



## Railway Arch Bridge over the Contreras Reservoir on the Madrid-Levante High-Speed Railway Line

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### 1. Introduction

Part of the Madrid-Valencia high-speed railway line, the Contreras Reservoir – Villargordo del Cabriel stretch represents an example of the use of the state-of-the-art construction systems, instigated by the limitations resulting from a layout that allows the running speed of up to 350 km/h, with large radii bends and gradients of less than 30‰ in area with rugged terrain conditions. It is against this background that the arch bridge over the reservoir stands. This is a reinforced concrete arch bridge with a 261 m span and an upper prestressed concrete deck that on the construction completion date was world record holder for a concrete railway arch bridge (Fig. 1).



*Figure 1. View of the arch bridge built over the Contreras Reservoir*