

Resumé Patrick Irwin, Consulting Engineer

Updated February, 2020

Name William “Patrick” Beresford Irwin

Occupation Forensic Structural Engineer

Tertiary Qualification Bachelor of Engineering (Civil),
University of Melbourne

Summary of Expertise Structural and civil engineering, specialist in the forensic investigation of property and building issues. Over 30 years experience in engineering investigation, design and construction. Extensive experience as an expert witness.



Current Positions

Director	Irwin Structures Pty Ltd
President	Forensic Engineering Society of Australia
Member	Building Appeals Board
Director	IFT Holdings Pty Ltd (private company)

Contact Details

Irwin Structures Pty Ltd
21 Church Street,
Port Melbourne 3207
Telephone 03 9676 9502
Email pi@irwinstructures.com.au

Year of Birth 1960

Memberships & Endorsements

Fellow of Engineers Australia [FIE Aust], Civil & Structural Colleges
Admitted to Engineers Australia Professional Standards Scheme (via Irwin Structures) 2014. Scheme discontinued in 2016.
Engineers Australia Certified Professional Engineer [CP Eng]
Engineers Australia National Engineering Register [NER]
Member, Asia Pacific Economic Co-operation (APEC) Engineer Register
Register of International Professional Engineers Agreement (IPEA)
Registered Building Practitioner, Engineer, Reg No. EC-1619
Registered Building Practitioner, Draftsperson, Building Design, Architectural, Reg No. DP-AD-24450.
Member, Building Dispute Practitioners’ Society Inc. [BDPS]
Member, Forensic Engineers’ Society of Australia. [FESA]

Publications

Article, BDPS News, January, 2020.

Industrial Pavement Disputes - Green Fields & Grey Areas

Article, ACSEV News December, 2019

Staying out of Trouble - Tips to avoid litigation
(peer reviewed by John McFarlane).

Article, ACSEV News March, 2019

Obituary: Professor Emeritus Leonard (Len) Kelman Stevens AM
(collaboration with Russell Brown)

Article, ACSEV News November, 2018

Avoiding & Resolving Building Disputes, What can be done with
AS 2870 & associated references?

Article, BDPS News, June, 2018.

Key Steps in Building Movement Investigation

Book, *Apart from the Roads & the Aqueducts*, May 2017 (150 pages)

(collaboration with Andrew Boak)

Article, Engineers Australia Heritage News, July 2017.

Ghosts of Bridges Past. The civil works of HB Irwin
(researched with Andrew Boak)

Article, BDPS News, August, 2016.

Problems with Swimming Pools

**Paper published by the Australian Government Senate inquiry into the
Nanny State**

Principles and practices, an engineering perspective.

Article, BDPS News, January, 2015.

Floor Stiffness, How Much Bounce is too Much?

E-book, commercial publication, 2012.

Solutions to Cracking in Houses & Other Small Buildings

Article, BDPS News, October, 2011.

Electronic Document Exchange (with John Browning),

Article, BDPS News, July, 2010.

Remedial Solutions to Reactive Building Movement

Foundations & Footings Society & Swinburn University), 2009

Building movement research project (contributor)

Article, BDPS News, June, 2010

Expert's Corner, Protection Works

Article, BDPS News, June, 2009. 2010 BDPS Essay Prize winner.

Reactive Foundation Movement, Causes & Responsibilities, article

Article: Architecture Victoria, Nov, 2008 & BDPS News, April, 2009

Sustainability

Monthly article series, ACSEV News 2002 & 2003

The Business of Practice

Presentations

To Engineers Australia Victorian Structural Branch, February 2020
Forensic Structural Engineer, A New Field Emerges

Crown Leadership Construction Law Masterclass, August 2018
Problems & Solutions - An Engineer's Perspective.

ACSEV & F&FS, August, 2018
Avoiding & resolving building disputes, with a focus on AS 2870

Book launch, May 2018, Old Colonists' Association, Ballarat
Apart from the Roads & the Aqueducts. Formally launched by Engineering Heritage Chair, David Le Lievre. Authors' presentations followed.

ACSEV, August, 2016
Protection Works

The Forensic Engineering Society of Australia, June 2016
Aerial photography archives.

The Forensic Engineering Society of Australia, November 2015
Excavation damage.

The Australian Government Senate inquiry into personal choice and community impacts, September 2015
Presentation to Senate Committee on behalf of the Forensic Engineering Society of Australia.

City of Port Phillip Urban Design Framework Stakeholder Forum, 2012 & 2013. Invited member, presenter.

The Victorian Bar Association, August 2012
When the Earth Moves, Response & Redress

The Institute of Arbitrators & Mediators seminar "Expert Evidence Fundamentals", October 2012
Panel member and presenter

BDPS discussion evening September 2010.
Soil and Buildings - Grounds for Dispute.

Courses

Michael's Media School, one day photographic course, October 2017

Building Appeals Board, short course on natural justice, August 2014.

Master Builders' Association. Red card training course, 2008

Urban Search and Rescue Training (USAR), MFB, 2006

NSW Global, expert witness course with Professor (former Justice) George Hampel, September, 2006

Committees

Victorian Building Authority, part 7 of building act review
Committee member 2015

Victorian Building Authority, regulation review
Committee member 2014 & 2015

Building Commission subcommittee, Protection Works
Committee member & instigator, 2012

FESA Committee - member since 2011
Vice President 2015 to 2019,
Secretary 2019
President from 2019

BAB subcommittee, Protection Works
Committee member 2010

BDPS Committee - member 2008 to 2019
Vice president 2011 to 2013
President 2013 to 2015

**Industry Advisory Committee, Department of Civil Engineering,
University of Melbourne**
Member 2003

Past Positions

Secretary, Forensic Engineering Society Australia 2019

Vice President Forensic Engineering Society Australia 2015 to 2019

President, BDPS, 2013 to 2015.

Member, Building Appeals Board, 2009 to 2012
(re-appointed 2014 & 2018)

Associate Director, Irwinconsult, 2007 to 2009
(retained as a consultant 2009 to 2015)

Director, Melrose Street Pty Ltd, townhouse developers, 2008 to 2010

Managing Director : Design Action Consulting Engineers Pty Ltd
and its progenitors **1988 to 2007**.

Project & Contract Engineer TD&C 1987 to 1991

Design Engineer M.R. Anderson & Associates, 1985 to 1987.

Civil Construction Engineer, Costain Pearson Bridge, 1984.

Project Experience

* **As Forensic Engineer and Expert Witness since the 1990s.**

Investigations, reports & witness activity for building disputes.

Hundreds of court & tribunal complying reports and numerous appearances.

* **As Associate Director of Irwinconsult 2007 to 2009**

Leading a team in the structural design of many projects, residential, commercial and industrial. Projects including the Royal Botanic Gardens, Cranbourne and Belconnen Arts Centre, ACT.

* **As Director of Design Action Consulting Engineers and its progenitor, 1992 to 2007**

Structural and civil design of thousands of projects, residential, commercial and industrial.

Diverse projects, often architecturally complex residential.

Building investigations including over 200 for the Office of Housing building movement programme 2000 to 2007.

Many conservation projects including major historic buildings such as Ormond College Parkville, churches & cathedrals.

* **As Project Engineer with TD&C Engineers, 1987 to 1990.**

Leading and assisting design of hundreds of structural and civil design projects, residential, commercial and industrial. Site inspections and supervision.

* **As Project Engineer with M.R. Anderson & Associates, 1985 to 1997.**

Design of structural and civil design projects, residential, commercial and industrial.

Site inspections and supervision.

* **Site engineer for Costain Pearson Bridge, 1984 & 1985**

Junior engineer, bridge & civil construction projects, Tasmania and Victoria.

Independent activities as builder/developer	1991	New residence at Caroline Street, Clifton Hill
	1992	Joint Venture Development, Four Townhouses, Langridge Street, Abbotsford
	1997	Residence at Little Walker Lane, Clifton Hill
	1998	Second residence at Little Walker Lane, Clifton Hill
	2002	New residence and studio at Stokes Street, Port Melbourne
	2003	Improvement work to second residence at Little Walker Lane, Clifton Hill
	2006	Internal improvement works to office at Railway Ave, Ringwood
	2008-10	Director, Melrose Street Pty Ltd, townhouse developers.
	2012	Improvement works; office premises, Church Street, Port Melbourne.
	2013	External improvement works to office at Railway Ave, Ringwood.
2016	Improvement works to residence at Stokes Street, Port Melbourne	
Awards	2001	ACSEV Steel Design
	2002	AISC Steel Building Design
	2004	ACSEV Steel Design
	2006	ACSEV Residential Design
	2006	Building Commission CPD Commendation
	2008	ACSEV Residential Design
	2010	BDPS News Essay Prize