



IAN HYMAN

BSc (Hons) MEngSc

- Structural engineer for over 40 years.
- Founding partner of the firm Henry and Hyman.
- Member of the current BD-066 Standards committee for the Tilt Up and Precast Concrete Code AS3850.



Livestreamed via



PROGRAMME 8 hours of CPD

(8.30am AEDT Zoom invite will be emailed)

9.00 - 11.00 Session 1

- PORTAL FRAME ANALYSIS AND DESIGN

- Portal frame analysis and member sizing
- Elastic vs Plastic design
- Tapered members in frames
- Latticed portal frames
- Frames with central columns
- Economies of frame spacing
- Fixed vs Pinned bases
- Footing considerations



11.00 - 11.15 Morning Break

11.15 - 1.00 Session 2

- ROOF AND WALL SYSTEM

- Roof structure layout & panel layout
- Alternative rafter designs
- Fly bracing
- Roof bracing systems.
- Economies of steelwork design
 - Portal frame vs load bearing panels
 - Various cladding systems that can be used for Industrial buildings such as steel sheeting (connected to purlins and girts)
- Design of purlins and girts, panels as cladding to portal frame and steel column buildings; fire ties.
- Advantages and disadvantages of cladding alternatives.

1.00 - 1.30 Lunch Break

1.30 - 3.00 Session 3

- CONNECTIONS IN INDUSTRIAL BUILDINGS

- Connections that are used in portal frame building.
- Steel to steel connections, portal frame knee and apex moment connections, bracing connections and prying forces on plates.
- Steel to concrete connections, holding down bolts, steelwork to concrete panel connections, fixings into concrete cast-in, and mechanical (expansion anchors) chemical anchors.

3.00 - 3.15 Afternoon Break

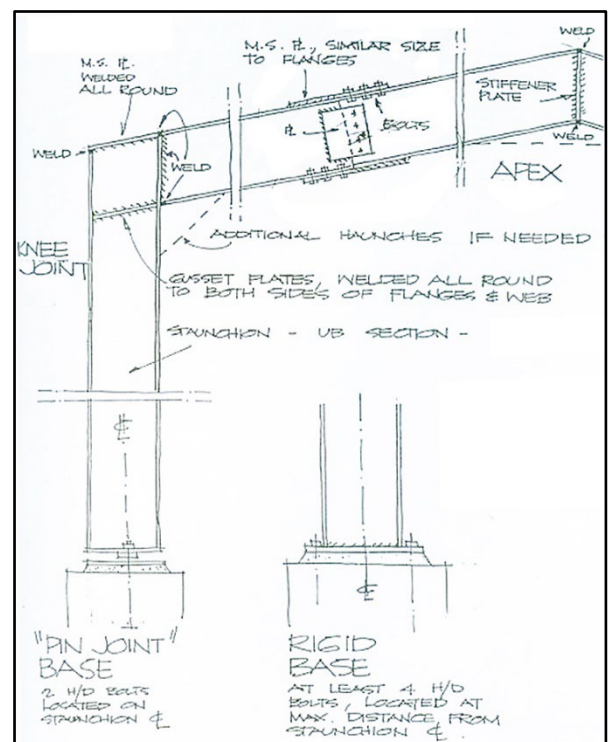


3.15 - 5.00 Session 4

- DEFLECTIONS, TOLERANCES, CASE STUDIES

- Deflections of portal frames and concrete panel supported rafters as well as deflections in bracing systems. Consideration of 'bolt slip', effect of tolerances on design assumptions and erection methods.
- Problems that have occurred while erecting industrial buildings.
- Actual jobs will be shown (in keeping with client confidence).

Certificate of Attendance will be emailed



CALCULATORS REQUIRED

- One day course – **\$830 pp**

FURTHER INFORMATION

- (02) 9899 7447
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- registrations@etia.net.au

- To register, visit our website www.etia.net.au
- OR scan the QR Code.

