

# Approval for this bulletin

Subject to priorities defined by the Technical Council and the Presidium, the results of the *fib*'s work in commissions and task groups are published in a continuously numbered series of technical publications called *bulletins*. The following categories are used:

## Category:

Technical report  
State-of-the-art report  
Manual / Guide to good practice / Recommendation  
Model code

## Approval by:

Task group and chairpersons of the commission  
Commission  
Technical Council  
General Assembly

Any publication not having met the above requirements will be clearly identified as a preliminary draft.

*fib* bulletin 115 was approved as a Guide to good Practice by the online Technical Council of *fib* in April 2024.

The *fib* Task Group 1.7 “Construction of Concrete Structures” includes the following members:

Convener: Aad van der Horst (Delft University of Technology, The Netherlands)

Members: Héctor Bernardo Gutiérrez (Pontem Engineering Services, Spain), Fabrice Cayron (Bouygues Travaux Publics, France), Oliver Fischer (Technische Universität München, Germany), Didier Primault (Vinci Construction, France), Günter Rombach (Technische Universität Hamburg-Harburg, Germany), Marcos Sanchez (Arup, Ireland), Gopal Srinivasan (Arup, United Kingdom), Jose Turmo (Polytechnical University of Catalonia, Spain).

Also contributes to this report: BAM Infraconsult (The Netherlands), DRAGADOS (Spain), Carmen Hueso (Pontem Engineering Services, Spain), Anna Sanseverino (University of Salerno, Italy), Francisco J. Castilla (University of Castilla-La Mancha, Spain), Fidel Lozano (Barcelona Tech – UPC, Spain)

Cover image: Cadiz Bay Bridge tower beam, credit Héctor Bernardo Gutiérrez.

© Fédération internationale du béton (*fib*) 2025.

Although the International Federation for Structural Concrete / Fédération internationale du béton (*fib*) does its best to ensure that all the information presented in this publication is accurate, no liability or responsibility of any kind, including liability for negligence, is accepted in this respect by the organisation, its members, employees or agents.

All rights reserved. No part of this publication may be reproduced, modified, translated, stored in a retrieval system or transmitted in any form or by any means – electronically, mechanically, through photocopying, recording or otherwise – without prior written permission from the *fib*.

ISSN 1562-3610

ISBN (Print): 978-2-88394-189-2

ISBN (PDF): 978-2-88394-190-8

Language check: Gordon Clark

Layout by Corinne Bottollier Dépois (*fib*).

Printed by P+K Solutions GmbH & Co. KG

# Acknowledgements

This technical report was drafted by Task Group 1.7 “Construction of Concrete Structures” within the *fib* Commission 1.

## **Authors:**

**Aad van der Horst (Editor/Author)**

Delft University of Technology, The Netherlands

**Héctor Bernardo Gutiérrez**

Pontem Engineering Services, Spain

**Oliver Fischer**

Technische Universität München, Germany

**Günter Rombach**

Technische Universität Hamburg-Harburg, Germany

**Gopal Srinivasan**

Arup, United Kingdom

**Fabrice Cayron**

Bouygues Travaux Publics, France

**Didier Primault**

Vinci Construction, France

**Marcos Sanchez**

Arup, Ireland

**Jose Turmo**

Polytechnical University of Catalonia, Spain

Contact details of Task Group members can be found in the members only section of the *fib* website, [www.fib-international.org](http://www.fib-international.org).

## **DOI by chapter**

Chapters	Authors	DOI
1	Bernardo, Srinivasan, Turmo	<a href="https://doi.org/10.35789/fib.BULL.0115.Ch01">https://doi.org/10.35789/fib.BULL.0115.Ch01</a>
2	Bernardo, Srinivasan, Turmo	<a href="https://doi.org/10.35789/fib.BULL.0115.Ch02">https://doi.org/10.35789/fib.BULL.0115.Ch02</a>
3	Bernardo, Srinivasan, Turmo	<a href="https://doi.org/10.35789/fib.BULL.0115.Ch03">https://doi.org/10.35789/fib.BULL.0115.Ch03</a>
4	Bernardo, Srinivasan	<a href="https://doi.org/10.35789/fib.BULL.0115.Ch04">https://doi.org/10.35789/fib.BULL.0115.Ch04</a>
5	Bernardo, Srinivasan, Turmo, van der Horst	<a href="https://doi.org/10.35789/fib.BULL.0115.Ch05">https://doi.org/10.35789/fib.BULL.0115.Ch05</a>