

Second Meeting of the EEC Subgroup on Business Facilitation

Agenda Item 3.1 : Construction time of high-rise buildings

Purpose

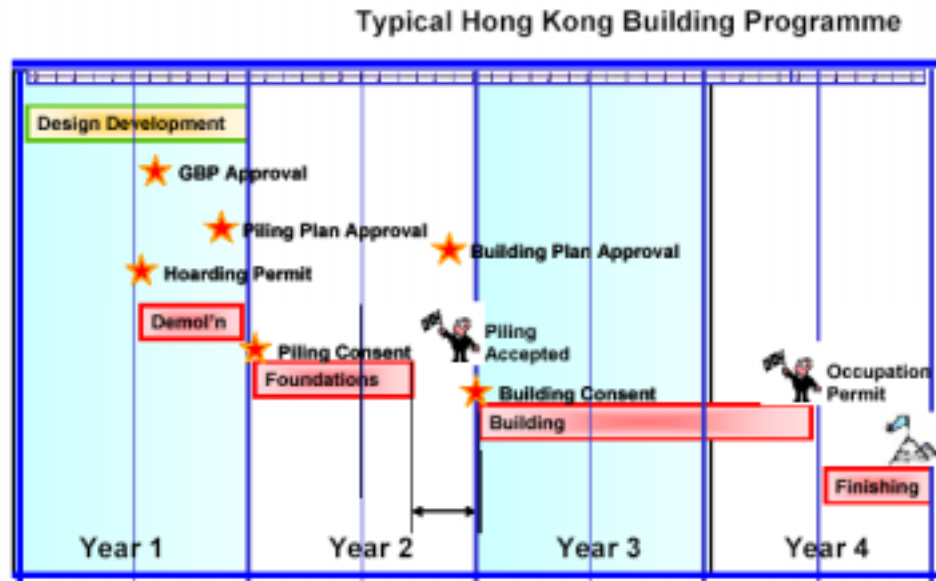
This paper aims to explore the reasons for a longer elapse time to build when compared with Mainland cities and western countries and to what extent this is the result of Hong Kong's unique regulatory requirements, from a consultant's view point.

Construction Stages

2. Construction (*excluding land acquisition and planning*) of high-rise buildings in Hong Kong takes around 42 months. This appears to be lengthy. We have not carried out a benchmarking of Hong Kong projects but can comment on the activity durations from our experience. We are involved in a number of projects in the Mainland and can also make some comparisons based on this experience.

3. The figure below shows the main construction activities and a suggested timing for these that results in an overall duration of 42 months. The major activities are :

- demolition works (*6 months*);
- foundation (*piling*) works (*12 months*);
- building works (*can include basement construction*) (*18 months*);
and
- finishing works (*remaining works not required for the issue of the Occupation Permit which can include architectural finishing and external works such as road works and landscaping*) (*6 months*).



4. The first three of these activities usually involve the appointment of a separate main contractor. In the case of the building works, a typical project will involve the appointment of many sub-contractors, suppliers as well as separate contracts.

Views on the Elapse Time Taken

5. There are many factors which affect the length of the construction period. But we are confident that the perceived “slowness” in completing these activities cannot be attributable to the contractors as the contracting industry is very competitive, open to entrants from overseas, and well resourced in terms of skills and manpower. There is quite a variation in the management and competency of individual contracting firms. Putting aside the issue of whether Hong Kong projects benefit from the effective management and competency of the developer’s professional team, we are left to consider whether other elements of the local environment contribute to the perceived slowness.

6. In focusing on the regulatory environment, it is reasonable to conclude that the “slowness” in part results from :

- difficulties in getting started (*obtaining the necessary consent, approvals and permits*);

- restrictions in the way the works are carried out (*once obtained, the contractors are obliged to follow restricted work practices, might be subject to stopping/restarting, or must commit to following a pre-agreed method of working even though circumstances render it unsatisfactory*); and
- difficulties in getting the works signed off as complete (*obtaining the necessary certificates, e.g. water and fire certification, and certificate of compliance, occupation permit*).

7. The report of the study entitled “Licensing Requirements for the Construction Industry” which we conducted last year has highlighted some circumstances that are peculiar to the Hong Kong regulatory environment and appear to contribute to the perception that our building development projects are unnecessarily slow. In some cases, the rationale might arise from the community demanding higher levels of control. In other cases, the rationale for the constraint might be that Government believes it must be particularly cautious given the risks of a possible failure, and the burden that the community will have to bear as a result of inferior works. An example of the former is environmental restrictions, particularly in relation to noise and the hours of operation of noisy equipment. There is no doubt that these restrictions delay the completion of development projects. On the other hand, relaxing these restrictions would not be acceptable to the community. An example of the second case relates to the founding criteria for bored piling and the associated controls including the proof testing post-completion. In this example, industry as a whole believes that Government is over cautious and should accept new approaches and controls.

Improvement Opportunities

8. We are of the view that the 42-month programme may be reduced, as shown in the table at **Annex**. Major areas to focus on relate to the piling works, administrative improvements relating to the start-up of each construction phase, and a few approaches at the completion of the works. The latter would require developers being responsible for the proper completion of their developments. Further savings would be possible if the developer was to engage a high-performing team and exercise a higher

degree of controls through his project management team as the 42 months is already regularly beaten by such teams with the current regulatory environment.

9. One additional idea that we feel might “bear fruit” is that Government adopt risk management to the performance of contractors, i.e. to allow better performers some flexibility rather than to assume the worst for all. This will provide better performers a means of differentiating themselves from those that are less responsible. It is a fact that while Hong Kong’s construction industry is highly competitive and innovative, it comprises the whole spectrum from the outstanding to the barely competent.

10. On the other hand, it would not be realistic to achieve the development periods currently being achieved in the Mainland cities since the Hong Kong community will not tolerate the same level of construction noise, dust and discharge and will insist on safer work practices and the need to control the less responsible contractors.

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Table of possible reduction of time in the construction programme

Activity	Regulatory Control	Possible Impact	Regulatory Intent	Opportunities for improvement
Demolition Works	Consent to Commence Works	Delays commencement	Need to ensure identification of those responsible	Minimal.
	Permits to Erect Hoardings	Delays commencement	Disruption to traffic both vehicular and pedestrian given HK's narrow footpaths	Administrative improvements will save time.
	Excavation Permits	Delays commencement	Community concerns regarding excessive roadworks and their impact on traffic	
	Integrated Supervision Plans	Delays commencement and duration extended with restrictions on methods of work and no flexibility in changing methodology to suit circumstances as presented	Need to ensure that responsible parties have carefully checked method statements and that responsible parties are carefully identified	Alternative approach will save time.
Piling Works	Consent to Commence Works	Delays commencement	Need to ensure identification of those responsible	Treating this as a notice from developer rather than a means of ensuring all "loose ends" are tied will save time.

Activity	Regulatory Control	Possible Impact	Regulatory Intent	Opportunities for improvement
Piling Works (Con'd)	Environmental Controls including Construction Noise Permits	Slows progress of the works by restricting the choice of equipment and the hours of working	Demands from the community to control noise generated from construction sites, in part reflecting the very dense development, high population densities and lack of noise sensitive construction such as double glazing in the urban areas	Little improvement possible.
	Discharge Licences	Delays commencement	Need to ensure identification of those responsible and to restrict discharge into the drainage system	Little improvement possible.
	Integrated Supervision Plans	Delays commencement and duration extended with restrictions on methods of work and no flexibility in changing methodology to suit circumstances as presented	Need to ensure that responsible parties have carefully checked method statements and that responsible parties are carefully identified	Alternative approach will save time.
	Licences to Conduct a Specific Process	Delays commencement	Community concerns over dust noise and waste water produced from on-site batching plants	Some administrative savings might be possible.
	Storage of Dangerous Goods on Site	Delays commencement	Extremely high risk to community if not properly managed	Alternative approach may save time.
	Tree Felling Permits	Delays commencement	Community concerns over the unnecessary and irresponsible felling of trees and lack of control by developers	Alternative approach will save time and reduce frequency of current infringements.

Activity	Regulatory Control	Possible Impact	Regulatory Intent	Opportunities for improvement
Piling Works (Con'd)	Founding Requirements	Extends duration of piling works particularly the time taken to complete pile excavation (<i>bored piles</i>)	Recent Government response to failure of industry to maintain effective controls on unscrupulous members of the industry	Alternative approach could result in major savings.
	Providing of Piling	Delays acceptance of completion	Ditto	Alternative approach could result in major savings.
Building Works	“Shaded” Items above			Savings would be accrued as activities are repeated.
	Certificates of Lifts and Escalators	Delays completion	To ensure that these “high risk” and critical elements of high-rise buildings are properly installed and tested	Alternative approach will reduce the risk of delays at the end of the project and eliminate the need to clear the site for the related inspections, prior to finally completing the works. UK does not require an Occupation Permit.
	Water Certificates	Delays completion	To ensure both fresh and salt water installations are adequate and correctly connected to “Mains” – for public health	
	Fire Certificates	Delays completion	To ensure buildings are safe to occupy and that fire installations are working effectively	
	Occupation Permits	Delays completion	To ensure building is safe to occupy and that essential services are in place	

Activity	Regulatory Control	Possible Impact	Regulatory Intent	Opportunities for improvement
Finishing Works	Certificate of Compliance	Delays completion	To protect owners (including subsequent owners) against any liabilities arising from differences in the completed works from that required in the lease	For traded properties the Certificate of Compliance is a key document. Delays in its issue are widespread and might be avoidable.
	Acceptance of Landscaping Works	Delays completion	To ensure developments are completed in accordance with Master Plans to protect owners and to ensure developers make good any damage such as unnecessary tree-felling	