

**F**orensic Engineering is the practice of applying the science of engineering to legal circumstance. These engineers investigate and report on accidents, failures, and technical disputes. A Forensic Engineer (FE) may be called on to act as an expert witness, providing testimony in front of a jury. The FE must have technical competency concerning their specialty, as well as knowledge of legal procedures. The FE must be able to apply detective skills to different circumstances and be able to relate their findings to a judge, jury or lawyers.

JBA currently has three professionals involved in Forensic Engineering. Principle Engineer **Joseph S.C. Bonadiman, P.E.**, is a Fellow of the National Academy of Forensic Engineers and a member of the American College of Forensic Examiners. He is a registered professional engineer in the states of California, Nevada and Colorado. Joe Bonadiman's vast experience in all matters of civil engineering, construction and land development enable him to be a competent and thorough investigator. He has worked on hundreds of cases and, if called on as Expert Witness, can relate pertinent material in a clear and concise manner to a jury.



*Joseph S.C. Bonadiman, P.E.*

Since 1941, JBA has maintained a reputation as providing qualified Forensic Engineers and Expert Witnesses. Below is a partial list of cases for which the firm has provided its services:

- Eminent Domain
- Pipeline Trench Failure
- Dike Failure – Flood Damage
- Asphalt Failure – Personal Injury
- Water Main Break (Construction Error)
- Soils Stability – Erosion Damage
- Flood Damage – Retention Basin Failure
- Earthquake Damage to Structure
- Concrete Pipe Failure
- Property Line Dispute & Wall Failure
- Work Fell Through Roof – Personal Injury
- Ladder Failure – Personal Injury
- Floor Damage - Drainage
- Failure to Maintain (Mobile Home Park)
- Property Line Dispute & Wall Failure
- Foam Roof Dispute – Cost Overrun
- Soils Subsidence & Structural Failure
- Wind Damage to Manufactured Houses
- Ceiling Failure – Refrigerated Building
- Retaining Wall Failure – Property Damage
- Use of Fire Damaged Chum Rubber
- Damage by Vibration from Pile Driving
- Faulty Domestic Water System
- Earth Failure – Soil Stability
- Property Condemnation
- Water Damage to Condos
- Faulty Sewer System
- Natural Gas Line Failure
- Planning & Boundary Dispute
- Building Condemnation by City
- Easement Dispute
- Ground Water Hydrology Litigation
- Accident Involving Scaffold (Personal Injury)
- Liquefaction, High Ground Water
- Safety Procedure
- Developer / Engineer Dispute
- New Building – Time & Costs Excessive
- Cost Estimate Dispute – Builder / Contractor
- Condo – Faulty Construction
- Avalanche Damage to Mountain Homes
- Safety of Stairs (Personal Injury)
- Lot Compaction – Footing Failure
- Water System Contamination
- Flooding Due to Fire-Damaged Hillsides
- Dispute Between Engineer's Reports
- Groundwater Contaminated with Radon Gas



## Professional Experience

### Personal Injury (Partial List)

The following select list of example cases are indicative of JBA's Personal Injury Forensic Engineering and/or Expert Witness Experience:

Case	Description
Wheelchair Injury - Asphalt Failure	A small portion of asphalt failed which resulted in a wheel of a wheelchair being displaced, throwing occupant to the ground and causing multiple injuries.
Ladder Slippage	Ladder and construction worker fell to the ground causing injury. Computer calculations were used to prove the impossibility of workman's claims.
Roof Sheeting Failure	Workman fell through roof sheeting 14 feet to concrete slab sustaining multiple injuries. Tests showed how workman caused accident.
Stairway Trip and Fall	Person lost balance due to irregularity of stairs and sustained injuries. Stairs were improperly constructed.
Wall Collapse	Six-foot high concrete block wall fell on workman causing amputation and other injuries. Modeling of accident showed who was responsible.
Pavement Failure	Automobile hit large pothole in a city street causing severe damage to occupant. Showed how hole might have been obscured by water.
Electric Shock	Person fell into ditch caused by erosion at which time contact was made with a hot guy wire causing amputation of a portion of arm. Computer aided modeling was necessary to show sequence of events.
Scaffolding Failure	Scaffold improperly erected failed, injuring workman.
Off-Road Vehicle Accident	Occupant of vehicle being used improperly suffered fatal injuries. Topography of site showed how accident happened.
Auto Accident	Poor road design was contributing factor, causing accident. Computer modeling was used to show friction factors.

### Building (Partial List)

The following select list of example cases are indicative of JBA's Building Forensic Engineering and/or Expert Witness Experience:

Case	Client
Fire Sprinkler Damage	Dryden, Margoles, Schimaneck, Kelly & Wait
Earth Failure Under Residence	GAB Business Services, Inc.
Residential Damage - Flooding	Walsh & Declues
Multiple Structural Damage from Construction Vibration	United States Fidelity & Guarantee Co.
Multiple Residence Framing Failure	Parnell & Associates
Floor Damage	All State Insurance Co.







Earthquake Damage	Cal-Vet Loans
Foam Roof Dispute	Kelley A. Francisco, Esq.
Soil Subsidence & Structural Damage	Automobile Club
Landslide & Structural Damage	Cal-Vet Loans
Allingham - Flooding	Cal-Vet Loans
Soil Subsidence (Monaco)	Cal-Vet Loans
Earthquake & Flood Damage	Cal-Vet Loans
Property Condemnation	Fullerton, Lemann & Schaefer, Attys.
Water Damage to Condos	Parker, Stanbury, Babcock, Combs & Bergsten, Attys.
Soil Failure - Foundation	Fullerton, Lemann & Schaefer, Attys.
Building Condemnation	Redwine & Sherrill, Attys.
Building Failure	Malley, Scoot and Koffman, Attorneys at Law
Structural Failure	Elizabeth Guerin, Kirtland & Packard Attorney at Law
Building Failure Due to Flooding	Law Office of Kelley A. Francisco

▪ **Water-Related (Partial List)**

The following select list of example cases are indicative of JBA’s Water-Related Forensic Engineering and/or Expert Witness Experience:

Case	Client/Address
Failure by Construction Managers in the Process of Work on Pipeline Project in Moorpark, CA	David W. Treadway, Esq. Ferguson, Case, Orr, Patterson 1050 South Kimball Road Ventura, CA 93004
Corrugated Plastic Storm Drain Pipe Failure & Personal Injury in Oakland, CA	Georgia Michell, Esq. Michell-Langsam Law Firm 201 North Civic Drive, Suite 236 Walnut Creek, CA 94596
Water Line Failure Damage to Sound Studio in Glendale, CA	Howard D. Maycon, Esq. Cozen & O'Connor 777 South Figueroa Street, Suite 2850 Los Angeles, CA 90017
Subsidence Due to Underground Pipe in Los Angeles, CA	Victor Jacobovitz, Esq. Law Office of Victor Jacobovitz 3055 Wilshire Boulevard, Suite 801 Los Angeles, CA 90010
Pipeline Failure in Corona, CA	James J. Manning, Jr., Esq. Reid & Hellyer, APC 3880 Lemon Street Riverside, CA 92501





Fire Main Break – M.L.K. School Corrosion	Kevin D. Bush, Esq. Cozen & O'Connor 501 West Broadway, Suite 1610 San Diego, CA 92101
Failure of Cast Iron Pipe	Barrett Kiernan, Esq. Cozen & O'Connor 501 West Broadway, Suite 1610 San Diego, CA 92101
Water Main Break	Thomas M. Regan, Esq. Cozen & O'Connor 501 West Broadway, Suite 1610 San Diego, CA 92101
Concrete Cylinder Pipe Failure	Jeanette Palla, Esq. Ampac P.O. Box 609 Douglas City, CA 96024

▪ **Wood Construction (Partial List)**

The following select list of example cases are indicative of JBA’s Wood Construction Forensic Engineering and/or Expert Witness Experience:

Case	Client
Multiple Structural Damage from Construction Vibration	United States Fidelity & Guarantee Company
Multiple Residence Framing Failure	Parnell & Associates, Attys.
Railing Failure	Farmer’s Insurance Group
Truss Structural Failure	Von Tahalen-Fedoroff, Attys.
Fire Damage, Glue Lam Beams	Golden Insurance Company
Roof Structure Failure	Kemper Insurance Company
Earthquake Damage to Residence	Allstate Insurance Company
Structural Failure from Vibration	Wausau National Insurance Company
Condominium Earthquake Damage	Allstate Insurance Company
Workman Fell through Roof	Law Offices of Bill E. O’Hearn
Earthquake Damage	CalVet Loans
Building Failure	Malley, Scoot & Koffman, Attys.
Structural Failure	Kirtland & Packard
Roof Failure – Diamond Bar	Patterson & Lucas, Atty.
Faulty Condo Construction	Edgehill Management Corporation
Faulty Condos Construction	California Development Corporation
Damage to House	Ron Goldy, Atty.



Vandalized Houses	Golden West Supply Company
Earth Slippage to Mountain Home	Pacific Savings & Loan
Wind Damage to Houses	Conner & Rego Attys.
Subdivision Structural Failure	Gary Winn, Atty.

▪ **Soils & Grading (Partial List)**

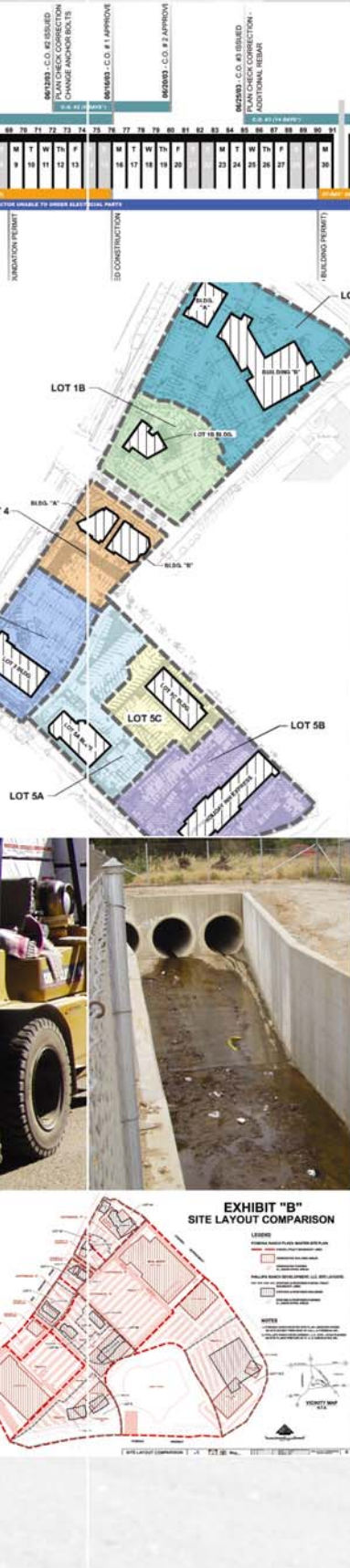
The following select list of example cases are indicative of JBA’s Soils and Grading Forensic Engineering and/or Expert Witness Experience:

Case	Location
American Truss Grading & Drainage Dispute	Riverside, CA
Soil Subsidence	Los Angeles, CA
Flooding, Erosion & Soil Failure	Alisal, Solvang, CA
Earthen Bank Failure & Flooding	Chino, CA
Soils Subsidence	Riverside, CA
Stream Bank Erosion	Highland, CA
Earth Movement & Wall Failure	Tustin, CA
Soil Failure - Water Reservoir	San Diego, CA
Trench Failure	Riverside, CA
Dike Failure & Flood Damage - Tijuana River	San Diego, CA
Soils Stability - Erosion Damage	Costa Mesa, CA
Retention Basin Failure & Flood Damage	San Diego, CA
Channel Bank Failure & Flood Damage (Personal Injury)	Colton, CA
Dam Failure & Flood Damage - Whitewater River	Riverside, CA
Soil Failure - Foundation	Moreno Valley, CA

▪ **Flood Damage (Partial List)**

The following select list of example cases are indicative of JBA’s Flood Damage Forensic Engineering and/or Expert Witness Experience:

Description & Location of Investigation	Client/Address
Flooding of Automobile Dealership NV	Joseph Goldberg, Esq. Cozen & O'Connor 501 West Broadway, Suite 1610 San Diego, CA 92101
Repeated Property Flooding CA	Alan L. Green, Esq. San Bernardino County Counsel 385 North Arrowhead Avenue, 4 <sup>th</sup> Floor San Bernardino, CA 29415





**SECTION 9 – FORENSIC ENGINEERING & EXPERT WITNESS**



<p>Flooding &amp; Erosion Alisal, Solvang, CA</p>	<p>Joseph Goldberg, Esq. Cozen &amp; O'Connor 501 West Broadway, Suite 1610 San Diego, CA 92101</p>
<p>Earthen Bank Failure &amp; Subsequent Flooding Chino, CA</p>	<p>Richard A. Lepore, Esq. Richard G. Anderson Law Offices Suite 2 Sycamore Building 1365 West Foothill Boulevard Upland, CA 91786</p>
<p>Flooding of Casino Las Vegas, NV</p>	<p>Joseph Goldberg, Esq. Cozen &amp; O'Connor 501 West Broadway, Suite 1610 San Diego, CA 92101</p>
<p>Property Damage Fire, Flood &amp; Culvert</p>	<p>Patrick L. Graves, Esq. Graves &amp; King 3610 14<sup>th</sup> Street Riverside, CA 92501</p>
<p>Property Damage Fire &amp; Flood</p>	<p>Don H. Zell, Esq. Law Offices of Don Zell 3 Hutton Center Drive Santa Ana, CA 92707</p>
<p>Flooding of Construction Yard Long Beach, CA</p>	<p>Heidi S. Hart, Esq. Herrig &amp; Vogt, LLP 100 Wilshire Boulevard, #950 Santa Monica, CA 90401</p>
<p>Residential Damage Flooding</p>	<p>Michael E. Burkett, Esq. Walsh &amp; Declues 1651 East 4<sup>th</sup> Street, Suite 150 Santa Ana, CA 92702</p>
<p>Flooding of Private Property (Including Fire Debris)</p>	<p>Alan L. Green, Esq. San Bernardino County Counsel 385 North Arrowhead Avenue, 4<sup>th</sup> Floor San Bernardino, CA 29415</p>
<p>Mobile Home Park Flooding (Burn Area)</p>	<p>Arthur Grebow, Esq. Grebow, Yee &amp; Spiro 131 South Rodeo Drive, #250 Beverly Hills, CA 90212</p>
<p>Dike Failure (Flood Damage) Tijuana River</p>	<p>Maria Rullo, Esq. Hill, Genson, Even, Crandall &amp; Wade 7700 Irvine Center Drive, Suite C-315 Irvine, CA 92718</p>
<p>Channel Overflow &amp; Flood Damage Rialto Creek</p>	<p>Richard R. Clouse, Esq. Cihigoyenette, Grossberg &amp; Clouse 3602 Inland Empire Boulevard, Suite C-315 Ontario, CA 91764</p>
<p>Retention Basin Failure Flood Damage</p>	<p>Peter Lynch, Esq. Cozen &amp; O'Connor 501 West Broadway, Suite 1610 San Diego, CA 92101</p>



## Attorney References (Partial List)

We invite you to contact the following attorney clients regarding our firm's Forensic Engineering and Expert Witness capabilities and technical expertise:

Firm/Address	Attorney Contact
<b>Gresham, Savage, Nolan, &amp; Tilden</b> 3750 University Avenue, Suite 250 Riverside, CA 92501	Theodore K. Stream, Esq. 951 / 684-2171
<b>Ward &amp; Ward Attorneys</b> 685 East Carnegie Drive, Suite 140 San Bernardino, CA 92408	William J. Ward, Esq. 909 / 381-8350
<b>Fullerton, Lemann, Schaefer &amp; Dominick Attorneys</b> 215 North "D" Street, 1st Floor San Bernardino, CA 92401	Wilfred Lemann, Esq. 909 / 889-3691
<b>Berger, Kahn, Shafton &amp; Moss</b> 4551 Glencoe Avenue, Suite 300 Marina del Ray, CA 90292	Julie H. Rubin, Esq. 310 / 621-9000
<b>Klinedinst Attorneys at Law</b> 501 West Broadway, 6th Floor San Diego, CA 92101	Mark H. Nys, Esq. 619 / 239-8131
<b>Reid &amp; Hellyer</b> 3880 Lemon Street, 5th Floor Riverside, CA 92502-1300	James J. Manning, Jr., Esq. 951 / 682-1771
<b>San Bernardino County Counsel</b> 385 North Arrowhead Avenue San Bernardino, CA 92415	Alan L. Green, Esq. Deputy County Counsel 909 / 387-5288
<b>Richards, Watson &amp; Gershon</b> 355 South Grand Avenue, 40 <sup>th</sup> Floor Los Angeles, CA 90071	Kirsten R. Bowman, Esq. 213 / 626-8489

## Curriculum Vitae

A copy of the Curriculum Vitae (C.V.) for Joseph S.C. Bonadiman, P.E. is included in the pages following this section.

## Recent Publications

The following peer-reviewed Forensic Engineering articles by Joseph S.C. Bonadiman, P.E. have been published in leading industry periodicals\*:

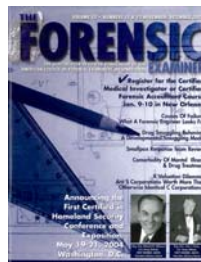


### Experience Versus Education in Forensic Engineering

(Article originally appeared in the industry publication *Forensic Examiner*, Winter 2007, Vol. 16, Number 4.)

#### **Abstract:**

Attorneys need to know if the expert witnesses they select are competent professionals. Two criteria attorneys commonly assess are education and experience. This article puts into perspective the positive and negative aspects of both education and experience when choosing an expert witness, and an example is presented to demonstrate each argument.



### Causes of Failure: What a Forensic Engineer Looks For

(Article originally appeared in the industry publication *Forensic Examiner*, Nov/Dec 2003, Vol. 12, Numbers 11 & 12.)

#### **Abstract:**

Forensic engineers must be fully aware of what to look for in any given failure or accident so that they can be completely accurate in their evaluations and conclusions. This article covers 11 principal areas having to do with causes of failure and/or accidents that may need to be evaluated for a given occurrence.

\* Note: The complete text & illustrations of these articles can be obtained from the JBA web site at [www.bonadiman.com](http://www.bonadiman.com).

