TheStructuralEngineer

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Professional guidance

Temporary Works Forum

What is the Temporary Works Forum?



David Thomas introduces readers to the Temporary Works Forum and explains how it aims to promote good practice in this sometimes neglected area.

Introduction

Temporary works is an important aspect of most construction projects. It can range from a simple trench or beam support to complex structures costing millions. Competent choice, design, use, maintenance and dismantling are essential in order to protect the asset being constructed and to mitigate risks to persons. There have been, and continue to be, failures of temporary works.

Against this background, in 2009, a group of senior and experienced UK engineers and managers considered that there should be a permanent industry-wide interest group to promulgate good practice in this field. The Temporary Works Forum (TWf) was the result of that consideration. Prior to this, there had not been any representative body established to consider this important topic.

The TWf's overall mission is to be an advocate for, and recognised authority on, temporary works and construction method engineering, working to raise standards and awareness across the construction sector.

Membership

The intent of the TWf is to encourage open discussion on any matter related to temporary works, for the good of the industry overall. Its objectives are the advancement of education, the saving of lives, the advancement of science and the avoidance of disasters. The Forum is primarily open to any UK company working within the industry and sharing this intent (for more information, contact the Secretary).

The TWf now has over 100 members from a range of disciplines including specialist designers, materials suppliers, contractors, client bodies, other industry associations, government and quasi-governmental organisations; what is notable is the lack of members representing conventional structural and civil engineering consultants. Given that almost every new structure requires consideration of how it is to be constructed, maintained and eventually taken out of use, this is remarkable.

Guidance

The TWf has been active in identifying key issues requiring guidance; where possible working in collaboration with others. These include:

Publications:

- Hoardings A guide to good practice (2014)
- Stability of Reinforcement Cages Prior to Concreting (being revised; see also Safety Bulletin¹)

- The use of European Standards for Temporary Works design (2014; informed the preparation of PAS 8812)
- Clients' guide to temporary works (2014; informed the preparation of PAS 8811)

Information sheets:

- No. 1: CE marking and temporary works (2015)
- No. 2: Temporary works training (2016)

Papers

- Competencies of the TWC (2012)
- Management of the design and procurement of temporary works (2012)
- Differences between permanent and temporary works (2013)
- Training template for permanent works designers (2011)

Supported publications:

- CPA (2014) Good Practice Guide: Ground Conditions for Construction Plant
- CPA Tower Crane Interest Group (2015) TIN 043: Design and Design Checking of Attachment Brackets for Tower Crane Accessories
- CPA Shoring Technology Interest Group (2016) Management of Shoring in Excavations. Part 1: Management
- British Standards Institution (in press) PAS 8811: Code of practice for temporary works. Client procedures
- British Standards Institution (2016) PAS 8812:2016 Temporary works. Application of European Standards in design. Guide

All TWf publications are available free of charge on the Forum website²

Courses

Working with CITB Cskills, TWf has promoted and supported the development of three temporary works courses³:

- Temporary Works Coordinator (TWC)
- Temporary Works Supervisor (TWS)
- Temporary Works General Awareness Course (TWGAC)

The TWf itself is not a training provider. However, the TWf and TWf members were among those who helped to develop these industry-recognised training courses, as part of the Site Safety Plus scheme. Some training providers use tutors who are TWf members, or who work for TWf members.

Centre of Excellence

In 2015, the TWf selected City University London as a Centre of Excellence in Temporary Works and Construction Method Engineering^{4,5}. The new Centre will draw upon City's civil engineering education and research strengths across various fields and will develop educational provision for practising engineers. From autumn 2016, a new MSc degree⁶, the first and only one of its kind in the UK,

will provide a specialist qualification for those involved in the design and construction of temporary works; this addresses an industry need for such a qualification. The course aims to develop:

- strong technical skills suitable for anyone involved with the design or construction of buildings or civil engineering; whether their particular focus is in permanent or temporary works
- specialist knowledge in engineering problems associated with construction of temporary and permanent works
- the ability to design and build temporary structures and platforms, excavation support, dewatering installations, propping and retention systems
- experience of the planning, management and execution of all types of temporary works for use in civil engineering and building projects
- knowledge of the particular challenges posed by temporary works and strategies to ensure robust design solutions

Research

Some TWf members are making a financial contribution, over a three- to five-year period, to support research work in the Centre of Excellence. The first projects selected are:

- rebar stability
- granular working platforms
- thrust blocks
- back propping
- plunged columns

What next?

The introduction of the Construction (Design and Management) Regulations 2015, with the new role of Principal Designer, and the need to promote better understanding of temporary works issues among permanent works designers, along with better integration, offer a new challenge. Why not join us?

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REFERENCES:

1) Temporary Works Forum (2015) Safety Bulletin: Stability of reinforcement prior to concreting [Online] Available at: www.twforum. org.uk/publications/public-twf-documents/rebar-safety-bulletin/ (Accessed: August 2016)

2) Temporary Works Forum (2012) *Publications* [Online] Available at: www.twforum.org.uk/publications/ (Accessed: August 2016)

3) Temporary Works Forum (2012) *Training in temporary works* [Online] Available at: www.twforum.org.uk/news/training/ (Accessed: August 2016) 4) City University London (2016) *Centre of Excellence in Temporary Works and Construction Method Engineering* [Online] Available at: www.city. ac.uk/department-civil-engineering/centre-excellence-temporary-works-construction-method-engineering (Accessed: August 2016)

5) Temporary Works Forum (2015) *TWf Centre of Excellence* [Online] Available at: www.twforum.org.uk/news/twf-centre-of-excellence/ (Accessed: August 2016)

6) Temporary Works Forum (2016) MSc in temporary works and construction method engineering [Online] Available at: www.twforum.org.uk/news/msc-intemporary-works-(August-2016)/ (Accessed: August 2016)

FURTHER READING:

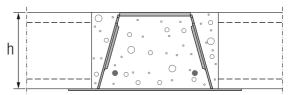
Carpenter J. (2011) 'Temporary Works Forum (TWf): raising standards in the industry', *The Structural Engineer*, 89 (6), p. 10 Carpenter J. (2012) 'Current issues in temporary works', *The Structural Engineer*, 90 (3), pp. 19–20



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