



**IAN HYMAS** BSc (Hons) MEngSc

- Structural engineer for over 40 years.
- Founding partner of the firm Henry and Hymas.
- Member of the current BD-066 Standards committee for the Tilt Up and Precast Concrete (Prefabricated) Standard AS3850.

**Livestreamed via**

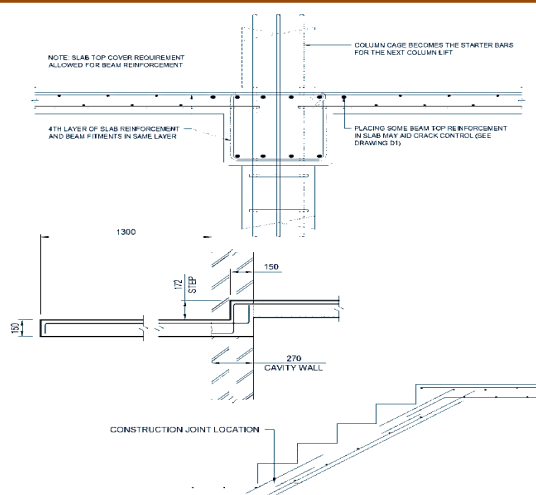


## WORKSHOP SUMMARY 8 hours of CPD

This course is designed to provide a raised level of awareness about how to detail the steel reinforcement, where the construction joints should be placed for each pour and the issues that may arise on-site from poor detailing.

### Typical questions that arise on-site for the structural designer:

- What reinforcement detailing is required for stairs, landings or retaining walls?
- What should be done when starter bars are in the wrong position?
- Where should construction joints be located to effectively control cracking?
- What is a practical spacing of joints?
- Is the reinforcement adequately distributed in your section?
- Should the reinforcement in your footings be coggled or straight?
- Are sawn joints better than key joints in slabs?
- Should you thicken a slab on ground over a joint?
- What are the development length requirements according to AS3600-2018?
- How do you handle penetrations in beams and slabs?



## PROGRAMME (8.30am AEST Zoom invite will be emailed)

### 9.00 - 11.00 Session 1

#### - PRACTICAL DETAILING FOR 'FOOTINGS, PIERS & PILES'

- Reinforcement details required to ensure footings can be designed "to work".
- Practical on-site guidelines to solve issues including boundaries, column locations and off sets.
  - Localised soft soils or high water tables may require a redesign of a footing or one off adjustments to standard designs.

### 11.00 - 11.15 Morning Break

### 11.15 - 1.00 Session 2

#### - PRACTICAL DETAILING FOR 'SLABS ON GROUND'

- Reinforcement details required to ensure concrete slabs on ground are designed according to the detailing requirements of AS3600-2018.
- Practical on-site guidelines to solve factors such as boundaries, soil conditions and large eccentricities.

### 1.00 - 1.30 Lunch Break

### 1.30 - 3.00 Session 3

#### - PRACTICAL DETAILING FOR 'COLUMNS AND WALLS'

- Design and placement of steel reinforcement in columns and walls according to AS3600-2018.
- Examines requirements with respect to practicalities such as common reinforced concrete walls, retaining walls and soil conditions alerting designers to the pros and cons of detailing such members.
- Issues such as heavily loaded columns or columns in high rise construction (with very high percentages of steel) can lead to congestion and possible spalling.

### 3.00 - 3.15 Afternoon Break

### 3.15 - 5.00 Session 4

#### - PRACTICAL DETAILING FOR 'BEAMS, SLABS & STAIRS'

- Structural design of beams and slabs in various forms of construction according to AS3600-2018.
- Examines the detailing with respect to practical solutions that still fit within the frame work of the Australian Standard.
- Real life examples of such elements (eg stairs and where the reinforcement is actually required in such members).
- The problem of congested reinforcement in beams which then compromises concrete cover.

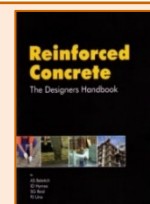
**Certificate of Attendance will be emailed**



Recommended Text:

**Reinforced Concrete:  
The Designers Handbook**  
(2015 Revised Edition)

*Beletich, Hymas, Reid and Uno*



• One day course – **\$760 pp**

#### FURTHER INFORMATION

- (02) 9899 7447
- +61 413 998 031
- [registrations@etia.net.au](mailto:registrations@etia.net.au)

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