

# Construction Techniques and Development of 1<sup>st</sup> Monorail System in Thailand

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## 1 Abstract

This paper aims to present the construction techniques and development of first and unique monorail system in Bangkok, Thailand. Bangkok is the capital and most populous city of Thailand. The city occupies 1,568.7 km<sup>2</sup> and has a population of over eight million, or 12.6 percent of the country's population. In the last decade, Bangkok has attracted millions of migrants seeking economic opportunity and city is expanding quickly. Recently, Mass Rapid Transit Authority (MRTA) Thailand has decided to adopt monorail system in Bangkok as a rapid transit system due to the limited space, narrow roads and sharp curves in the city. The design of monorail track lines permits flexible and various alignments that include curves of small radiuses and large slopes. The first two projects i.e., Pink Line and Yellow Line projects consist of elevated structure around 64.9 km long, 53 stations, 2 depots and 2 park-and-ride buildings. MRTA has awarded these projects (design, test run and construction of first two lines) to the BSR Joint Venture who invited Sino-Thai Engineering &