

南港新站預留開發機制構想與地工設計考量

陳俊樺 歐文爵

台灣世曦工程顧問股份有限公司

摘 要

臺北市區鐵路地下化東延南港工程(南港專案)於民國97年通車，臺鐵於臺北市區內已全部轉入地下營運，對都市交通與環境景觀產生重大更新，並確實對市區產生顯著經濟效益。南港車站為此專案之重大工程，亦為臺北市區最大規模之車站，除含臺鐵及高鐵車站外，並與忠孝東路下方之捷運南港站地下連通，成為三鐵共構車站；其亦為結合商場與未來開發使用之複合型車站，為一座提供完整轉乘與休憩功能之都市多元生活中心。

得力於全面性之完整規劃，並妥善預留了未來發展之機制，使得後續其他都會區鐵路立體化改建規設執行過程中，常被提及希望比照辦理，因此特別為文介紹該車站之規劃構想及預留後續開發機制做法，並整理設計及施工過程中與地工技術相關之課題與對策，供各界參考。

關鍵字：鐵路地下化、預留開發機制、抗拔樁、中間樁、基樁拔除。

The Concept of Development Mechanism and Geotechnical Engineering for Nangang Underground Railway Station

Chun-Hua Chen Wen-Chueh Ou

CECI Engineering Consultants, Inc.

Abstract

The Nangang Extension Project of underground railway engineering in Taipei City was finished in 2008. The railway in Taipei area has been transferred to underground operations. This achievement made a significant upgrade of urban transportation, environmental landscape and economic benefits. Nangang Underground Railway Station, containing Taiwan railway station, high-speed rail station and connection passage to underground MRT station, is not only the biggest engineering of this project, but also the largest station in Taipei. In addition to transportation purpose, it combines with shopping mall and commercial hotel to provide complete functionality of a modern station.

This article describes the planning concept of the station and the prepared the ground for the future development. The technical problems and solutions associated with the geotechnical engineering during the construction process are highlighted.

Key Words : railway underground engineering, future development, uplift pile, center post, removal of existing pile.

一、前 言

隨著臺北捷運各路線陸續完工通車，明顯提升了大眾運輸的效能，而綠色軌道不同運具

路網與共構車站之建設，更具體落實民眾便利轉乘的需求。臺北地區原有之鐵路、捷運及高鐵共構車站除位於交通樞紐之臺北車站外，後有位於臺北盆地西側之板橋車站，因此位於臺北盆地東側之南港新站乃被賦予臺北東區交