounts already paid to the Main Contractor under Interim Certificates and certificates issued under sub clause (4)(b) and (4)(e) of the above mentioned Conditions is:
	\$..... and that \$.....
	(in words).....
is a balance due from/to* the Employer to/from* the Main Contractor and subject to any deductions authorised by the Contract Conditions shall be a debt payable from the fourteenth day after the presentation of this certificate.	
Signed	Architect
	Notes: * Delete as appropriate

Insurance



- Introduction
 - An insurance contract is an agreement whereby one party (the insurer) in return for a consideration (the premium) undertakes to pay to the other party (the insured) a sum of money or its equivalent, upon the occurrence of a specified event which is against the insured's financial interest.
 - An insurance contract is a contract of the utmost faith as the insured is required to provide details of the interest to be protected.
 - There is an implied duty upon the insured to disclose all known facts when applying for an insurance policy.
 - In the event of non-disclosure, the insurer may avoid liability.
 - It is essential that the main contractor should take out comprehensive insurance cover relating to the contract works.
 - Although the contract document may stipulate a minimum limit of indemnity, it is the main contractor's responsibility to select a limit adequate for his protection.

Insurance



Terminology	Meaning
Cover	<ul style="list-style-type: none">• It is the extent of protection that insurance provides to the insured.• “Exceptions” is used to describe this cover by stating what is excluded.
Limit of indemnity	<ul style="list-style-type: none">• It means compensation for loss.• The limit of indemnity is the maximum amount that may be paid in compensation for loss by the insured.
Premium	<ul style="list-style-type: none">• It is the amount of money paid by the insured to the insurer as the consideration to the insurer for undertaking the insurance policy.• It is calculated based on the sum insured, the limit of indemnity, cover, exceptions, and any other conditions of the policy.
Excess	<ul style="list-style-type: none">• It is a specified amount which is deducted from any claims payment made under the policy.• All claims under an insurance policy are subject to an excess.• It is essential as a certain amount of inevitable loss or damage can be anticipated in given circumstances.

Insurance



Terminology	Meaning
Period of insurance	<ul style="list-style-type: none">• It is the period of time during which the insurance policy is effective.• A Contractors' All Risks (C.A.R.) policy will cover the period from the commencement of the contract (date for possession) until two weeks after practical completion of the works.
First party & third party insurance	<ul style="list-style-type: none">• First party insurance policies are those under which one voluntarily insures one's own life or property against loss, injury or damage.• Third party insurance policies are those which insure against one's potential liability in law to pay damages to another, and in some cases they are compulsory, such as third party car insurance.• It is essential to draw the employer's attention to the fact that some insurances will become his liability on the issue of the Certificate of Practical Completion (or on any other date as required in the contract) and that he should arrange his own cover in good time before the main contractor's policy terminates.

Insurance

Terminology	Meaning
Joint insured*	<ul style="list-style-type: none">• Some insurance policies will be issued in joint names.• These parties are known as a joint insured.• Being a joint insured, both parties are liable for the statements in the proposal as well as for the premiums.• When there is more than one party insured under a policy, a cross liability clause must be included in the policy.• Cover operates as if a separate policy had been issued to each party making up the insured.• Although there may be more than one insured, the aggregate liability of the insurer would not be increased beyond the limit of indemnity to which the insurance policy is subject.

* The HK Standard Form requires that the main contractor shall maintain insurances, as required under the contract, in the joint names of the employer and the main contractor such that:

- the insurers will be unable to take legal proceedings against either party to recover money paid out under the policy as a result of a claim for damage or injury caused by the negligence of either party,
- the joint insured will be eligible to claim payment from the insurers for any damages that may be awarded against them.

Building Contract Insurances

1. Liability insurance

- These policies cover the insured's legal liability to third parties, i.e. liability to any person who is not a party to the insurance contract.

Type	Description
a. Employers' liability policy	<ul style="list-style-type: none">• This policy covers the liability of an employer (master) to his employees (those persons under a contract of service or apprenticeship with the employer) for bodily injury or disease arising out of and in the course of their employment.
b. Public liability policy	<ul style="list-style-type: none">• This policy provides an indemnity against personal injury claims by the public (other than employees), and property damage claims.

Building Contract Insurances

2. Material damage insurance

Cover	Do not cover
<ul style="list-style-type: none"> Loss or damage to property in which the insured has an insurable interest which may arise through ownership, possession or contract. 	<ul style="list-style-type: none"> The insured's legal liability for injury to persons or damage to third party property in which he has no insurable interest.

Type	Descriptions
a. Insurance of the works	i. Contractors' All Risks policy <ul style="list-style-type: none"> This indemnifies the insured for loss, damage or destruction of any of the property specified in the schedule, whilst on the contract site for which the insured is responsible. Policies are normally insured in the joint names of the employer and the main contractor. It is common practice to make the insured responsible for an excess applicable to all perils.

Building Contract Insurances

2. Material damage insurance

Type	Descriptions
a. Insurance of the works	<ol style="list-style-type: none">i. Contractors' All Risks policy (continued)<ul style="list-style-type: none">• Consequential loss (such as financial loss through delay caused by damage to the works) is not covered unless it is expressly extended to include consequential loss and risks.• The C.A.R. can be arranged on a contract by contract basis, or may be arranged as a blanket policy to cover any work that the contractor may undertake.ii. Fire and Special Perils policy<ul style="list-style-type: none">• It provides protection for loss and damage caused by fire and other specified perils (such as lightning and flood) to the works themselves.• Although this policy is very limited in the extent of cover it provides, the amount of cover should be adequate to cover potential losses and damage to the works for the risks specified in the contract.

Building Contract Insurances

2. Material damage insurance

Type	Descriptions
a. Insurance of the works	<ul style="list-style-type: none">• The main contractor should be aware of whether compensation for loss or damage is to be taken under the policy on an indemnity basis or reinstatement basis.<ul style="list-style-type: none">① Indemnity basis<ul style="list-style-type: none">• The compensation would be based on the cost of repair or replacement minus an allowance for depreciation.② Reinstatement basis<ul style="list-style-type: none">• The calculation of compensation would be on a new for old basis, which means no deduction is made for depreciation.• The HK Standard Form makes no specific requirement in this aspect.

Building Contract Insurances

2. Material damage insurance

Type	Descriptions
b. Insurance of buildings and contents of owned and occupied premises	<ul style="list-style-type: none">• It covers matters in and arising from existing premises where alteration or extension work is involved.• The contract will usually specify whether it is the main contractor's obligation to take up the insurance against loss to the existing premises and the contents therein, or whether it is the employer's responsibility.• The employer is required to arrange this insurance when the main contractor is carrying out alterations of, or extensions to, an existing building.• All other losses are still the responsibility of the main contractor.• It is advisable for the main contractor to request the employer to arrange C.A.R. insurance rather than a Fire and Special Perils policy.

Building Contract Insurances

2. Material damage insurance

Type	Descriptions
c. Insurance of main contractor's plant and equipment	<ul style="list-style-type: none">• It applies to both the main contractor's own plant and that hired.• It may be arranged as an extension of a C.A.R. policy or a Fire and Special Perils policy; it can also be provided under a separate Contractors' Plant policy.• The HK Standard Form does not require the main contractor to insure his own plant and equipment, or that hired.• Although it may not be mandatory to do so, it is advisable for the contractor to acquire insurance to cover his plant and equipment, because if it is lost, stolen or damaged, he could be faced with a considerable financial loss.

Surety Bond

- Introduction
 - In a building contract, the employer endeavours to ensure that he is protected against most eventualities.
 - This is achieved by insuring against all manner of disaster or accident, and by provisions in the contract allowing for retention and damages for late completion.
 - However, in the event of total default (failure to perform or complete), these remedies will have little or no effect and the employer may be faced with a substantial financial loss which may prove impossible to recover.



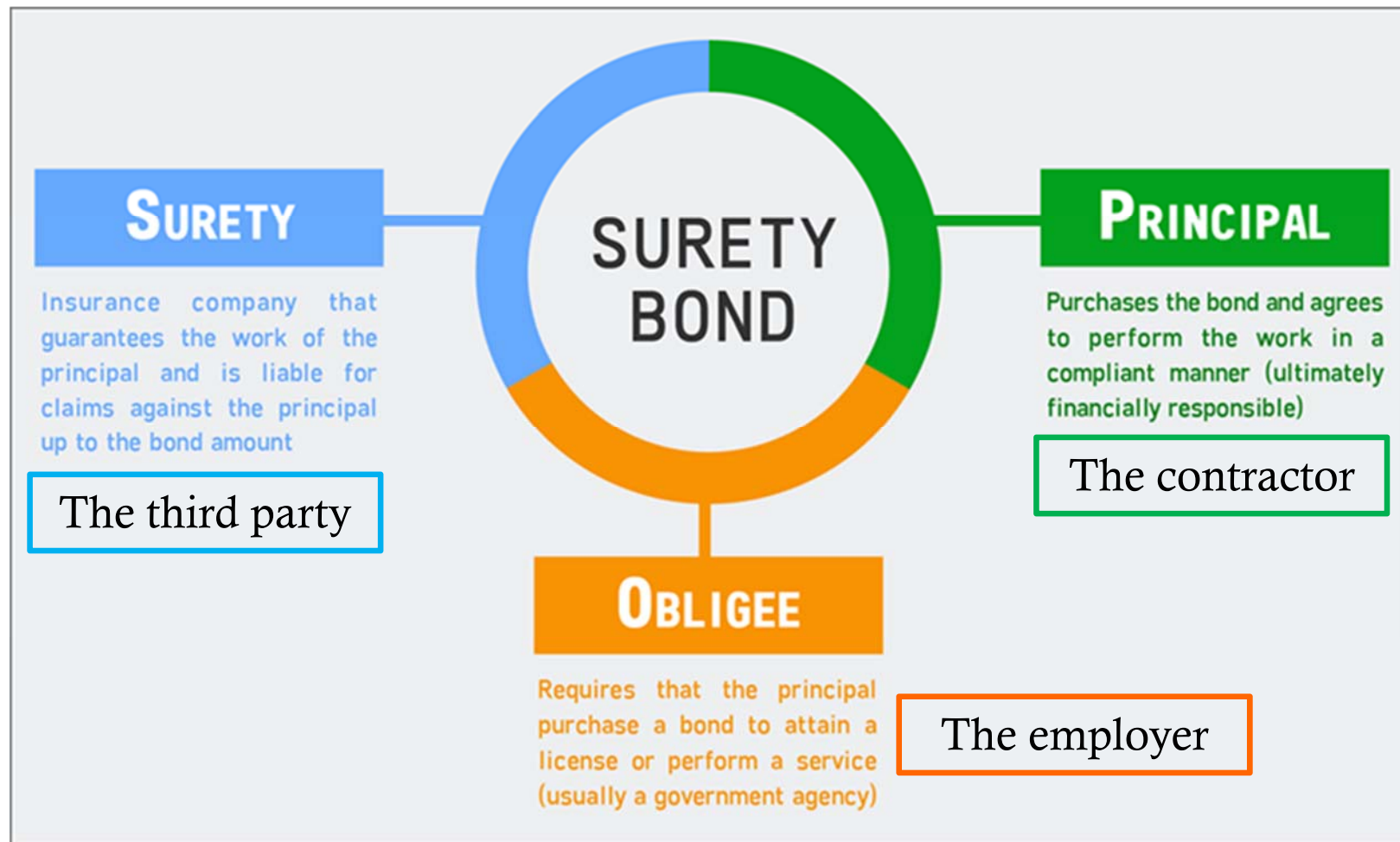
Surety Bond



- Introduction

- A surety bond is a common form of protection for the employer to require the contractor to obtain a guarantee from a third party who agrees to accept financial responsibility for the performance of the contractor's obligations for a fee.
- In the event of the contractor's default, the third party pays an agreed amount of money to the employer as way of compensation for his loss.
- This appears to be a very simple legal obligation, but because there are different forms of bond and the terminology involved is often confusing, the contractor may not appreciate the full implications of purchasing a surety bond.

Surety Bond



Surety Bond



- Introduction
 - A surety bond is a form of guarantee.
 - A surety bond is an undertaking by a third party, usually a bank or an insurance company, to pay an agreed sum of money by way of compensation if a party to a contract fails to fulfil their obligations.
 - The issue of a surety bond does not rely so much on the disclosure of facts, but it all depends on the purchasers' ability to provide the necessary collateral to cover the amount of the bond.
 - In the case of a construction project, this would involve the surety or bondsman (the terms given to the third party guarantor) guaranteeing to pay the employer an agreed sum of money.
 - If the contractor does not fulfil his obligation to complete the contract, the surety would in turn recover the money from the contractor.

Surety Bond

- Recovery of Bond Amount from Contractor
 - The surety will require some form of collateral or indemnity agreement from the contractor (in some cases an additional counter guaranteed agreement from a third party) so that if the guaranteed obligation is not performed, they can be sure of recovering the amount paid.

Collateral	<ul style="list-style-type: none">• The surety may require a cash deposit covering the bond amount.• The surety may accept shares quoted on the stock market or a mortgage to real estate.• In some cases, the surety may accept a promissory note (e.g. a personal cheque), but this involves great risk to the surety in case of bankruptcy; therefore, this is only regarded as pseudo-collateral.
Indemnity agreement	<ul style="list-style-type: none">• It requires the contractor to sign a written undertaking to pay back the surety for any amounts payed to the employer (due to non-performance of the contractor's obligation) up to the bond amount.• However, this may prove of little use to the surety if the contractor becomes insolvent and so a counter guarantee is often required in addition.
Counter guarantee	<ul style="list-style-type: none">• It is given by a third party for the contractor's obligation to reimburse the surety.• These third parties are often directors or shareholders of the contractor's company, although private individuals with a good financial standing may also provide this guarantee.

Instructions

- Introduction
 - The architect is expressly empowered under the conditions of the HK Standard Form to issue instructions to the main contractor.
 - However, if an instruction is not issued according to the provision of these conditions, the main contractor is not obliged to comply.
 - Three ways of architect's instructions officially conveyed to the main contractor:
 1. Written instructions direct from the architect
 2. Oral instructions direct from the architect
 3. Oral directions given by the clerk of works on behalf of the architect.

4 Architect's instructions

Architect may issue instructions up to the issue of the Final Certificate

- 4.1 The Architect may issue instructions that he is empowered to issue under the Conditions at any time up to the issue of the Final Certificate including during the time that the Contractor may be carrying out work after the Date of Substantial Completion of the Works, but he shall not instruct a Variation after the issue of the Defects Rectification Certificate for the Works, a Section or a Relevant Part as the case may be.

Architect to issue instructions in writing

- 4.2 (1) The Architect must issue all instructions in writing in accordance with clause 1.9. All oral instructions given must be confirmed in writing within 5 days of giving the oral instruction. If the Architect gives an oral instruction that the Contractor believes requires a Variation it shall have no immediate effect, the Contractor shall confirm the oral instruction requiring a Variation in writing to the Architect within 7 days of it being issued and if not dissented to in writing by the Architect within 7 days from his receipt of the Contractor's confirmation the Variation shall take effect on the expiry of the latter 7 days.

(2) Where an Architect's oral instruction requiring a Variation has been confirmed in writing by the Contractor under clause 4.2(1) and not dissented to by the Architect, the Architect shall issue the written instruction for a Variation for record purposes as soon as practicable after the Contractor's confirmation.

Compliance with Architect's instructions

- 4.3 (1) Subject to clauses 4.2(1) and 4.3(2), the Contractor shall comply with all instructions that the Architect is empowered by the Conditions to issue as soon as practicable. If there is a disagreement between the Architect and the Contractor as to whether an instruction involves a Variation, the Contractor shall comply with the instruction and may, if he is not satisfied, require the disagreement to be resolved under clause 41.

(2) If the Contractor disagrees that the Architect is empowered by the Conditions to issue an instruction he may within 7 days of receipt of that instruction require the disagreement to be resolved under clause 41.

(3) If the Contractor does not begin to comply with an instruction within 7 days after receipt of a written notice from the Architect requiring compliance with that instruction in accordance with clause 4.3(1) and the Architect issues a certificate to that effect by special delivery, the Employer may, without prejudice to his other rights and remedies, engage other persons to carry out that instruction. All additional costs incurred by the Employer in connection with the employment of the other persons to carry out that instruction may be recovered from the Contractor under clause 40 or as a debt.

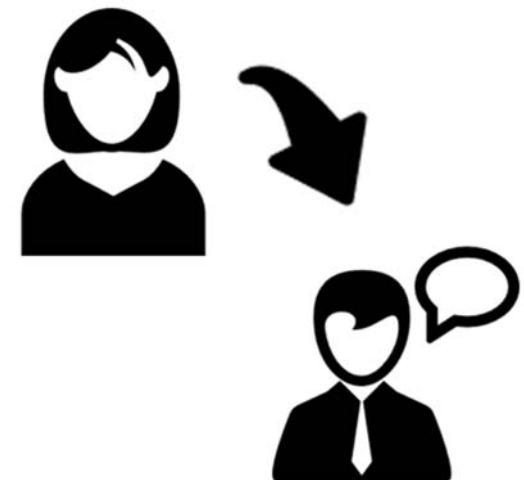
Clause 4 of the HK Standard Form (2005)

Instructions

Method	Descriptions
Written Instructions	<ul style="list-style-type: none">• If the main contractor does not comply with properly authorized written instructions within 7 working days, then the employer can employ and pay other persons to carry out the work necessary to give effect to the instruction.• The cost of such work shall be recoverable from the main contractor by the employer as a debt or may be deducted from monies due to the main contractor under the contract.
Oral Instructions	<ul style="list-style-type: none">• This will in effect minimize delays in the time taken to write and deliver a written instruction.• The main contractor should however get the instruction in writing, since if the matter in question is allowed to remain unwritten for too long or is forgotten during subsequent operations, the main contractor runs the risk of losing payment if the architect has no record or cannot recall items.• Where instructions are requested on site and given orally by the architect, these should be written in a site record book kept by the main contractor and signed by the architect.• The normal procedure for confirmation of an architect's oral instruction is for the main contractor to write to the architect within 7 days confirming the instruction.• If the architect does not dissent/disagree in writing within 7 days of receiving the main contractor's confirmation, then the instruction will take effect as from the expiration of the latter 7 days.• If the architect confirms an instruction in writing first within 7 days, then the main contractor does not have to confirm his instruction.

Instructions

Method	Descriptions
Clerk of Works Directions	<ul style="list-style-type: none">• The clerk of works acts only as an inspector on behalf of the employer under the direction of the architect.• As such, he has no authority to give instructions to the main contractor; however, he may give directions.• In practice, this means that directions given to the main contractor by the clerk of works will usually be treated as architect's instructions.• The main contractor will therefore comply with these directions, knowing that the architect's written confirmation will invariably follow.



Variations



Variation: a change instructed by the Architect to the design, quality or quantity of the Works including:

- (i) an alteration to the type, standard or quality of any of the materials or goods comprising the Works;
- (ii) the addition, substitution or omission of work; and
- (iii) the removal from the Site of materials or goods and the demolition and removal of work except where provided for in the Contract or where the materials, goods or work are not in accordance with clause 8.1;

or the imposition of an obligation or restriction instructed by the Architect regarding:

- (iv) access to the Site or use of any parts of the Site;
- (v) limitation of working space;

Extracted from the HK
Standard Form (2005)

- Doctrine of entirety
 - There is no obligation to carry out variations or to pay for variations.
 - Standard forms of building contract commonly introduce a variations clause, under which the doctrine of entirety is modified.
 - This is to give the employer the right to require variations and provide rules governing the adjustment of the contract sum.

Variations



- Reasons that the main contractor may be ordered to carry out variations:
 - The employer may ask for details to be changed.
 - A discrepancy between contract documents.
 - A discrepancy between statutory requirements and the contract documents.
 - An error or omission in the contract bills.
 - Expenditure of provisional and prime cost sums.
 - Restoration of damaged work caused by perils.
 - Protective work upon an outbreak of hostilities.
 - Removal of debris as a result of war damage.

Variations

- Measurement & Valuation of Variations
 - It is the duty of the quantity surveyor to measure and value variations.
 - Variations will ultimately be presented as part of the final account, and the main contractor is to be presented with a copy of the priced Bills of Variation before the issue of the Final Certificate.
 - If the main contractor is dissatisfied with the quantity surveyor's valuation, he can take the matter to the architect who must review the valuation.

13 Variations, Provisional Quantities, Provisional Items and Provisional Sums

Architect's authority to issue instructions requiring a Variation

- 13.1 (1) The Architect may issue an instruction requiring a Variation provided that:
- (a) the Contractor has the right of reasonable objection to a Variation which imposes or changes an obligation or restriction on the Contractor regarding access to the Site, use of any part of the Site or limitation of working space or working hours and the Architect shall, upon receipt of the Contractor's objection, either confirm or withdraw the instruction, and if the instruction is confirmed, the Contractor may refer the matter to arbitration under clause 41;
 - (b) the Contractor's written consent is given to an instruction either nominating a sub-contractor to carry out work included in the Contract Bills which is to be carried out by the Contractor or omitting work in order for it to be carried out by others; and
 - (c) the instruction or accumulation of instructions shall not fundamentally change the scope or nature of the Works.
- (2) The instruction requiring a Variation shall describe the change required to the design, quality or quantity of the Works or the imposition of or change to any obligation or restriction on the Contractor and where appropriate the Architect shall issue revised drawings and/or schedules.

Clause 13 of the HK Standard Form (2005)

Variations



- Rules of Valuing Variations
 - a. Work of similar character in similar conditions, use prices in the Contract Bills to determine proportionally valued rates (pro-rata rates).
 - b. Work of dissimilar character or executed under dissimilar conditions, use prices in the Contract Bills as far as reasonable (pro-rata rates) or make a fair valuation.
 - c. Work that cannot be properly measured or valued, use dayworks, which is written evidence of time spent and materials used to carry out the variation work. The information is recorded on standard dayworks sheets, which are signed by the clerk of works.
 - d. If omissions required by the architect significantly vary the conditions of carrying out the remaining items of work, the prices for such remaining items will be valued under the above rule b.
 - e. If required by the architect, the main contractor shall submit a detailed estimate of the value of the variation within 14 days of the architect's written request.

Provisional Sums



- A provisional sum is a sum of money provided in the Contract Bills for costs which cannot be entirely foreseen, defined or detailed at the time the tendering documents are issued.
- This may include the value of measured work (which is the actual quantity of finished work whether valued by measurement or as daywork), and any preliminary costs such as scaffolding and plant directly related to the work in question.
- In some cases, it may even include the cost of other preliminary items such as special supervision.
- Adjustments would be made by deducting the provisional sums from the Contract Sum and replacing them with the value of actual expenditure.

Prime Cost Sums



- A prime cost sum is a sum of money provided in the Contract Bills for payment of nominated sub-contractors and nominated suppliers and is to be expended in favour of such persons as the architect shall instruct.
- Normally, prime cost sums are incorporated into the tender as cover for the cost of nominated work.
- In so doing, the employer does not have to enter into a series of special contracts.
- After the initial nomination, these specialists become sub-contractors and suppliers to the main contractor.
- In the adjustments, the prime cost sums would be deducted from the Contract Sum and substituted by the final accounts of the specialist sub-contractors and suppliers so nominated.

Certificates and Payments

- Introduction
 - Payment certificates are binding statements, issued by the architect, which commit the employer to an obligation to pay the main contractor the amount certified, under Clause 32 of the HK Standard Form.
 - Two types of payment certificate:
 1. Interim Certificates
 2. Final Certificate
 - Other certificates issued by the architect throughout the contract period:
 - Certificate of Practical Completion
 - Certificate of Making Good Defects

32 Certificates and payments

Interim Certificates and interim valuations

- 32.1 (1) The Architect shall issue an Interim Certificate at the end of each Period of Interim Certificates stated in the Appendix commencing not later than 42 days after the Commencement Date.
- (2) The Interim Certificate shall state the amount due to the Contractor from the Employer and the Employer shall pay that amount to the Contractor, less any monies deductible by the Employer under clause 32.1(6), within the period for payment of certificates stated in the Appendix.
- (3) After the issue of the Substantial Completion Certificate for the whole of the Works, Interim Certificates shall only be issued when further amounts are, in the Quantity Surveyor's opinion, due to the Contractor.
- (4) The Contractor shall submit to the Quantity Surveyor, at least 14 days before the date on which an Interim Certificate is due to be issued, a statement setting out the Contractor's estimate of the gross valuation of the work in progress including:
- (a) the amount estimated for each of the items referred to in clause 32.2(3);
 - (b) a priced list of the materials and goods either delivered to or adjacent to the Site or stored off-site and to be included in the Interim Certificate under clause 32.3;
 - (c) all the accounts, vouchers, receipts and other documents that may reasonably be required by the Quantity Surveyor; and
 - (d) the statements, accounts, vouchers, receipts and other documents submitted to him by the Nominated Sub-Contractors and Nominated Suppliers in accordance with their sub-contracts or supply contracts.
- (5) The Quantity Surveyor shall make an interim valuation of the work in progress in accordance with clause 32.2 to determine the estimated amount due in an Interim Certificate and shall submit his valuation to the Architect at least 7 days before the Interim Certificate is due to be issued.
- (6) The Employer may make any deduction authorised by the Contract from the amount due to the Contractor under an Interim Certificate, whether or not any Retention is included in that Interim Certificate, provided that he gives a notice to the Contractor by special delivery stating the amount of the deduction, a build-up of that amount and the reason for it at least 7 days before making the deduction.

Certificates and Payments



- Interim Certificates
 - Generally, payment on interim certificates may be calculated either by:
 1. Stage payments made at agreed stages of completion (e.g. 10% of the Contract Sum upon completion of foundations, 20% upon completion of first floor etc.)
 2. Measurement of work done at agreed intervals throughout the contract. (the most common method and adopted by most standard forms of building contract in Hong Kong, including the HK Standard Form)
 - Interim Certificates certify the value of work completed to the time of the certificate and are an estimate of value only.
 - The employer is bound to pay the sum stated on the certificate, but adjustments can be made on future certificates.
 - Interim Certificates are issued periodically before practical completion at intervals, usually one month.

Certificates and Payments



- Interim Certificates
 - The architect is under an obligation to issue Interim Certificates.
 - If he does not, the employer will be in breach of contract.
 - When an Interim Certificate has been presented to the employer by the main contractor, payment must be made within the Period for Honouring Certificates, 14 days from presentation unless otherwise stated.
 - If the employer does not pay within the time, then after giving notice, the main contractor may determine to end his own employment under the contract.
 - If the main contractor feels that any Interim Certificate was not properly prepared, he can give notice of arbitration.
 - An Interim Certificate may include the estimated value of the work properly executed, and the total value of materials and goods delivered to or adjacent to the works for use thereon.

Certificates and Payments

- Retention
 - The object of retention is to secure the main contractor's obligation to complete the works and make good defects.
 - The employer holds retention money as a trustee for the main contractor but without obligation to invest.
 - The employer may retain a percentage of the total value of the work, materials and goods valued, which is referred to in the appendix as Percentage of Certified Value Retained and should not normally exceed 10%.

Clause 32.2 of the HK Standard Form (2005)

- Estimate of amount due in Interim Certificate*
- 32.2 (1) The amount due in an Interim Certificate, subject to any agreement between the parties as to stage payments, shall be the estimated gross valuation of the work in progress as referred to in clause 32.2(2) less:
- (a) the Retention; and
 - (b) the total amount stated as due in each Interim Certificate previously issued.
- (2) The estimated gross valuation of the work in progress shall be the total of the amounts listed in clause 32.2(3) less the total of the amounts listed in clause 32.2(4).
- (3) The following estimated amounts shall be included in the gross valuation:
- (a) the value of the permanent work properly carried out including any additional work or obligation instructed as a Variation to the extent that this additional work or obligation has been completed or fulfilled in whole or in part;
 - (b) the proportion of the value of temporary works properly carried out where their value is included as a separate sum in the Contract Bills;
 - (c) the proportion of the value of a preliminary item properly provided or carried out by the Contractor where its value is included as a separate sum in the Contract Bills;
 - (d) the value of materials or goods on or adjacent to the Site provided that:
 - (i) they are to be incorporated into the permanent Works;
 - (ii) they have not been prematurely delivered; and
 - (iii) they are adequately protected against weather, other damage or theft;
 - (e) the value of materials or goods to be incorporated into the permanent Works before they are delivered to or adjacent to the Site and to be included in an Interim Certificate in accordance with clause 32.3;
 - (f) the amounts payable for work carried out by Nominated Sub-Contractors in accordance with the sub-contracts;
 - (g) the amount payable in respect of a Contractor's tender accepted under clause 29.4 for work provided for by a Prime Cost Sum;
 - (h) the amounts payable for materials or goods supplied by Nominated Suppliers in accordance with the supply contracts;
 - (i) the appropriate proportion of the sums included as separate items in the Contract Bills for:
 - (i) profit on the amounts payable to Nominated Sub-Contractors and Nominated Suppliers; and
 - (ii) attendance upon Nominated Sub-Contractors;
 - (j) the payments made and costs incurred for:
 - (i) statutory fees and charges under clause 6.3;
 - (ii) opening up and testing materials, goods or work under clause 8.2; or
 - (iii) effecting and maintaining insurances resulting from the Employer's failure to insure under clause 22B.2(2) or 22C.3(2);
 - (k) the amount ascertained as additional payment for direct loss and/or expense under clause 27.2;
 - (l) the amount payable for reimbursement for increases in the costs of labour and/or materials under clause 38 if applicable; and
 - (m) any other amount which is required by the Contract to be added to the Contract Sum.

Certificates and Payments



- Retention
 - When the sum of the amount of retention money retained equals that shown in the appendix as Limit of Retention Fund (which should not normally exceed 5% of the Contract Sum), then no further amounts will be retained.
 - The employer is permitted under the contract to draw from the fund to reimburse himself for:
 - a. Work executed by another party where the main contractor has not compiled with a valid instruction.
 - b. Premiums paid for insurance when the main contractor has failed to insure.
 - c. Payment of L.D.
 - d. Direct payments to nominated sub-contractors.
 - After the Certificate of Practical Completion is issued, one moiety of the retention fund is released with the other moiety being released after the issue of the Certificate of Making Good Defects.

Certificates and Payments

- Certificate of Practical Completion
 - The main contractor's obligation: to complete the works according to the Contract Bills and Contract Drawings.
 - The employer's obligation: to pay the main contractor the amount stated in the Interim Certificates issued by the architect.
 - When the works are practically completed by the main contractor, as required by the contract, the architect will issue a Certificate of Practical Completion.
 - It will be for the architect to decide the stage at which practical completion of the works has been reached.

17 Substantial Completion and defects liability

Substantial Completion Certificate for the Works

- 17.1 The Architect shall issue the Substantial Completion Certificate for the Works when he is satisfied that the Works have been substantially completed and have passed the inspections and tests that are required by the Contract to be carried out and completed before Substantial Completion and all unfinished items of work shall be completed as soon as practicable after the issue of the Substantial Completion Certificate, or as instructed by the Architect, and in any case before the expiry of the Defects Liability Period.

Separate Defects Liability Period for each Section and Relevant Part

- 17.2 (1) If sectional completion of the Works is provided for in the Contract or the Employer takes possession of a Relevant Part each Section or Relevant Part shall have its own separate Defects Liability Period.
- (2) The Architect shall issue a Substantial Completion Certificate upon Substantial Completion of each Section or Relevant Part except for the last one. Upon Substantial Completion of the last Section or Relevant Part the Architect shall issue the Substantial Completion Certificate for the Works and Substantial Completion of the whole of the Works shall be deemed to have taken place on the date stated in that certificate.
- (3) The requirements for the issue of a Substantial Completion Certificate under clause 17.2(2) shall be the same as those under clause 17.1.

Certificates and Payments



- Certificate of Practical Completion
 - Once the certificate is issued, the main contractor is no longer obliged to accept new instructions requiring extra work, even on modified items; he should hand over the building to the employer and move off site.
 - Contractual provisions that are dependent on the date of the issue of the Certificate of Practical Completion:
 - a. Beginning of the Defects Liability Period (DLP)
 - b. Ending of the main contract's ability for typhoon damage
 - c. Ending of insurance of the works by the main contractor
 - d. Ending of liability for L.D.
 - e. Ending of regular Interim Certificates
 - f. Release of one moiety of the retention fund
 - g. Beginning of the Period of Final Measurement and Valuation
 - h. Opening of arbitration matters.

Certificates and Payments

- Certificate of Making Good Defects
 - The issue of the Certificate of Practical Completion marks the beginning of the DLP, 6 months unless otherwise stated.
 - For this period of time, after the issue of the Certificate of Practical Completion, the main contractor is required to maintain and repair the building in respect of damage occurring through his poor workmanship.
 - The architect must deliver a Schedule of Defects within 14 days from the expiry of the DLP.
 - If the architect fails to do this, the schedule would become invalid and the employer would have to resort to a separate claim for damages against the main contractor for his failure to properly complete the contract.

Rectifying defects

- 17.3 (1) The Contractor shall rectify all defects, shrinkages or other faults which are identified during the Defects Liability Period of the Works, a Section or a Relevant Part stated in the Appendix, and are caused either by materials, goods or workmanship which are not in accordance with the Contract, by natural causes or as a result of a Specified Period occurring during the construction period prior to Substantial Completion.
- (2) The Architect shall list the defects to be rectified in schedules of defects which he shall issue to the Contractor as Architect's instructions from time to time during the Defects Liability Period. The final schedule of defects shall be issued not later than 14 days after the expiry of the Defects Liability Period.
- (3) The Contractor shall rectify the defects specified in the schedules of defects to the Architect's satisfaction within a reasonable time after receipt of those schedules.
- (4) If the Contractor does not comply with the Architect's instruction to rectify the defects listed in a schedule of defects within a reasonable time the provisions of clauses 4.3(3) and 4.3(4) shall apply.
- (5) The Architect may instruct the Contractor not to rectify some or all of the defects specified in the schedules of defects, in which case a reasonable reduction to the Contract Sum shall be made for the defects not rectified.

Certificates and Payments

- Certificate of Making Good Defects
 - The main contractor is to make good defects within a reasonable time of receiving the schedule.
(Much depends on the nature and circumstance of a particular defect as to what may be considered a reasonable time.)
 - All work will normally be at the main contractor's expense.
 - When the DLP has expired and on completion of the repairs, the architect is required to issue a Certificate of Making Good Defects.
 - One certificate is issued covering all making good defects.

CERTIFICATE OF MAKING GOOD DEFECTS

Architect's name Our Reference:.....
and address: Date:

Works:.....
.....

Situated at:

To Main Contractor:

In accordance with the Contract, we certify that all outstanding items and all defects, and other faults which appeared during the Defects Liability Period were in our opinion completed and made good.

We declare that a certificate for the residue of the retention monies deducted under previous certificates in respect of the said Works is to be issued in accordance with the Conditions of Contract.

Signed Architect

Original to: Main Contractor
Copies to: Architect's file Quantity Surveyor
 Clerk of works Consultant engineers

Certificates and Payments



- Certificate of Making Good Defects
 - The main contractor is then relieved of any further contractual responsibility for the maintenance and repair of the building.
 - The issue of the Certificate of Making Good Defects has two effects:
 1. Release of the residue of the retention fund
 2. Clearance for the issue of the Final Certificate.
 - The Certificate of Making Good Defects means that the main contractor himself is no longer obliged to return and remedy defects, but it does not end the main contractor's liability for the cost of remedying them.
 - The main contractor remains liable to the employer, under the Limitation Ordinance, for any breach in complying with contract specifications.
 - The period of the main contractor's liability is:
 - 6 years for ordinary (simple) contracts, and
 - 12 years for contracts under seal.

Certificates and Payments

- Final Account
 - Before the Final Certificate can be issued, the final account has to be prepared by the quantity surveyor, who is required to adjust the Contract Sum in the Contract Bills to include all the monetary additions and omissions of the following items:
 - Contingency sums
 - Architect's instructions
 - Provisional quantities
 - Provisional and prime cost sums
 - Fluctuations and agreed main contractor's claims.

Final Account

FINAL ACCOUNT		
Contract No.:	Architect's name	
Employer's name.....	and address:.....	
SUMMARY		
	Omissions	Additions
	\$	\$
CONTRACT SUM		20,000,000.00
Deduct contingency sum	500,000.00	
ADJUSTMENTS:		
Architect's instructions	234,562.00	201,454.00
Provisional quantities	10,900.00	12,106.00
Prime cost sums (including profit and attendance)	4,212,200.00	4,101,816.50
Provisional sums	50,000.00	46,813.50
Agreed Contractor's claims	NIL	23,105.00
Fluctuations	NIL	550,000.00
	5,007,662.00	24,935,295.00
		5,007,662.00
	TOTAL FINAL ACCOUNT	\$19,927,633.00
I/We agree to accept the sum of \$19,927,632.00 (in words) NINETEEN MILLION, NINE HUNDRED AND TWENTY SEVEN THOUSAND, SIX HUNDRED AND THIRTY THREE DOLLARS ONLY, as full, final and sufficient payment for work carried out under the above Contract.		
Signed	for and on behalf of Main Contractor	Date

Certificates and Payments



- Final Account
 - Under the HK Standard Form, the Period of Final Measurement and Valuation should begin with the issue of the Certificate of Practical Completion and be completed within the time stated in the appendix; 6 months unless otherwise stated.
 - All adjustments made to the Contract Sum should be agreed by the main contractor's quantity surveyor.
 - When the final account has been agreed, a summary is prepared setting out all the adjustments, which should be signed by the main contractor.
 - The agreed final account sum is the amount that the employer should pay the main contractor for executing the works.

Certificates and Payments

- Final Certificate
 - The Final Certificate is issued to certify that the works have been entirely completed to the employer's satisfaction in accordance with the terms of the contract between the two parties.
 - It must be issued as soon as it is practicable but before the expiration of 3 months from the end of DLP, or from completion of marking good defects, or when the main contractor has completed his obligation to send all the necessary documentation to the architect so that the final account can be completed; whichever is the latest.

Issue of Final Certificate

- 32.8** (1) The Architect shall issue the Final Certificate to each of the parties by special delivery as soon as practicable after the issue of the Defects Rectification Certificate for the whole of the Works provided that the Final Certificate shall not be issued until at least 28 days after a copy of the signed final account has been given to each of the parties under clause 32.6(5).
- (2) At the same time as the Architect issues the Final Certificate, he shall notify each Nominated Sub-Contractor and Nominated Supplier of the date it was issued and the amount included for the work carried out or the materials or goods supplied by them.
- (3) The Final Certificate shall state:
- (a) the Final Contract Sum;
 - (b) the sum of the amounts already stated as due in each Interim Certificate; and
 - (c) the difference between the two sums expressed as a balance due to the Contractor from the Employer or to the Employer from the Contractor, as the case may be.
- (4) The balance referred to in clause 32.8(3) shall be a debt payable, either by the Employer to the Contractor or by the Contractor to the Employer, as the case may be, 28 days after the issue of the Final Certificate, subject to:
- (a) all deductions authorised by the Contract; and
 - (b) the general rights of set off at law.

Clause 32.8 of the HK Standard Form (2005)

Certificates and Payments

- Final Certificate
 - It will include the sum of all amounts previously certified and the Contract Sum adjusted as necessary in accordance with the conditions of the contract.
 - The difference (if any) between these two sums will be expressed as a balance due to the main contractor from the employer or to the employer from the main contractor as the case may be.
 - This balance must be settled as from the 40th day after the main contractor has presented the Final Certificate to the employer.

Final Certificate

FINAL CERTIFICATE	
Architect's name	Serial No.:
and address:	Issue date:
.....	Job reference:
Employer's name
and address:
.....
Main Contractor's name
and address:
.....
In accordance with Clause 30(6) of the Agreement and Schedule of Conditions of Building Contract for use in Hong Kong, Second Edition, 1976 (May 1979 Revision), *I/We certify under the Contract	
dated:	
for the Works:	
situated at:	
that 1.	The Contract Sum adjusted as necessary in accordance with the terms of the above mentioned Conditions is:
	\$.....
and 2.	The sum of the amount paid to the Main Contractor under Interim Certificates and of any payments not included in that amount made in respect of the amount named as the Limit of Retention Fund is: / *The sum of the amounts already paid to the Main Contractor under Interim Certificates and certificates issued under sub clause (4)(b) and (4)(e) of the above mentioned Conditions is:
	\$..... and that \$.....
	(in words)
is a balance due from/to* the Employer to/from* the Main Contractor and subject to any deductions authorised by the Contract Conditions shall be a debt payable from the fourteenth day after the presentation of this certificate.	
Signed	Notes: * Delete as appropriate

Certificates and Payments



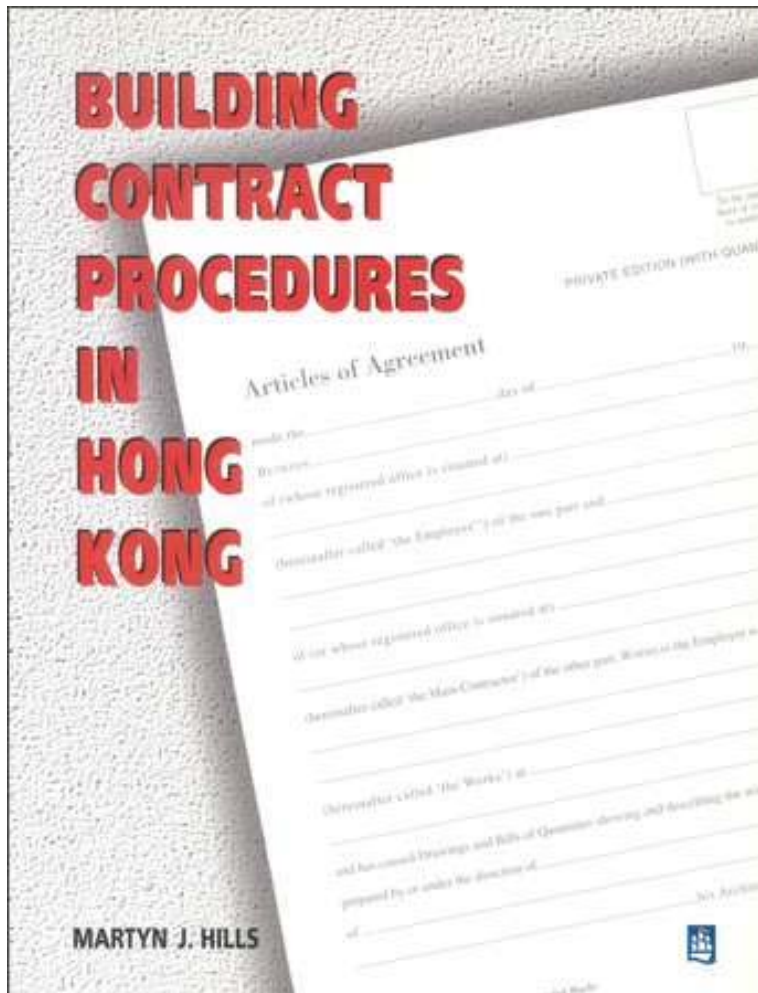
- Final Certificate
 - The effects that the Final Certificate has on the contract are that all materials and workmanship are to the reasonable satisfaction of the architect, and that all adjustments to the Contract Sum have been made.
 - Once the Final Certificate is issued, all adjustments made are indisputable by any accidental inclusion or exclusion.
 - It is therefore extremely important that all calculations are checked carefully while adjusting the Contract Sum.
 - However, if arbitration is going to take place, or is taking place when the Final Certificate is issued, the certificate will be subject to the arbitrator's main award.

Checklist

- Can you
 1. Explain the importance of Dates for Possession and Completion?
 2. Describe the procedure of deducting liquidated damages?
 3. Define the terminology used in an insurance contract?
 4. Classify building contract insurances and instructions?
 5. Discuss the implementation of variations?
 6. Characterize the various types of payment certificates?



Reference



- Hills M.J. (1993) “Building Contract Procedures in Hong Kong”. HK: Longman Hong Kong Education.