

Response to Hong Kong Housing Authority's
consultative document entitled:

Quality Housing: Partnering for Change

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Chapter 4: Building Up a Partnering Framework

Commitment

(4.4) Developing a Quality Partnering Charter should promote a quality ethos amongst business partners and stakeholders. It is suggested that this should be related to the proposed Code of Practice (as identified in 8.5). In addition, separate codes of tendering procedure for construction tendering procedure be developed alongside the proposed code of practice (for example, Government of New South Wales Australia have adopted this approach).

Clear Roles and Responsibilities

(4.6) It is important that the Housing Authority should set out clear and realistic requirements under the HA's policy framework. One particular area of concern is the contract time required to complete the work (this is also referred to in 7.10). It is important that the contract periods set by the Housing Authority are realistic. This is particularly so for foundation work, where the nature of work is particularly risky.

One possible approach would be to set a slightly longer contract period and then offer the contractor bonuses for each month (or other predetermined time period) by which the contractor can finish earlier. This would give the contractor more time to adjust the contract programme should the contractor run into difficulties. In addition the contractor still has an incentive to finish early and there should be less likelihood of liquidated and ascertained damages being applied.

To promote training within the construction industry, perhaps the Housing Authority should require contractors who win Housing Authority construction work to undertake a certain number of hours of staff training. It is envisaged that log books specifying precisely what training has been undertaken by which staff be collected by the Housing Authority for inspection at the end of the project.

Equitable Risk Sharing

(4.8) It is encouraging to see that the Housing Authority recognise an equitable sharing of risk. One way forward in achieving a more equitable sharing of risk would be to consider the UK SMM7 approach, particularly with excavation work. Essentially the client is required to provide tendering contractors with information such as ground water levels, details of trial pits or boreholes, ground conditions and the like. Where this is not known it is assumed. This information is then used as a basis for assessing any future claims. It

is also suggested that excavating below the water table level and excavating in rock should be measured as separate items.

Perhaps one way forward to reviewing the basis for determining liquidated damages for piling and building contracts would be to vary the liquidated damages according to the time that a contractor is late with a longer delay incurring a higher liquidated damages rate. For example, if the contractor is less than say 14 days late the rate would be \$X per day, if between say 15 to 28 days late the rate would be increased to \$X+\$Y per day and so on. The escalating costs would be a truer reflection of the loss to the client rather than having liquidated damages as a fixed amount.

Feedback and Communication

(4.9 – 4.12) Conferences, meetings and workshops are all important communication channels. It is also reassuring to see that the Housing Authority intends publishing the performance scores of contractors and consultants when the performance appraisal systems mature (4.16).

Providing more feedback information on a regular basis will result in greater transparency e.g.

- (1) Providing more construction tendering feedback information on the Housing Authority website which can be accessible to contractors and the general public (for example, in addition to providing details such as contract title and reference number, successful contractor, include information on number of tenderers, bid range and average bid).
- (2) Providing feedback information on a quarterly basis of the contractor PASS scores in the form of summary statistics (for example average quality score, upper quartile quality score range, middle 50% quality score range, lower quartile range).
- (3) Providing consultant fee tendering feedback information on your website (for example contract title and reference number, successful consultant, fees, number of competing consultants, fee range and average fee, quality score range and average quality score).
- (4) Developing an handbook of consolidated tender feedback information which would be issued annually (this could be divided into (1) contract award details e.g. many contracts were awarded in the year, number of times contract awarded to lowest tenderer, second lowest tenderer, average contract size, average quality score etc. (2) bidding performance details e.g. number of tenderers on list, number of active tenderers, average number of tenderers per competition, number of successful tenderers).
- (5) Developing webpage to include all regulations and procedures (especially on quality assessment and contractor /consultant tendering procedures).

It is also recommended that construction industry and real estate experts (including academics) be invited to sit as advisors on your various committees (e.g. consider the Hong Kong Housing Society approach)

Objective Performance Appraisal

(4.13-4.14) It is reassuring to see that the Housing Authority intends to further review the appraisal system to enhance its objectivity and consistency.

In the interests of maintaining objectivity it is suggested that the contractor / consultant identities remain anonymous to the assessors at the time of assessment. Also, to ensure greater consistency in performance appraisal, assessors should be required to attend workshops on what constitutes objective performance appraisal.

Balanced Reward and Punishment

(4.13-4.22) Although it is necessary to punish poorly performing contractors and consultants, it is felt that the overall emphasis in building up a partnering framework should be on reward rather than on punishment. Be positive!

It is suggested that the Housing Authority do not establish a “premium league” in which top performers enjoy better tendering opportunities. Restricting the competition in this way is likely to give rise to the stronger contractors getting stronger and the weaker contractors falling by the wayside. Eventually the Housing Authority market is likely to be dominated by a few contractors who are likely to be in a strong position to manipulate market prices. This would not be good for the Housing Authority or for Hong Kong.

Rather than restricting the competition, it is suggested that the tender prices of better performing contractors and consultants be discounted using a similar approach as the Singapore CONQUAS system.

It is felt that Hong Kong clients generally encourage too many contractors to tender and as a result there is over competition which increases the likelihood of receiving exceptionally low bids. It is suggested that the Housing Authority encourage between four to six contractors to tender for construction work. To remove any selection biases it is recommended for typical work that contractors from the lists of housing contractors be selected on a random basis.

For consultancy contracts it is suggested that consultants be listed separately on the basis of their size (i.e. resources) and experience. It is suggested that three or four consultants be encouraged to tender per competition and for competition the consultants be randomly selected from the list.

It is encouraging to see that the Housing Authority intends (re-)introducing serial tendering.

In the interests of public accountability it is suggested that for special projects a two stage tendering system be introduced. For urgent projects requiring direct negotiation, the top performers are identified and selected on a random basis.

It is suggested that the Housing Authority completely review its fee tendering procedures with particular regard to:

- (1) assessing consultant quality in fee tendering

An important aspect of this would be to compare intended performance (identified by the technical (quality) proposal) with actual performance. It is also suggested that the better performing consultants should be rewarded with a financial bonus.

- (2) deciding on the predetermined weighting for fees / quality

In the interests of promoting quality and to account for likely disparity between fees and quality score variability, it is suggested that the 70:30 weighting be increased even higher to say 80:20.

- (3) aggregating the fees and quality score

In reviewing its procedures it is suggested that the Housing Authority do not use the pairwise adopted by Government. Perhaps fees and quality score could be aggregated as follows:

$$CAS = (HQS/CQS) \times QPW - (LF/CF) \times FPW$$

where:

CAS = Consultant Aggregate Score

HQS = Highest Quality Score

FQS = Consultant Quality Score

QPW = Predetermined Quality Weighting

LF = Lowest Fee

CF = Consultant Fee

FPW = Predetermined Fee Weighting

The contract would be awarded to the consultant with the lowest aggregate score. (This could also be developed to include additional variables such as work in hand).

Worked example: the quality score and fee of three competing consultants are as follows:

	Quality Score	Fee
Consultant A:	82	\$5.43
Consultant B:	76	\$5.14
Consultant C:	69	\$4.42

The predetermined weighting for quality and fee is 70:30

$$\text{Consultant A} = (82/82) \times 0.7 - (4.42/5.43) \times 0.3 = 0.456$$

$$\text{Consultant B} = (82/76) \times 0.7 - (4.42/5.14) \times 0.3 = 0.497$$

$$\text{Consultant C} = (82/69) \times 0.7 - (4.42/4.42) \times 0.3 = 0.532$$

Consultant A would win the contract.

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Chapter 5 Assuring Product Quality

Quality Monitoring

(5.3) The ideas for benchmarking and designated sample flats are welcomed. However, the training of workers should be the responsibility of the CITA and the HKIVE, and not the responsibility of the HA. A possibility is for CITA and HKIVE to carry out the production of videotapes or CD-ROM, as training tools. Of course, HA may consider providing funding to cover the production cost.

Consideration should also be given to the distribution of the tapes and the CD -ROM. For example, it may not be effective to give the tapes directly to individual workers or to the subcontractors.

(5.4) Milestone checkpoint is an effective time control instrument, if it is tied with contract payment. However, it may not be an effective quality control instrument.

The Quality Supervision Plans (QSP) is likely to create additional workload burden on contractors which are always subject to limited human resources. It is agreed to implement QSP in principle. However, it should be tie-in with the Safety Supervision Plan (SSP) in order to prevent any duplication of effort and to maximize the use of limited resources.

Site Supervision

(5.6)(a) It is a good idea to have qualified resident professionals to act on behalf of the HA on site, and to resolve on-site problems. Similar to the current practice for most civil engineering projects to have qualified resident engineers or even senior resident engineers full time on site.

(5.6)(c) There may be substantial overlapping of the roles between the proposed Quality Control Engineers and the Quality Control Mangers, and the two positions should be combined. Quality Control Engineers (QCE) should be:

- some one other than the site agent or site foremen,
- accountable to contract manager or someone who is more senior than the site agent,
- adequate authority should be given to the QCE, and
- QCE should be a professionally qualified person.

(5.7) Tackle problems at source is a very important concept and should be promoted vigorously in the construction industry. Similar to ‘doing it right the first time’ and the Japanese concept of ‘zero defect’.

Third-party Audit

(5.8 & 5.9) The HA is an well-experienced client and with existing resources available to carry out auditing. On the other hand, the Buildings Department may not be able to cope with the task to carry out audit for the HA's development, which is at an average production rate at 50,000 units per annum, without a substantial increase of its workforce by more than 150%.

Also, the QSP mentioned in section 5.5 has to tie-in with the Safety Supervision Plan that is now operating by the BD. Thus, if the HA's development to be controlled by the BD in the long run, one should starts to explore the feasibility to combine the SSP with the proposed QSP.

Dealing with Defects

(5.10) To address any defects discovered before occupation is more important than after occupation. So, it is crucial to fully utilize the period between 'substantial completion' and 'issue of the occupation permit' in order to sort out most if not all the defects before occupation by tenants. This can minimize the disturbance to tenants and improve users' satisfaction.

(5.13) To provide multi-skilled workmen and work team (i.e. one stop service) is a good idea, so that defects of different trades can be dealt with by workers from one single work team simultaneously without wasting the time of the tenants.

Structural Guarantee

(5.14) The 10-year structural guarantee should cover structural components for both super-structure, as well as sub-structure (refer to note 3 on page 27).

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Chapter 6: Investing in a Professional Workforce

Uplift the Industry’s Status

(6.4 & 6.5) It is a good move to encourage the employment of contract workers and their proportion should be increased progressively. It is suggested to employ not less than 40% of contract workers in core trades by the main contractors.

(6.6) Licensing and registration for workers are the ultimate objective. Certification of workers may be considered as an intermediate step to achieve the objective. Also, any registration systems to be implemented should be associated with suitable training and assessment.

Develop a Visionary Training Strategy

(6.8)(c) Some major reasons for the difficulty to attract new blood to join the construction workforce are low social status, insecure job prospect and unsafe working conditions. The following measures do provide an answer to some of these problems:

- (1) Construction workers should be literate and with at least primary 6 education level.
- (2) Certification or registration of workers for different construction trades.
- (3) Provision of long term employment opportunity and promotion prospect to construction workers.
- (4) Creation of a safe working environment on site.

(6.8)(d) Ethical issues should form part of the syllabuses for construction training. Also, the target group should be focused on managerial staff of both main contractors and sub-contractors, who have authorities to influence the work quality and procedures on site.

When considering the training strategy, one should also consider the role(s) to be played by construction trade unions, particularly for promotion of the concept, and coordination of the activities, for life-long training of workers.

Recognize the Value of Professionalism

(6.9) Trade testing is an effective assessment tool, and should be further develop to different construction trades.

Improve Site Safety

(6.12)(a & b) Both the 'pay for safety scheme' and 'heavier penalty on non-performing contractors regarding site safety' should be encouraged.

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Chapter 7: Striving for Productivity and Efficiency

Improved Buildability

(7.2-4) The ideas seem to be good, however to improve buildability the HA needs to first consider how the design could be improved by itself. It would not be efficient at all if it is solely dependent upon, say, contractors for they are rather passive during the process. There seems to be something in these few paragraphs, for example item c in Para 7.3, but it is not quite at all what is going to be done to achieve a better buildability. Perhaps, the HA should lead the design so as to achieve the ends.

Integrated Production Process

(7.5) A list of reviews are given therein, e.g. items (d) and (g) in Para 7.5. However, the idea of integrated production is not quite there. The reviews particularly need to be more solid and clear about what is going to be done after the reviews. By doing so, this could then reinforce the process and achieve an integrated production process.

Construction Period and Costs

(7.12) Does the HA really need to analyze why the construction costs are high? That seems to a straight-forward question that the HA should have known being the largest developer in Hong Kong. If not, what a pity!

Departmental Reform

(7.13) The re-organization, the HA says, aims at a better check-and-balance. However, it is no clear how the functioning of the three new departments can ensure that. From managerial point of view, it looks like creating a new department that picks up the jobs that no one has bothered, while its line of authority and responsibility is yet clearly defined.

Environmental Conservation

(7.15-19) This is a very good section, of course the HA could take the ideas on even further.

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Chapter 8: Addressing Existing Public Concerns

Piling Works

(8.3) The short-run measures look good. At least, this proves the HA is safeguarding the quality of housing. The measures are rather extensive, but I believe the HA would need a time frame to carry all these out.

(8.4) The medium to long-run measures are good. But these, together with short-run ones, involve the HA with a lot of extra work.

Production Peak

(8.8) Surprise checks: Depends on how they are carried out. If they are too many and often, they could seriously affect construction on site. There is always a trade off.