

Investigation of Temporary Track Construction for Railways before Turning to Overhead Viaduct Structure - Use Fongyuan Section as Example

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Abstract

In order to cope with the impact of Taiwan High Speed Rail (THSR) operations since it made its debut to the public, Taiwan Railways Administration (TRA) has had to convert its operations into a short or medium range transportation service. The temporary track switchover at Fongyuan Railway Station is one of the major construction items. Due to the limitation of the hinterland at Fongyuan Railway Station, the existing railway arrangement has to be modified and temporary tracks must be laid to maintain existing train operations. The subsequent overhead viaduct can then be constructed. This paper will take the Fongyuan temporary track section as an example to investigate the temporary track project construction characteristics - adjoining to existing rails, narrow moving area, complex interfaces, necessity of maintaining existing train operations - and the techniques used to overcome the difficulties encountered. In addition, this paper examines the main reasons for smooth completion of this project, which include the QC circle and seminars to educate individuals about precautionary measures. Also, this paper will elaborate how the owner helps the contractor with continuous supervision to successfully achieve the project goal. All of these can be used as references for similar future projects.

Keyword : railway project, temporary track project, self-supervision