

Edward K Takahashi
Architectural Corporation

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Edward K Takahashi
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EDWARD K. TAKAHASHI, FAIA, FACIA, CCS

PROFESSIONAL BACKGROUND

August 2015

PRESENT

President of Edward K. Takahashi Architectural Corporation, an architectural consulting firm. Previously, principal and Director of the Forensic Section of Widom Wein Cohen O'Leary Terasawa (1998 to 2002), partner and Director of Forensic Section of O'Leary Terasawa Partners (1983 to 1997), and partner of O'Leary Terasawa Partners (1966 to 1997).

Consultant to the legal profession in preparation for arbitration and litigation, the firm offers architectural forensic service involving architect's standard of care, design and construction issues, construction industry inter-relationships and construction technology; peer reviews and consultations regarding the building envelope.

Elevated to the College of Fellows of the American Institute of Architects in 2001.

Elevated to the College of Fellows of the American Construction Inspectors Association in 2015. The first group of Fellows selected, since American Construction Inspectors Association founded in 1955.

Certified Construction Specifier of the Construction Specifications Institute (CSI) since 1983. This certificate is granted to those who, following written examination, "have demonstrated the required experience, knowledge and ability in the preparation of written construction documents as prescribed by the Construction Specifications Institute."

Registered Disaster Service Worker, No. SAP 10122, State of California, Office of Emergency Services since 1994 to 2007.

Fallout Shelter Analyst, Certificate No. 7TT-1485-65 (1965), and Environmental Engineering (1967), Department of Defense, Office of Civil Defense.

REGISTRATION

Licensed to practice architecture in California since 1964, License No. C-4220.

ARBITRATION-LITIGATION EXPERIENCE

Consultant in more than 700 construction industry litigations and arbitrations since 1983.

Arbitrator in more than 15 hearings since 1987.

Member of the American Arbitration Association's Large Complex Case Panel, 2003 - 2013.

PRIOR POSITIONS

Principal and Director of Forensic Section of Widom Wein Cohen O'Leary Terasawa, 1998 to 2002.

Partner and Director of Forensic Section of O'Leary Terasawa Partners, 1983 to 1997.

Partner of O'Leary Terasawa Partners, 1966 to 1997.

Senior Draftsman/Designer: O'Leary & Terasawa, AIA Architects - November 1959 – January 1961; August 1961 - March 1966. Became a partner in the firm in April 1966.

Junior Draftsman/Designer: Leo P. Raffaelli, AIA, Architect - April 1958 - November 1959.

Draftsman: Woodward Tom, Structural Engineer - November 1957 - February 1958.

Draftsman: Jack Chernoff, AIA, Architect - October 1956 - September 1957.

SPEAKING ENGAGEMENTS (Partial List - 2005 to Present)

"What My Mother Didn't Tell Me About.....Design and Construction", presented at American Construction Inspectors Association, Los Angeles, April 2013.

"Forensic Architecture / Engineering and Construction Defect Claims" panel member, presented by Building Enclosure Council and AIA\LA, Los Angeles, February 2013.

"What My Mother Didn't Tell Me About.....Design and Construction", presented at 15th Annual Westford Symposium on Building Science by Building Science Corporation, Westford, Massachusetts, August 2011.

What My Mother Didn't Tell Me About.....Design and Construction", presented at Mobius 10 by American Institute of Architect, Los Angeles, June 2010.

Mobius LA panel member regarding "What Every Architect Needs to Know About IDM's, Mediation and Arbitration", panel member, presented at Mobius 9 by American Institute of Architect, Los Angeles, June 2009.

Practice Conference panel member regarding "What Construction Forensics Teach Us About Smart Practice", panel member, presented by American Institute of Architects, California Council, San Diego. November 2008

"Code Forum Workshop and Educational Sessions" panel discussion, Stairway Manufacturer's Association, Long Beach. November 2006

Association of Specialists in Cleaning and Restoration conference on "Opportunities in the Expert Witness and Expert Consulting Market", Denver, Colorado. November 2006

2005 American Institute of Architects Techniques in Architectural Practice conference on "Don't Gamble on Your Architectural Future or What My Mother Didn't Tell Me About Design and Construction", Las Vegas, Nevada. May 2005.

PUBLISHED WRITINGS

- Critiques of "Framing Nailer". Western Roofing, Insulation and Siding, Letters to the Editor, January-February 2003.
- "What My Mother Didn't Tell Me About Fireblocking", Architectural West, Architect's Corner, November-December 1999.
- "Detecting Defects---Determining Causes, Effects and Solutions", Construction, California Real Estate Journal, December 1999.
- "Construction Defects: Designer Details", Verdicts & Settlements, February 1999.
- "Tile Roofs - What My Mother Didn't Tell Me About...Improving Tile Roof Systems", Architectural West, Architect's Corner, September/October 1998.
- "The Roof Deck - What My Mother Didn't Tell Me About...Low Slope Roof Decks", Architectural West, Architect's Corner, January/February 1998.
- "Standards of Care Offer Architects Real-World Applications of the AIA Code of Ethics", Dialogue, Speak Out, Architectural Record, October 1997.
- Critique of "HVAC Equipment Does Not Belong On the Rooftop", Professional Roofing, Letters to the Editor, October 1997.
- Critique of "Innovative Details", Professional Roofing, Letters to the Editor, June 1996.
- Ethical Standards In The Roofing Industry", Western Roofing Insulation and Siding, Letters to the Editor, March/April 1996.
- "Nail Substitutes", Architecture, Technology of Practice, Neat File, American Institute of Architects, April 1993.
- "What My Mother Didn't Tell Me About...Nails", Shepard's California Construction Law Reporter, Shepard's/McGraw-Hill, January 1993; Los Angeles CSI Newsletter, January/ February 1993; San Fernando Valley AIA Newsletter, January 1993.

NAIL GAUGE DEVELOPMENT

The January 1994 Northridge earthquake destroyed the Northridge Meadows Apartments and 16 occupants perished. Investigating and analyzing the collapse and extensive damages to the buildings were teams of architects and structural, wood, soils and seismic engineers, and structural and civil engineers from the City of Los Angeles Department of Building and Safety.

During these investigations, the Building Department engineers noticed my use of a nail gauge, I had developed by adapting General Tools No. 25 Wire Gauge. When the month-long structure failure investigations concluded, the Building Department officials ordered 400 of my nail gauges.

To fulfill the Los Angeles Building Department's request, I redesigned General Hardware Mfg. Co., Inc., No. 26 Wire Gauge for field measuring common, box and cooler (drywall) nails for conformance to *Uniform Building Code Standards Table No. 25-17-1 - Properties of Nails*. The new stainless steel nail gauges were manufactured and have been available to the design and construction industry since June 1995. The nail gauges have been used by architects, engineers and building inspectors to verify nail sizes at construction projects

MATERIALS TESTING

SBS Mineral Surfaced Cap Sheet Underlayment for Tile Roof Systems, 1997

March, 1997: Established criteria for assembling and testing two (2) concrete tile and one (1) clay tile roof systems with SBS modified bitumen mineral-surfaced cap sheet over ASTM Type 30 underlayment felt, per *Uniform Building Code Standard 15-2, Test Standard for Determining the Fire Retardancy of Roofing Covering Materials*, which is essentially similar to that specified in ASTM E 108, UL 790 and NFPA 256.

September 11 and 13, 1997, at Inspection Concepts, Inc., Paramount, California: Observed assembly of four (4) test platforms, and burning brand fire testing of the three (3) tile roof systems with the SBS modified mineral-surfaced cap sheet and ASTM Type 30 underlayment felt, and one (1) intermittent fire testing of the clay tile roof system with the SBS modified mineral-surfaced cap sheet and ASTM Type 30 underlayment felt.

All four systems tested successfully passed the Uniform Building Code Standard 15-2, Test Standard for Determining the Fire Retardancy of Roofing Covering Materials for a Class A rating.

Plywood Versus Oriented Strand Board (OSB), 1997

Engaged Mr. Robert Powell, P.E., of Powell, Mika, Burkett & Wong to conduct shear testing of Simpson A-35 Framing Anchors screwed to the undersides of ½-inch thick plywood and ½-inch thick oriented strand board.

Under dry conditions, both plywood and oriented strand board performed equally.

The A-35 anchors on the plywood deformed at the bending slot, but remained attached to the plywood sheathing.

The A-35 anchors on the oriented strand board also deformed at the bending slot, and in several tests, the screws in the A-35 anchors pulled out of the oriented strand board.

After both the plywood and oriented strand board sheathings were soaked in water and dried, the same shear tests were performed.

The A-35 anchors on the plywood deformed at the bending slot at 4800 pounds, but remained attached to the plywood sheathing.

The A-35 anchors on the oriented strand board deformed at the bending slot at 3600 pounds and the screws attaching the A-35 anchors to the oriented strand board pulled out.

Fire Blocking, 1996

April, 1996: Assisted Mr. Jim Leonard of Rancho Valley Builders Inc. with details for installation of R-19 fiberglass insulation as fire blocking material in a wood framed fire-resistive double party wall construction.

June, 1996: Observed controlled fire testing of five (5) fire blocking material in a wood framed fire-resistive double party wall construction at Warnock Hersey/Inchcape Testing Services NA Inc. laboratory in Pittsburgh, California. The fire testing was sponsored by Greenstone Industries.

The five types of fire blocking materials tested were (1) Cordex/Insulstop cellulose insulation, (2) R Pro Plus loose fill cellulose insulation material, (3) R-15 high density

fiberglass batt insulation, (4) R-19 fiberglass batt insulation and (5) a 2-inch thick flat solid wood blocking.

The 2-inch thick flat solid wood blocking burned through in 40-minutes. The other four remaining insulation materials performed as fireblocking for one-hour and forty-five minutes.

July, 1996: Participated in the installation and examination of effectiveness of Insulstop cellulose fire blocking material in a mock-up of a wood framed fire-resistive double party wall construction at Rancho Valley Builders Inc. in Escondido, California.

INSPECTION CERTIFICATION

Certified as an Exterior Insulation and Finish System (EIFS) Inspector by the Northwest Wall and Ceiling Bureau, 1998.

Certified as a Third Party Inspector and Moisture Analyst for Exterior Insulation and Finish System (EIFS), No. CA11, by the Exterior Design Institute, 1996.

ACADEMIC BACKGROUND

UNIVERSITY WORK

University of Southern California, Bachelor of Architecture, 1960.

Member of SCARABS, National Architectural Fraternity.

CONTINUING EDUCATION – ARCHITECTURE (Partial List - 2009 to Present)

“Building Envelope Inspections: Standards and Methodology for Investing Roofing, Waterproofing and Exterior Walls in Residential and Commercial Buildings” presented by The Building Envelope Institution, Honolulu, Hawaii, September 2013 [14 AIA/CES LU AND 12 HSW Credits and 14 RCI CES Credits]

“Facade Techtonics: Precast Concrete” presented by University of Southern California School of Architecture, Los Angeles, February 2013. [4 AIA/CES LU]

References for Stepping Thru Existing Buildings by Janis Kent, AIA, CASp, presented by American Institute of Architect, Los Angeles, December 2012. [5 hours Disability Access requirements]

BCS Experts' Session: Spray Foam and HVAC for Low-Load Buildings seminar presented by Construction Specifications Institute, Westford, Massachusetts, December 2012. [14 HSW/SD Education Credits]

2012 Construction Contract Administration Seminar, “01 70 00 Project Closeout | Are We Done Yet?” seminar presented by Construction Specifications Institute, Los Angeles, September 2012.

16th Annual Westford Symposium on Building Science by Building Science Corporation: Assessment of structural damages to the Washington Monument and the National Cathedral, “Getting to Net Zero, First Canadian Place, Relative Humidity, Standards and Reality, Passive Design Standards, Window Restoration, Thermal Metric, House Restoration, Westford, Massachusetts, August, 2012.

ISO/IEC Standard 17020: 1998, General Criteria for the Operation of Various Types of Bodies Performing Inspections, presented by International Accreditation Service, La Habra, May 2012.

Cold Formed Steel Construction Workshop, presented by Simpson Strong-Tie, Orange, April 2012.

"Stepping Thru Accessible Details" by Janis Kent, AIA, CASp, presented by American Institute of Architect, Los Angeles, October 2011.

"Making Sense of California Disabled Access Requirements" by Michael P. Gibbens, presented by Construction Specifications Institute/Los Angeles, October 2011.

15th Annual Westford Symposium on Building Science by Building Science Corporation: Air Leakage Testing, Sealants - a.k.a. Pookey", Ventilation and HVAC Systems, The Coquitlam Experience, Interesting Stuff (Energy Star) and Thermal Metric Project update, Westford, Massachusetts, August, 2011

"CAL Green Commercial Workshop" presented by VCA Code Group, Pasadena, August, 2010.

"Understanding California's New Green Building Code" presented by VCA Code Group, Los Angeles, August, 2010.

14th Annual Westford Symposium on Building Science by Building Science Corporation: Upgrading the Guggenheim Museum, Residential Construction in Hot Humid and Mixed Humid Climates, Energy Star Version 3, Foam Insulation, Value of Appreciating Time, Beginnings of Super Insulation, Spray Polyurethane Foam Insulation, and Air Traffic, Westford, Massachusetts, August, 2010.

ADA Seminar "Accessibility in New Retail Establishments: Walking Through Your Friendly Neighborhood Shops" and Accessibility in New and Existing Assembly Occupancies from the Front to the Back of the House" presented by American Institute of Architect, Los Angeles, January 2010.

Building Science Experts' Session 2009 Symposium by Building Science Corporation, Westford, Massachusetts, December 2009.

13th Annual Westford Symposium on Building Science by Building Science Corporation: Building Pressures and Air Leakage with a House of Pressure, Climate Design", Innovative Facades, German Thinking on Enclosures-Schools and Cellulose Insulation in High Performance Buildings, Performance of Mineral Wool and Reflective Foil Insulation Systems, Catastrophic Waste: You Have No Idea", "Energy Star Qualified Homes, and Never Stand In Line, Westford, Massachusetts, August, 2009.

"The Owner-Architect Agreement: Nuts & Bolts - Magic Words & Phrases - Insurance", Mobius LA, presented by American Institute of Architects, Los Angeles, June 2009.

"LEED NC v2.2 Workshop and Exam Training" seminar presented by American Institute of Architect, Los Angeles, April, 2009.

CONTINUING EDUCATION - ALTERNATIVE DISPUTE RESOLUTION/LEGAL
(Partial List - 2008 to Present)

AAA Judicial Settlement Conference Service Launch, presented by the American Arbitration Association, Los Angeles, February 2013.

2012 AAA Construction Conference: Cutting Construction Arbitration Costs Without Compromise, presented by the American Arbitration Association, New York City, May 2012.

2012 AAA ICDR Neutrals Conference: Maximize Efficiency in Dispute Resolution, presented by the American Arbitration Association, Phoenix, Arizona, March 2012.

"Mediation Training for Lawyers and Working Professional" presented by the American Arbitration Association, San Francisco, October 2011.

2011 AAA Construction Conference, "Mediation: It's Not New, So What's Next?" presented by the American Arbitration Association, Santa Monica, April, 2011.

2009 AAA and ICDR Neutrals Conference seminars presented by the American Arbitration Association, Coronado, February 2009.

"AAA Arbitration Roadmap: The Standard for Efficient and Cost Effective Arbitration" seminar presented by the American Arbitration Association, November 2008.

The 2008 AAA Construction Conference "ADR Works" seminars presented by the American Arbitration Association, New York, May 2008.

"Thorny Questions for Arbitrators for AAA Neutrals" seminar presented by the American Arbitration Association, March 2008.

**CONSORTIUM OF UNIVERSITIES FOR RESEARCH IN EARTHQUAKE ENGINEERING (CUREE) -
Advisory Group**

CUREE Project for the California Earthquake Authority:

General Guidelines for the Assessment and Repair of Earthquake Damage in Residential Woodframe Buildings, May 2007.

Assessment and Repair of Earthquake Damage, October 2000

Workshop on Element II - Case Study Workshop, Los Angeles, March 2001

Workshop on Element I - Research Meeting, San Diego, January 2001.

Workshop on Element I - Research Meeting, San Diego, September 2000.

Workshop on Element Research Meeting and Shake Table Tests of a Two-Story Single-Family House Model, San Diego April, 2000.

Updating of Education and Outreach, Economics Aspects, Building Codes and Standards, Field Investigations, and Testing and Analysis Elements, and Researchers Meeting, San Diego, October 1999.

Workshop on Northridge Field Investigation, Los Angeles, May 1999.

Workshop on Seismic Testing, Analysis and Design of Woodframe Construction, Los Angeles, March 1999.

INSTITUTE FOR BUSINESS & HOME SAFETY

Invitational Workshop on "Solutions to the 'Ten Most Wanted Problems' in Natural Hazard Mitigation Faced by Insurers" sponsored jointly by the Institute of Business & Home Safety and the American Society of Civil Engineers, Reston, Virginia, June, 2000.

INTERNATIONAL ACCREDITATION SERVICE, INC.
(Subsidiary of the International Code Council)

International Accreditation Service internationally provides accreditation for building departments and code enforcement agencies, fire prevention and life safety departments, special inspection agencies, calibration laboratories, fabricator inspections, metal building systems, product certification agencies and testing laboratories.

Technical Advisory Council, appointed March 2011, to present..

PROFESSIONAL MEMBERSHIPS

ARCHITECTURAL

American Institute of Architect (AIA), Corporate Member since 1966

Ethics Committee, Los Angeles Chapter, AIA, 1993 to present
Ethics Committee, Los Angeles Chapter, AIA, 1992, Co-Chairman
Ethics Committee, Los Angeles Chapter, AIA, 1989 to present
Fellowship Nominations Committee, Los Angeles Chapter, AIA, 2001 to present

American Construction Inspectors Association, Professional Member since 2007

Registered Construction Inspector (RCI) Committee Board, since 2012

Construction Specifications Institute (CSI), Professional Member since 1971

Technical Aids Series Committee, 1982
Specification Competition Evaluation Committee, 1981

Roof Consultants Institute (RCI), Professional Member since 1987

Registered Exterior Wall Consultant Exam Development Taskforce, 2010
Glossary Update Committee, 1997 to 1999

International Code Council (formerly International Conference of Building Officials [ICBO]),
Professional Member since 1989

National Roofing Contractors Association, Professional Member since 2003

Roofing Industry Educational Institute (RIEI), Faculty Member since 1999 to 2000

Advisory Committee Member for Consortium [California] of Universities for Research in
Earthquake Engineering (CUREE), 1999 to 2007.

Advisory Committee Member for CUREE/California Earthquake Authority, Assessment and
Repair for Earthquake Damage, 2000 to 2007.

International Building Envelope Associates Ltd., 2001-2004

Forensic Expert Witness Association, since 2003

Asian American Architects/Engineers Association of Southern California, since 2004 - 2008,
2015..

Exterior Design Institute (EDI):

Member of the Education Committee, 1996-1997
Board of Governors, California, 1996-1997

City Building Industry Advisory Group for City of Los Angeles Research Reports, 1997.

ARBITRATION

Member of the American Arbitration Association Large Complex Case Panel, 2003 to 2013.

National Panel of Arbitrators, American Arbitration Association, 1987 to 1993, and 1997 to 2013.

Los Angeles Advisory Council, American Arbitration Association, 1987 to 1993

CIVIC AND COMMUNITY AFFILIATIONS

Boy Scouts of America, Troop 379

75th Anniversary Committee, Co-Chairman, 2001 to 2006
65th Anniversary Committee, Chairman, 1996
Parents Committee, Drum and Bugle Corps, Manager, 1984 to 1987
Parents Committee, Chairman, 1981 to 1984
Parents Committee, Assistant Treasurer, 1980 to 1981
Parents Committee, Member, 1979 to present

Southern California Women's Athletic Union

Commissioner, 1970 to 1994
Board of Directors, 1970 to 1996
Advisor to the Board of Directors, 1996 to present

Budokan of Los Angeles (formerly Little Tokyo Community Gymnasium)

President, Board of Directors, 2004 to 2006
First Vice-President, Board of Directors, 2003 to 2004.
Board of Directors, 1994 to 2008

California Basketball Officials Association, Executive Council
(Formerly Southern California Basketball Officials Association)

Executive Council, since 1987
Past President, 1991 to 1993
President, 1989 to 1991
Vice President, 1987 to 1989
Steering Committee, Member, 1987 to 1993
Fees Committee, Chairman, 1985 to 1992
Officials Evaluation Committee, Member, 1988 to 1989
Operation Policies Committee, Member, 1982 to 1983

California Basketball Officials Association, Southeastern Unit
(Formerly Southern California Basketball Officials Association, Southeastern Unit)

Secretary-Treasurer, since 1984 to present
Instructor, since 1984 to present

California Basketball Officials Association, Los Angeles Unit

(Formerly Southern California Basketball Officials Association, Los Angeles Unit)

Instructor, 1979 to 1984
Member 1968 to 1984

Japanese-American Optimist Club of Los Angeles

Director, 1967 to 1970 and 1973 to 1974
Vice President Youth Activities, 1970 to 1971 and 1972 to 1973
Commissioner of Girls Sports Program, 1969 to 1979
Commissioner of Southern California Women's Athletic Union, 1970 to 1979
Representative to Community Youth Council (CYC), 1968 to 1970

HONORS

Fellowship in the American Institute of Architects, 2001.

Fellowship was bestowed by the Institute on AIA members "who have notably contributed to the advancement of the profession of architecture" by "advancing the science and art or planning and building by advancing the standards of architectural education, training and practice."

Fellowship in the American Construction Inspector Association, 2015

Fellowship was bestowed by the American Construction Inspectors Association. I am one of the first group of 20 Fellows selected, since ACIA was founded 60 years ago in 1955.

Aki Komai Memorial Award, 2003

For significant contributions to the boys, girls, men's and women's sports programs in the Japanese-American community for over 30-years.

Boy Scouts of America, Los Angeles Area Council

Silver Beaver, 1989
Award of Merit, 1987

Construction Specification Institute, Los Angeles Chapter

President's Award, 1982

PERSONAL

United States Air Force Reserve

Active Duty: January to July, 1961, and Reserve Duty: July 1961 to December 1966.
Duty and Rank Achieved: Air Policeman, Staff Sergeant

Birth Date: November 8, 1936; Los Angeles, California

Married: 1961