

Use of GIS and BIM in the Development of Public Housing Estates in Hong Kong

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SUMMARY

The Hong Kong Housing Authority is a statutory body established under the Housing Ordinance in April 1973. The primary goal of the Authority is to help low-income families with housing need gain access to affordable housing. At present about 30% of the Hong Kong population is now living in public rental housing units, and yet the supply cannot meet the demand for public housing from the general public.. In order to cope with the need for developing more public housing estates, there is the need to speed up the various stages of work throughout the project life cycle starting from feasibility study of potential sites, preliminary design of housing site, detail design, tendering, construction, completion and facilities management. Therefore, various types of advanced technologies, including the use of Geographic Information System and Building Information Modelling, were introduced to enhance the development, construction and maintenance of public housing estates. This paper will introduce the development of GIS from 2D to 3D and BIM in the Housing Authority. How we made use of these two platforms for speeding up the entire process; how we integrate the two types of datasets including spatial and attributes data and merge them with other types of 3D Spatial Data collected by laser scanning and unmanned aerial system etc. I will also conclude the paper highlighting the benefits of using GIS and BIM in the development of public housing.