The Hong Kong Institution of Engineers – Joint Task Force on Contracting and Statutory Controls for Residential Building Renovation

Recommendation Report on Enhancing the Contracting, Supervision, and Regulatory Framework for Residential Building Maintenance and Renovation

June 2026

THE HONG KONG INSTITUTION OF ENGINEERS
香港工程師學會

Contents

I. Introduction

As the Tai Po fire incident highlighted a number of systematic and operational shortcomings in the current arrangements for the maintenance, contract management, and statutory regulation for residential buildings, The Hong Kong Institution of Engineers ("HKIE") established the "Joint Task Force on Contracting and Statutory Controls for Residential Building Renovation" ("Task Force") on 27 November 2025. The Task Force has reviewed the overall institutional setup from a professional engineering perspective, and proposed specific recommendations for short-, medium-, and long-term improvements.

The Task Force reviewed relevant local regulations, industry practices, and international experiences to examine the challenges faced in risk management, professional supervision, and inter-departmental coordination across various stages—from tendering and procurement to construction supervision and statutory regulation. Particular attention was paid to the potential risks and impact of large-scale External Wall Maintenance on the safety of residents and functioning of the community.

Building upon existing foundations, this report aims to present technical and governance recommendations centred on safety and professional standards. It is expected that by working together with relevant policy bureaux, executive departments, and the industry, the overall management framework for building maintenance can be progressively refined. This will reduce the threat posed by high-risk works to the lives and property of residents, and prevent the recurrence of similar tragedies.

II. Analysis of Key Issues

This chapter summarises the circumstances reflected by the Tai Po fire and previous cases, identifying key challenges in the actual implementation of the current system across the Tendering Stage, Construction Stage, and Statutory Regulation. The objective is to highlight that in high-risk building maintenance works scenarios, there is still room to strengthen coordination, clarify responsibilities, and enhance transparency, thus providing solid ground for the specific recommendations to be put forward in subsequent chapters.

(I) Tendering Stage

In regard of tendering and procurement arrangements, certain large-scale External Wall Maintenance projects have demonstrated considerable levels of risk build-up among the project scale, payment structures, and the roles of consultants and contractors.

These cumulative risks include pressure on site management arising from the simultaneous maintenance of multiple blocks of a single estate, the implications of contractor-led payment schedules on the protection of individual flat owners, and the failure of certain contract terms and paperwork to take project-specific risks into full account.

1. **High Risk of Large-scale External Wall Maintenance**
   The simultaneous maintenance of multiple residential blocks not only brings disturbances to the residents' lives, sanitation, and environment, but also increases the difficulty of supervision due to the large volume of construction workers and material storage, thereby raising safety and fire risks.

2. **Structural Issues in Payment and Contract Terms**
   Payment schedules dominated by contractors pose risks; for example, "erecting scaffolding for all blocks and collecting the bulk of the contract sum prematurely, while actual progress is significantly behind schedule".

3. **Consultants' Duties and Conflict of Interest**
   In the pre-contract and contract management stages, the definition and fulfilment of consultant duties have shown systemic deficiencies to a certain extent in some cases. There is a relatively profound information asymmetry between consultants, contractors, and owners, with individual flat owners in particular lacking sufficient professional support.

4. **Procedural and Documentation Deficiencies**
Current contracts and procedures are often "overly generalised" or "over-reliant on templates," failing to reflect project-specific risks and leaving substantial room for contractors to "interpret on their own" on-site. The common misunderstanding among Owners' Corporations ("OCs") is that adopting templates provided by the Urban Renewal Authority ("URA") would solve all their problems; in reality, they often require additional technical support to effectively monitor the consultants' performance.

5. **Contractor Selection Issues**
There is difficulty to attract capable and high-integrity contractors. Safety performance assessments for shortlisted contractors often rely solely on experience rather than a systematic, risk-based assessment of the Method Statement.

(II) Construction Stage

During the construction stage, there remains room to step up the enforcement and coordination of existing supervisory oversight and technical guidelines when dealing with high-risk maintenance works. Certain cases have indicated discrepancies between on-site execution and design requirements, while temporary fire safety and emergency provisions do not always align with the actual risks present on-site. Furthermore, individual flat owners and property management teams face challenges in terms of insufficient professional knowledge in risk identification and monitoring.

1. **Fragmented Regulatory Oversight and Insufficient Guidelines**
The current legal framework for the regulatory oversight of building maintenance works still has room for further enhancement and consolidation regarding high-risk procedures and fire safety requirements. In particular, for maintenance works involving fire safety, the current technical guidelines and professional supervision requirements are relatively limited, leading to variations in interpretation or implementation at the frontline.

2. **Lack of Professional Expertise among Owners**
Many owners and OC members are not trained with an engineering background. More vulnerable to information asymmetry, they can struggle to fully grasp the actual impact of complex Method Statements and risk assessments on their safety and daily life. Without reliable third-party professional support, it is more challenging for owners to fully assess work quality, scheduling, and safety measures.

3. **Room to Improve the Acceptance of Materials and Workmanship Standards**

   Certain cases indicate that on-site construction does not always align with design drawings or contractual requirements, or that fire-rated materials and critical components fail to meet intended standards. Once concealed works – such as cable laying and fire-rated coatings – are completed, it becomes difficult to conduct comprehensive checks. Coupled with limited resources for spot checks, the associated risks are hard to identify early without a systematic acceptance and traceability mechanism.

4. **Need to Improve Risk Management and Emergency Measures**

   Temporary fire service installations and emergency evacuation arrangements during maintenance works may not match actual site risks; for instance, scaffolding and material storage may compromise escape routes or fire service installations. As demonstrated in certain cases, fire risk warnings and emergency drills have not been made a systematic practice, leaving residents and workers with limited response capabilities to deal with emergencies, and as such there is a need to strengthen risk management and emergency response measures.

5. **Industry Malpractices**

   There have been isolated instances in the past where contractors have been alleged of engaging in non-compliant practices driven by cost or schedule considerations. Such instances are associated with discrepancies in specific work processes or reporting procedures rather than the entire project; for example, inaccuracies in the information provided when reporting site work arrangements, or discrepancies between the operational arrangements and the original submissions for fire safety installations.

   If such instances are not detected and rectified promptly, the effectiveness of existing regulatory measures could be undermined, potentially increasing safety risks for residents and workers.

(III) Statutory Regulation

There are deficiencies in defining risk levels, primary responsible parties, and inter-departmental coordination mechanisms for different types of maintenance works under the existing ordinances and regulatory regimes, giving rise to operational difficulties in more complex or larger-scale building maintenance works.

The Task Force takes the view that by clarifying the statutory regulatory framework, introducing the concept of "cumulative risk", and optimising professional supervision requirements, there is potential to reinforce a regulatory mindset that is centred on the safety of residents, and improve the clarity of enforcement and accountability.

1. **Unclear Regulatory Framework and Primary Responsibilities**
   In practice, there are certain grey areas in the regulatory scope and definitions in relation to large-scale building maintenance works. The most significant conflict exists between the *Buildings Ordinance* (Cap. 123) and the *Factories and Industrial Undertakings Ordinance* (Cap. 59) – as a result, the current legal framework is unable to clearly define the "primary responsible party" in all circumstances, while also giving rise to difficulty in establishing a single "primarily responsible government department" to coordinate and conduct comprehensive oversight of complex projects. The Task Force notes that the Housing Bureau's regulatory authority over subsidised sale flats is derived from a direct authorisation under the *Buildings Ordinance*, enabling its Independent Checking Unit to exercise powers equivalent to those of the Building Authority.

2. **Weak Links in Safety Supervision**
   Under existing regulations, the potential impact of maintenance on the safety of residents under all circumstances has not been taken into full account in the design of regulatory oversight. Taking the Tai Po fire as an example, the External Wall Maintenance was classified as a Class II Minor Work; according to the law, there is no requirement to appoint building professionals such as an Authorised Person ("AP") or provide on-site supervision. Safety oversight relies primarily on the contractor's self-management under certain circumstances, which falls short of the expected requirements in protecting the safety of residents during high-risk maintenance works.

3. **Insufficient Fire Safety Guidelines in the Course of Works**
   There are currently insufficient awareness and guidelines regarding fire prevention measures during building maintenance, and a lack of legislation to strengthen the monitoring of fire safety in the course of maintenance works. This includes, for example, the unlawful shutting down of fire service installations, or the sabotage of the protective functions of fire-rated windows or smoke doors in stairwells.

4. Cumulative Risk of Minor Works

Although a single External Wall Maintenance may fall under Class II or III Minor Work, the cumulative risk when multiple projects are carried out simultaneously is equivalent to that of a major project. The current "Minor Works Control System" is unable to cover the systemic risks brought by this scale effect. It is therefore suggested to strengthen oversight of such special circumstances by controlling the total contract value or the total volume of all minor works within a single project.

5. Insufficient Accountability of Property Management Agencies

Property Management Agencies ("PMAs") play a critical coordinating role in daily operations and project management, including assisting OCs in executing resolutions from general meetings, coordinating maintenance arrangements, and communicating with residents.

However, under the frameworks of the *Building Management Ordinance* (Cap. 344) and the *Property Management Services Ordinance* (Cap. 626), there remains a need to further clarify and outline the specific responsibilities, information disclosure, and professional requirements for PMAs in large-scale maintenance works.

Certain cases indicate that transparency and accountability mechanisms vary among PMAs in the market, as do their levels of professional competence. This makes it difficult for owners to fully grasp information and evaluate the basis of decisions when dealing with works involving significant expenditure and high-risk processes, thereby affecting the mutual trust and cooperation.

6. Fragmented and Limited Complaint Mechanisms

Currently, complaints involving maintenance works are handled by multiple departments separately. When residents seek assistance or follow up on cases, they often have to deal with different Government departments, making it difficult to obtain a consistent and authoritative response in a timely manner.

III. Specific Recommendations

In response to the challenges identified in the preceding chapter, this chapter proposes a set of multi-layered, risk-based improvement recommendations.

These recommendations are intended to optimise technical and procedural aspects within the existing framework to enhance procurement governance, works quality, and safety standards, without imposing unnecessary burdens on owners, the Government, or the industry.

(I) Tendering Stage

In view of the risks identified in Chapter II regarding payment arrangements, the scope of consultant duties, and the selection of contractors, this section proposes a strategy centred on "Preventive Maintenance" – supplemented by clearer contractual terms and an improved professional division of work – to reduce the occurrence of high-risk situations at the source.

Through professionalising the processes, increasing the weighting of technical assessments, and strengthening payment security mechanisms, the transparency and accountability of projects can be improved without undermining market competition, thereby bolstering the confidence of individual flat owners.

1. Strengthening Maintenance Practice and Mechanisms to Regulate Contract Design

(1) **Proactive Preventive Maintenance**
External walls of buildings should be inspected and repaired regularly to maintain their integrity, safety, and appearance, thereby extending the overall lifespan of the external walls.

(2) **Professionalising the Processes**
Building maintenance should be defined as a comprehensive professional procurement process. The required information, decision-making points, and deliverables should be clearly defined at each stage, supported by guidelines and specification templates to attract more high-quality professional construction works consultants and contractors to provide building maintenance services.

(3) **Improving Contractual Terms**

Payment progress must be linked to measurable project milestones to avoid premature payments. Contracts must clearly specify commencement and completion dates, penalties for delays, and phase-specific completion requirements, with key technical details set out in detailed drawings.

(4) **Division of Work and Oversight of Consultants**

Duties of the Consultants should be divided to establish checks and balances (e.g., Quantity Surveyors responsible for costs and Engineers for technical matters). Safety professionals should be arranged to conduct regular risk reviews, and all stakeholders must declare any conflicts of interest at critical stages.

(5) **Payment Security**

Dedicated bank accounts should be set up to receive funds for maintenance purposes. Every disbursement must be verified by the Consultant, the Owners' Corporation (OC), and the Quantity Surveyor before payment is made.

2. Recommendations for Engaging Consultants

(1) **Selection Mechanism**

Clear steps should be established for engaging a consultant, including screening based on qualifications and adopting a non-lowest bid approach, where the Technical Proposal accounts for no less than 50% of the score. Multiple consultants may be engaged to enable mutual monitoring and checks and balances.

(2) **Contract Content**

Consultant services should be organised in stages (e.g., investigation, design, tendering, and supervision), with specific deliverables and minimum requirements defined for each stage.

(3) **Supervisory Input**

Consultants must submit a contractually binding “staff deployment plan” for site supervision as part of the technical assessment to ensure the adequacy of supervision.

(4) **Fee Reference**

The Government or relevant authorities may publish reference fee information based on “manpower” or “standard work items” to increase transparency.

3. Recommendations for Engaging Contractors and Works Contracts

(1) **Tendering Arrangements**

The "Two-envelope Approach" should be made mandatory, where the Technical Proposal must meet a minimum threshold (e.g. 70%) before the Fee Proposal can be opened. Tender analysis reports should be distributed to all owners.

(2) **Method Statement**

Contractors must submit a clear Method Statement identifying high-risk processes and proposing mitigation measures; this statement should be included in the selection criteria.

(3) **Contractual Terms**

Payment schedules must be linked to actual progress of the works through the introduction of Milestones and Critical Dates mechanisms (e.g. payment is only released upon completion of specified quantities of work or achievement of specified milestones as set out in the contract). Contracts must specify liquidated damages for delays and procedures for variation management, and the introduction of AI-powered cameras for safety supervision may be considered.

(4) **Fairness in Tendering**

All tendering conditions and supplementary information issued subsequently shall be disclosed simultaneously to all tenderers to ensure consistency of information received by all parties. It is also recommended that information regarding site conditions and site visit arrangements be made available via an online platform or other digital means. Tenderers should be able to obtain the same information independently, without the identities of other tenderers being disclosed, in order to reduce the risk of bid-rigging.

(5) **Guide for Individual Flat Owners**

Owners should be cautioned against heavily front-loaded payment schedules and should instead insist on instalment payments based on stage-specific deliverables, requiring all technical details to be stipulated on the contract.

(II) Construction Stage

Regarding the construction stage, this section proposes optimising on-site supervision and risk management through four aspects: categorised supervision, enhancement of transparency, material and workmanship acceptance, and technological innovation alongside industry training.

Key recommendations include clearly defining supervision requirements for large-scale maintenance works, establishing a dynamic rating or "blacklist" system, strengthening owner education and third-party support, and promoting smart site technologies and professional training to complement the Government's existing safety regulatory framework.

1. Strengthening Regulations and Regulatory Mechanisms

(1) Maintenance Project Category and Supervisory Requirements

i. Large-scale building maintenance should be categorised as "High-risk Maintenance Projects," requiring the appointment of a qualified independent consultant firm and supervision by an AP, with periodic reports submitted to relevant government departments.

ii. Legislative requirements should be introduced for all large-scale maintenance works to submit a "Risk Assessment and Fire Safety Plan" in advance for joint filing and random inspection by relevant government departments.

(2) Establishing a Dynamic Blacklist System

i. Relevant government departments should jointly set up a rating platform for contractors and consultancy firms, which shall record non-compliance and be linked to tendering eligibility. Under this system, suspension and even disqualification of registration may be considered for repeat offenders.

2. Enhancing Project Transparency and Owner Participation

(1) Standardised Tendering and Contract Templates

i. It is recommended that the "Smart Tender" Scheme under URA be extended to cover high-risk projects, providing clear technical specification lists and cost reference benchmarks to prevent quality compromises resulting from low-bid wins.

ii. Works contracts must clearly specify the approval process for variations, prohibiting major design modifications without the consent of the general meeting of owners.

(2) Strengthening Education for Property Owners and Third-Party Support

i. The URA should establish a "Building Maintenance Advisory Hub" to provide free legal and technical support to OCs, and provide a clear picture of the rights and responsibilities of all stakeholders on-site.

3. Strict Controls on Materials and Workmanship Acceptance

(1) Strengthening On-site Random Inspections and Digital Traceability

i. All fire-rated materials and critical components should have authentication labels and QR codes to verify their authenticity.

ii. Relevant government departments should increase the proportion of random inspections, with a focus on whether concealed works (e.g. cable laying, fire-rated coatings) are compliant.

(2) Improving Site Safety Management

i. Regular fire drills must be organised during construction to ensure workers and residents are familiar with emergency evacuation routes.

ii. Pre-assessments should be conducted for high-risk materials, with a list provided for the reference of the public and individual flat owners.

iii. Safety meetings should be held at least once a month.

Contractors should be required to submit safety reports in compliance with the Labour Department's safety management regulations to facilitate an evaluation of the actual site safety situation by all stakeholders.

4. Promote Technological Innovation and Industry Training

(1) Introducing Smart Site Technologies

i. The adoption of technologies such as drone inspections, IoT sensors, and electronic permit-to-work systems should be encouraged to monitor site environmental risks (e.g. temperature, smoke) and high-risk processes, providing real-time alerts for abnormalities.

(2) Strengthening Practitioner Training and Certification

i. Consider the establishment of a "Registered Maintenance Works Consultants" system (or make use of the current Authorised Persons arrangements) and require high-risk projects to be coordinated only by qualified personnel.

(III) Statutory Regulation

This section focuses on streamlining the division of responsibilities under frameworks such as the *Buildings Ordinance* and the *Factories and Industrial Undertakings Ordinance*; strengthening professional supervision and fire safety certification; introducing regulatory thresholds for cumulative risk; and enhancing procurement governance and anti-bid-rigging arrangements.

These recommendations aim to provide technical references for the Government's ongoing and future reviews, supporting a more systematic integration of high-risk maintenance works into a regulatory mindset centred on residents' life safety, while taking feasibility and resource allocation into account.

1. Strengthen Legislation and Statutory Regulatory Mechanisms

(1) Rationalising the Regulatory Framework and Identifying the Primary Responsible Party

It is recommended to review and amend the *Buildings Ordinance*

(Cap. 123) and the *Factories and Industrial Undertakings Ordinance* (Cap. 59) to rationalise the regulatory framework for large-scale maintenance works. The legislation should establish the safety of residents as a priority, and explicitly authorise a single "primarily responsible government department" to spearhead coordination. This will clarify the statutory oversight responsibilities of various departments throughout the works, ensuring smooth inter-departmental collaboration and comprehensive oversight.

(2) Strengthening Professional Supervision and Certification Mechanism

i. It should be mandated that an AP be appointed for the overall supervision of large-scale maintenance works. The AP must conduct "pre-commencement inspections" and regular safety audits, while strictly monitoring the compliance of construction materials.

ii. A Registered Fire Engineer must be engaged to perform fire safety certification for the maintenance works.

(3) Strengthening Controls of Fire Service Installations

i. It is recommended to stipulate clearly it is an offense to shut down fire service systems without authorisation under the existing legislative framework, and to strengthen inspection and enforcement. A "Joint Notification Mechanism" should be established, where any shutdown of a fire service system must be jointly reported to the Fire Services Department by the fire service contractor and the PMA, with notices put up at prominent locations.

ii. Where a fire system must be shut down, enhanced temporary fire safety measures should be implemented, such as installing independent fire detectors in communal corridors or stairwells on each floor, adopting temporary measures like flame detectors on the top perimeter of the building, or deploying IoT-based fire detection systems.

(4) Establishing a Regulatory Threshold for "Cumulative Risk"

The Minor Works Control System should be reviewed to set a "scale threshold". When the number of minor works (e.g. External Wall Maintenance) in the same building exceeds a certain proportion, or the covered area exceeds one-quarter of the total external wall area, the regulatory requirements will have to be elevated to a higher level, making it mandatory to appoint an AP or a Registered Structural Engineer for overall supervision.

2. Enhancing Governance and Anti-bid-rigging Provisions

(1) Legislative Mechanisms and Strengthening of Tendering Governance

i. Mandatory Declaration of Interests: It is recommended to amend the *Building Management Ordinance* (Cap. 344) or related ordinances to strengthen the declaration of interest requirements for works consultants, ensuring transparency in procurement.

ii. Enhanced "Smart Tender": The URA should gatekeep the tendering process by establishing a rigorous "pre-qualification list" vetted by the Police and the Independent Commission Against Corruption (ICAC), in addition to mandated notification for any major project variation.

iii. Higher Levels of Oversight and Penalties: Consideration may be given to subject certain types of large-scale maintenance works to higher-level minor works regulatory requirements, complemented by independent third-party supervision. Violations of anti-corruption legislation shall directly affect the renewal of professional registrations.

(2) Mandatory "Two-envelope" Tendering System

It is recommended to amend the law or issue guidelines requiring maintenance works exceeding a certain value to adopt the "Two-envelope Approach" (separate assessment of technical and fee proposals), alongside a full disclosure of detailed scoring criteria.

(3) Establishing a Dedicated Statutory Regulatory Body

In the long run, the Government is advised to establish a dedicated statutory body or entrust existing bodies with the new powers to directly oversee high-risk maintenance projects. This body would be responsible for maintaining registers of approved practitioners, central electronic tendering, and one-stop handling of complaints.

(4) Strengthening the Regulation of PMAs

In line with the existing framework of the Property Management Services Authority, it is recommended to further promote the tiered certification and Continuous Professional Development regime for PMAs, in particular their professional competence and ethical requirements when getting involved in large-scale maintenance works. Clear guidelines should be developed to require PMAs declare major interests between themselves and contractors or consultants to the Government, and wherever practicable, establish accessible information repositories for owners to enhance transparency. Additionally, a suitable independent random audit mechanism may be considered to strengthen external monitoring. For serious or repeated non-compliance, appropriate sanctions—including fines and the suspension or revocation of licences—should be taken in accordance with the existing regime to uphold the industry's professional standards and public confidence.

IV. Conclusion

The Tai Po fire clearly demonstrates that, against the backdrop of increasingly complex modern residential building structures and increasing maintenance demands, there is a need to optimise and strengthen the coordination in relation to how high-risk and large-scale projects are handled under existing building maintenance approaches and regulatory arrangements. To comprehensively enhance safety and works quality, systemic improvements must be made across multiple stages throughout the project lifecycle, including consultant engagement, contract formulation, on-site supervision, safety management, and the statutory regulatory framework.

The recommendations presented in this report aim to provide a multi-layered reform framework building upon the Government's existing policies, seeking to strengthen procurement governance, enhance transparency and technical accountability. The framework also addresses the long-standing issues of information asymmetry and insufficient professional support faced by OCs and individual flat owners. Through clearer role definitions, measurable deliverable requirements, and mandatory professional supervision arrangements, as well as the introduction of risk-based oversight mechanisms and contractor rating systems, the framework shall gradually improve the overall performance of contractors and relevant stakeholders.

The report also recommends modernising safety management by leveraging innovative technologies and digital tools, which will complement more rigorous regulatory measures. A review and amendment of relevant legislation shall close institutional loopholes, and the division of work between various government departments and professional bodies in supervision can be more effectively streamlined to promote inter-departmental collaboration and information sharing.

The HKIE anticipates that Government departments, professional bodies, the construction industry, the property management sector, OCs, and residents can build upon existing foundations, and establish a mechanism that fosters closer and sustained cooperation. Together, these stakeholders can drive the implementation of the short-to-medium-term measures and medium-to-long-term statutory reforms proposed in this report.

Through a more systematic and transparent regulatory model centred on the safety of residents, Hong Kong is well-positioned to significantly improve the overall standard of residential building maintenance works in the foreseeable future, more effectively safeguarding the lives, safety, and wellbeing of the public.

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