ANNEX H

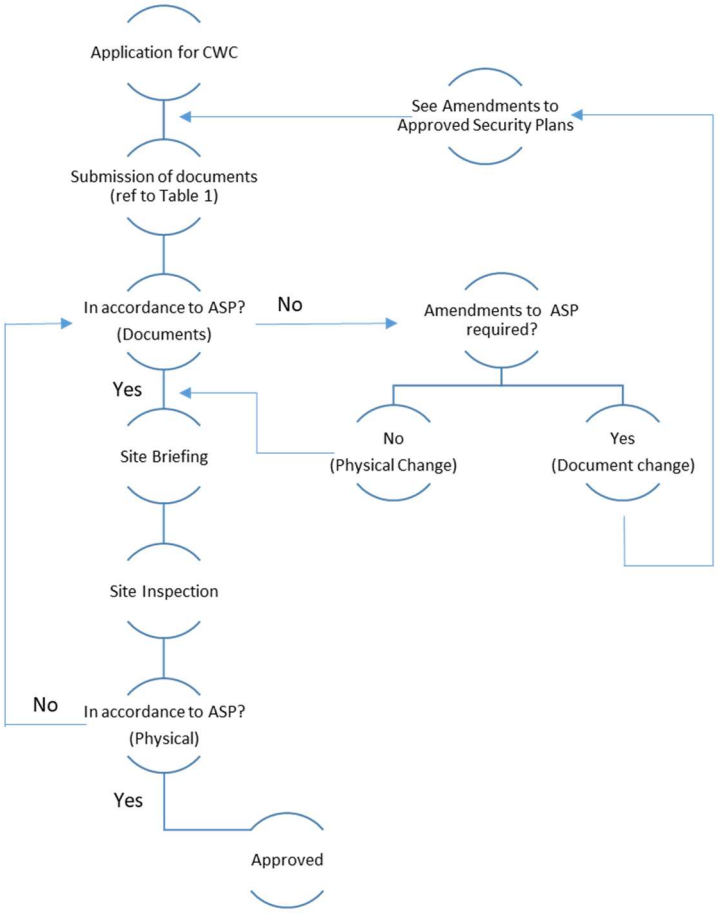
REQUIREMENTS FOR CERTIFICATE OF WORKS COMPLETION

1. Introduction

1.1 The CWC process certifies that the required security measures in the approved Security Plan (ASP) are implemented before or upon the completion of specified works. Upon the completion of specified works, the RP is required to submit the application for Certificate of Works Completion (CWC) to the Commissioner for approval. The CWC certifies that required security measures have been implemented by the time specified works are completed.

a. If the specified works require a Temporary Occupation Permit (TOP) or Certificate of Statutory Completion (CSC) from the Building and Construction Authority (BCA), these cannot be obtained without a CWC.
b. If the specified works do not require a TOP or CSC from BCA, the CWC must be submitted within 10 working days after the completion of specified works.

2. CWC Process Flowchart



3. Documentary Requirements

3.1 The RP should submit the application for approval of CWC with the supporting documents in **Table 1** to show that measures have been implemented as required in the ASP to CPS.

Table 1

Documents	Details Required	Submitted By
Application form	1. Application form for approval of CWC	CP (Security) & CP (Blast)
Certificate of Works Completion with Summary Table of Mitigation Measures	1. Certificate of Work Completion a. Declaration of all design checks had been done in accordance with all relevant and prevailing codes and references. b. Declaration that all security protective measures have been implemented according to ASP and approved amendments, if any. 2. Summary table of mitigation measures as stated in the ASP.	CP (Security) & CP (Blast) CP (Security) & CP (Blast)
Checklist of the Works Proposed in the SPP and Status of Completion	1. All security measures stated in the SPP should be reflected in the checklist. For example, security layer 1, layer 2, etc.	CP (Security)
Test Certifications	1. Submission of relevant testing and commissioning reports (e.g. OSAT reports) and testing certifications to confirm that the implemented physical protective / technological security measures have met the required performance and technical specifications (signed off by CP(S)), and finalised construction drawings signed by the QP. In addition, the RP and CP(S) shall also provide the following documents, when applicable: a. Physical Security Information Management (PSIM) or Physical Security C2 System (if any): i. To provide high level architecture of the PSIM or C2 system, including the integration with various physical security systems and sensors; ii. To illustrate how security system status or alerts are displayed in PSIM or C2 system. b. Provision of security screening equipment and the security operations manual, confirmation for security manpower and test certifications for metal detectors	CP (Security)

	(hand-held / walk through) / X-ray machines etc. 2. Submission of material test certificate to ascertain the actual material strength has achieved their design strength, e.g. mill certificate, cube/cylindrical test, etc. 3. Submission of strength test of commercial products to ascertain that the actual material strength has achieved the desired outcome stated in the technical specification, e.g. fiber reinforced polymer wrap, etc, if any.	 CP (Blast) CP (Blast)
Systems Specifications	1. <u>Access Control System</u> To provide the overall layout and comprehensive record documenting the testing results of the FIDS/IDS activations along the perimeter line, all ingress and egress points (including gates and turnstiles), critical areas, security screening areas. For unmanned facility, tests should include alarm detections in both remote and off-site monitoring centres. 2. <u>Commercial Products</u> Documentation proofs that all commercial products (e.g. FRP) are installed according to vendors' requirements.	CP (Security) CP (Blast)
Drawings/Photos	1. <u>Perimeter Line and Building Compound</u> a. Layout of all physical protective measures such as Hostile Vehicle Mitigation measures (HVM)[1], forced entry protection[2], fence line[3] etc; b. Layout of multi-zone FIDS, e.g. fibre optics/photo beam system. 2. <u>Video Surveillance System</u> a. CCTV coverage should comply with ASP requirement; b. To provide the layout of CCTV cameras and security lightings (with lux level); c. To provide actual images taken from CCTV's field of view along the perimeter line, all ingress and egress points (including vehicle and pedestrian gates, and turnstiles), critical areas, security screening areas, backup generator and diesel tank's external fuel filing / discharge points etc; d. Image field of view should be verified with Rotakin charts to ensure that the CCTV operator is able to detect suspicious activity and perpetrator effectively.	CP (Security) CP (Security)

	3. <u>Access Control System</u> To provide layout of security zoning and the implemented ACMS, IDS (EM lock). 4. <u>Physical Hardening Record Plans</u> Submission of Physical Hardening Record Plans[i] (Final Version, with CP (Blast) endorsement). This set of drawings shalll be prepared as close as possible to the "As-Built", with minimum or no differences at all. It shall include all approved physical hardening measures details, approved deviations and amendments details, and other essential structural details. If there are no physical hardening measures implemented, submission of such drawings shall not be needed.	CP (Security) CP (Blast)
Site Inspection Reports	1. Site inspection reports (with appropriate site photos) shall capture the proper implementation of the structural hardening measures. CP (Blast) shall endorse these reports.	CP (Blast)

[1] *CP (Security) to submit Crash Test Certificates for the HVM installed at the facility. If it's a system of fence embedded into low wall, the Crash Test Certificate is for the full system.*

[2] *For forced entry protection, CP (Security) to submit Test Certificates of the product to confirm that it is tested to forced entry standards.*

[3] *For fences, CP (Security) to submit the finalized construction drawing and indicate actual location of installation.*

4. Site Briefing and Inspection

4.1 A joint site briefing & inspection with CPS should be arranged once all documents are in order. The site briefing should clearly articulate the work done from the time the Security Plans were approved to the completion of the specified works. To avoid delays to the CWC process, any non-compliance found during the site inspection should be rectified or responded to within 10 working days and supporting documents submitted to CPS.

5. Approval for CWC

5.1 After the CWC requirements have been fulfilled, CPS will take about 20 working days to process the CWC application.