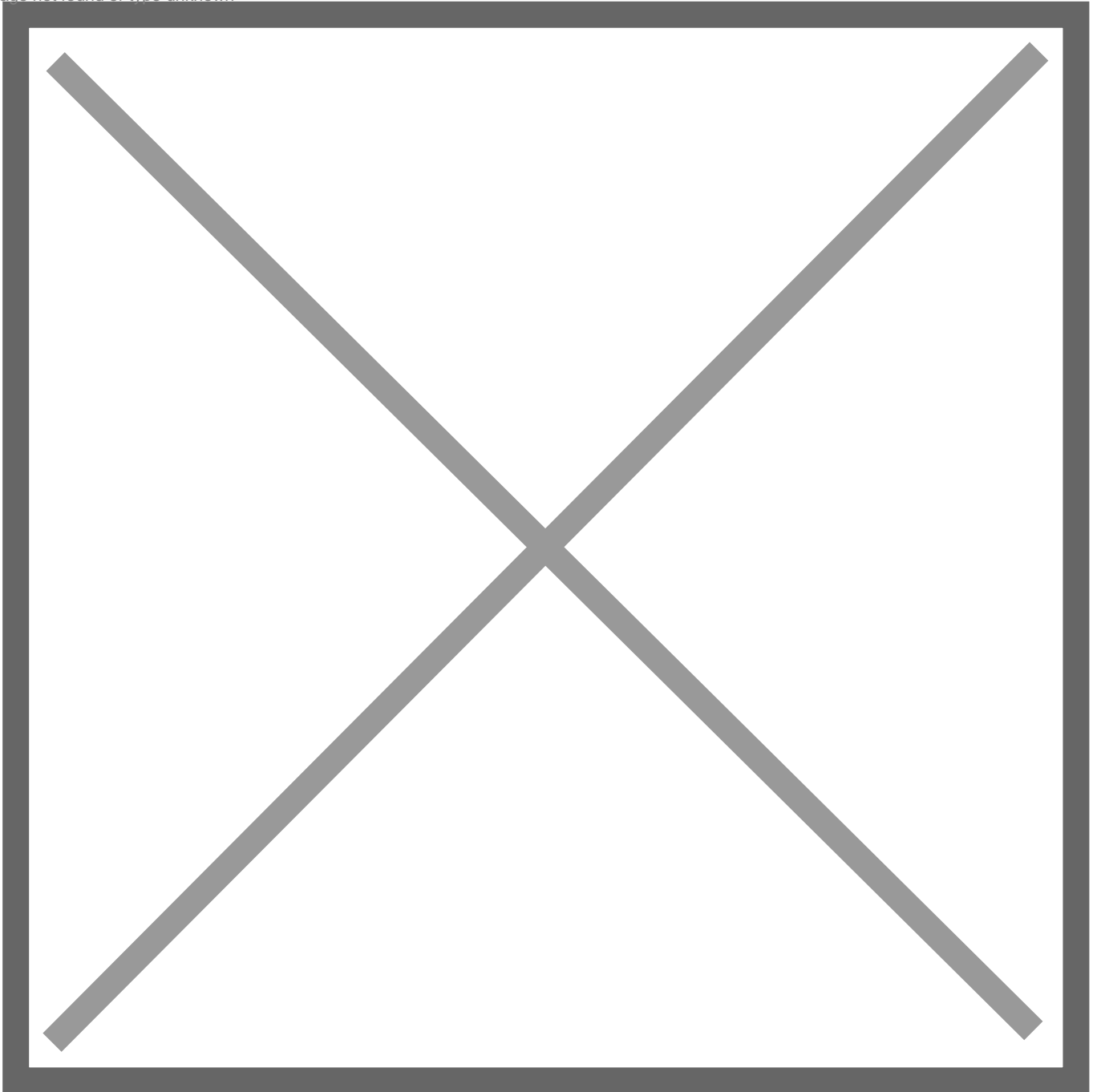


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Lorentzsluizen [Lorentz discharge sluices]

Netherlands

A7 Motorway (bridge), Den Oever
Friesland 1779 GP Zurich

Commission

1927

Completion

1932

Original name

Lorentzsluizen [Lorentz discharge sluices]

Original use

Infrastructure / Enclosure Dam

Current use

Infrastructure / Enclosure Dam

Architects

Dirk Roosenburg

Concrete by reinforcement

Reinforced concrete

Construction method

Cast-in-place concrete, in-situ concrete

Architectural concrete

Architectural concrete

Structural types

One-dimensional/ [trussed] beam

Description

The Netherlands depends on hydraulic infrastructures for its survival: the Afsluitdijk is an essential part of this complex hydraulic system, since it segregates part of the waters of the Wadden Sea. This is essential to the sustainability of the country, since it ensures a balance between saltwater and fresh water that can be used in agriculture, while moderating the effects of tides in cities like Amsterdam and inland areas, some of which sit below sea level.

The Wadden Sea occupies a strip along the coast of the Netherlands, Germany and Denmark sandwiched between the continent and a series of islands parallel to the coast, which separate it from the open waters of the North Sea. The construction of the dike infrastructure was approached as a collective national enterprise, and it was finished in a much shorter span of time than was expected, from 1927 to 1932. The project consisted in creating a colossal dike – 32 km long by 90 m wide that closes off a part of the Wadden Sea where it juts inland. The country's capital is located on its shores, along with other large cities. The saltwater of the interior section is diluted by the contribution of fresh continental waters, generating a delicate balance. Moreover, the construction of the dike also made possible to build a highway on the part above ground, with is central to overland communication with Europe's northern coast.

Both ends of this infrastructure, where it joins up with the continent, are the points where the highest complexity is concentrated. Crossings for both ships and land vehicles must be ensured, which involves the management of points where the water from both sides of the dike mixes together. There, a series of monumental concrete towers, situated at regular intervals, give the dike its most characteristic image, in addition to providing elevated observation points.

The area was declared World Heritage, not only because of the importance of this infrastructure, but also because it is largely responsible for the existence of the Netherlands as we know it.

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