

Direct Link

Rosario-Victoria



Project data

Client: Argentine Ministry for Economy, Construction and Public Infrastructure

Contractor: Joint Venture Puentes del Litoral Consisting of 6 companies, HOCHTIEF as partner with a share of 26 percent.

Total length: 59.4 kilometers

Bridging structures: 12.3 kilometers

Cable stayed bridge: 608 meters

Eastern Viaduct: 2,368 meters

Western viaduct: 1,122 meters

12 secondary bridges: Total length 8.184 km

Dikes: 47.1 kilometers with 22 million cubic meters embankment

Order value: USD 378 million

Building phase: September 1998 to May 2003

Concession life: 25 years, including building time

Overall quantities:
 Concrete 275,000 m³
 Reinforcement 63,000 tons
 Pre-stressing steel 3,130 tons
 Bored piles 26,250 m
 Road surface 562,500 m²



HOCHTIEF already created the first permanent traffic route to the region between the Paraná river and the Uruguay river by building the tunnel between the cities of Paraná and Santa Fé thirty years ago. HOCHTIEF again proved its capability with the technically challenging

direct link between the cities of Rosario and Victoria. In addition to the planning and building of bridges and roads this government-sponsored construction scheme also included the financing of the whole project.

HOCHTIEF holds a 26 percent share in the operating and construction consortium and will operate the link for 21 years with international and local partners before ownership passes to the Argentine State.

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More than bridging.

The city of Rosario is situated on the shores of the Paraná river, approximately 300 kilometres northwest of the Argentine capital of Buenos Aires. The new road and bridge project leads through approximately 59 kilometres of challenging terrain of swamps and rivers. It directly connects the cities of Rosario and Victoria, and thus is a big step towards the development of trade routes in Argentina.

A total of twelve kilometres of the link consists of bridges, and approximately 47 kilometres of built-up dikes. At peak times up to 1,300 workers were employed at the construction site.

The Main Bridge.

At the core of the new construction project is a four-lane cable-stayed bridge across the Paraná river. It is 608 meters long and has a midspan of 350 metres. The two bridge towers, insitu poured concrete pylons, each 121 metres high above the pilecap, are connected by means of two crossbeams. The foundations and the substructure

consist of encased bored piles, measuring two metres in diameter, ????? that were constructed in-site under water.

A traveler – suspended from the cable stays – made the in situ pouring of concrete for the superstructure possible. A special construction protects the towers and several adjoining pillars from possible collision with ships.



128 main cable stays allow for the 350 m span of the Main Bridge. The cable stay sizes vary between 23 and 67 strands, each strand consists of seven galvanized wires. The ultimate tensile strength is 1,770 Mpa.



Technical Challenges.

Because of the ?????, sandy underground all bridge piers are founded on piles with a maximum diameter of two metres.

The Eastern Viaduct

The Eastern Viaduct consists of four lanes and is 2,638 metres long. Both foundation and substructure consist of large encased bored piles, each two metres in diameter, constructed in situ under water. The superstructure with a regular span of 60 m was constructed as a pre-stressed, triple-T-beam poured in situ by an advancing shoring system weighing 1200 tons.

The Western Viaduct

The Western Viaduct, also four laned, has an overall length of 1,122 metres. Bridge pillars on spread foundations are the substructure. The superstructure, made in form of a multiple-T-beam, consists of pre-fabricated beams with a regular span of 35.35 metres, inserted prefabricated slabs and a top layer of concrete poured in situ, which combines the parts to a monolithic structure.

The Secondary Bridges

Twelve secondary bridges, each with two lanes and totalling approximately eight kilometres in length, are part of the Rosario-Victoria link. Large encased bored piles with diameters of 1.8 and two metres, constructed in situ under water, serve as the base for the foundations and the substructures of ten of the secondary bridges. The superstructure has a regular span of 60 metres and was produced as pre-stressed, double-T-beam by means of an advancing shoring system weighing 770 tons.

Dredging Operations and Reclamation

For a total distance of 41.1 kilometres a two-lane reclaimed earthen dikes through the swamp area. The 15-metre wide dike crest is six meters above the mean water level. Downstream, a 25-meter long service canal was dredged over a length

of 27 kilometres. A total volume of 22 million cubic metres of material was moved, plus 4.5 million cubic metres of earth in dredging operations to create the work basins for the bored pile foundations, the service canal and the branch canals.

The complete building project was ready for operation, including, among other tasks, all road building, drainage and the overall operating technology, in only 48 months.