



ROBERT T. RATAY, PhD, PE

## FORENSIC ENGINEERING INVESTIGATION AND EXPERT WITNESS PROJECTS

### Partial List

*In Private Practice since 1987*

<u>Client</u>	<u>Project</u>	<u>Year</u>
Work performed while Structural Designer at Severud Associates, New York, NY	<b>Earthquake analysis and design of structural retrofitting</b> of multi-story reinforced concrete hotel building; San Pedro Sula, Honduras	1978
Work performed while Structural Designer / Associate Partner at Severud Associates, New York, NY	<b>Investigation</b> of gravity, wind and seismic load resistance <b>and structural design</b> of 32 highrise precast <b>concrete coupled-shearwall</b> system <b>buildings</b> ; HIRAB Project, Dahrán, Saudi Arabia	1979 1980
Work performed while Structural Designer / Associate Partner at Severud Associates, New York, NY	Gravity, wind and seismic loads analysis, testing, design and field inspection of <b>structural retrofitting of 28-storey reinforced concrete hotel building</b> ; Semiramis Intercontinental Hotel, Cairo, Egypt	1981 1982
Work started while at Severud Associates, New York, NY; continued and completed in private practice for Wilson, Elser, Edelman & Dicker, Washington, DC	Investigation of <b>limestone cladding failure</b> on multi-storey reinforced concrete frame building; PEPCO Bldg., 1900 Pennsylvania Ave, Washington, DC	1983 1984
Bragg & Dubofsky Denver, CO	<b>Shoring tower</b> collapse during composite steel-concrete highway bridge erection; I-70, Denver, CO	1987
Stanhope Board of Education, Stanhope, NJ	Long-span gymnasium roof <b>laminated roof girder</b> distress investigation and design of strengthening; Stanhope, NJ	1987
Wiggin & Dana, New Haven, CT	<b>Lift-slab</b> building collapse during construction; LAmbiance Plaza, Bridgeport, CT	1988
US Department of Justice, Commercial Litigation Division	<b>Structural steel</b> building system import taxation; New York, NY	1988
McPhillips, Fitzgerald, et al. Glen Falls, NY	<b>Structural steel</b> building collapse during construction; Albany, NY	1989
State of Arizona D.O.T., Phoenix, AZ	Bridge <b>formwork</b> and shoring design and construction dispute; Tucson, AZ	1989
Watt, Tieder, Killian & Hoffar, Washington, DC	<b>Bracing and guying</b> , and delay and cost overrun on a 40-story steel framing during construction; New York, NY	1989
Parker, Coulter, Daley & White, Boston, MA	<b>Roofing</b> failure in hurricane wind; Boston, MA	1990
Office of Stanley Zawacki, New York, NY	<b>Scaffold</b> failure; New York, NY	1990
Gorayeb & Cuyler New York, NY	<b>Masonry</b> building wall collapse during construction; Brooklyn, NY	1990
Bragg, Baker & Cederberg, Denver, CO	<b>Masonry</b> curtain wall structural defects on highrise apartment building; Denver, CO	1990

New Jersey Turnpike Authority, New Brunswick, NJ	<b>Wind analysis</b> for code conformance and strengthening of microwave <b>antenna towers</b> along the New Jersey Turnpike	1990 1991
American International Contractors, Inc., Washington, DC; and US Department of State FBO; Arlington, VA	<b>Blast resistant window anchorage</b> strength analysis and field load testing in multi-story reinforced concrete building; Amman, Jordan	1991
Posternak, Blankstein & Lund; and Weidlinger Associates Constg. Engrs. Cambridge, MA	<b>Long-span structural steel roof</b> design and construction dispute in sports arena; Boston, MA	1991
J. F. White Contracting Co. Newton, MA, and City, Hayes, Meagher & Dissette, Boston, MA	<b>Formwork</b> collapse in top-down construction of MA multi-level underground parking garage; Boston, MA	1992
Joel Shapiro, Sculptor, New York, NY	Structural stability and anchorage of large <b>sculpture</b> ; Washington, DC	1992
New Jersey Turnpike Authority, COMCAST Cellular Communications, Bell Atlantic Mobil Communications	<b>Wind analysis</b> and structural strengthening of several microwave <b>antenna towers</b> ; New Jersey	1992 1993
George A. Fuller Construction Co., American International Contractors, and Gordon, Muir & Foley New York, Washington, Hartford	Excessive deflections, design and construction/shoring problems of <b>reinforced concrete flat slabs</b> in 15-story office building ;Hartford, CT	1993
Generali Underwriters, Inc. ; and Lester Schwab Katz & Dwyer New York, NY	Storm and flood damage to piers and superstructure of heavy <b>bascule bridge</b> ; Beasley's Point / Ocean City, NJ	1993
Fuchsberg & Fuchsberg, New York, NY	Concrete <b>bridge deck</b> deterioration and failure; New York, NY	1993
Garubbo & Romankow' Westfield, NJ	Structural <b>steel connection</b> failure during erection; NJ	1994
Perini Corporation, New York, and The Hartford Insurance Co.	Structural damage to <b>prestressed concrete</b> viaduct caused by fire; Brooklyn, NY	1994
Dillingham Construction International, Inc., San Francisco, CA; and US Department of State FBO	<b>Concrete floor and topping</b> design and construction problems and remedial repair; Bogota, Colombia	1994
CNA Insurance Companies, Melville, NY	Investigation of various claims of structural <b>distress and failure</b> ; Long Island, New York	1994- 1995
J. F. White Contracting Co., Newton, MA	Excessive structural <b>vibrations</b> of large below-ground pumping station building; Boston, MA	1995
Graham Miller, International, New York, NY	Structural failure of large sculptured granite <b>water fountain</b> ; New York, NY	1995
Weidlinger Associates, Inc., Consulting Engineers, Cambridge, MA	Adequacy of <b>pile foundation and superstructure</b> of sports arena for <b>earthquake</b> forces; Amherst, MA	1995
Central Park Conservancy, City of New York	Removal and reconstruction of large granite <b>water fountain</b> ; New York, NY	1996
Ahmuty, Demers & McManus, Albertson, NY	Structural damage to bearing wall building due to <b>adjacent excavation and pile driving</b> ; Brooklyn, NY	1996
CNA Insurance Companies, Melville, NY	Collapse of bearing wall building during <b>adjacent demolition</b> work; Hempstead, NY	1996
Cardinal Claim Service / John Deere Insurance Co., Hicksville, NY	Truck impact damage to <b>highway bridge girder</b> ; Major Deegan Expwy., Bronx, NY	1996

Mine Hoists International, Ltd.; and Nicoletti, Hornig & Sweeney New York, NY	<b>Formwork hoist</b> supporting steel structure collapse in tunnel shaft construction; Queens, NY	1996
US Department of Justice, US Attorney's Office, Brooklyn, NY	Structural damage to <b>steel frame building</b> due to sudden failure of heavy machinery ; Plainview, NY	1996
CNA Insurance Companies, Melville, NY	<b>Differential settlements</b> and consequent structural damage to factory building; Brooklyn, NY	1997
CNA Insurance Companies, Melville, NY	Segmental masonry <b>retaining wall</b> failure; Cold Springs Harbor, NY	1997
CNA Insurance Companies, Melville, NY	Collapse of parts of multi-storey reinforced and prestressed concrete <b>parking structure</b> ; Rego Park; NY	1997
Gross Shuman Brizdle & Gilfillan, P.C.; and McPhearson Steel Corp., Buffalo, NY	Collapse of structural steel <b>skating arena</b> structure during <b>demolition</b> ; Buffalo, NY	1997 1998
Law Offices of Michael Pressman, and P.E.I. Constr. Co., New Jersey	<b>Foundation settlement</b> and consequent structural damage to industrial building due to adjacent railroad construction; Jersey City, NJ	1998
CNA Insurance Co. Construction Claims Division, San Francisco, CA; and Gartner, Bloom & Greiper, New York	Collapse of <b>heavy structural steel gymnasium roof trusses</b> during construction; White Plains, NY	1998
Biederman, Hoenig, Massamillo & Ruff, P.C., New York, NY	Cracking and spalling of exposed reinforced concrete <b>slab spandrels</b> in highrise building; New York, NY	1998
Greenfield, Bost & Kliros, Atlanta, GA; Wilden & Assocs. Consulting Engrs., Macungie, PA; and DPIC Companies	Collapse of parts of structural steel and precast-prestressed concrete <b>sports arena</b> during construction; Atlanta, GA	1998 1999
CNA Insurance Co. Construction Claims, Division, Eldorado Hills, CA; and Gartner, Bloom & Greiper, New York	Structural defects and water intrusion in <b>masonry cavity wall facade</b> of multi-story apartment complex; Cliffside Park, NJ	1999
CNA Insurance Co. Construction Claims Division, Eldorado Hills, CA; and Gartner, Bloom & Greiper, New York	Deficient cavity wall construction of glazed brick <b>masonry parapets</b> on highrise apartment building; New York, NY	1999
Office of Louis Venezia, Esq., New York, NY	Failure of pre-engineered <b>bridge formwork</b> scaffold; New York, NY	1999
B. P. Morelli & Associates, Attorneys, New York, NY	Collapse of a <b>mobile scaffold</b> tower; New York, NY	1999
The Hartford Insurance Company, Syracuse, NY	Defective <b>construction ladder</b> ; Millbrook, NY	2000
US General Services Administration; and US Department of Justice, US Attorney's Office, Southern District of New York	Defective <b>temporary walkway</b> at a federal building construction site; Federal Building, New York, NY	2000
Fireman's Fund Insurance Co., Chicago, IL; and Lancel Claim Service, Orange, CA	<b>Settlement and cracking</b> of soil-supported concrete floor slab; Woodbury, NY	2000
Claims Service Bureau, and Long Island Railroad, LI, NY	<b>Code compliance</b> of architectural and structural features at railroad station building; LIRR, Great Neck, NY	2000
Hanover Insurance Co.; and Huenke & Rodriguez, Melville, NY	Structural damage to large warehouse/retail building due to <b>excessive soil settlement</b> ; Home Depot, Melville, NY	2001
CNA Insurance Co. Construction Claims Division, Eldorado Hills, CA; and Hardin, Kundla, McKeon, et al, Springfield, NJ	Short- and long-span <b>roof structure overstress</b> under re-roofing of several school buildings; Deer Park, NY	2001
Brand Scaffolding Co., Wilmington, MA; Ratcliffe, Burke & Harten, Providence, RI	Partial collapse of a large <b>engineered scaffold system</b> and long-span work platform; Providence, RI	2001

Francis A. Lee Exterior Restoration Corp., Hicksville, NY	<b>Structural damage on 9/11</b> , and emergency structural repair to highrise office building at World Trade Center; Verizon Building, New York, NY	2001
CNA Insurance Co. Construction Claims Division, Eldorado Hills, CA; and Hedrick Eatman Gardner & Kincheloe, Charlotte, NC	<b>Defective concrete construction</b> and poor formwork in multi-story hotel building with EIFS cladding; Asheville, NC	2001 2002
Wilson, Elser, Moskowitz, Edelman & Dicker, LLP, New York, NY (for CNA Insurance Co.)	Collapse of parts of multi-storey reinforced and prestressed concrete <b>parking structure</b> ; Rego Park, NY	2002
DMJM + Fredrick R. Harris, Inc. New York, NY & Philadelphia, PA	<b>Formwork</b> support failure in bridge re-decking construction operation; Delaware River Bridge, Philadelphia, PA	2002
Gair, Gair & Conason, LLP New York, NY	Partial collapse of floor due to multi-story <b>building fire</b> ; New York, NY	2002 2003
Gartner, Bloom & Greipert, P.C., and Sirina Construction Co., Inc., New York, NY	Failure of below-ground <b>pipe support hanger system</b> due to excessive settlement of soils below and around pile-supported building; The New York Times Printing Plant; College Point, NY	2002 2003
Zurich North America Insurance Co., Melville, NY	<b>Building code violation</b> in bank building; Levittown, NY	2003
Montgomery Watson Harza, Pasadena, CA; Iseman, Cunningham, Riester & Hyde, LLP, Albany, NY	Catastrophic collapse of a long-span <b>steel-concrete composite box girder</b> bridge during construction; Marcy Bridge, Utica, NY	2002- 2006
Annino, Draper & Moore, P.C. Springfield, MA (for CNA Insurance Co.)	Structural problems in multi-level precast prestressed concrete <b>parking garage</b> ; Holyoke, MA	2002- 2006
Schillinger & Finsterwald, LLP, White Plains, NY, and M. Kee Construction Co., New York, NY	Alleged differential settlement and damage to multi-story masonry bearing wall building caused by <b>underpinning</b> for adjacent construction; New York, NY	2003- 2006
Hancock, Rothert & Bunshoft, LLP, San Francisco, CA	Catastrophic collapse of <b>suspended work platform/scaffold</b> used in structural retrofitting; San Francisco-Oakland Bay Bridge, San Francisco-Oakland, CA	2004
News Corporation / New York Post; Ross & Cohen, LLP, New York; Hogan & Hartson, LLP, New York	Structural design and construction defects in <b>heavy steel-concrete composite floor slabs</b> in multi-storey <b>newspaper printing plant</b> ; The New York Post, Bronx, NY	2004 2005
Donovan, Hatem, LLP, Boston, MA; Weidinger Assocs., Inc., Cambridge, MA	Collapse of deep foundation <b>cross-lot bracing</b> during disassembly; Harvard University, Cambridge, MA	2005 2006
City, Hayes & Dissette, P.C., Boston, MA; TREVI ICOS Corporation, Boston, MA	Alleged construction defects in precast prestressed concrete <b>slurry wall</b> of multi-level underground parking garage; Post Office Square Garage, Boston, MA	2005 2006
O'Brien, Shafner, Stuart, Kelly & Morris, P.C., Groton, CT	Catastrophic collapse of 192-foot <b>steel plate girder during demolition</b> of highway bridge; Route 15, Sikorsky Bridge over Housatonic River, Stratford, Connecticut	2006
Wilson Elser Moskowitz Edelman & Dicker, LLP, New York, NY; Gerard & Tan Architects, New York, NY	Wall <b>cracking and floor deflections</b> in apartment building allegedly caused by renovation and structural alteration, New York, NY	2006
Peabody & Arnold, LLP, Boston, MA Powers fasteners, Inc., Pawling, NY	Collapse of <b>concrete ceiling panels</b> in Boston Central Artery Tunnel (the civil case)	2006 2007
STERN SHAPIRO WEISSBERG & GARIN, LLP Powers fasteners, Inc., Pawling, NY	Collapse of <b>concrete ceiling panels</b> in Boston Central Artery Tunnel (the criminal case)	2006 2007

Mullin Law Group; Seattle, WA	<b>Formwork shoring collapse</b> in multi-story building construction in Tacoma, WA	2007
Wilson Elser Moskowitz Edelman & Dicker, LLP, New York, NY; Sharon Engineering, New York, NY	Arbitration of disputed <b>seismic design</b> versus New York City Building Code requirements	2007 2008
Cooney, Mattson, Lance, Blackburn, Richards & O'Connor, P.A., Fort Lauderdale, FL, and OUTINORD Universal, Inc., North Miami Beach, FL	Catastrophic collapse of <b>engineered form stripping platform</b> at highrise concrete building construction, San Marco Place in Jacksonville, FL	2008 2009
Donovan Hatem, LLP, Boston, MA Widlinger Assocs., Inc., Cambridge, MA Childs Bertman Tseckares, Inc., Boston, MA	<b>Contractor's claims</b> against the Commonwealth of Massachusetts and the design team in historic John Adams Courthouse building renovation/restoration, Boston, MA	2008 2009 2010
Farber Brocks & Zane, LLP, Mineola, NY Refined Construction, Inc., Brooklyn, NY	Collapse of <b>unbraced concrete masonry block wall</b> during construction in Brooklyn, NY	2010
Century Steel, Inc., Las Vegas, NV, and Hutchison & Steffen, LLC, Las Vegas, NV	Alleged <b>structural design shortcomings and construction defects</b> in <b>47-story reinforced concrete building</b> , City Center, Las Vegas, NV	2010 2011
Housing Development Authority (HDC), Government of Trinidad & Tobago, Port of Spain, Trinidad	Excessive <b>ground movement, structural distress, impending collapse</b> of multi-building multi-story apartment building complex at Las Anturas in Port of Spain, Trinidad & Tobago	2011
Farber Brocks & Zane, LLP, Mineola, NY Benel Construction, Inc., Brooklyn, NY	Structural damage to multi-storey masonry apartment building resulting from <b>foundation underpinning</b> in Brooklyn, NY	2011