

## HePlan maintains normal operation of building control submissions amid pandemic (with photos)

With the self-developed Housing Electronic Plan Submission System (HePlan), the Independent Checking Unit (ICU) under the Office of the Permanent Secretary for Transport and Housing (Housing) approved building plan applications uninterruptedly, even under the COVID-19 pandemic. The HePlan is the first electronic submission, vetting and approval system for building control in Hong Kong. The ICU, which exercises building control of the Hong Kong Housing Authority (HA)'s properties and sold or divested properties, is the first government department to provide a comprehensive e-service for submission and approval of building plans.

Martin Tsoi, Head of the ICU, said, "The HePlan system utilises digitalisation technology which improves the quality of service and efficiency in the approval of building plans.

"Applicants for the HA's new development projects as well as for alteration and addition works at HA buildings may submit electronic plans and related documents to the ICU via an electronic format. Since the HePlan operates round-the-clock on the web, applicants will not have any time restriction and are able to submit their applications at any time suitable for them. The process will not be affected by the special work arrangements under the pandemic," said Mr Tsoi.

"We communicate with the applicants through the HePlan directly. The use of the system has effectively reduced social contacts between the applicants and approving officers, enabling the ICU to maintain a high quality of services in approving building control submissions in a timely manner during the pandemic and to fulfil our performance pledge," he stressed.

"Compared with traditional paper-based plan submissions and approval processes, the HePlan has the advantage of environmental friendliness. The entire HePlan processing procedure is paperless, thus saving applicants much time and effort in carrying bulky plans to the ICU. This also saves much storage space on the part of the ICU for the submitted plans and documents."

The HePlan is also linked with the ICU's other electronic system, the Independent Checking Unit Site Mobile System (ICUSMS), which was developed by the ICU and launched in May last year, adopting mobile technology to facilitate site inspections. By linking the two systems, relevant electronic plans and documents can be downloaded directly from the HePlan to mobile devices before site inspections, thus further enhancing digitisation and operational efficiency of site-monitoring inspections through reducing the time spent on preparation works in the office and taking inspection records on site.

The ICU has been using advanced technologies to enhance its electronic submission, vetting and approval for building control. In support of the Government's policy to promote the use of Building Information Modelling (BIM) technology in the construction industry, the HePlan is now capable of receiving 3D BIM models for facilitating the vetting and approval of plan submissions. The ICU successfully developed the technology last year through using BIM models to generate plans that are suitable for statutory and building control submissions, which enables the generation of 2D plans for submissions produced from a 3D BIM model without needing much manual editing, thus facilitating the vetting and approval process. This further helps promote the use of BIM technology in the construction industry. The deliverables, including the relevant plug-in software and reference guidelines, have been uploaded to the ICU's website for free downloading and public usage. The project has been honored with the Industry Influencer Award in the Autodesk Hong Kong BIM Awards 2020.

The application of artificial intelligence technologies is another new initiative for the ICU to advance its work. The ICU is now developing another IT system to automate the checking of test reports of construction materials, which helps with checking the compliance of the test results for 80,000 reports of steel reinforcement and concrete tests received annually through the HePlan. This will further enhance the efficiency of vetting electronic submissions. This system is targeted to roll out by end of this year.

In 2019, the HePlan handled a total of about 3,500 electronic plan submissions and related documents. In 2020, about 4,400 submissions were processed.

The HePlan was honoured with a Certificate of Merit in Smart Business Award (Solution for Business and Public Sector Enterprise) in the Hong Kong Information and Communication Technology Awards 2018 and a Special Citation (Application of Innovation and Technology) in the category of Specialised Service Team Award in the Civil Service Outstanding Services Award Scheme 2019.



