

Introduction to Xinyi Eastern Extension

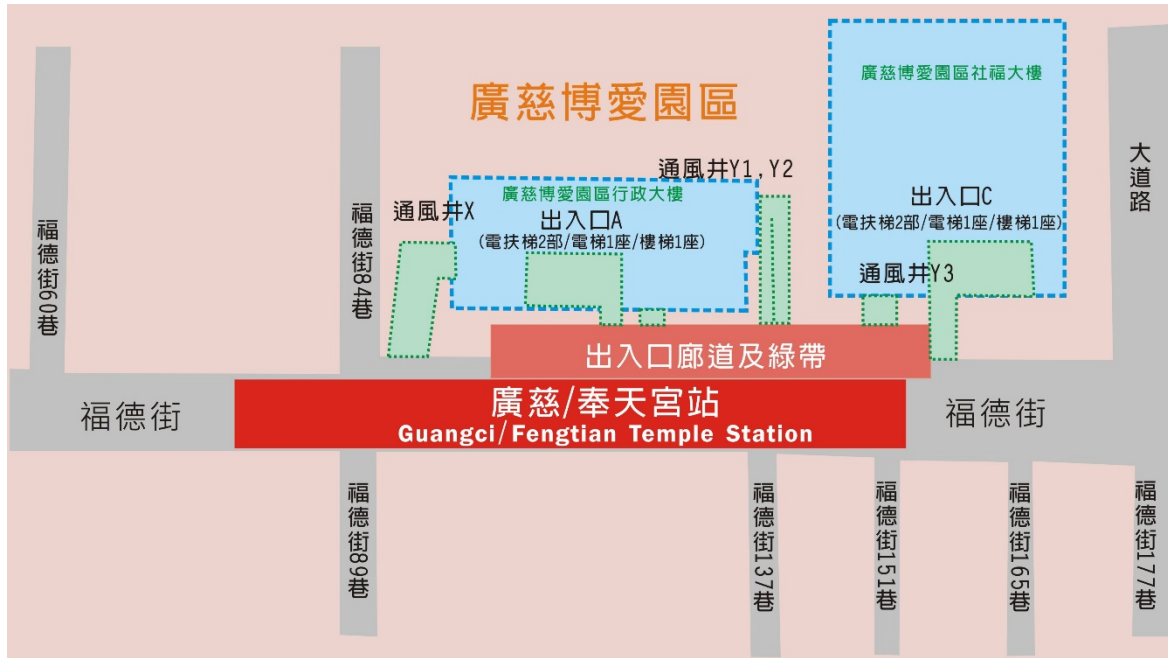
In consideration of the densely populated areas at the end of Section 6, Xinyi Rd. and Fude St., in order to promote local development and expand the operational efficiency of Xinyi Eastern Extension services, after evaluating the necessity and feasibility of extending the Xinyi line eastward and constructing additional stations, it was concluded that it could increase the capacity to bring out the full potential of the overall route network.

Explanation of route planning

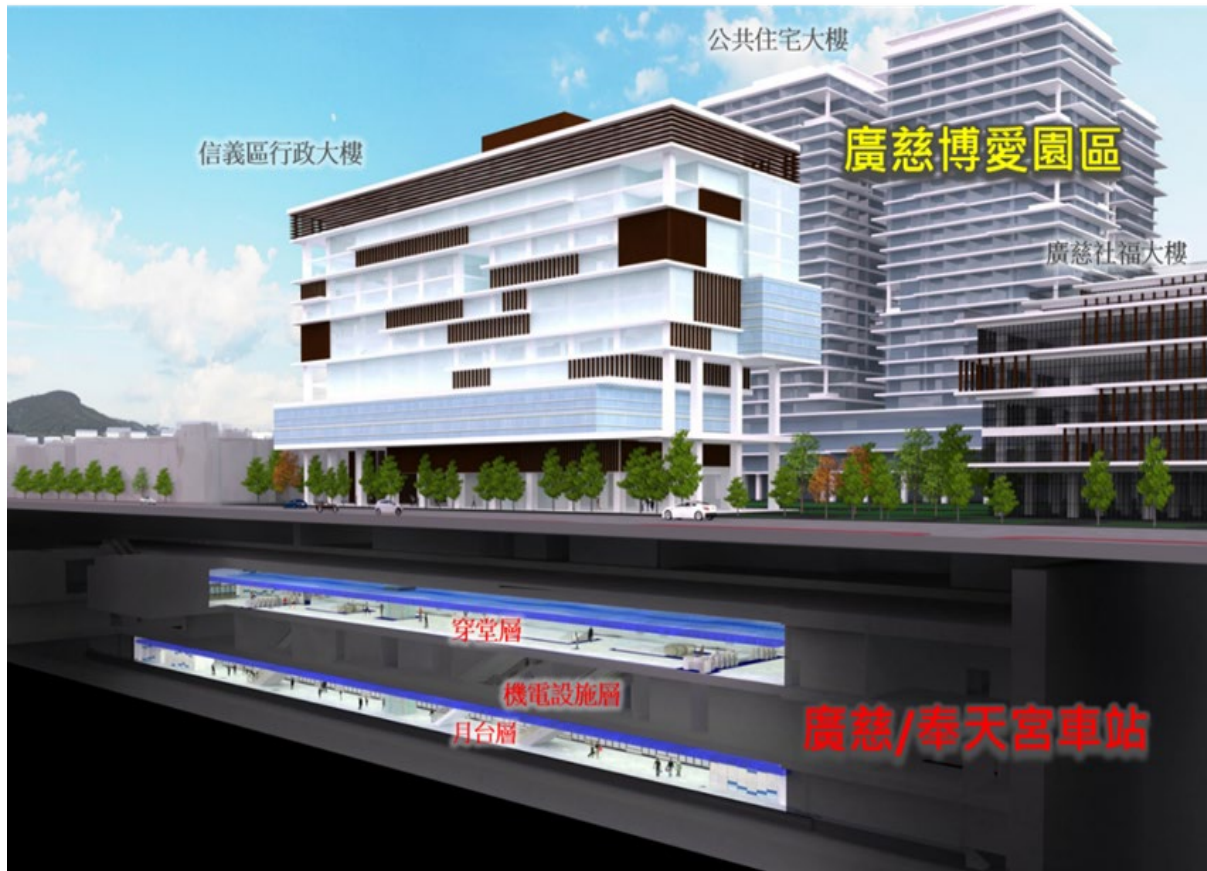


The planned route for Xinyi Eastern Extension is a continuation of the eastern end of the tail track at Xiangshan Station on the Xinyi line. The high-capacity underground line extends east along Section 6, Xinyi Road to Fude St. in front of Guangci Charity Park and then runs along Fude St. and Zhongpo South Rd. via a shield tunnel to Yucheng Park. With a total length of 1.4 km, the line has one underground station – Guangci/Fengtian Temple Station, along with a tail track which is located beneath Zhongpo S. Rd. and is utilized for operational dispatch.

Station Description:



Guangci/Fengtian Temple Station Flat Configuration



Guangci/Fengtian Temple Station Perspective Diagram

Guanci/Fengtian Temple Station

Located in front of Guangci Charity Park and beneath Fude Street, it is a 3-level underground island platform station. The B1 level is the concourse, the B2 level is the electric and mechanical facility floor, and the B3 level is the railway platform floor. The main structure of the station is approximately 213.9 meters long with a clear width of approximately 16.55 meters and an excavation depth of approximately 29.1 meters. Entrance/Exit A is constructed in Guangci Charity Park Administration Building, and Entrance/Exit C is constructed in the Social Welfare Center Building; furthermore, facilities such as ventilation

shafts (X, Y1, Y2, Y3) and cooling towers are also included in the station.

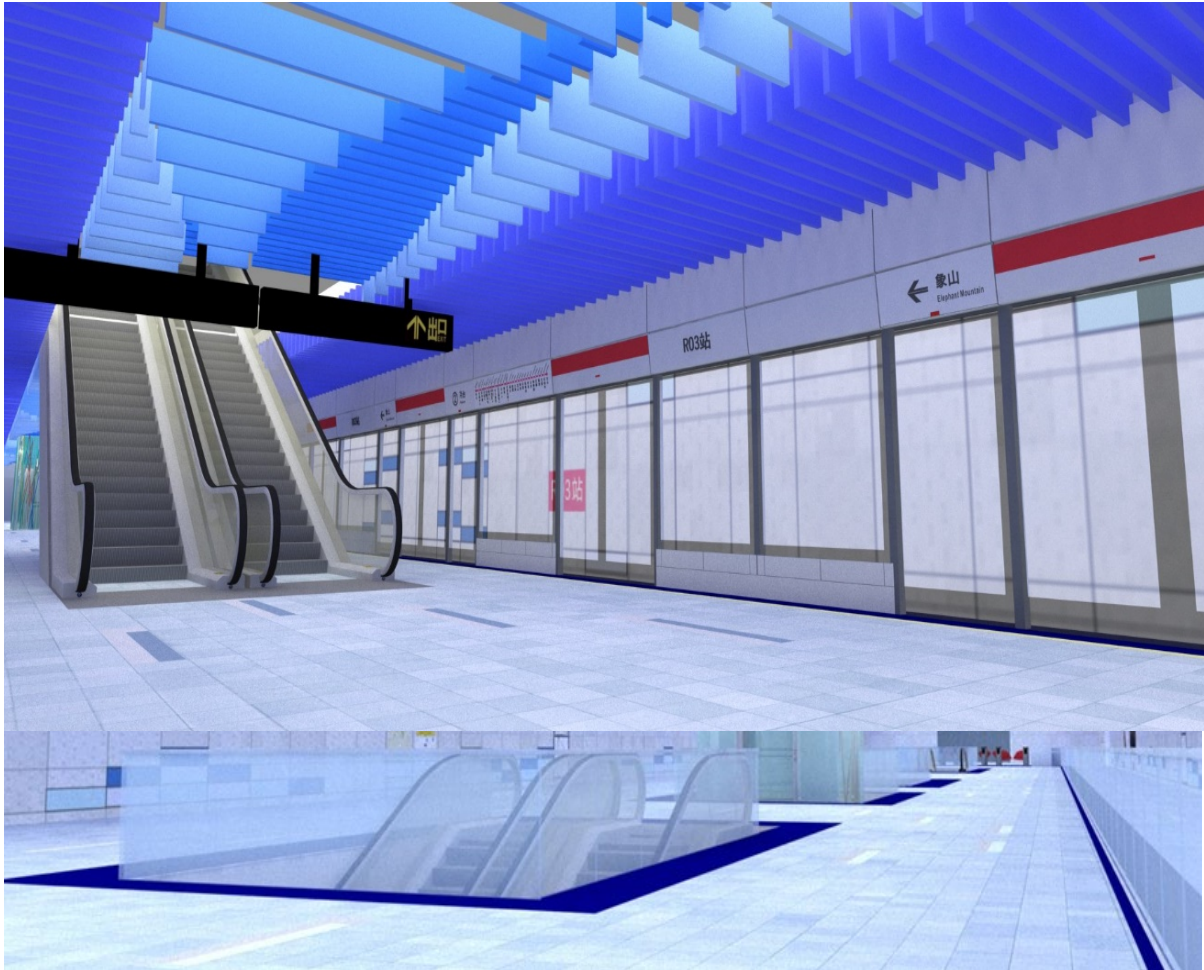
Station Architectural Design Concept and Modeling

Concept

It is anticipated that the citizens' memory of the city's history will be aroused through the station building design. Guangci/Fengtian Temple Station is located near the Four Beasts Mountain; furthermore, Xinyi District was developed for agricultural use early on, and a water conservancy was constructed for the Liugongjun Irrigation System. The station will combine the local natural landscape, giving shape to an MRT image which places importance on ecological and environmental protection.

Modeling

"Rising Water" is the core basis for the architectural design concept of the station, and this concept is combined with the flow of people in the MRT station along with the flowing water of the Liugongjun in the local history to transform the concept of flowing water into horizontal and curved architectural shapes. Blue floors, walls, and ceilings are employed to give local characteristics to the station facilities, enabling people to experience the atmosphere of water imagery and regional features while riding on the MRT.



3D Simulation Diagram of Platform Level

Construction Introduction

Shield Tunnel Construction

In addition to utilizing a cut-and-cover construction method for structural excavation for the station and ventilation shafts, in order to reduce the impact on traffic, shield machines were utilized for the drilling and tunneling of the other route sections. Because the drilling stratum is mainly composed of hard rock, weak clay layering, or a soil-rock mixed formation, there are large differences in soil and rock strength. Consequently, when the shield machine was designed, possible stratigraphic problems were taken into account, and two shield

machines were planned for use in construction.



Completed Shield Machine



Construction Status

Construction Challenges

Guangci/Fengtian Temple Station is located beneath Fude St. in Xinyi District, and because the road is narrow, the diaphragm walls of the station must be excavated adjacent to two buildings on both sides. In addition, the complex and uneven geology, the weak and soft shallow layer of soil, and the hard deep rock disk with hardness exceeding expectations by 4 times have created extreme construction challenges. Moreover, in order to reduce the impact on people's daily lives, it was necessary to suspend construction at night, which affected work continuity. However, the strengthening of communication and coordination with the public along with the development of a number of refined plans made it possible to extend the hours of construction operations moderately.

Expected Benefits

As part of the high-capacity system in the Taipei Metropolitan Area, Xinyi Eastern Extension runs east from Xiangshan Station to Yucheng Park. Although it is a relatively short distance, it is a connection between eastern and western districts of Taipei City and re-expands Taipei MRT living circles. In cooperation with the urban renewal plan of Guangci Charity Park at Fude St., following the completion of Xinyi Eastern Extension construction and the commencement of operations, it will expand the scope of MRT services and conveniently connect Xinyi District and Nangang District in the Greater Taipei Metropolitan Area while alleviating traffic congestion along the route. This in turn improves regional accessibility and drives social and economic development along the route.

During the construction, if you have any questions or your rights are negatively affected, please report them to Taipei City Department of Rapid Transit Systems (DORTS). DORTS will serve you wholeheartedly, and you are welcome to check the construction status and project information at the DORTS website: www.dorts.gov.taipei.

Construction Unit:

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