



A Landmark Conservation Project

Paul Y. Engineering Group Limited

Paul Y. Engineering (PYE) was honoured to be part of The Mills development, the transformation and expansion of an iconic historic complex – old Nan Fung Textile Mills in Tsuen Wan dating back to the 1950s. The project breathed new life into a legacy that witnessed the boom of Hong Kong's textile industry.

1950s

The Mills

南豐紗廠



Comprehensive Structural Alteration

The Mills is Hong Kong's most significant private conservation initiative in recent years. The project involved demolition, alteration, addition and restoration of three former cotton mills, Mill 4, 5 and 6, and included installation of props, demolition of slabs and beams, structural strengthening and alteration. Original features, such as the painted walls and particular concrete stairways, pillars and plaster façades, were retained, while modern architectural elements such as curtain walls and skylights were added. It also incorporated installation of 10 lifts, eight escalators, 67 fire dampers, and five glass bridges connecting Mill 5 and 6, replacement of the iron windows of the façade, as well as building eight iron staircases and a giant glass block wall at the entrance hall. Merging these old and new design features involved comprehensive structural alteration of the buildings, making the project one of our challenging undertakings to date.



Giant glass blocks with structural framework measuring 300 x 300 x 100mm were used to create the glass block wall in the lift lobby at the main entrance on Castle Peak Road. An example of aesthetic excellence, the wall which rises over 9m in height gives visitors a brand new experience in the revitalised building.



Five link bridges were constructed to link Mill 5 and 6. Together with the curtain wall façade at Castle Peak Road, they combine the buildings into a single complex.



The Atrium features skylighting, a grand staircase and two floors of retail shopfronts. The complexity of the project required intricate calculations on structural loading and the opening up of three floor slabs to create this large space.



Tackling Unexpected Hurdles

Since heritage conservation was of utmost importance, much time and effort went into solving the many issues on sustainability that would otherwise have easily been resolved in an ordinary project. For instance, instead of installing an entire staircase, each section of the staircase was built separately, and iron staircases were custom built to the varying heights of each level. Furthermore, installation of modern features such as a glass skylight brought new challenges. To ensure safety and to meet client expectations, all additions and alterations were carefully scrutinised. The engineering teams made thorough examinations of the original construction features, ensuring accurate calculations for structural support, planning and construction without harming the original structure.



Monitored by Registered Professional Engineers

To cope with the challenges, the engineer teams led by registered professional engineers monitored the entire construction process. Workers were also trained in heritage conservation to avoid unexpected damage to structures worthy of preservation during construction.



The project concluded successfully, with our client, project teams and partners, working together with the same vision - to merge heritage with modern elements, breathe new life into a historic building and create for it a new chapter in history. PYE is proud to have participated in this landmark conservation project that seamlessly integrates the arts, culture and innovation for the incubation of enterprise.



About Paul Y. Engineering



Headquartered in Hong Kong, Paul Y. Engineering (PYE) is dedicated to providing full-fledged engineering and property services, with operations in Hong Kong, Beijing, Shanghai, Hangzhou, Guangzhou, Nantong, Shenzhen, Zhuhai, Macau, Singapore and Malaysia. For over 70 years, PYE has been at the heart of some of the most challenging and impactful construction projects that have shaped the iconic skylines of Hong Kong and many other cities. Its projects include commercial and residential buildings, institutional facilities, highways, railways, tunnels, port works, water and sewage treatment facilities etc. For more information, please refer to www.pyengineering.com.



