



Allyn E. Kilsheimer, P.E.
(updated Dec 1, 2003)

EDUCATION

George Washington University, 1963 Bachelor of Science - Civil Engineering
George Washington University, 1963-1965 Post Graduate Work

LICENSES AND CERTIFICATIONS

Professional Engineering Registrations:

Arizona, Delaware, District of Columbia, Florida, Maryland, Massachusetts, Michigan, Nebraska, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Virginia, West Virginia and Wisconsin.

Professional Engineering Certifications:

National Council of Engineering Examiners
National Board of Forensic Examiners

ORGANIZATION MEMBERSHIPS

PAST

Alpha Epsilon Pi, Board of Regional Governors
American Society of Civil Engineers, National Capital Section President & Treasurer
American Society of Civil Engineers, Associate Contact Member GWU
Construction Career Council of Metropolitan Washington
Holton Arms School Board of Trustees & Building Committee Chairman
Mayor's Building Code Advisory Committee, Structural Division Chairman
National Engineering Societies, National Engineers Week Mid-Atlantic Chairman
National Transportation Engineering Conference (Washington DC), Publicity & Attendance Committee Chairman

PRESENT

Alpha Epsilon Pi, Advisor
American Board of Forensic Examiners
American Concrete Institute
American Consulting Engineering Companies, Metropolitan Washington & National
American Council of Engineering Companies
American Institute of Steel Construction
American Society of Civil Engineers
American Welding Society
George Washington University, School of Engineering Board of Trustees & Curriculum Advisory Committee & Engineers Club
Good Samaritan School Board of Trustees
JOS-ARZ Academy Board of Trustees
Lab School of Washington Board of Trustees
Lab School of Baltimore Building Committee Chairman
Precast/Prestressed Concrete Institute
National Society of Professional Engineers
Washington Building Congress
Washington Engineers Club
Washington Building Congress Board of Directors

DCA
Case No. 17383
Exhibit No. 55



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ENGINEERING EXPERIENCE

Kilsheimer is a Registered Professional Structural Engineer with 43 years of experience (36 years as founder and CEO of KCE Structural Engineers, PC) in direct charge of structural design for over 25.5 billion dollars of construction. In addition to traditional design work, he has developed the expertise and ability to respond to disasters (both natural and man-made) that require immediate emergency structural shoring, stabilization, selective demolition and reconstruction.

His experience includes all types of concrete, steel and wood structures and extensive foundation systems. He has developed over the years numerous, now widely used, innovative systems such as: sloped columns; piggyback girders; hammerhead columns; RFI systems; and concrete Vierendeel girders.

His structural design and inspection work through his firm (KCE 1969-Present and as Executive Vice President of KTLH 1995-Present) encompasses a broad range of project types, including high-rise office buildings, commercial and industrial projects, residential and hotel complexes, clinical and medical research facilities, military facilities and embassies.

He has had direct design responsibility for over 400 office buildings, hotels and apartment complexes in the Metropolitan Washington, D.C. area alone. The work includes the ten largest private developments in the area: Bethesda Metro Center; Columbia Square; Federal Deposit Insurance Corporation Headquarters; The Grand Hyatt; National Place; National Rural Electrification Association Headquarters; National Science Foundation Headquarters; Techworld; Washington Square, and the United States Patent and Trademark Headquarters (currently under construction.)

In addition, Kilsheimer and KCE have been involved in government work as well as private work with over 60 projects with GSA involvement. He has provided peer reviews, tenant work, and base building structural designs for projects that included Bureau of Mines, Department of Justice, FBI, Judiciary Office Building, National Science Foundation, NOAA, Patent and Trade, Postal Square, Smithsonian Institution, the Washington Monument and Grant's Tomb.

His embassy experience includes numerous foreign embassies (such as Brunei, Ethiopia, Iran, Israel and Kuwait) along with American embassy work in Afghanistan, Brunei, Ethiopia and Kuwait.

Restoration of over 100 historic structures has been among the projects Kilsheimer notes in its portfolio. As a result, Kilsheimer has developed extensive expertise in historic structure restoration and renovation, including the creation of facade retention systems and methods for existing historic element support, removal and re-construction. His expertise also includes building movement and/or support design analyses.

Kilsheimer's background as a Structural Engineer has provided him with extensive direct experience with virtually all types of construction methods and materials and has involved their application to a wide variety of specific economic, environmental, aesthetic, and functional requirements for projects located throughout the United States and overseas (including entities in Barbados, Brunei, Egypt, Ethiopia, Great Britain, Iceland, Israel, Italy, Kuwait, Lebanon, Portugal, Saudi Arabia, Ukraine, USSR and Vietnam).

Kilsheimer is recognized as a forensic engineering expert. He has provided consultation services over the last thirty-six years on over three hundred matters involving investigation, analysis, arbitration and/or litigation. His expertise has been sought for catastrophic failure analysis and/or recovery for projects involving collapses or imminent collapses of buildings and/or support structures caused by fires, earthquakes, hurricanes, explosions, bombs and terrorist activities as well as failures caused by human error and/or defective materials. These cases include Argyle House (22nd St. @ Mass. Ave. NW), 14th & H Street NW and 1441 H Street NW (DC), Crystal City (VA), Florida Avenue Apartments (DC), French Chancery (DC), Knoxville City County Building (TN), Lafayette Square (DC), Mathew Brady Studio (DC), Memphis Convention Center (TN), National Theatre (DC), Renwick Gallery (DC), Royal Palm Hotel (FL), Skyline Towers (VA), Smithsonian Castle (DC), Stanford





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Office Building (CN), University of Tennessee Arena (TN), Van Ness Center (DC), and Fisher's Place Garage (MD).

On September 11, 2001, within minutes of the terrorist attacks, Kilsheimer was called for help from both the World Trade Center and the Pentagon. He realized that there was little that could be done in New York to stabilize the buildings and secure them from catastrophic collapse, so he immediately responded to the Pentagon to begin emergency stabilization, recovery assistance, determination of extent of demolition and necessary required techniques. His efforts continued night and day (24/7) in the midst of the crash debris and fire-flare ups. By the third day, he was asked to be in charge of the reconstruction effort that became known as the Phoenix Project. He became the Design Team Prime Professional, lead Structural Engineer and the Owner's Representative. The design and construction team achieved the reconstruction of over 1,000,000 GSF of damaged and re-built structure within 11 months, ahead of schedule and under budget. His efforts were described " ... with a hammer in a day you can build a bird cage, in a week repair a roof ... in a year, rebuilt an icon, restoring the hopes of millions," and that he was "...placed here for this horrific job...."

In November 2002, a portion of a parking garage under construction in Rockville, MD collapsed. Kilsheimer again received a call for help. Workers were missing in the debris. He arrived at the site within an hour and realized that many of the emergency workers had been at the Pentagon. He immediately began structural stabilization efforts and together again they began the grim task of search and rescue. This time there was more hope for survivors. One was found and taken to hospital, but three were crushed in the collapse. He completed the "make-safe" work and currently is working to determine the cause(s) of the collapse.

In November 2003, three separate construction catastrophes required Kilsheimer's expertise. Almost immediately after each event, when the top five floor slabs of the Tropicana parking structure under construction in Atlantic City collapsed, killing four workers, and then a portion of the Metro Center precast parking structure, which was under construction in Hyattsville, MD, collapsed, killing one worker and injuring another, Kilsheimer was called to the site for emergency stabilization efforts and potential cause determination, and again a week later at a project under construction at 1st and E Streets in Northwest Washington, D.C., an iron worker fell 12 stories to his death due to improper scaffolding attachments;.

Prior to these events, Kilsheimer has been called for emergency response, stabilization and analyses for structural failures in many locations, including several in the Washington, DC metropolitan area; Knoxville; Memphis; and Stamford, CN. He also responded to earthquake related damage in Mexico City and San Francisco and hurricane related damage in Charleston and Myrtle Beach.

This ability to respond to disasters is due to the accumulation of all of Kilsheimer's engineering experiences coupled with his tenacious determination.

Kilsheimer has developed methods and implemented designs to add vertically to existing occupied buildings not originally designed for vertical expansion.

He has become a recognized expert for developing mechanisms to resist progressive collapse, hardening and blast resistant design. Descriptions and/or locations of this work are not possible due to National Security Restrictions.

In conjunction with his own projects and projects designed by others, Kilsheimer and KCE have provided Construction Quality Control and Testing services for owners and contractors for over 600 projects. These included building monitoring and inspection and testing services for foundation systems, concrete, reinforcing steel, structural steel, masonry, façade and window wall systems and roofing systems.





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SERVICE TO THE PROFESSION

The attached outline summary of projects Kilsheimer has been in charge of (KCE) totals in excess of \$25 billion of work throughout the United States and overseas. He has developed specialized structural systems (some of which are now in wide use worldwide) including:

- o hammerhead brackets
- o piggyback girders
- o iron cross columns
- o sloped columns
- o side-by-side girders
- o composite concrete and steel Vierendeel trusses
- o RFI (Request for Information)
- o SSD (Supplemental Structural Drawing)
- o Shop Drawing and Contract Document (log systems)

Through KCE, Kilsheimer provides clients with structural designs that meet their needs, that are economical, timely and constructible, and, if needed, innovative. He is frequently called upon by owners, developers, contractors, banks and insurance companies to provide Peer Review and Constructability Review for structural, mechanical, plumbing and electrical portions of buildings on projects designed by others. (His firm has a team of consultants for the non-structural items)

Kilsheimer is recognized as an expert for emergency structural investigations and stabilizations. He is a member of numerous Emergency Response Teams and is on the emergency "call lists" of numerous Government Agencies.

The technologies of building and material failures, natural and man made disasters, historic restoration, forensic engineering, facade retention techniques, facade investigation, emergency repair work and selective demolition work, have been a special service of Kilsheimer's for many years. This expertise has been drawn upon by government agencies, owners, contractors and major corporations throughout the United States and overseas.

He is able to work effectively with Architects (national and international) on projects to develop structural schemes that will accommodate the most stringent aesthetic requirements without sacrificing cost effectiveness.

He has developed extensive working relationships with officials and staff of major urban jurisdictions.

He speaks extensively to construction groups, high schools, universities, service organizations, and professional groups regarding:

- a) the Phoenix Project ("Acts of Patriotism: The Pentagon September 11, 2001 - September 11, 2002"),
- b) "Lessons Learned" from construction failures
- c) "Lessons Learned: Risks in Construction"
- d) ways to combine individual design and construction entities into a melded team,
- e) motivational engineering speaking, and
- f) other requested topics.

In addition, Kilsheimer has written Code requirements for various types of structural standards for BOCA, MOSHA, OSHA and IBC.





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SERVICE TO THE COMMUNITY

Kilsheimer considers his work on the Phoenix Project at the Pentagon his most important opportunity for service to his community, nation and military. He is humbled by the experience. He was able to engage and facilitate an unprecedented sense of teamwork among the design professionals and construction workers that not only helped restore a symbol of our nation, but also helped the American people heal after the September 11 tragedy. This service provided a clear indication (in record time) that we, as Americans, were still standing proud and tall. While Kilsheimer worked in earnest to design and direct the rebuilding of the Pentagon, he also worked behind the scenes to ensure that each and every man and woman working on the Phoenix Project (upwards of 4,250 people) received individual, personalized recognition through countless mementos and certificates.

Kilsheimer is involved in Metropolitan Washington inner city youth programs, elder care programs, and schools for special-needs children. He is a Board Member or Advisor to several academic institutions within the Washington DC Metropolitan Area and from 1969 to the present has provided pro-bono services as Owner's Representative and/or Construction Manager for:

- The Good Samaritan School
- The Holton Arms School (also served as Senior Class "Mother")
- The JOS-ARZ Academy
- The Lab School of Washington
- The SEED Foundation School
- Hurricane Isabel Response Team
- "Christmas in April"

He often provides pro-bono structural design services (as well as resources) for many community organizations for their buildings including,

- Hospital for Sick Children
- Ronald McDonald House
- Children's Inn at the National Institute of Health
- The Holton Arms School
- The Lab School of Washington (and new campus in Baltimore)
- The Good Samaritan Foundation building
- YMCA Children's Theater Group

In addition, Kilsheimer donates time and resources at the "presidential level" to numerous local and national organizations including the American Cancer Society, the American Diabetes Association, the American Heart Association, Jubilee Housing, and SOME (So Others Might Eat).

Each year Kilsheimer and his wife anonymously purchase, wrap and distribute (his wife does the work) holiday gifts for two different inner city nursing homes with over one hundred residents each.

HONORS AND AWARDS

1959-1963

George Washington University Academic Scholarship and Teaching Assistantship
American Society of Civil Engineers 1962 Spring Award and National Capital Section
Omicron Delta Kappa Honor Society
Phi Eta Sigma Honor Society
Theta Tau Epsilon Honor Society
1970 Outstanding Young Engineer





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- 1977 – 1978 American Consulting Engineering Companies of Metropolitan Washington - Engineering Excellence Competition - Grand Award for National Permanent Building, Washington, DC.
- 1978 Concrete Reinforcing Steel Institute - National Design Competition - First Place Award for National Permanent Building, Washington, D.C.
- 1979 – 1980 American Consulting Engineering Companies of Metropolitan Washington - Engineering Excellence Competition - Grand Award for 1101 Connecticut Avenue, Washington, DC.
- 1980 – 1981 American Consulting Engineering Companies of Metropolitan Washington - Engineering Excellence Competition - Grand Award for Washington Marriott Hotel/Blackie's House of Beef, Washington, DC.
- 1981 – 1982 American Consulting Engineering Companies of Metropolitan Washington - Engineering Excellence Competition - Grand Award for National Place, Washington, DC.
- 1982 – 1983 American Consulting Engineering Companies of Metropolitan Washington - Engineering Excellence Competition - Grand Award for National Place (Design), Washington, DC.
- 1985 – 1986 American Consulting Engineering Companies of Metropolitan Washington - Engineering Excellence Grand Award for Bethesda Metro Center, Bethesda, MD.
- 1986 *Engineering News-Record* Year of 1986 Newsmaker Award
- 1987 L'Enfant Trust Award - (3) for restoration of existing structures
- 1987 Art Deco Society of Washington - Preservation Award for the Rehabilitation of the Dupont Circle building
- 1989 George Washington University - School of Engineering's Engineer Alumni Achievement Award
- 1989 Society for Environmental Graphic Design – Structural Design Award – Newseum
- 1992 Associated Builders & Contractors - First National Annual Outstanding Structural Engineer Award
- 1993 Associated Builders & Contractors – Structural Engineer of the Year
- 1994 Associated Builders & Contractors – Structural Engineering Firm of the Year
- 1998 International Union of Iron Workers - Design Excellence Award - Grand Hyatt Hotel
- 2001 House of Representatives Resolution 368 (107th Congress) – Recognizing Efforts at The Phoenix Project
- 2002 American Consulting Engineering Companies - National Recognition Award for The Phoenix Project, Pentagon Reconstruction
- 2002 American Society of Civil Engineers Outstanding Civil Engineering Project Award for The Phoenix Project, Pentagon Reconstruction
- 2002 Letter of Commendation from the U.S. Secretary of Defense – The Phoenix Project
- 2002 National Association of Industrial and Office Parks Award of Excellence – Arlington Gateway Office Building
- 2002 National Association of Industrial and Office Parks Award of Excellence – Chase Tower
- 2002 National Historic Trust Award – The Phoenix Project





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- 2002 United States Marine Corps Commendation – The Phoenix Project
- 2002 United States Navy Commendation – The Phoenix Project
- 2002 United States Presidential Commendation – The Phoenix Project [not yet issued]
- 2002 Washington Building Congress Craftsman Award – Chase Tower
- 2002 Washington Building Congress Craftsman Award – Lincoln Square
- 2003 Alpha Epsilon Pi – Lifetime Community Service Award
- 2003 American Concrete Institute - Lifetime Achievement Award
- 2003 American Consulting Engineering Companies – Engineering Excellence Competition Grand Award for The Phoenix Project, Pentagon Reconstruction
- 2003 American Consulting Engineering Companies Award for fostering excellence in emergency design on The Phoenix Project, Pentagon Reconstruction
- 2003 American Institute of Architects Special Commendation – The Phoenix Project
- 2003 American Society of Civil Engineers OCEA Award of Merit for The Phoenix Project, Pentagon Reconstruction
- 2003 American Society of Civil Engineers OPAL Special Disaster Recovery Award for The Pentagon
- 2003 Associated Builders & Contractors (Metro. Washington & Virginia Chapter) - Certificate of Merit for Excellence in "Mega" Construction for The Phoenix Project
- 2003 Associated Builders & Contractors (Metro. Washington & Virginia Chapter) Certificate of Merit for Excellence in Architectural Concrete for The Phoenix Project
- 2003 Associated Builders and Contractors Certificates of Merit for Excellence in Construction – The Phoenix Project; Emergency Repair and Restoration of the Pentagon
- 2003 Associated Builders and Contractors Outstanding Architectural Concrete Award – The Phoenix Project
- 2003 Concrete Industry Board Roger H. Conbetta Award Of Merit for The National Museum of the American Indian
- 2003 *Engineering News-Record* Year of 2003 Newsmaker Award
- 2003 Project Management Institute: Chapter Project of the Year Award for Project Management Excellence for The Phoenix Project, Pentagon Reconstruction
- 2003 Washington Building Congress – Craftsmanship Award - The Phoenix Project (two different awards)
- 2003 Washington Building Congress - Certificate of Recognition for The Phoenix Project, Pentagon Reconstruction





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UNIQUE CONSULTING ASSIGNMENTS

Kilsheimer serves as a consultant for:

- ATF
- DC Fire and Rescue Department
- DC Mayor's Building Code Advisory Board
- FBI
- FEMA
- Secret Service

In addition to provide services for the emergency projects listed, he has also been commissioned with the following special projects:

- Arts Club
- Capital Center (US Air Arena)
- Cosmos Club
- Grant's Tomb
- Holocaust Museum
- Israeli Embassy
- Russian Embassy
- Embassy of Bruni
- Ethiopian Embassy
- Ukrainian Embassy
- Newseum
- Lafayette Square and Blair House
- Renwick Gallery
- U.S. Postal Museum
- Washington Monument
- Westward Ho Museum (St. Louis, MO)
- Four (4) Secret US Government Projects

Within the past year alone, Kilsheimer was personally asked to provide emergency assistance and then to investigate and determine reconstruction for the following collapses:

- Fisher's Place Parking Garage, Rockville, MD
- Prince George's Metro Center Parking Garage, Hyattsville, MD [IN PROGRESS]
- Atlantic City Tropicana Casino & Hotel Parking Garage, Atlantic City, NJ [IN PROGRESS]
- 1st and E Streets, N.W. Scaffolding Collapse, Washington, DC [IN PROGRESS]
- Miller Park Crane Collapse, Milwaukee, WI

PERSONAL INFORMATION

Kilsheimer is a sixty-two year old married father of two, stepfather of two and grandfather.

He has one passion (other than engineering) – antique cars and motorcycles – which began 50 years ago but wasn't followed upon until 10 years ago with the purchase of a '56 Chevy (long gone "rust bucket"). His collection has grown to 7 vehicles including an 1899 Locomobile (steam powered). In his spare time (beyond his 16-20 hour work day) during the night he hides out in the garage to restore and tinker. Then he somehow finds the time to haul them (and his wife) around the country four or five times a year for various car shows.

His strong Jewish identity is closely linked to his American patriotism. It stems not only from his Orthodox upbringing, but also from the brush with fate that saved his parents from Nazi Germany. The mayor of their small town near Baden-Baden somehow convinced the Gestapo to free Kilsheimer's father, a butcher. His mother later got on a train to join his father in France, and was caught by German soldiers on the border. The





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soldiers wanted to arrest her and her baby daughter, Kilsheimer's sister, when an American journalist who was on the train intervened. It would be a real shame, the reporter told the Nazi soldiers, if his last impression from Germany would be the arrest of a woman with her little baby girl. The Nazis let her go, and the Kilsheimer's escaped to America, where Allyn, the second out of three, was born. He lost his parents at a very early age and began work at the age of ten, ending up working construction while in high school and working his way through night classes at college.

Kilsheimer has said that everything he has learned in construction, engineering, every professional, and most personal, experience he has had, came into play during the effort that was the Pentagon Phoenix Project. "It's as if I've been in training for this all my life. It's like something or somebody was getting me ready for this."

This notion emboldened him, and made him feel that he was paying back part of a debt. "What happened with that American reporter in Germany in 1939 is the reason I am here, right? Well, not many people have the opportunity to pay back the country that helped them. It has given me the opportunity to rise from poverty to be able to help the community and our country. So, maybe I'm even at this point in time."

SUPPORT OF ATHLETIC/ARTISTIC ACTIVITIES

Kilsheimer actively supports youth sports, theatre and arts programs through his work with schools and youth programs (previously listed herein). In addition, he has provided technical assistance and financial support for the YMCA Children's Youth Theatre the Washington Youth Arts Program, and District of Columbia school systems.

For 16 consecutive years, he coached children's and young people's soccer and lacrosse.

MAJOR MEDIA COVERAGE OF ALLYN KILSHEIMER

Kilsheimer has appeared on radio and television, been published in various newspapers and magazines and has lectured on multiple occasions to professional, educational and community groups on various structural engineering and construction issues.

Television Stations

- ABC
- NBC
- CBS
- CNBC
- CNN
- CSPAN
- FOX
- DISCOVERY
- MSNBC
- NPR
- PBS
- The History Channel

Guest Lecturer / Speaker

- Graduate School of Engineering - University of Maryland, College Park
- National Building Museum
- Associated Builders and Contractors
- School of Engineering - California Polytechnical University
- New Hampshire Society of Prof. Engineers
- Washington Building Congress
- Superintendents Conference - The Clark Construction Group
- Capital Transit Consultants for Washington Metropolitan Area Transit Authority
- American Bar Association
- American Institute of Architects
- The Jewish Federation
- Associated General Contractors of America

Publications

- ACEC's magazine *Engineering Inc.*
- *ASCE News*
- Engineering Times
- George Washington University Magazine
- Washington Building Congress' *Bulletin*
- *Architecture Week*
- *Structural Engineer*
- Alpha Epsilon Pi's *The Lion*
- *The Weekly Standard* (National Geographic Special)
- Masonry Magazine
- Engineering News Record
- Engineering News Record





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- National Association of Demolition Contractors
- Superintendents Conference - Centex Construction Company
- Embassy of Israel
- Tulane University
- George Washington University
- American Concrete Institute
- American Bar Association – Const. Dilemmas Caught Between “The Rock” and a Hard Place

- Owner’s Superconference
- National Construction Management
- American Institute of Building Design
- “Superintendents Conference” for
 - Miller & Long
 - Clark Construction
 - Davis Construction
 - Turner Construction
 - Tompkins Builders
 - HITT Contracting
- “Construction Manager’s Conference” for
 - Boston Properties
 - Hines Interests
- “Project Managers Conference” for
 - Miller & Long
 - Clark Construction
 - Davis Construction
 - Turner Construction
 - Tompkins Builders
 - HITT Contracting

- NSPE *Engineering Times*

Newspapers

- The G.W. University *Hatchet*
- Los Angeles Times
- New York Times
- Chicago Tribune
- Wall Street Journal
- USA Today
- The Washington Post
- The Washington Times
- Northwest Current
- Cox Newspapers
- News Telegraph (Britain)
- St. Petersburg Times
- The Daily Reporter
- The Irish Times
- Washington Jewish Week
- Numerous other local and national newspapers

