

Zeitschrift: IABSE structures = Constructions AIPC = IVBH Bauwerke
Band: 5 (1981)
Heft: C-19: Eastern Sheldt Strom Surge Barrier (the Netherlands)

Inhaltsverzeichnis

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 09.08.2025

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

INTRODUCTION

The IABSE Colloquium on Advanced Mechanics of Reinforced Concrete, June 1981, in Delft included a site visit to the Eastern Scheldt Storm Surge Barrier currently under construction. A large project employing advanced mechanics, a large project balancing both safety and environment.

In 1953, the South-West of the Netherlands was ravaged by terrible floods. The Delta Plan, which was conceived in response to the disaster, was regarded as an effective way of making sure the same thing never happens again.

But as memories of the 1953 floods receded, an awareness developed that such a massive undertaking could have unacceptable consequences particularly in the light of the growing concern for the environment. After lengthy, often emotional, discussions – in which the safety aspect and environmental issues were weighed against one another –, the original plan was democratically modified. The flexibility which enabled this to happen was in itself a highly positive factor. The original Delta Plan conceived after the 1953 floods was a national achievement of the highest calibre and

so too is the plan in its modified form with a storm surge barrier in the Eastern Scheldt.

The Eastern Scheldt barrier project was started in 1974. Now the preliminary studies are over, the design has been finalised and construction has started. It is a hydraulic engineering project of tremendous sophistication involving a workforce of hundreds. The technical and organisational problems are enormous.

In 1986, when the barrier will be completed, it will be possible to look back on a huge achievement which can be summarised in four key words: flexibility, perseverance, craftsmanship and cooperation.

The completed barrier will protect the countryside surrounding the Eastern Scheldt from flooding and preserve the estuary's unique marine environment.

Let us hope that the know-how and expertise gained as a result of all the work on the storm surge barrier will also be of great value in other parts of the world.

*H. Kuiper, J. C. Slagter,
Rijkswaterstaat*

Note from the Editor

This publication is a shortened English edition of an original article which appeared in "CEMENT", a monthly magazine issued by the

Netherlands Cement Industry

Thanks are due to the publisher as well as to the authors – from Rijkswaterstaat and Dosbouw – of contributions printed in this booklet of IABSE STRUCTURES.

Table of Contents — Table des matières — Inhaltsverzeichnis

1. History and development of the Eastern Scheldt's project	74
2. Development of the barrier's design	77
3. The pier design	80
4. Gates and operating machinery	84
5. Foundation soil and revetments	86
6. Project and construction management	90
7. The pier construction	92
8. Bridge to working island: a temporary work	95