

# Tseung Kwan O Extension C602 Tseung Kwan O and Tiu Keng Leng Stations (Hong Kong)

## INTRODUCTION

Atkins was awarded the Detailed Design Consultancy for Tseung Kwan O (TKO) and Tiu Keng Leng (TKL) Stations, as part of MTR Corporation Ltd's Tsueng Kwan O Extension project. After award the scope of services was substantially increased to include the design of cut and cover tunnels within the C602 corridor. The construction value of the works was approximately US\$300 million.

These stations and tunnels all posed significant design and construction challenges, which the team succeeded in overcoming.

## OUR SOLUTION

Tiu Keng Leng Station had to be configured to ensure convenient cross-platform interchanges at two levels, as well as forming the terminus to the Kwun Tong Line. Two underground platform levels have been provided, together with a ground level concourse. Tsueng Kwan O Station has underground platforms and a ground level concourse. The plant rooms are located cost-effectively on a mezzanine floor. The adjacent tunnels are particularly deep and required five layers of struts during construction. Both stations were designed to maximise property development opportunities, and to ensure convenient links to new public transport interchanges.

Tiu Keng Leng Station



Tseung Kwan O Station



## OUR APPROACH

This project represented the first time the MTR Corporation installed the Detailed Design Consultant within their own offices, in order to maximise efficient communication. The arrangement worked well, and the integrated team produced a high quality design. This was demonstrated by MTRC's award to Atkins, during the assignment of their first Project Quality Award. The evaluation criteria were: the effective implementation of quality system, quality of submissions, quality of works, control of subconsultants / subcontractors, responsiveness to Corporation's comments and QA resources.

## OUTCOMES

All the milestones and Completion Obligations were achieved as planned. The railway opened several months ahead of schedule in August 2002, while the overall scheme cost was cut from the original budget of HK\$30.5 billion to HK\$21 billion.

Plan Design Enable